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Modality, Ontology, and Phenomenology.

Leibniz's Multiple Views on Existence A Historical and Analytic Reconstruction

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Abbreviations

- A = Gottrfried Wilhelm Leibniz: S\u00e4mtliche Schriften und Briefe, Darmstadt, Leipzig and Berlin: 1923 (ongoing). Quoted by series, volume and page number (e.g. A VI 4, 543);
- AG = G. W. Leibniz, *Philosophical Essays*, transl. and ed. by R. Ariew and D. Garber, Indianapolis, 1989;
- Ak = *Kants Gesammelte Schriften*, Deutsche Akademie der Wissenschaften, 29 vols., 1900-. Quoted by volume and page number (e.g. Ak II, 236);
- AT = *Oeuvres de Descartes*, ed. C. Adam and P. Tannery, Paris, 1897-1913. Quoted by volume and page numbers;
- Anti-White = T. Hobbes, *Critique du De mundo de Thomas White*, introd. and critical text by J. Jacquot and H. Whitmore Jones, Paris 1973;
- Beeley = G. W. Leibniz, J. G. Wachteri de recondita Hebraeorum philosophia (1706), edited by P. Beeley, *The Leibniz Review*, vol. 12, 2002, pp. 1-14;
- Cout. = *Opuscules et fragments inédits de Leibniz*, ed. Louis Couturat, Paris 1903 ; reprint, Hildesheim 1966 ;
- CP = G. W. Leibniz, *Confessio Philosophi : Papers Concerning the Problem of Evil, 1671-1678*, ed. and transl. by R. C. Sleight, New Haven 1992;
- CW = Spinoza, *Complete Works*, transl. by S. Shirley, ed. with an introduction and notes by M. L. Morgan, Indianapolis 2002;
- DAC = *Dissertatio de arte combinatoria* (1666), A VI 1, 163-230/GP IV, 15-26. Quoted according the number page of A and GP;
- DPI = Disputatio metaphysica de principio individui (1663), A VI 1,10-19/GP IV, 15-26 Quoted according to A and GP;
- DPW = The Philosophical Writings of Descartes, 2 vols., transl. and ed. by J.

Cottingham, R. Stoothoff, and D. Murdoch, Cambridge 1985. Quoted by volume and page number;

- *Discourse* = G. W. Leibniz, *Discourse de métaphysique*, A VI 4, 1529-88, quoted according to A ;
- DM = F. Suárez, *Disputationes metaphysicae*, 2 vols., Hildesheim 1966 (reprint of the corresponding vols. 25 and 26 of the Vivès edition of the *Opera omnia*, Paris 1866). An amended version of the text of Suárez's 54 disputations is now available on line: <u>http://homepage.ruhr-uni-bocum.de/Michael.Renemann/suarex/index.htm</u>]. Quoted by number of disputation, section, and paragraph (e.g. DM V, ii, 3);
- DPG = *G. W. Leibniz. Dissertation on Predestination and Grace*, transl. and ed. by M. J. Murray, New Haven and London 2011. Quoted according to the number of the paragraph and the letter of the sub-sections of each paragraph, e.g. '# 25 (b)' refers to Leibniz's remarks on sub-section b of paragraph 25 of Burnet's text;
- DSR = G. W. Leibniz, *De Summa Rerum: Metaphysical Writings*, 1675-1676, trans. And ed. by G. H. R. Parkinson, New Haven and London 1992;
- EW = *The English Works of Thomas Hobbes of Malmesbury*, edited by W. Molesworth, 11 vols., different editors 1839-45; reprint Aalen Ger. 1962. Quoted by volume and page;
- Fichant = G. W. Leibniz, *De l'horizon de la doctrine humane-La Restitution Universelle*, unpublished texts ed. and transl. by M. Fichant, Paris 1991;
- G = *Spinoza Opera*, ed. C. Gebhardt, 5 vols., Heidelberg 1925. Quoted by volume and page;
- GI = *Generales Inquisitiones de Analysi Notionum et Veritatum* (1686), A VI 4, 739-88 Quoted according to A, reference goes to the translation in LP;
- GM = *Leibnizens mathematische Schriften*, ed. by C. I. Gerhardt, 7 vols., Berlin 1849-63. Quoted by volume and page number;
- GP = *Die Philosophischen Schriften von G. W. Leibniz*, 7 vols., ed. C. I. Gerhardt, Berlin 1875-90. Quoted by volume and page number;
- Gracia = Suárez on Individuation. Metaphysical Disputation V : Individual Unity and its Principle, transl. by J. E. Gracia, Milwaukee 1982;
- Grua = G. W. Leibniz, *Textes inédits d'après les manuscrits de la Bibliothèque provinciale de Hanovre*, 2 vols. (but with continuous pagination), ed. G. Grua, Paris 1948. Quoted by page number ;

- H = G. W. Leibniz, *Theodicy*, transl. by E. M. Huggard, New Haven 1952; reprint, La Salle 1985.
- Jolley = G. W. Leibniz, Ad Christophori Stegmanni Metaphysicam Unitariorum, unpublished text, edited by. N. Jolley, "An Unpublished Leibniz Manuscript on Metaphysics", Studia Leibnitiana, 7, 2, 1975, pp. 161-89. An English translation has been provided by N. Jolley in the appendix of his Leibniz and Locke. A Study of the New Essays on Human Understanding, Oxford 1984, pp. 205-6. Quoted by page of the Latin edition.
- L = G. W. Leibniz, *Philosophical Papers and Letters and Letters*, transl. and ed. by L. Loemker, second edition, Dordrecht 1989.
- Lalanne = Les Annotations de Leibniz à la Dissertation sur la Prédestination et la Grâce de Gilbert Burnet, unpublished text, translation and transcription by A. Lalanne, in www.philosophiedudroit.org. Same text printed in DPG, but Lalanne's transcription is more accurate and presents also many relevant modifications and changes Leibniz made to the text.
- LC = G. W. Leibniz, *The Labyrinth of the Continuum: Writings on the Continuum Problem, 1672-1686,* ed. and transl. by R. W. Arthur, New Haven 2001.
- LDB = *The Leibniz-Des Bosses Correspondence*, transl. and ed. by B. C. Look and D. Rutherford, New Haven 2007;
- LH = E. Bodemann, *Die Leibniz- Handschriften der Königlichen öffentlichen Bibliothek zu Hannover*, 1895; reprint: Hildesheim 1966. The first digit after 'LH' always refers to the chapter divisions as set out in the 'Inhalt' of Bodemann's catalogue. The other digits refer to successive divisions in Bodemann's organization of the manuscripts. The last digit always refers to a folio, followed by 'r' (recto) or 'v' (verso) when appropriate;
- LP = Leibniz. Logical Papers, transl. and ed. by G. H. R. Parkinson, Oxford 1966;
- LSS = *Leibniz and the Two Sophies: The Philosophical Correspondence*, edited and transl. by L. Strickland, Toronto 2011;
- LST = *The Shorter Leibniz Texts: A Collection of New Translations*, transl. and ed. by L. Strickland, London 2006;
- LW = *Briefwechsel zwischen Leibniz und Christian Wolff*, edited by C. J. Gerhardt, Halle 1860;
- MLI = L. B. Mc Cullogh, *Leibniz on Individuals and Individuation. The Persistence of Premodern Ideas in Modern Philosophy*, Dordrecht 1996 (contains a complete English

translation of DPI);

Monadology = *The Principles of Philosophy, or Monadology* (1714), GP VI, 607-23.

- NE = G. W. Leibniz, *New Essays on the Human Understanding*, transl. by J. Bennett and P. Remnant, Cambridge 1996. Quoted according to the page number in A VI 6 (included in the margin of this translation).
- OL = Opera philosophica quae latine scripsit Thomae Hobbes malmesburiensis, ed. by W. Molesworth, London 1839-; reprint Aalen 1961. Quoted by volume and page number.
- PNG = Principles of Nature and Grace, Based on Reason (1714), GP VI, 598-606.
- PW = *G. W. Leibniz. Political Writings*, ed. and translated by P. Riley, second edition, Cambridge 1987.
- Robinet = Malebranche et Leibniz: Relations personelles, ed. by A. Robinet, Paris 1955.
- Ross = F. Suárez, On Formal and Universal Unity, transl. by J. F. Ross, Milwaukee 1964.
- VE = Gottfried Wilhelm Leibniz. Vorausedition zur Reihe VI Philosophischen Schriften der Ausgabe der Akademie der Wissenschaften Berlin, 10 fascicules with continuous pagination. Quoted by page number.
- Vivès = R. P. Francisci Suarez e societate Jesu Opera Omnia, 28 vols., edited by C. Berton, Paris 1866 (the whole Vivès edition is available on line: <u>http://cdigital.dgb.uanl.mx/la/1080042136_C/1080042136_C.html</u>). The text is printed on two columns, usually referred to as 'a' and 'b'. Quoted by reference to volume, page and column number (e.g. Vivès, I, 210 a);
- Vollert = F. Suárez, *On Various Kinds of Distinctions*, transl. by C. Vollert, Milwaukee 1947;
- Wells = F. Suárez, On the Essence of Finite Being As Such, On the Existence of That Essence and Their Distinction, transl. by N. J. Wells, Milwaukee 1983;

The titles of Leibniz's works are given in the original language of the text cited. No distinction is made between Leibniz's original titles and the editors' title (even though, when relevant, this fact is mentioned in the text). Unless otherwise specified, translations are mine.

Introduction: The Puzzle of Existence. From Russell to Leibniz

"Non moltum interest quomodo Scientias partiaris, sunt enim corpus continuum quemadmodum Oceanus"

(Introductio ad encyclopediam arcanam, A VI 4, 527)

"Car il faut savoir que tout est lié dans chacun des Mondes possibles : l'Universe, quel qu'il puisse être, est tout d'une pièce, comme un Ocean [...] " (*Essais de Théodicée,* # 9, GP VI, 107)

1. Russell on Leibniz on Existence

"There is no more thorough-paced philosopher than Leibniz, and the relations of essence and existence are the very crux of his system; yet he tells almost nothing about Existence except that it is contingent and not a predicate, and he half retracts these. He never intimates, for example, how he can tell that *he* is a member of the existent world and not a mere possible monad on the shelf of essence".¹

This quotation, taken from a paper by D. C. Williams –devoted to a defence of the Humean claim that 'existence makes no difference', and, therefore, one could and should dispense with the notion of existence at all –deserves to be quoted just because is the best and most terse summary I know of the whole series of problems that shall be discussed in these preliminary remarks and, also, constitute the leading thread of my inquiry into the Leibnizian notion of existence throughout this work. Williams' account, however, is not original, but, as he himself fairly acknowledges, is just a summary of the conclusions reached by B. Russell in his seminal book on the philosophy of Leibniz (published for the first time in 1900). This is not a coincidence, however, since, as I would like to point out here, the whole debate about Leibniz's views about existence might be regarded as one concerning the acceptance or the rejection of Russell's view.

As summarized in the passage above, Russell's thesis is that, according to what he takes to be Leibniz's considered view, existence is to be taken as (a) contingent and (b) not being a predicate (this is Russell's original terminology; I will interpret it as the claim that existence is not a property of individuals, see below), or, alternatively, as a sort of anticipation of Kant's view that existential propositions are synthetic rather than analytic ones. The peculiarity of Leibniz's account, according to Russell, is the fact that existential propositions also represent

¹ D. C. Williams, "Dispensing with Existence", *The Journal of Philosophy*, vol. 59, 23, 1962, 748-63, pp. 751-52.

the whole of synthetic propositions (there are no synthetic propositions but existential ones). Russell, however, added that Leibniz's views on both these two points were not always consistent, since there are texts in which he speaks in favour of existence as a predicate and, in some sense, as a necessary rather than contingent property.

In the first edition of his book, Russell's diagnosis was that the internal consistency of Leibniz's views was undermined by his (Leibniz's) commitment to both the following opposite views: that the existence of finite things (i.e. individual substances) is contingent and is not a property analytically derivable from the notion of things themselves (i.e. from the complete individual notion of each individual substance); and that the existence of God, on the contrary, is necessary and derivable from his own essence, i.e. analytically contained in the concept of God, for Leibniz was a supporter of the ontological argument. From the point of view of the analysis of propositions, thus, whereas a proposition like 'Peter exists' has to be counted a synthetic and contingent, the proposition 'God exists' counts as analytic and necessary.²

This, in a nutshell, is Russell's dilemma. One could object that it is not a genuine dilemma, however, for there is a third alternative left unexplored, i.e. that 'existence' is not an univocal notion, for we can legitimately say that 'existent' has not the same features in the case of divine existence as in the case of created things. Even though Leibniz is ready to accept a difference between necessary existence (in the case of God) and contingent one (in the case of created beings) –which is one of the main inconsistencies in Leibniz's account according to Russell –, he clearly understands it as a distinction concerning the modal status of existence itself, not as a difference concerning the meaning of existence, for 'existence' is taken by Leibniz as an univocal rather than equivocal concept. On this point, therefore, Russell was right, for there are passages where Leibniz explicitly stresses the univocity of the fundamental metaphysical concepts, and, especially, of the concept of 'being'.³

1.1 Russell on the Synthetic Nature of Existential Statements

A point that must be stressed about Russell's analysis in 1900 is the Kantian perspective from which he moves. As Russell himself maintains, indeed, the distinction between necessary and contingent propositions is immediately understood in terms of the Kantian distinction

² Cf. B. Russell, *A Critical Exposition of the Philosophy of Leibniz* (1900), second edition published in 1937; London/New York 1992, in particular ## 8, 12, 13, 107-108, pp. 11-12, 26-28, 29-35, and 203-206.

³ The most telling passage occurs in a dialogue written between 1677 and 1679, *Dialogus inter Theologum et Misosophum*, where Leibniz contrasts the point of view of the 'fideists', i.e. of those who maintain that "human principles cannot prove anything at all in the field of divine things [*humana principia in divinis nihil certi probare*]", i.e. question the very same compatibility between faith and reason. Against the claim that *principia humana non sunt accommodata rebus divinis*, Leibniz replies: "The principles of natural science, I agree, are only human [...]; but the principles of metaphysics are common to divine and human things, for they dwell with being in general, which is common to both God and creatures" (A VI 4, 2215). The idea that the notion of *Ens in genere* is common to both God and creatures places Leibniz in the tradition of univocism from Scotus to Suárez. A different reading of this passage, more inclined to read Leibniz as close to the tradition of the analogy of being, has been proposed by M. R. Antognazza, *Leibniz on the Trinity and the Incarnation. Reason and Revelation in the Seventeenth Century*, New Haven/London 2007, p. 69. For a discussion of Leibniz's different ways of combining analogy and univocity, see also G. Grua, *Jurisprudence universelle et théodicee selon Leibniz*, Paris 1953, pp. 55 and ff.

between analysis and synthesis. Therefore, he is able to conclude that Leibniz's alleged belief that existential propositions are synthetic ones has to be regarded as a sort of ancestor of Kant's thesis that existence cannot be a reality but has to be understood as the absolute position of a thing with all its predicates (from which the rejection of the ontological argument directly follows).

Russell's reading, as is well-known, moves from the analysis of the proposition. This holds also in the case of his analysis of the notion of existence, which is dealt with moving from the distinction between necessary and contingent propositions:

"Contingent propositions, in Leibniz's system, are, speaking generally, such as assert actual existence. The exception which this statement requires, in the case of the necessary existence of God, may be provided for by saying that contingent propositions are such as involve a reference to parts of time. [...] Thus necessary propositions are such as have no reference to actual time, or such as –except in the case of God –do not assert the existence of their subjects. [...] But propositions about contingency itself, and all that can be said generally about the nature of possible contingents, are not contingent; on the contrary, if the contingent be what actually exists, any proposition about what *might* exist must be necessary".⁴

The main idea is that, for Leibniz, every proposition should be reduced to the attribution of a predicate to a subject, with the only exception of existential ascriptions. This follows from Leibniz's claim that all the properties of an individual (i.e. all the properties an individual substance will display over time) can be derived or deduced from the complete concept of that individual, for they are already contained or involved (in a non-temporal way) therein. This is just Leibniz's conceptual containment theory of truth. The only exception to the conceptual containment theory concerns actual existence: "Existence alone, among predicates, is not contained in the notions of subjects which exist. Thus existential propositions, except in the case of God's existence, are synthetic [...]".⁵

This is the only way of safeguarding the contingency of existing things; otherwise, if we assume that existence is just a predicate as the other ones, it must be contained in the complete notion of the individual, and, therefore, it must be analytically derivable from it. Given the (Kantian) identification between analyticity and necessity, it would follow that all things exist necessarily.⁶ (Notice, however, that the identification of 'analytic' and 'necessary' is already at work in Arnauld's first objections to Leibniz). This immediately leads to the first corollary of Russell's view, i.e. that existence is the only contingent feature an individual may have.

It is important to stress that Russell is talking of *actual existence* alone, and this restriction is fundamental in order to fully understand the point raised by Russell in the passage above. He states, indeed, that necessary truths are those that have no reference to actual time or do not assert the actual existence of their subjects. This notion of necessity, however, holds not only

⁴ Russell, *The Philosophy of Leibniz*, #13, pp. 29-30.

⁵ *Ibid.*, # 8, p. 11.

⁶ Cf. *Ivi*: "Necessary propositions are such as are analytic, and synthetic propositions are always contingent". The relevance of the book on Leibniz for the understanding of Russell's philosophy has been discussed by N. Griffin, "Russell and Leibniz on the Classification of Propositions", in R. Krömer-Y. Chin-Drian (eds.), *New Essays on Leibniz Reception in Science and Philosophy of Science 1800-2000*, Basel 2012, pp. 84-125. For a more historically-oriented reconstruction of the sources and the genesis of Russell's book, see W. O' Briant, "Russell on Leibniz", *Studia Leibnitiana*, 11, 2, 1979, pp. 159-222. On Russell's philosophical background in the period when he wrote the book on Leibniz, see M. Di Francesco, *Il realismo analitico. Logica, ontologia e significato nel primo Russell*, Milano 1991, in particular pp. 83-86.

in the case of general propositions concerning specific essences (or incomplete notions), like mathematical propositions or essential truths like 'All the men are animal', where genus is predicated of a species, but it holds in the case of those propositions that predicate a species of a particular individual as well. This is what Russell has in mind when he notes that propositions about contingency itself (i.e. about what might exist) are not contingent, for contingency should be ascribed to actual existence alone.⁷ Therefore, all truths about possibles are necessary (or, alternatively, whatever is possible, is necessarily so).⁸

Leibniz, according to Russell, would have thus anticipated the Kantian distinction between "the notion of an existent and the assertion of actual existence":

"The notion of an individual, as Leibniz puts it, involves reference to existence and time *sub ratione possibilitatis* [think, for simplicity, of the eternalized version of a tensed proposition, like "Alexander the Great died in 323 BC", which is eternally true], i.e. the notion is exactly what it would be if the individual existed, but the existence is merely possible, and is not, in the mere notion, judged to be actual".⁹

This sort of 'splitting' of existence into actual and possible one is a remarkable point, which will be recalled many times in what follows. For the moment, I want just to insist that Leibniz's idea that the possibility of individuals (and truths about contingent facts) differ from the possibility of species –for the former (but not the latter) involve in their notions the possibility of their causes –is not taken by Russell as sufficient to conclude that Leibniz succeeded in placing contingency within the complete concept itself, but, rather, as a sort of parallelism between the domain of the possible and that of the actual. For the connections between possible causes and possible effects is similar to that between actual causes and actual effects; and the latter is based on the former (for the possibility of things precede their actuality, at least from God's point of view).

Therefore, "so long as we do not assert actual existence, we are still in the region of eternal truths". Contingency properly said, indeed, obtains only with the passage to actuality:

"It is in taking the further step, in judging the actual existence of the individual whose notion is in question, that the law of sufficient reason becomes indispensable, and gives results to which the law of contradiction is, by itself, inadequate [...]. Existence is thus unique among predicates. All other predicates are contained in the notion of the subject, and may be asserted of it in a purely analytic judgment. The assertion of existence, alone among predicates, is synthetic, and, therefore, in Leibniz's view, contingent. Thus existence has, for him, just as peculiar a position as it has in Kant's criticism of the ontological proof, and it must be regarded as a sheer inconsequence, in Leibniz, that he failed to apply this doctrine also to God. But for the fact that Leibniz

⁷ Referring to Leibniz's discussion with Arnauld (see GP II, 39), where the former explains that the notion of a species involves only necessary truths while the notion of an individual involves (*sub ratione possibilitatis*) what is related to the existence of things and time, Russell points out that even propositions concerning individuals and those features which we take as existence-entailing (as spatiotemporal location, causal connections, and so on) must be taken (*sub ratione possibilitatis*) as eternally true or false.

⁸ Being still committed to a (*lato sensu*) Kantian understanding of modality, Russell took that claim as equivalent to the idea that truths about the possibles are eternally true. Still in his 1918 lectures on the philosophy of logical atomism, Russell maintains the view that modality can be ascribed to propositional functions (i.e. concepts) only, and not to things, and that modality has to be interpreted in a temporal way (for instance, a propositional function is necessary if it is always true). Cf. B. Russell, *The Philosophy of Logical Atomism* (1918), Oxford 2009, pp. 64-5.

⁹ Russell, *The Philosophy of Leibniz*, # 13, p. 30.

definitively asserted the contrary [...], one would be tempted to state his position as tantamount to a denial that existence is a predicate at all".¹⁰

1.2 Russell between Leibniz and Kant

Russell's hesitation to ascribe a full-fledged Kantian view to Leibniz is also due to the fact that, in a passage from the *New Essays* (as well as elsewhere), Leibniz explicitly treats existence as a notion or an idea that is predicated of a subject into a proposition.¹¹

Russell's conclusion, however, can be defended by a direct reference to Kant himself.

At the beginning of his 1763 essay on *The only Possible Argument in support of a Demonstration of the Existence of God*, indeed, the claim that "Existence is not a predicate or a determination of a thing" is defended in the following way:

"Take any subject you please, for example, Julius Caesar. Draw up a list of all the predicates which may be thought to belong to him, not excepting those of space and time. You will quickly see that he can either exist with all these determinations , or not exist at all. The Being who gave existence to the world and to our hero within that world could know every single one of these predicates without exception, and yet still be able to regard him as a merely possible thing which, in the absence of that Being's decision to create him, would not exist. Who can deny that millions of things which do not actually exist are merely possible from the point of view of all the predicates they would contain if they were to exist. Or who can deny that in the representation which the Supreme Being has of them there is not a single determination missing, although existence is not among them, for the Supreme Being cognises them only as possible things. It cannot happen, therefore, that if they were to exist they would contain an extra predicate; for, in the case of the possibility of a thing in its complete determination, no predicate at all can be missing".¹²

Few pages below, Kant employs the same metaphor once again, in order to give more strength to his metaphysical thesis:

"If I imagine God uttering His almighty '*Let there be*' over a possible world, He does not grant any new determinations to the whole which is represented in His understanding. He adds no new predicate to it. Rather, He posits the series of things absolutely and unconditionally, and posits it with all its predicates; everything else within the series of things is posited only relatively to this whole".¹³

Reference to God's positing the whole series of things (i.e. the whole world) "absolutely and unconditionally" is just another way of saying that actual existence is the absolute position of a thing with all its predicates, to be contrasted with the relative position in which the relation

¹⁰ *Ibid.*, # 13, pp. 31-32.

¹¹ Cf. *New Essays*, IV, i, 3, A VI 6, 358: "When we say that a thing exists, or has real existence, this existence itself is the predicate, i.e. it has a notion joined to the idea in question, and there is connection between these two notions" (I follow Russell's own translation here). Other passages which speak in favour of existence as a predicate will be discussed in Chapter 8 below. Not all of them had been published when Russell wrote his book. This is one of the reasons why, later on, he rejected his original position after the publication of Leibniz's unpublished works by Couturat (see below).

¹² Kant, On the only Possible Argument in support of a Demonstration of the Existence of God, 1763, Ak. II, 72; translated in I. Kant, *Theoretical Philosophy 1755-1770*, edited by D. Walford and R. Meerbote, Cambridge 1992, pp. 117-18.

¹³ Ibid., Ak II, 74; Theoretical Philosophy, p. 120.

between the logical predicate and the logical subject are related in a proposition. The extrapropositional and positional character of existence, therefore, is clearly stated by Kant within a 'possible worlds' framework which is very close to that adopted by Leibniz.

Paradoxically as it might be, indeed, both these Kantian passages (reference to God's *fiat* included) are nothing but a quotation of similar passages in the *Theodicy*, like the following one:

"Since [...] God's decree consists solely in the resolution he forms, after having compared all possible worlds, to choose that one which is the best, and bring it into existence together with all this worlds contains, by means of the all-powerful word *Fiat*, it is plain to see that this decree changes nothing in the constitution of things: God leaves them just as they were in the state of mere possibility, that is, changing nothing either in their essence or nature, or even in their accidents, which are represented perfectly already in the idea of this possible world".¹⁴

The similarity between this passage and the Kantian ones are striking, also because all the elements that lead Kant to conclude that existence is an absolute position are already contained in what Leibniz says, i.e. that God's decision to create something is a 'global' (or 'holistic') one, for he brings to existence a thing together with the world it belongs to; moreover, God's decree (his *fiat*) changes nothing in the constitution of things from the way they are represented "in the state of mere possibility".

The main difference, however, is that Leibniz does not conclude that existence is the absolute position of a thing with all its predicates, even though this seems to be implicit in what he says. Furthermore, contrary to Russell's corollary above, Leibniz's aim in this passage is that of conciliating a strong determinism concerning the succession of things and events in the world (and God's foreknowledge thereof) with the distinction between necessary and contingent properties.

The fact that God can change nothing in the constitution of things, indeed, is stressed by Leibniz *in order to conclude* that God cannot decide what belongs to a thing essentially or accidentally, but that this very same distinction is already established at the level of mere possibility. This is confirmed by the conclusion of the passage: "Thus that which is contingent and free remains no less so under the decrees of God than under his prevision".¹⁵ I shall come back to this tension between 'necessity of essences'/ 'contingency of existence' on one hand, and the maintaining of the 'essential'/ 'accidental' distinction as internal to any series of things on the other hand.

1.3 Russell and Couturat on Conceptual Containment and Existence

¹⁴ Theodicy, # 52, GP VI, 131 /H 154-55. Kant's acquaintance with the *Theodicy* dates back at least to 1753, when he was working to an essay (which he will never complete, ultimately) for the prize-essay competition of the Academy of Berlin devoted to a comparison of Leibnizian optimism with that of Pope. Cf. Kant's unpublished reflections, nn. 3703-5, Ak. XVII, 229-39, as well as his brief 1759 paper, *An Attempt at Some Reflection on Optimism*, Ak II, 27-35; both these texts are translated in *Theoretical Philosophy*, pp. 77-83 and 67-76. On the reception of *Theodicy* in Germany, cf. S. Lorenz, *De mundo optimo*. *Studien zu Leibniz' Theodizee und irher Rezeption in Deutschland (1710-1791)*, Steiner 1997.

¹⁵ *Theodicy*, # 52, GP VI, 131/H 155.

The core of Russell's analysis in 1900 may be summarized as follows: (1) actual existence is the only contingent feature one can ascribe to an individual thing according to Leibniz; (2) all truths concerning possible things are necessary. The first point amounts to acknowledge an exception for the predicate-in-subject account of truth (conceptual containment).

The latter point, however, will be reconsidered by Russell after 1903, i.e. after the publication of Couturat's works on Leibniz's logic (in 1901) and his edition of Leibniz's unpublished papers (in 1903). This change of mind already appears in Russell's 1903 review to Couturat's works in a paper published on *Mind*, and will be repeated in the preface Russell appointed to the new edition of his book published in 1937.

In particular, against Russell's original claim, Couturat challenged the tenability of the (Kantian) distinction between analytic and synthetic propositions, for all propositions (existential ones included) have to be taken as analytic ones insofar as they might be derived (at least from God) from the account of truth based on conceptual containment.¹⁶ Notice, however, that, as far as existence is concerned, Russell did not completely accept Couturat's account, for, while the latter is substantially committed to the idea that existence is a property analytically derivable from the concept of a thing (via the notion of perfection), Russell still believes there is a considerable tension between this line of thought (which he now takes as being more preponderant than what he originally believed in 1900) and the opposed one, according to which it is impossible to find something more in the concept of an existing than in that of the corresponding possible one, i.e. what throughout this work I dub as the 'puzzle of existence'.¹⁷

2. The Superessentialist Account: Existence as Concept-Instantiation

If I have insisted so much on Russell's views is only because I am convinced that much of the following debate about existence and contingency in Leibniz is (to recall Whithead's famous quotation) just a sort of footnote to Russell; or, better said, it might be summarized as the contraposition between a Neo-Russellian view and an anti-Russellian one. This is particularly true so far as the debate concerning Leibniz's superessentialism is taken into account. The superessentialist position, indeed, can be legitimately conceived of a sort of continuation and enforcement of Russell's original research program.

¹⁶ In particular, Couturat emphasized the possibility of deriving the whole set of Leibniz's metaphysical theses from the conceptual containment account of truth as presented by Leibniz himself in his unpublished texts on "Primary Truths", edited for the first time by Couturat himself. Cf. in particular, L. Couturat, "Sur la métaphysique de Leibniz (avec un opuscule inédite)", *Revue de Métaphysique et de Morale*, 10, 1, 1902, pp. 1-25 (the unpublished text called by Couturat *Primae Veritates* has been published now in A VI 4, 1643-49, under the title *Principia logico-metaphysica*). For Russell's reading of Couturat on Leibniz, see B. Russell, "Recent Work on the Philosophy of Leibniz", *Mind*, 12, 16, 1903, 177-201; and the 1937 preface to the book on Leibniz, cf. "The Philosophy of Leibniz", pp. xiii-xviii.

¹⁷ Cf. Russell, "Recent Work", p. 185. An attempt to make sense of this apparent opposition, and to defend Russell's original claim (that existence is not included in the complete concept of a thing), has been proposed by E. Curley, "The Root of Contingency", in H. Frankfurt (ed.), *Leibniz. A Collection of Critical Essays*, London 1976, pp. 69-97 (cf. my discussion in Chapter 8 below). For a contemporary 'Leibnizian' approach to the puzzle of existence, see N. Rescher, *The Riddle of Existence. An Essay in Idealistic Metaphysics*, Lanham MD 1984; Id., *On Explaining Existence*, Berlin 2013.

In the period between Russell's book and the recent times, however, something else happened in the Leibniz-scholarship. I am not referring just to the publication of many texts which were unknown to both Russell and Couturat (and which shed new lights on many aspects of Leibniz's philosophical development), but of a new interpretative key that led many scholars to a reappraisal of Russell's original intuitions. I am thinking of the renewed interest in Leibniz's metaphysics of possible worlds, essentially motivated by the exploit of the 'possible-worlds semantics' after Kripke's seminal works in the 60's and the applications of the latter to the field of modal metaphysics.¹⁸

The main difference with Russell's analysis, indeed, is that the examination of necessity and contingency is now explicitly framed into a possible-worlds account rather than based on a Kant-style distinction between analytic and synthetic truths.¹⁹ Even though Russell himself did not completely disregard the idea that, for Leibniz, necessary truths are those which are true of every possible world, his own favourite reading was by far that which connected the notion of 'necessity' with that of 'analyticity'.²⁰

The superessentialist reading (as defended in the works of B. Mates and F. Mondadori), on the contrary, is essentially committed to the claim that Leibniz (implicitly or explicitly) envisaged the idea that the contraposition between necessity and contingency has ultimately to be understood as one between those truths which hold at (are true of) every possible world and those truths which hold at (are true of) some of them. In the following, for the sake of simplicity, I will take into account just two paradigmatic opposite views, i.e. the superessentialist reading provided by Mates and contrast him with the 'contingentist' one provided by R. M. Adams (for the latter is explicitly intended as opposed to the former).²¹

¹⁸ For a good summary, see Loux's introduction ("Modality and Metaphysics") to M. J. Loux (ed.), *The Possible and the Actual. Readings in the Metaphysics of Modality*, Cornell University Press 1979, pp. 15-64. On Leibniz, see B. C. Look, "Leibniz's Modal Metaphysics", *The Stanford Encyclopedia of Philosophy* (Spring 2013 Edition), Edward N. Zalta (ed.), URL = <u>https://plato.stanford.edu/archives/spr2013/entries/leibniz-modal/</u>.

¹⁹ No such a distinction can be found in Leibniz's main texts. A partial exception might be represented by a remark in his late Notes on Temmik, where he writes: "Predicates may be distinguished in those which add something to a subject, and those which add nothing to it. In this way, 'rationality' or 'capacity of being marvelled' add nothing to the concept of 'man'. On the contrary, 'learnedness' adds something on the basis of which a man is said to be learned. Should we say that 'paternity' adds something to Philip? If individuals are taken as complete notions, it adds nothing at all. One can say that contingent predicates are essential to individuals, for it is proper of an individual notion to include all contingent predicates. But contingent predicates are not essential to every individual whatever, at least those which do not exhaust his whole power [vim]" (Notationes quaedam ad Aloysii Temmik Philosophiam, published in M. Mugnai, Leibniz's Theory of Relations, p. 156). The distinction between predicates which add and those which do not add something to a concept might resemble the Kantian distinction between synthetic and analytic predicates (the former enlarge a concept, the latter only explains what is already contained in it). Notice, however, that such a distinction holds only in the case of general concepts, like 'man', where 'rationality' can be take to be analytic since it is contained in the definition of 'man', whereas 'learnedness' is not (the former stands for an essential property, the second for a contingent one). When coming to individual notions, i.e. complete notions, even contingent properties are to be regarded as 'analytic', i.e. they add nothing to the concept (otherwise it would not be a complete one, after all). Contingent predicates are essential to individuals, and only accidental to general notions (specific concepts).

²⁰ Cf. Russell, *The Philosophy of Leibniz*, # 12, pp. 26-28, especially where Russell remarks that Leibniz's claim that a necessary proposition is one the opposite of which involves a contradiction is not a definition of 'necessity'. In order to avoid the conclusion that necessity is ultimately an indefinable and primitive notion, he resorts to analyticity (note that, at that period, Russell still accepted the Kantian idea that mathematical propositions are necessary and synthetic, whereas he will abandon this view when he will develop his 'logicist' account, as he himself recognizes in the preface to the second edition).

²¹ Cf. B. Mates, "Leibniz on Possible Worlds", in B. Van Rootselaar- J. F. Staal (eds.), *Logic, Methodology, and Philosophy of Science*, vol. III, 1968, pp. 507-29; then republished in Frankfurt, *Leibniz*, pp. 335-64; Id.,

2.1 Predicates or Properties?

In order to understand in which sense Mates' reading can be regarded as a 'radicalization' of Russell's views, however, some preliminary remarks are in order. Together with 'possible-worlds semantics', indeed, the fundamental passage to understand the superessentialist reading of Leibniz is its connection with a logical/philosophical account of existence, one defended by Russell himself in his theoretical works written after the book on Leibniz.

In the previous paragraph, indeed, I have stressed the fact that Russell (in 1900) still framed the question of existence in terms of the question whether existence is a 'predicate' or not. In the contemporary debate, however, the main question is whether existence might be regarded as a *property of individuals* or not.

The distinction between properties and individuals is usually introduced by means of the notion of 'instantiation' (or, alternatively, 'exemplification'): whereas individuals instantiate properties and cannot be instantiated by anything else, properties can only be instantiated by individuals or by other, less general, properties. The question whether existence is a property of individuals or not, therefore, amounts to ask whether 'existence' corresponds to a property that a determinate individual (say, Alexander the Great) instantiates or not; and, eventually, whether there are also individuals lacking that property, i.e. merely possible or fictional ones.²²

The passage from talking of 'predicates' to talking of 'properties' might be regarded as an innocuous one, at least if one assumes that there is a one-to-one correspondence between predicates (on the linguistic level) and properties (on the ontological one). The latter view is the so-called *abundant* conception of properties, which is usually contraposed to the *sparse* one. If one accepts the first view, since 'existent' is a linguistic predicate, then also the view that existence is a property of individuals must be accepted. At the linguistic level (at least, at the level of natural language), no one doubts that 'existent' behaves like any other ordinary predicates. There are reasons to doubt of such a perfect match between the linguistic and the ontological level.²³

From Leibniz point of view, at least, the abundant conception of properties conflicts with the claim that there are no such things like purely extrinsic denominations, i.e. properties which

[&]quot;Individuals and Modality in the Philosophy of Leibniz", *Studia Leibnitiana*, 4, 1972, pp. 81-118; Id., *The Philosophy of Leibniz. Metaphysics and Language*, Oxford 1986; R. M. Adams, "Leibniz's Theories of Contingency", in M. Hooker (ed.), *Leibniz. Critical and Interpretive Essays*, Minneapolis 1982, pp. 243-83; Id., Review of B. Mates, "The Philosophy of Leibniz", *Mind* 97, 1988, pp. 299-302; Id., *Leibniz. Determinist. Theist. Idealist*, New York/Oxford 1994.

²² My account is substantially based on M. Nelson, "Existence", *The Stanford Encyclopedia of Philosophy* (Winter 2016 Edition), Edward N. Zalta (ed.), URL = <u>https://plato.stanford.edu/archives/win2016/entries/existence/</u>. I have also taken into account F. Berto, *Existence as a Real Property. The Ontology of Meinonghianism*, Dordrecht 2012; F. Orilia, *Ulisse, il quadrato rotondo e l'attuale re di Francia*, Pisa 2005².

²³ Discussing Leibniz's account of relations, Mates observes that Leibniz "would not be inclined to accept every open sentence with a free variable as expressing an attribute" ("Leibniz on Possible Worlds", p. 352). On this point, cf. also H. Ishiguro, *Leibniz's Philosophy of Logic and Language*, second edition, Cambridge 1990, pp. 123-26, who discusses the difference between Leibniz's grammatical characterization of attributes and predicates, and the metaphysical one.

are not grounded in some intrinsic (or qualitative) property of a thing. If one accepts the abundant conception of properties, indeed, then existence could be reduced to a merely extrinsic property, or, as we would say, to a 'Cambridge-property' (i.e. a property whose instantiation by the subject a does not involve a real change or a qualitative/intrinsic modification in a itself), which would provide a solution to the puzzle of existence (and would also restore the symmetry between existence and non-existence, since it is difficult to state that non-existence is a real property).

This, however, would amount to deprive existence of both its absoluteness and its reality, which would be highly counterintuitive. First, because the difference between what exists and what is merely possible should not be regarded as a merely relative one;²⁴ second, because there is a sense in which one would say that actual existence corresponds to what is real in a thing, to the effect that to exist seems to be the main presupposition for the very same instantiation of properties (this is the original meaning of the traditional dictum: *non entis nulla sunt attributa*).²⁵ In other words, if one accepts the idea that not everything is actual (as Leibniz does), it would unacceptable for him to state that actual existence is neither a real nor an absolute property (in the sense specified above).

This is enough to place Leibniz on the side of the sparse conception of properties, since, according to the latter, a predicate stands for a property only if the objects which the predicate is truly predicated of resemble one another in some intrinsic way. The idea that existence has to be somewhat grounded in the nature of a thing, or, better, in the degree of reality or perfection of a thing, indeed, is essentially motivated by the fact that existence cannot be considered as a merely extrinsic denomination (since there are none).²⁶

At the same time, however, the fact that existence shares many features of extrinsic denominations, i.e. of relational properties, cannot be denied, for the maximum of perfection can be determined only through a comparison between all possible worlds (each one having its own degree of reality or perfection), and the very same notion of comparison involves a relational element. Furthermore, the (partially) extrinsic character of existence is required because, otherwise, if existence would be just an intrinsic denomination of individuals (and worlds), the actualization of the most perfect would be an automatic process, and what exists would exist necessarily. In Leibniz's own terms, to involve the maximum degree of perfection is a necessary but not sufficient condition for an individual (a world) to be actualized, for the other element to be required is God's decision to create (only) the best.

Paradoxically as it might be, therefore, Leibniz must find a way to conciliate the relational or partially extrinsic character of existence with the absoluteness (i.e. non relativity) of existence

²⁴ Relativity of actual existence (actuality), if not of existence at all, is the main feature of the indexical theory defended by D. Lewis. On Leibniz's reasons to reject the indexical theory, see Chapter 7 below.

²⁵ It is true that, endorsing the view that *non entis nulla sunt attributa*, Leibniz interprets 'Entity' as ranging over possible rather than over actual things only, but the point is how to interpret the ascription of properties to non-existing things.

²⁶ This is clear from what Leibniz says at Cout. 9 ("The category of relations such as quantity and position do not constitute intrinsic denomination themselves, and what is more, they need a basis taken from the category of quality, or intrinsic denomination of accidents"), and has been emphasized by Curley, "The Root of Contingency". See my discussion in Chapter 8 below. For the thesis that there are no purely extrinsic denominations, see also Chapter 6 (where I discuss the theory of universal connection).

itself; a result that, ultimately, can be achieved only by resorting to God (to what he calls the moral necessity of creating the best).²⁷

In what follows, therefore, I will frame the question of existence in terms of whether it might be regarded as a property of individuals (a first-order property) or as a property of concepts (a second-order property), where the first has to do with the instantiation of a property by an individual, the second with the instantiation (or the non-instantiation, in the case of nonexistence) of a concept. The second view is commonly known as the Frege-Russell theory of existence.²⁸

2.2 The Superessentialist Framework: Descriptivism and the Limits of Conceptual Containment

The superessentialist account defended by Mates can be regarded as coherent defence of the idea that existence has to be taken as a property of concepts, even though not of general but of individual ones, i.e. complete concepts. The sense in which this account might be regarded as 'Russellian' is that applied the descriptivist account (defended by Russell in 1905 and after) to the case of Leibniz's theory of complete concepts.

The basis of the superessentialist account is the conjunction of Leibniz's theory of complete individual concepts (the idea that "the nature of an individual substance or of a complete being is to have a notion so complete that it is sufficient to contain and to allow us to deduce from it all the predicates of the subject to which this notion is attributed")²⁹ with a modal characterization of essential properties. Given an individual a and a property φ , φ is essential to a if a cannot cease to instantiate φ while still existing, or while still being the same individual; in other words, if it is impossible that a exists without being φ . This modal characterization is immediately interpreted in terms of *possible worlds*: there are no possible worlds in which a exists and is not φ . Since all the properties of an individual are derivable from its complete concept, and the complete concept stands for the individual essence of that individual, all the properties of an individual are to be taken as essential to it.³⁰

This conclusion follows only if one accepts an apparently bizarre thesis concerning individuation, i.e. that each individual is individuated by all its properties (where the more complicate questions concerns the status of relational ones, i.e. if relational properties have to be included into the complete notion or not). Leibniz's theory of complete concepts, however, can be regarded exactly as the expression of such theory of individuation.

What I am interested in, however, is only the modal consequences of this view, i.e. the conclusion that since no individual exist at more than one (and only one) possible world, and

²⁷ This point (together with the other, very controversial one, i.e. the existence of something like the best possible world) is what makes me sceptical about the possibility of reading Leibniz's account of existence in terms of a purely secular metaphysics, i.e. in terms of the contemporary debate on metaphysics. A theological ground is ultimately required in order to preserve the contingency of what exists; and, after all, Leibniz himself never rejects the idea that metaphysics has to be regarded as 'rational theology'.

²⁸ Cf. B. Russell, "On Denoting", Mind, 14, 1905, pp. 479-93; Id., The Philosophy of Logical Atomism, part five ("General Propositions and Existence"), pp. 61-77. On Frege's position, see below. ²⁹ Discourse on Metaphysics, # 8, A VI 4, /AG 41.

³⁰ This seems to derive from what Leibniz says in a text to Arnauld, cf. GP II, 53: "[...] if, in the life of any person, and even in the whole universe, anything went differently from what it has, nothing would prevent us from saying that it was another person or another possible universe that God has chosen. It would then indeed be another individual". Cf. also GP II, 42, with the example of the marble block.

all the properties of an individual have to be taken as essential to him (according to the previous characterization), it follows that all the properties of an individual (or, better, all his first-level properties) are necessary. The view follows that there is no room for contingency within the complete concept of an individual.³¹

As in the case of Russell's original views, then, the necessary character of truths about possible things as possible (i.e. complete concepts before the creation of the world, so to say) makes the pair with the idea that actual existence is the only contingent feature an individual can have and, therefore, it has to be extruded from the domain of those properties which are included in the complete notion. This amounts to posit a limitation to the theory of conceptual containment.

This is exactly what happens with Mates' reading of Leibniz. His idea, indeed, is that the predicate-in-subject containment works as a definition of truth in the full sense, i.e. as a necessary and sufficient condition for the truth of a proposition, only in the case of essential propositions. In the case of existential propositions (where quantification is restricted to what actually exists only), Mates says that "Leibniz clearly does not regard the inclusion of the predicate in subject as a sufficient, nor perhaps even as a necessary, condition of truth".³² In the case of singular existential propositions , in particular, it works as a necessary-but-not-sufficient condition.³³

2.3 Species and Individuals. A neglected Russellian remark

An interesting point in Mates' reading is that he ascribes the idea that conceptual containment is a necessary and sufficient condition for all truths to a confusion between "containment in the general concept itself with containment in the individual concept of every existent individual falling under the general concept". According to Mates, this sort of confusion can be ultimately reduced to a more general confusion between 'inherence' and 'predication', as it emerges from the fact that a proposition like 'A is B' (which, for Leibniz, means 'Every A is B') is sometimes interpreted as if the subject is A, and sometimes interpreted as saying that everything which is A is also B, where, however, the concept of the individual (the thing which is both A and B) is not clearly distinguished from the individual itself. ³⁴

Also this idea, notice, might be regarded as a development of a series of intuitions originally expressed by Russell. Russell, indeed, pointed out that the subject-predicate propositions

³¹ This view has been clearly summarized by Rescher, who, criticizing Adams, concludes that "there are no contingent truths about possibles as such [...]. Relationships among possibilities do and must play out in the thought of God *sub ratione possibilitatis* independently of (and so, figuratively speaking, antecedently to) his creation choice" (N. Rescher, "Contingentia Mundi. Leibniz on the World's Contingency", originally published in *Studia Leibnitiana* 33, 2002, pp. 145-62; now in Id., *On Leibniz*, expanded edition, Pittsburgh 2013, p. 91, note 34. As the reader can see, this is nothing else than point (2) of my summary of Russell's views above. The same idea, that the independency of possibles from God's will amounts to say that truths about possibles are necessary has been defended by Mates, Mondadori, and many others.

³² Mates, *The Philosophy of Leibniz*, p. 87. The distinction between the essential and the existential reading of propositions has been stressed also by H. Ishiguro, *Leibniz's Philosophy of Logic and Language*, second edition, Cambridge 1990, pp. 183-87. I discuss Leibniz's distinction in the GI and elsewhere in Chapter 9 below.

³³ Cf. Mates, *The Philosophy of Leibniz*, p. 86.

³⁴ Cf. *Ibid.*, p. 94.

involve two different kinds of relations, i.e. that between genera and species and that between species and individuals, which Russell exemplified as 'Red is a colour' and 'This is red'. When dealing with the doctrine of conceptual containment, Russell pointed out that the doctrine works with propositions of the genera-species kind, i.e. like 'Red is a colour', and not with propositions of the kind 'This is red' (or 'Socrates is human'), and, for Russell, this is also the main reason why every proposition about actual individuals is contingent (which, for him, means they are synthetic).³⁵

This, however, seems to posit a problem in the case of essential propositions concerning individuals, or, if you prefer, propositions concerning non actually existing individuals. For, if, as Russell maintains, "analytic propositions are necessarily concerned with essences and species, not as with assertions as to individuals", the difference between the individual and his properties, which holds at the level of what is actual, goes completely lost at the level what is merely possible.

On this point, Russell makes two observations. The first is that, if reference to individuals is essential to the distinction between subject and predicate, one must conclude that the subject is "any individual having a certain collection of predicates". Therefore, propositions of the type genera-species must be reduced to those of the type species-individuals, i.e. by transforming the former into hypothetical propositions, which, in effect, is the strategy Leibniz suggests in a famous passage of the *New Essays*.³⁶ This reduction, according to Russell, fails because Leibniz assumes that hypothetical truths have no existential import, i.e. they do not assert the existence of their subjects, and, indeed, Leibniz "goes on to say that the truth of hypothetical propositions lies in the connection of ideas", i.e. on conceptual containment again.³⁷

The second interesting point raised by Russell (a point on which I will insist in the following) is that there is a sort of tension, in Leibniz's system, between a line of thought which moves from essences and arrives (or aims to arrive) to the individuals, and another one which, on the contrary, moves from individuals and arrives to predicates and essences.³⁸ Whereas, in the case of eternal truths, we start with essences and predicates, and their mutual relations, in the case of contingent truths, the point of departure is given by the existing individual and the relations between individuals.

In what follows, I will show how these two strands in the philosophy of Leibniz correspond to two different philosophical views, one closer to traditional essentialism, and the other closer to the nominalist tradition. The point where these two views should find a connection is represented by the idea of 'possible individuals', whose problematic aspect is given by their sharing with what is actual many important properties (i.e. all those properties we normally take as *existence-entailing*: relations of connection, spatiotemporal location, causal connections, and so on), but not actuality.

A corresponding contraposition occurs in the debate on the notion of existence, between those who hold the Russellian view, where, substantially, the extra-propositional character of

³⁵ Cf. Russell, *The Philosophy of Leibniz,* #11, p. 20.

³⁶ Cf. New Essays,

³⁷ Russell, *The Philosophy of Leibniz*, # 11, p. 21. Cf. also # 21, p. 58, where he states that the kind of subjectpredicate propositions appropriate to contingent truths is that which says "This is a man", not "Man is rational".

³⁸ Cf. *Ibid.*, # 26, pp. 73-74.

existence is favoured over the idea that contingent truths are to be traced back to the conceptual containment account as well, and those who, on the contrary, maintain the universal validity of conceptual containment and prefer to understand existence as something not extruded from the propositional and conceptual structure, by resorting to the infinite analysis account of contingency (the solution defended by Couturat, and also, for other reasons, by Adams).

2.4 The Root of Contingency. Infinite analysis or Actual Existence?

If we come back to Mates, indeed, we can see the first horn of this disjunction at work, for he emphasizes the link between contingent propositions and actual existence, concluding that contingent truths are the existential ones, and existential truths are those grounded on truths about actual individuals. He explicitly emphasizes that in his possible-worlds scheme of translation (of propositions), "it is evident that "exists" means "exists in the actual world" (or, more exactly, "falls under the complete individual concept belonging to the possible world that has been actualized")".³⁹ The notion of actual existence, then, is captured by the idea of the instantiation of a complete concept.⁴⁰ This leads him to adopt the (Russellian) view that the root of contingency has to be placed *not* in the infinite complexity of an individual concept, but, rather in its actual existence (or non-existence).⁴¹

Mates, thus, concludes that no existential proposition will be true of a possible world unless the concept of the subject is instantiated in that world.⁴² This, however, leads to two apparently counterintuitive consequences, i.e. that there are no false contingent propositions concerning complete concepts, and their negations are necessarily true (once again, all truths about possible individuals are necessary); and that a proposition like "Caesar is a man" is as contingent as the proposition "Caesar is white" when they are both taken as existentially loaded.⁴³

Against Mates' interpretation, Adams pointed out that his reading "rests heavily on the assumption that a proposition is contingent, for Leibniz, if and only if it is true of some possible world and false of others", but the point is that "there are [...] very few texts of

³⁹ Mates, *The Philosophy of Leibniz*, p. 94.

⁴⁰ Mates mentions the fact that there are passages (most notably # 71 of the GI), where Leibniz explicitly states that an existential proposition 'A is B' can be transformed into 'AB is an existent', where existence works as a predicate. From the Predicate-in-Subject principle, however, it seems to follow that existence is part of the complete concept of the subject, and, thus, that the concept of the subject (Peter denying, in the example) involves that of existence. Cf. Mates, *The Philosophy of Leibniz*, pp. 100-01, where he takes the idea of existence as a predicate to be incompatible with the claim (defended in the passage of the *Theodicy* quoted above) that the concept of an individual is not changed by God's actualization of that individual. Concerning the assumption of existence as a term, cf. my discussion in Chapter 9 below.

⁴¹ Cf. Mates, *The Philosophy of Leibniz*, p. 114.

⁴² Cf. Mates, "Leibniz on Possible Worlds", p. 338, note 4: "It seems that in effect [Leibniz] chooses the alternative of regarding *every* trait of an object as essential to it, and what saves the contingency of synthetic truths about the object is only the fact that the object might not have existed at all". In this sense, if one accepts the idea that essentialism is the doctrine that distinguishes essential from accidental features of an object, then Leibniz's superessentialism actually amounts to a form of anti-essentialism, as Mates (following Quine) acknowledges.

⁴³ Cf. Mates, *The Philosophy of Leibniz*, pp. 113-15.

Leibniz that explicitly support this assumption".⁴⁴ This is one of the reasons why Adams privileges the idea that the root of contingency has to be placed in the infinite (i.e. in the theory of infinite analysis) rather than in actual existence.⁴⁵ The other reason, of course, is that this choice allows him to take existence as not being an exception to the conceptual containment theory of truth. Mates' idea that contingency rests on actual existence, of course, is based on passages like that from the *Theodicy* I have quoted above (which, as I have shown, derives from what I have called the puzzle of existence).

Accordingly, Adams also sharply rejects the view that existence constitutes a genuine exception to the Predicate-in-Subject principle.⁴⁶ On a similar vein, many other authors have tried to weaken the superessentialist reading of Leibniz: even though their views are not always the same, they share the rejection of point (2) above, i.e. the idea that there is nothing contingent in the domain of what is purely possible.⁴⁷

3. The Standard Reading. Evaluating pro and contra

From what I have said so far, it is clear that, according to Mates, existence has to be regarded as a property of concepts and not of individuals, even though, in virtue of Leibniz's nominalism, it has to be restricted to individual concepts only. In particular, positive existential statements (like 'Alexander the Great exists') are to be understood as saying that a certain individual concept is actually instantiated; on the other hand, negative existential statements (like 'Pegasus does not exist') are to be understood as saying that a certain individual concept fails to be instantiated. One problem with this view is that it seems to commit Leibniz to a descriptive view of proper names (for proper names, properly speaking, stand for complete individual *concepts*), like that defended by Russell in 1905 with his theory of definite descriptions.⁴⁸

⁴⁴ Adams, "Review of Mates", p. 302.

⁴⁵ The thesis that the root of contingency has to be located in the infinite is defended by Leibniz in a couple of papers written at the end of 1689 and devoted to a defence of the theory of infinite analysis. See in particular A VI 4, 1661: "*Ex his apparet radicem contingentiae esse infinitum in rationibus*".

⁴⁶ Cf. Adams, *Leibniz*, pp. 42-46, where he weakens the relevance of these passages where Leibniz explicitly treats 'essential' and 'existential' (referred to properties) as equivalent, respectively, to 'necessary' and 'contingent'. Cf. also *Ibid.*, pp. 63-65.

⁴⁷ I am thinking of Sleigh's super-intrisicalness and Cover & Hawthorne' strong essentialism. See, respectively, R. C. Sleigh, *Leibniz and Arnauld. A Commentary on Their Correspondence*, New Haven 1990; J. Cover-J. O' Leary Hawthorne, *Substance and Individuation in Leibniz*, Cambridge 1999. Di Bella has emphasized the relevance of Leibniz's strategy based on possible decrees, cf. S. Di Bella, *The Science of the Individual. Leibniz's Ontology of Individual Substance*, Dordrecht 2005, pp. 265-300. The connection between contingency and actuality has been questioned, among the others, by A. Heinekamp, *Das Problem des Guten bei Leibniz*, Bonn 1969, p. 133 and ff.; E. Vailati, "Leibniz on Necessary and Contingent Predication", *Studia Leibnitiana*, 18, 2, 1986, pp. 195-210.

⁴⁸ On Leibniz's theory of proper names, see F. Mondadori, "Nomi propri e mondi possibili", *Rivista di filosofia*, 62, 1971, pp. 354-90; "Reference, Essentialism, and Modality in Leibniz's Metaphysics", *Studia Leibnitiana*, 5, 1, 1973, pp. 74-101. (The paper in Italian contains a much more detailed comparison of Leibniz's theory of complete concepts with the main contemporary theories of proper names, such as those of Russell, Kripke, Strawson, and Searle).

3.1 Complete concepts and negative existential statements

Russell's theory was based on the idea that subject-predicate form of a sentence does not correspond to its genuine logical form; the latter, indeed, has to be understood in terms of quantification, universal and existential. The ascription of first-order properties to classes of individuals, indeed, shifts from the categorical to the conditional form ('All men are mortal' becomes ' $\forall x (F x \rightarrow Gx)$ '); existential statements, on the other hand, are translated into an explicitly quantificational form thanks to the existential quantifier, like $\exists x (Fx \& Gx)$, where the referential function of the subject (in the original subject-predicate form) vanishes, for the logical subject is now treated as a predicate, i.e. as a property which (together with other properties) is said to be instantiated.⁴⁹ The relevant point, here, is that, according to the genuine logical form of an existential proposition, the subject is not a term standing for an individual but, rather, a term for a property (or, in Russell's original formulation, for a propositional function).⁵⁰

As I show in Section I below, if one leaves aside the formal and notational aspects of the Fregean (or Russellian) theory of quantification, the philosophical ideas behind it where not completely unknown to Leibniz. As far as the hypothetical rendering of universal propositions is concerned, we have already seen that Leibniz usually solved the problem of their lack of existential import by resorting to the conditional reading. Furthermore, the idea of the extra-propositional nature of existence (i.e. the idea of putting existence outside of the propositional tie, so to say) was clearly at work in authors like Hobbes, who was one of the main influential sources of Leibniz's first philosophy (see Chapter 3 below).

The interesting aspect that emerges from my reconstruction, however, is that these elements (the conditional reading of the universal propositions, or, at least, of the essential ones, and the extra-propositional character of existence) play a more preponderant role in Leibniz's early philosophy, that is *before* he developed his theory of conceptual containment (and the theory of complete concepts which is connected with that). In my opinion, this is a proof of the fact that Leibniz's opinion on this topic underwent some relevant changes, especially as far as his understanding of the relations between modality, ontology and predication are concerned.

That said, however, one might still regard a complete individual concept as an infinitely detailed and exhaustive definite description; in this way, following Russell's (or Quine's) way of paraphrasing proper names, singular existential propositions might be treated as particular cases of general existential propositions (like 'Cats exist'), in which the idea of existence as instantiation of a concept seems more intuitive. One of the arguments moved against the view that 'existence' is fully captured by the 'existential quantifier', indeed, is that while it seems

⁴⁹ Russell's descriptivist theory in "On Denoting" (1905) has to be read together with what he says in "Knowledge by Acquaintance and Knowledge by Description" (1910-11), where he explains that what he calls logically proper names (i.e. genuine directly referring expressions) are only certain demonstratives and pure indexicals. The example of 'this' in a proposition like "This is red" cannot but remind us of the distinction, in the book on Leibniz, between two different types of the subject-object relation. In the case of Russellian proper names, however, the descriptive content is null, for the 'subject' is just a pure 'this', and not a *tode ti* (a 'this' of a certain kind), which also explains why he restricted the category of proper names (or logically proper names) to those cases in which something like Cartesian certainty is achievable.

⁵⁰ Cf. Russell's discussion in *The Philosophy of Logical Atomism*, pp. 66-69 and 85-92.

to work well in the case of a proposition like 'Cats exist' (i.e. 'There is (at least) one thing such that it is a cat'), it seems highly controversial in the case of singular existential propositions like 'Socrates exists', for one should read it as 'There is one thing such that it is Socrates', where 'to be Socrates' might be regarded as a predicate. This idea, however, seems to make sense, after all, is one is ready to buy the theory of complete concepts⁵¹, whereby 'Socrates exists' means that there is an individual which instantiates the complete concept of 'Socrates'.⁵²

In this sense, a complete individual concept might regarded as an infinitely detailed and exhaustive definite description; in this way, following Russell's (or Quine's) way of paraphrasing proper names, singular existential propositions might be regarded as particular cases of general existential propositions (like 'Cats exist'), where the idea of existence as instantiation of a concept seems more intuitive. After all, it should not be forgotten that, as Leibniz himself repeats in different occasions, only God has access to the complete concept of an individual, whereas a limited understanding, such has the human mind, has to fix the reference of a proper name in a complete different way, i.e. one which is composed by a mix of both descriptive and ostensive procedures.⁵³

3.2 Existence as Exemplification. The Problem of Circularity

The main problem with the descriptivist reading, however, concerns the very same notion of 'instantiation' (or 'exemplification') of a concept. From the explanatory point of view, indeed, it seems that the notion of instantiation (or that of exemplification) presupposes that of existence rather than grounding it, at least if one has in mind existence in the actual world.

As pointed out by C. Mc Ginn, for example, if one asserts that for something to exist is for there to be objects that are instances of a determinate predicate, then "this can only mean that these objects *exist*, so that we are saying that there exist instances of F, for some F. If they did not exist, then the existential statement would not be true, after all". The critical point is that

⁵¹ Cf. the following passage by McGinn (who rejects what he calls the 'orthodox view', i.e. the Frege-Russell account): "[...] the orthodox view requires, not merely that every existent object have some property, but also that it have some property *unique* to it. For the existence of an individual object is said to consist in the instantiation of a property sufficient for *that object* to exist and not some other object. Thus the theory characteristically claims that some definite description or *individual concept* is instantiated, this serving to single out the individual in question" (C. Mc Ginn, *Logical Properties. Identity, Existent, Predication, Necessity, Truth,* Oxford 2000, p. 29, last italics mine). The peculiar character of a complete individual concept is that it serves to single out a particular individual not just in the actual world but also in all the possible ones.

⁵² My discussion leaves undecided whether the theory of complete concepts has to be understood as claiming that 'to be Socrates' has to be taken in a Quinean sense, i.e. eliminating the predicate 'to be Socrates' by replacing it with one which do not contain proper names (like 'socratizes'), or in the sense of Plantinga's haecceitism, where 'to be Socrates' is understood as the property 'to be identical with Socrates', a property no other individual can have. Of course, I do not want to underestimate the great differences between these two accounts; my point is that, in both cases, actual existence has to be regarded in terms of the instantiation of a concept (or the obtaining of a state of affairs).

⁵³ Cf. GI, A VI 4, 744: "At certum individuum est Hic; quem designo vel monstrando vel addendo notas distinguentes, quanquam enim perfecte distinguentes ab omni alio individuo possibili haberi non possunt, habentur tamen notae distinguentes ab aliis individuis occurrentibus"; where, notice, a complete concept is what allows God to distinguish a determinate individual from all the other possible ones. Cf. also New Essays, III, iii, 6, A VI 6, 289-90, where Leibniz states that individuality involves the infinite and, therefore, we cannot have an adequate knowledge of what is individual.

this does not work as an analysis of what 'to exist' means, for the notion of existence is presupposed by the analysis itself: "The instances have to be existent objects, so we are presupposing the notion of an existent object in our account of what an instance of a predicate is".⁵⁴

In the case of Leibniz's account of complete concepts, this problem can be concealed by the fact that one can say that an individual exists if his corresponding complete concept is instantiated in *the actual world*, but this just means that the question of analysing what existence means shifted to the notion of 'actual world'. But, then, the problem immediately resurfaces: what makes a world 'actual', especially if there is nothing which God can change in the passage from possibility to actuality? This problem, notice, has been already raised in the passage quoted at the beginning of this Introduction. If we stick at the notion of the actual world, by saying that it is the only existent one, it is difficult to say in which sense it can be distinguished from all the other possible ones that do not exist, if 'existence' has to be taken as a primitive notion.

Concerning this point (the definition of 'existence'), Leibniz does not seem to have a definitive solution. Sometimes he suggests that, at least from our point of view, the notion of existence has to be necessarily connected with something 'given to us'; therefore, it is impossible for us to provide a definition thereof, at least from the explanatory point of view. From the metaphysical point of view (contrasted with the phenomenological point of view), sometimes he says that an *a priori* account of existence might be provided, albeit only a partial one, i.e. one based on the notion of *perfection*.⁵⁵

This provides a solution to the problem of existence, but only in a certain sense. It allows us to understand the distinction between the actual world and the merely possible ones, at least if one accepts the idea that the actual world is the best, i.e. that which involves the maximum amount of perfection (and the principle that God is morally necessitated to choose the best)⁵⁶.

Notice, however, rather than providing an answer to the original question, this account has substantially modified the original question: to say that 'that which is exist is the most perfect (world)' is not an answer to the question concerning the distinction between the actual world and the merely possible ones, but, rather, is an answer to the question concerning the reason which has led God to create this world (which is actual) instead than all the other possible ones.⁵⁷

⁵⁴ Mc Ginn, *Logical Properties*, p. 21. He proposes the following case: "Consider 'planets exist' and ask whether Vulcan is an instance of 'planet'. If it is, then we have not correctly analysed existence, since Vulcan doesn't exist, and hence its planetary instancehood doesn't show that planets exist. But if it is not, then that can only be because it doesn't exist –thus demonstrating that the relevant notion of instance must import the concept of existence" (*Ivi*.).

⁵⁵ The contraposition between the *a posteriori* and *a priori* account of existence is discussed in Chapter 4. A *priori* and *a posteriori* have to be taken not in the Kantian sense, but in the Scholastic one: an *a priori* proof (or *propter quid*) is one that proceeds from the cause to the effect; an *a posteriori* one (or *quia*) goes from the effect to the cause. Cf. Adams, *Leibniz*, pp. 109-10. I come back to this distinction in Chapter 4 and 7.

⁵⁶ On this sense of necessity, cf. A VI 2, 495: "*Necessarium est quicquid boni requisitum est, seu quod non posito tollitur bonum*". On the notion of moral necessity, as well as on the theory of requisites, see below, Chapter 5.

⁵⁷ This strategy might be regarded as a sort of 'proxy account' of existence, where the notion of existence (as actuality), which cannot be conceptualized in itself, is somewhat transferred from its original position (at the level of things) to the level that which makes the things exist, i.e., in this case, God's reason for creating something. This shift occurs when the focus moves from the existence of things (the 'absolute position', to use

A solution to the original question (and a very simple one), however, is the following: after all, the actual world is a *world*, whereas a merely possible world is just the *concept* of a world; exactly as an actual individual is an *individual*, whereas a merely possible individual is just the *concept* of an individual ('actual' seems to be redundant in both cases, then). For the sake of clarity, I think that, ultimately, this is also Leibniz's solution. The problem, however, is that, in order to appreciate it, some preliminary work has to be done. First, one has to stress the difference between concepts and objects; even though one think that the difference is clear enough, there is still the problem of understanding if (and to what an extent) existence itself might be conceptualized or not.⁵⁸

3.3 Existence and Quantification. The Problem of Existential Generalization

An objection similar to that concerning the notion of instantiation can be addressed to the view that existence is wholly captured by the existential quantifier:

"A traditional categorical sentence, say [...] 'Some dogs are beagles', had been taken [...] not to imply/establish that a dog exists. He [the logician] thus transformed the sentence into 'There exists a dog that is a beagle'. And then [...] logicians use ' $\exists x$ ' in the following way ' $\exists x$ (Dx & Bx)' that reads 'There exists at least one individual such that it is both a dog and a beagle'. Now, since 'there exists at least one individual' is itself an affirmation, ought we not prefix that affirmation with another affirmation of existence, namely with: 'it *is* the case that there *exists* at least one individual'? However, this is yet another affirmation that itself needs, according to this logic, an affirmation of existence [...]. Thus, consistent application of ' $\exists x$ ' produces an infinite regression that never establishes the state of affairs named in the categorical sentence to exist".⁵⁹

Kant's expression) to the level of knowledge of what exists. Notions like that of 'maximum of perfection' (or 'best possible world' or 'greatest amount of compossible things') represent a sort of conceptualization of the notion of 'existent' at the level of the 'natures of things' (or the ideas in the mind of God). None of these notions is able to capture the original sense of existence (in the positional sense, i.e. actuality), but they are used to enlighten which features or characters someone (in this case, God) represents to himself when he judges about the existence of things. Notice that the same strategy is applied by Leibniz in the case of the human minds' way of knowing existence. The most general concept is that of 'harmony': "what is more harmonic, that exists", which holds in the case of God, where the notion of 'harmony' has to be primarily understood in terms of perfection (what is more harmonic = what is more perfect), as well as in the case of the human mind, where the notion of 'harmony' has to be interpreted in terms of 'regularity' of phenomena (what is more harmonic = the most regular series of phenomena). In both cases, it is the concept of something else (harmony, perfection, regularity) which is employed to focus on what is the proper object of (divine or human) knowledge, not the concept of existence in itself. The main difference is that, whereas the human perspective is a partial one (because it is based on phenomenal knowledge, cf. Chapter 4 below), the divine one is supposed to bridge the gap between knowledge and being, so that, from God's point of view, there should be a way of passing from knowledge of perfection to knowledge of existence, but this passage is not accessible to us, for it ultimately consists in the idea of creation (cf. my discussion in Chapters 7 and 8). In this sense, notice, Leibniz's metaphysics of existence cannot be detached from a theological perspective.

⁵⁸ The puzzle of existence, indeed, can be also formulated as a dilemma concerning the possibility or impossibility of having a concept of the existent. From one hand, indeed, it seems that existence escapes from any attempt at conceptualizing it (think of the difference between *thisness* and *suchness*, and so on); from the other hand, however, we cannot think about anything without conceptualizing it (or without predicating something of it), therefore, as it has been noted, "[t]he fact that existence is being made the subject of a discussion and that conclusions are being drawn about it is ample evidence that it has been conceptualized. We, accordingly, have a concept of existence" (J. Owens, "The Content of Existence", in M. K. Munitz (ed.), Logic and Ontology, New York 1973, 21-35, p. 28).

⁵⁹ G. Boger, "Existential Import and Unnecessary Restriction on Predicate Logics", *History and Philosophy of Logic* 2017, 1-26, p. 20.

This objection connects the problem of how interpreting 'existence' with that of the existential import of particular propositions (Is 'Some dogs are beagles' equivalent to 'There is at least one thing which is a dog and a beagle'?). Notice that the problem of the infinite regress was solved by the young Leibniz by resorting to a pragmatic move: since he acknowledges (following Hobbes) that it is impossible to grasp existence at the conceptual or propositional level, the problem of acknowledging existence is shifted to the field of sensible experience, where, however, the only certainty one is able to attain is the moral one, i.e. it is impossible to establish with metaphysical certainty that there is something really existing 'outside us' (cf. my discussion of the 'dream argument' in Chapter 4).

At this point, however, one might suggest that the passage from the young to the mature Leibniz's views on the topic might be scarcely regarded as a progress. As the majority of philosophers maintain, indeed, the main success of Frege's work in the philosophy of logic is to have finally provided a clear disambiguation of the four senses of the copula 'is' (identity, existence, set-inclusion, set-membership), and, in particular, to have clearly disambiguated the existential from the predicative use of the verb 'to be', by showing that the first one is captured by the existential quantifier (which is a logical symbol and not a predicate).⁶⁰

Therefore, the mature Leibniz's account of copula in terms of conceptual inclusion (which holds in the case of necessary as well as in that of contingent propositions) can be regarded as a sort of step back to the view that existence and predication are not to be taken as absolutely irreducible to one another, but are only relatively so. If one cannot deny that Leibniz's principal aim in his works on logic (especially in the 1686 *GI*) is that of showing how all the sense of copula might be traced back to the relation of *inherence* and interpreted in terms of conceptual inclusion, I think that the fear of a confusion between the existential and the predicative use of being is more apparent than real.

Of course, as shown in Section III, and especially in Chapter 9, in section 71 of the *GI* Leibniz explicitly states that existential propositions, as "Peter the denier is existent", have to be reduced to the subject-predicate account of proposition, where 'existent' plays the role of a predicate exactly as 'denier' (and both of them are said to be derivable from the complete concept of Peter). This, however, does not seem enough to me to conclude that Leibniz's considered view on existence has to be reduced to the idea of existence as a (first order) predicate. His account, and, especially, the interplay between logic and metaphysics, is much more complicated.

4. A Neglected Point of View: The Evolution of Leibniz's Views on Existence

So far I have emphasized the contrast between two paradigms, connected with the discussion of Leibniz on existence, which might be represented as a Neo-Russellian and a Neo-

⁶⁰ On this point, see R. Vikko-J. Hintikka, "Existence and Predication from Aristotle to Frege", *Philosophy and Phenomenological Review*, 73, 2, 2006, pp. 359-77.

Couturatian one. The antithesis between these two readings, however, must be located within the nature of Leibniz's reflections themselves.

The starting point of my work, indeed, is that the existence of such a tension has not to be weakened (by means of an accurate selections of texts and other interpretative strategies), but, paradoxically as it might seem, it has to be emphasized in order to understand why Leibniz never managed to proposed a unified account of existence in his mature writings either (or, at least, he was never able to account for it in a completely non-ambiguous way).

One of the ideas I defend in this work, for example, is that Leibniz's well-known modal metaphysics, that is, his theory of possible worlds, is the product of a series of reflections dating from the end of his Paris period to his first years in Hannover (end of 1670's). Within the framework of the metaphysics of possible worlds, 'existence' is primarily understood in terms of 'actuality', i.e. as what characterizes the actual world in contrast with the merely possible ones. Leibniz's reflections on existence, however, do chronologically precede the development of the theory of possible worlds, for they can be traced back to his phenomenological reflections connected with the project of a 'philosophy of mind' which he entertained in his Mainz period (especially in the years 1670-72).

In these earlier notes, existence is almost exclusively characterized in terms of 'distinct perceivability', i.e. as that which can be perceived by us without contradiction, i.e. without being in contrast with the regular order of our phenomena, where *regularity* represents the distinctive mark of the 'reality' of these very same phenomena. In this sense, in his criticism of Russell's view, A. Heinekamp has correctly remarked that the thesis of the synthetic (i.e. empirical) character of existential propositions can be correctly ascribed only to the writings of Leibniz's earlier period, whereas the mature Leibniz will defend (according to Heinekamp) the view that existence is an analytical property, in the peculiar sense that it results from an infinite analysis and comparison between all the possible worlds, which is put forth by God 'before' (in the logical sense) the creation of the world.⁶¹

Heinekamp's remark is correct, but it seems to me that he underestimates the fact that the thesis Leibniz defends in his early writings (included the 'synthetic' character of the existence-predicate) will be retained in his mature writings by well. My idea, indeed, is that the development of Leibniz's metaphysics is a very complicate story, for he retained many points from his earlier writings and tried to integrate them into a new philosophical framework (like that represented by his metaphysics of possible worlds), which was not that in which those views were originally thought of. This does not mean that the final result is a contradictory one, but that, in order to employ a metaphor, there is no such a thing like a pre-established harmony between Leibniz's phenomenology and his metaphysics of existence, nor between his ontological and modal reflections.

4.1 Leibniz's Threefold Analysis of Existence: Phenomenology, Ontology, and Modality

To put it in a very rough and schematic way, I do believe that the notion of 'existence' plays a pivotal role at three different levels of Leibniz's philosophy, which I will call the

⁶¹ Cf. Heinekamp, Das Problem des Guten bei Leibniz, p. 140, and, especially, note 46.

phenomenological, the *ontological*, and the *modal* one. At each of these three levels of analysis, there is a fundamental opposition, in which existence occupies of the two poles.

The main opposition at the phenomenological level is that between what is *real* and what is *ideal*, or, also, merely *imaginary*. At the ontological level, the main opposition is that between the *concrete* and the *abstract*; and, as one can easily understand, the main opposition at the modal level is that between the *actual* and the *possible*.

In all these three cases, existence has to be brought under the first horn of these conceptual couples: what exists, indeed, is real, concrete, and actual. Unfortunately, however, these three characterizations are not perfectly overlapping: they cannot be taken as identical (they are not representative of the same opposition holding at different levels), and, furthermore, they are not even coextensive one.

The last point can be easily understood if one thinks that the opposition between the concrete and the abstract is sufficient to discriminate what exists at the level of the actual world, since Leibniz's nominalism (but also an austere form of Aristotelianism would do the same job, after all) requires that the only inhabitants of the actual worlds are concrete entities, i.e. individuals. Should we say that mere possible entities are abstract ones? This is true if one thinks of entities like space, time, geometrical notions, ideas of species and so on, which can be rescued by shifting their collocation from the realm of the actual to that of the possible. But when possible individuals (i.e. complete individual concepts) are taken into account, the parallel between these two levels (the ontological and the modal one) seems not to be a very solid one. Concerning complete individual concepts, indeed, should we say that they partake of the domain of the concrete or that of the abstract?

From the point of view of existence as actuality (i.e. the modal point of view), they are abstract, for what is not actually existing cannot be an individual (this is what I call 'Leibnizian actualism'⁶²). From the ontological point of view, however, it is impossible to consider them on a par with purely abstract notions (like space, time, geometrical notions, mathematical objects, species, etc.), for, contrary to the latter, they involve typically existence-entailing properties (think just of a possible world as an ordered series of possible individuals, where the order is determined by relations of spatiotemporal and causal connection).⁶³

As I will claim in Chapter 8 below, possible individuals must be distinguished from mere possibilities, for the former have the possibility of being actualized (even if they will never be), while the latter cannot; in other words, the possible individuals are *contingently non-actual*, possibilities are *necessarily non-actual*.

How is this mismatch possible? My suggestion is that it is the result of the non-linear evolution of Leibniz's thought on this point. If we go back to Leibniz's early philosophy (as I do in the first Section of this work), indeed, one can see that, whereas his nominalist ontology

⁶² Leibnizian actualism is modelled on what is sometimes called 'Russellian actualism', the claim that there are objects that do not exist, or, alternatively, that whatever exists is actual. Actuality, in Leibniz's sense, involves whatever exists in present, past, and future, therefore Leibnizian actualism is not a form of presentism (the view that only the present is actual).

⁶³ My reflections on the mismatch between the ontological and the modal level concerning the special case of possible individuals have been inspired by some remarks in M. Schneider, *Analysis und Synthesis bei Leibniz*, Bonn 1974, where one can also find a very insightful discussion of existential propositions. Scheinder's contribution is discussed in details in Chapter 8 below.

is already well-developed, his modal theory is only a minimal one. In other words, following the example of different authors (such as Hobbes and his master Thomasius), the young Leibniz assumes the parallelism between the concrete-abstract dichotomy and the existent-possible one, i.e. there are no such things like possible individuals and possible worlds, for possibilities are mere abstract entities and, moreover, they are not real at all, they are just considered as mere *entia rationis* or imaginary entities.

At this stage of his though, indeed, his reflections on existence are mainly focused on the distinction, holding at the phenomenological level, between the *real* and the *imaginary*, i.e. on the ways of distinguishing real phenomena from imaginary ones (to quote the title of one of Leibniz's most famous papers on this topic). What has to be stressed here is that these criteria –which ultimately can be reduced to one, i.e. regularity, and which will be retained by the mature Leibniz as well (the piece *De modo distinguendi* has been probably written few years before the *Discourse on Metaphysics*) –are taken by the young Leibniz as the whole one can say concerning the distinction between what exists and what does not exist.

Another point to stress is the fact that this phenomenological account is perfectly in keeping with the idea that existence (actual existence) is in some sense presupposed and excluded from the 'range' of predication; a thesis Leibniz defends in the *Dissertatio de arte combinatoria*, where contingent propositions (both singular and general ones) are taken as existential and are extruded from the domain of combinatory art itself, i.e. from the domain of 'theorems', that are analytic propositions.⁶⁴

Predication, indeed, presupposes the acknowledgment of existence (for this reason the young Leibniz will accordingly reject the ontological argument, as shown in Chapter 4), and the acknowledgment of existence is ultimately demanded to sensory experience, which, however, cannot be taken to be 'metaphysically certain', for it is always exposed to the 'dream-argument': I cannot demonstrate that Socrates exists, I can only perceive it, but perception can be just a dream, hallucination, and so on. Not surprisingly, therefore, the framework for Leibniz's first reflections on existence is the phenomenological one, i.e. the determination of the criteria which allow us to (practically) distinguish *real* phenomena from imaginary one.⁶⁵ This is the main (and only) sense of *reality* the young Leibniz may accept.

4.2 The Invention of Possible Worlds. A Turning Point in the Development of Leibniz's Philosophy

This means, in other words, that, according to Leibniz's early philosophy, the concrete and the actual are perfectly coextensive notions. The non-actualized and non-actualizable possible, indeed, is ultimately reduced to the status of a mere imaginary being, i.e. it has no proper ontological status at all, not even the kind of diminished being that Scotus and Suárez

⁶⁴ On this point, I am heavily indebted to the analysis of Di Bella, *The Science of the Individual*, pp. 33-44, which stresses the relevance of Leibniz's 'particularist ontology' in his early works.

⁶⁵ In this sense 'real' works as an 'excluder' predicate, i.e. a predicate which ascribes nothing positive to an individual *a*, but simply excludes *a* from the domain of purely imaginary or fictional entities. Cf. R. Hall, "Excluders", *Analysis* 20, 1, 1959, pp. 1-7. In Leibniz's phenomenological characterization of existence, however, there is something more than just this, like, for instance, the connection between existence and causality, and the characterization of what existence as being causally connected with 'me' (the Cartesian subject) by means of a causal chain. Cf. my discussion in Chapter 4 below.

ascribed to it and that will be recovered by Leibniz himself with his theory of possible worlds. On the contrary, Leibniz's modal theory in the Mainz period is a thin one; if I am correct, it ultimately consists of an epistemology of modality rather than an ontology thereof. The main criteria of possibility and impossibility are epistemic ones (clear and distinct conceivability); nothing correspond to these on the ontological level (in particular, there is no attempt to draw a distinction between real and nominal definitions)

This difference can be grasped if one looks at the texts I discuss in Chapter 5, where I introduce the topic of Leibniz's change of mind concerning the ontology of merely possible things. Still in his Paris notes of the period 1675-76, indeed, he ascribes to mere possibilities the status of imaginary entities. This is in keeping with the kind of full-fledged nominalism the young Leibniz defends since the time of his early disputation on the principle of individuation written in 1663 (see Chapter 1). This views rapidly changes in the period from Leibniz's last year in Paris to his coming to Hannover. The genesis of Leibniz's account of possible worlds (together with the new, enriched ontology it brings with itself) is discussed at length in Section II (especially Chapters 5 and 7).

If my reconstruction (in Section II) is correct, Leibniz's main reason for introducing possible worlds is, first and foremost, a theological one (in the sense of 'rational theology'), i.e. the rejection of a Hobbesian or Spinozian kind of necessitarianism, in particular of the view that the existence of the world is a necessary consequence of the existence or the nature of God (a view still defended by Leibniz in his 1672-73 *Confessio philosophi*). The mature theory of possible world is the result of a synthesis between a theological account of possible worlds and a cosmological one, both of which play an important role in Leibniz's reflection from the Paris notes to the end of 1670's.

4.3 Two (or Three?) Concepts of 'Possible World'

In Chapter 5 and 7 I trace back the genesis of the Leibnizian idea of a plurality of merely possible worlds to two distinct lines of thought, a theological (and also teleological) and a cosmological one; which, ultimately, merge together in what we know as Leibniz's standard account. A third strand is the fictionalist one, which has to be traced back to Leibniz's earlier account of modality, i.e. the one without possible worlds. That said, however, the fictionalist strand has not to be forgotten since it will be substantially preserved by the mature Leibniz as well; Leibniz's favourite example of a non-actualized (a never to be actualized) possibility is that of a fictional character (like the main character of a novel), and, furthermore, everyone knows Leibniz's close associations between possible worlds and 'books', which seems to be very close to the idea of possible worlds as 'world-books', i.e. as sets of propositions.

Interestingly enough, however, in a recent paper concerning the origin of the expression 'possible world' before Leibniz, it has been argued that a counterfactual notion of possible worlds (i.e. possible worlds as alternative ways the world could be or could have been) could emerge only when it had been clearly separated from (and acknowledged as independent of) a

cosmological notion thereof.⁶⁶ According to the cosmological interpretation, to say that other worlds are 'possible' means that they can actually coexist (in some sense of 'coexistence') with the actual one, i.e. the world we happen to inhabit. Both these accounts of what we call 'possible worlds' have been widely discussed in the theological and philosophical tradition.

Concerning the first, the 'cosmological' account, where the notion of world is taken as synonym of 'universe' (as the totality of all created beings, thus excluding God), the traditional question was whether God could have created more than one world (as he actually did) or not. In other terms, the problem concerned the plurality of worlds (in a proper sense). According to this model, talking of other worlds is assumed as talking about other real worlds, each one encompassing a different system of natural laws, the possibility of which is ultimately guaranteed by reference to God's omnipotence. Interestingly, the possibility of other worlds, incorporating different systems of natural laws, will also be the point of departure of Leibniz's cosmological approach in April 1676 (see Chapter 7).

The cosmological question was matched with a somewhat different, theological question, concerning the possibility for God to create a better world. Given that the world is taken to be only relatively perfect (when compared to God), theologians used to ask whether God could have made a world more perfect than the one he actually created or not.⁶⁷ On the other hand, the counterfactual interpretation of possible worlds emerged only later than the cosmological one, since it was mainly concerned with the question of God's knowledge of contingent futures and, especially, of conditional futures, i.e. a particular case of counterfactuals (what Peter would have done, if God had posed him in such and such circumstances, etc.). The core of the question was the possibility of conciliating divine foreknowledge with human freedom, and it became particularly pressing when the Spanish Jesuit Luis de Molina introduced his doctrine of the so-called "middle knowledge" (*scientia media*), i.e. a sort of intermediate kind of knowledge between God's knowledge of what is possible (*scientia simplicis intelligentiae*) and his knowledge of what is actual (*scientia visionis*).

Leaving aside the details of the question (which are not relevant to the present discussion), let me just point out that the notion of possible worlds that is very different from the one arising from the cosmological model. First, the discussion shifts from talking of 'worlds' as concrete entities (parallel universes) to talking of worlds as abstract, intelligible entities, or, better, counterfactual situations. Now, whereas the counterfactual interpretation clearly presupposes the identity of individuals through different worlds, the cosmological model, on the other hand, unavoidably excludes trans-world identity (because it is blatantly true that the same individual cannot live in two parallel worlds). Again, whereas the question of the 'place' of other worlds seems to be relevant to the case of the cosmological notions (if different worlds can be created by God, the question arises whether they are connected or disconnected

⁶⁶ Cf. J. Schmutz, "Qui a inventé les mondes possibles?", *Cahiers de philosophie de l'Université de Caen*, 12, 2006, pp. 9-45.

⁶⁷ Concerning the question if the perfection of the world could be (or could have been) improved by God or not, the Schoolmen usually assumed that God could have always made the world more perfect, exactly because the distance between God's absolute perfection and the relative perfection of the world is an infinite world, to the effect that, for every world that God could have created, there is always another world more perfect than it (something like 'For every world w, there is a world u such that u is more perfect than w') while rejecting the very same possibility of there being a best possible world (something like 'There is world u such that, for every world w, u is more perfect than w''. Cf. Aquinas, *Super libros Sententiarum*, I, dist. 44, q.1 art. 2 ("Utrum Deus potuerit facere universum melius"), and my introduction to Section II.

with each other, and so on), the same question seems to be pointless in the case of the counterfactual notion, or, at least, it can be easily paraphrased in terms of all possible worlds' being contained in God's infinite understanding.

If this reading is plausible enough, then the history of 'possible worlds' might be regarded as the process of emancipation of the properly modal account from the cosmological one. Be that as it may, what I want to stress here is that the very same process of emancipation takes place in the mind of Leibniz, in the passage from his attempts in the Paris notes to the first years in Hannover (until the composition of the *Discourse*).⁶⁸

I think this could be a good point of departure for establishing a comparison between Leibniz's views and the most intriguing (albeit controversial) contemporary account of possible worlds, namely Lewis' modal realism. Of course, Leibniz's views on possible worlds have been often compared to those of Lewis, especially for what concerns commitment to counterparts theory and the rejection of trans-world identity. Here, however, I want to limit myself to suggest just the following approach. The point of view adopted by Leibniz in his Paris notes (where he seems to make room for a plurality of existing worlds) presents interesting analogies with some of Lewis' positions.

For what concerns the mature Leibniz, on the contrary, I see him as parting the ways from his earlier approach as well as from any Lewis-style perspective. To make a long story short, let me say that, if we can see the development of Leibniz's views as emancipating from a cosmological to a counterfactual approach to possible worlds, we can say that, in many senses, Lewis went the other way around. He, indeed, moved from a counterfactual to a cosmological account of possible worlds, mostly because of his reductionist analysis of modality as well as his Quinean reading of 'existence' in terms of quantification.

According to Lewis, indeed, possible worlds 'exist' (without any qualification), but they are not all 'actual', just because actuality must be thought as a world-relative, indexical notion (thus, each world is actual for those who inhabit it, and merely possible for all the other ones, but they are all existent in exactly the same sense, i.e. the sense captured by existential quantification). Each possible world is a maximal set of objects reciprocally connected under space and time: every part of a world is spatiotemporally related to each other and anything spatiotemporally related to any part of a world is itself part of that world; from which it follows that no individual is in more than one world.⁶⁹

A similar hypothesis seems to have been envisaged and temporarily endorsed by Leibniz during April 1676. Moreover, in Leibniz's texts from this period it is possible to find

⁶⁸ Of course, this process of emancipation cannot be regarded as a fully complete one. Even if one does not completely accepts the reading of metaphysics as a theory of counterparts in Lewis' sense, there are no doubts that he is clearly committed to a world-bound account of individuals (and individual concepts). I suspect that one of the reasons for his denial of trans-world identity was his commitment to a strong form of causal determinism (see Chapter 6 below).

⁶⁹ This means that, on Lewis' view, to assert that 'There could be talking donkeys' means literally that talking donkeys exist at some world, even if there are no talking donkeys in our world. Interestingly enough, Lewis' justifications for adopting modal realism are Quinean in spirit, because, as Williamson noted, "Lewis' modal realism gave him a way of informally explaining what a possible world is in non-modal terms: roughly, a spatiotemporal system [...]. Lewis thereby aimed to male quantified modal logic intelligible by his teacher's [*i.e.*, Quine's] standards" (T. Williamson, "How we did get here from there? The transformation of analytic philosophy", *Belgrade Philosophical Annual*, 27, 2014, pp. 7-36, esp. p. 10. In this sense, I think it is tolerable to consider Lewis' theory of possible worlds as a cosmological account.

something which approximately resembles Lewis' indexical reading of actuality. Ultimately, however, the consequence of Leibniz's argument against the plurality of worlds will be that the notion of actuality (at least as far as its metaphysical sense is concerned) cannot be understood in that way. The conclusion of Leibniz's argument seems to be that, properly speaking, we could not distinguish between 'actuality' and 'existence' (which corresponds to the actualist claim that everything which exists is actual).

4.4 Individual Essences and/or Ontological Subjects?

Now, the main problem for Leibniz was that of conciliating this new account with his particularist ontology. The theological account already developed in the *Confessio philosophi*, as well as the idea of world as a well-connected, ordered, and compact 'series of things' he articulates in the Paris notes, are the main point of access to the idea of actuality. Possible worlds, indeed, are nothing but ideas of alternative worlds 'located' in the mind of God. At the same time, the rejection of a plurality of actual worlds (discussed at the end of 1676) reinforces the actualist claim that, properly speaking, there is only *one kind* of world, i.e. the actual one.

The problem, then, is that of conciliating the new ontological status attributed to merely possible things (worlds and/or individuals), in order to preserve the contingency of God's choice, with the primacy and absoluteness of actual existence.

The same problem can be presented also from a different point of view. Leibniz's early reflections on the concrete-abstract distinction and the theory of predication (discussed in Chapter 3) focus on the individual substance first and foremost as an *ontological subject*, i.e. like the subject of inhesion of the traditional ontology. The theological and theodicean reflections (from the *Confessio* onwards), on the contrary, focus on the notion of an *individual essence*, i.e., more or less, the complete determination of an individual before the creation of the world: its complete determination reflects the complete determination and thorough-connection of the *series rerum*, and represents Leibniz's main argument to justify the presence of evil and imperfection in the world (evil derives from imperfection and imperfection essentially pertains to the nature of things, which are independent from God's will).⁷⁰

The theory of complete concepts, then, should be regarded as Leibniz's way of keeping these two different views together, i.e. the theory of the ontological subject and that of the individual essence. The main problem is that the theory of the ontological subject includes and stresses the distinction between individual properties and general ones (moving from the distinction between propositions *per se* and *per accidens*), whereas the theory of the individual essence seems to blur the distinction between accidental and essential properties,

 $^{^{70}}$ This argument is essentially contained in Leibniz's 1671 letter to M. Wedderkopf, which, together with a German piece on God's omniscience and omnipotence, bear witness to his early interest in the problem of theodicy. Notice that the theodicean account leads naturally to the superessentialist view: both accidental and essential properties of a thing are equally independent from God's will (God cannot change them). On the other hand, the distinction between contingent and necessary propositions developed in the *DAC*, where the first are extruded from the domain of analytic knowledge, naturally leads to the model of contingency-within-the-complete-notion (the core of Adams' reading). The problem of the nature of existence corresponds to the problem of the concepts.
for both of them cannot be modified by God and are contemplated by him before the creation of the world.

The problem is not a pressing one until one does not accept the idea that the status of ontological subjects (with the concrete/abstract distinction) can be extended from the domain of what is actual to that of what is merely possible. This, however, seems to be exactly the situation which Leibniz has to deal with in his mature writings.

One solution is to downplay the theory of the ontological subject, and, therefore, accept a purely descriptivist account of possible worlds: a complete concept is not a counterpart of the ontological subject as much as a collection of (general) predicates. This view is in keeping with a combinatory account of possible worlds but fails to grasp the main difference between the level of species and that of the individual (which cannot be ultimately regarded as a merely quantitative one).

Another solution is to transfer the theory of the ontological subject at the level of merely possible worlds: a complete concept is not a mere collection of general predicates, but is something closer to the *haecceity* on an individual, something which can be only perceived or intuited even by God himself (because it involves the infinite), and from which everything which would happen to that individual can be read off by an infinite powerful mind.

The difficulty with this solution is that it seems to be in contrast with Leibniz's strong actualism, i.e. it seems to jeopardize the distinction between concepts and objects, properties and individuals. Another problem connected with this view is the following: a change at the level of predicates (a change of denomination) requires a 'real' change, i.e. a modification holding *a parte rei*. This is straightforward when the object at stake is an actual one, but becomes a problem when we are dealing with a merely possible thing.⁷¹

What is the counterpart, at the level of mere possibility, of the concept of a's passing from one state to another? Should we say that the modification in the (non-actual) object follows from the modification at the conceptual level (which seems to be highly problematic) or should we say that the modification within the complete concept reflects a corresponding modification in the possible object (which seems to commit Leibniz to an ontology of *possibilia* in a strong sense)?⁷²

⁷¹ I had an interesting conversation with Philipp Blum on this point. Concerning the relation of priority between an individual substance a and its complete notion A, he suggests that Leibniz's answer is a twofold one: from the ontological point of view, A is prior to a in the sense that God creates a by actualizing A; from the metaphysical point of view, however, a is prior to A in the sense that a grounds the unity of marks that together constitute A (what Leibniz sometimes call the 'haecceity' of a). If I understand him well, Blum's distinction between metaphysical and ontological priority is (at least partially) overlapping with that between the modal and the ontological approach I defend here (and, also, with that between the complete concept as an individual essence and as an ontological subject as well).

⁷² Cf. Leibniz's reply to Wagner: "Connexio conceptuum oritur ex connexione objectuum possibilium seu idearum" (Grua 392). Resorting to divine ideas, i.e. identifying possible objects with divine ideas, is Leibniz's conceptualist turn. It should be pointed out, however, that Leibniz's oscillates between taking 'ideas' as standing for 'objective concepts', i.e. the ideas of possible creatures, and ideas as 'formal concepts', i.e. ideas as archetypes in the mind of God. The contrast was well-known to the Schoolmen, and it can be regarded as a tension between Leibniz's stressing the *descriptive function* of the complete concepts and his stressing the *normative function* of it. Cf. my discussion of this problem in Chapter 8 below (I owe the distinction between descriptive/normative account of the complete concept to Massimo Mugnai). Emphasis on the normative function of the complete concept corresponds to emphasize the Platonic strand of Leibniz's philosophy.

5. Making Sense of Existence. Ontology or Modality?

The distinction between three levels of analysis, and, in particular, that between the ontological and the modal level, discloses its usefulness right at this point, not just from the historical but also from the interpretative point of view. Such a distinction, indeed, allows us to understand the apparent 'splitting' of the notion of 'existence', i.e. of Leibniz's implicit distinction between existence as something which can be relative to a possible world and existence as actuality, i.e. as something absolute.

This distinction is only implicit but can be made explicit by comparing those passages where Leibniz equates existence with actuality *tout court* (and, thus, rejects the legitimacy of talking of 'possible existence') and those other texts where he makes room for the notion of possible existence.⁷³ Possible existence, indeed, makes sense from the ontological point of view, not from the modal one. When 'existence' is understood modally, i.e. as 'actuality', indeed, there is nothing like a domain of purely possible objects.

5.1 Possible Existence? An Open Question

As far as 'possible existence' is concerned, however, it has to be understood from the ontological point of view, i.e. as a distinction between what pertains to individual and concrete entities and what pertains to abstract entities, *making abstraction* from the distinction between what is actual and what is merely possible.⁷⁴ Leaving the question whether the world we are focusing on is the actual or just a possible world aside, indeed, the very concept of a world requires that it be primarily composed not of abstract entities but of concrete ones (*modo formali*: complete concepts).

The main distinction between these two kinds of entities is that abstract entities are necessarily non-actual ones, whereas concrete ones (complete concepts) are only contingently non-actual: an individual existing at a sub-optimal possible world, indeed, will never be actualized, but, nonetheless, there is a sense in which it *could have* been actualized (had God decided otherwise).⁷⁵ From the modal point of view, notice, what Leibniz says about possible

⁷³ Reference goes to the texts I discuss in Chapter 8.

⁷⁴ If I am correct (see Chapter 8 below), this sense of 'abstraction' has to be distinguished from the sense in which Leibniz usually distinguish between abstract and concrete objects, and has to be traced back to the theological tradition of 'abstractive knowledge'.

⁷⁵ From the ontological point of view, on the other hand, one might say that individuals (or complete individual concept) are *essentially* complete; when the contrast holds between a genuine individual and a fictional one. A typical feature of fictional objects, indeed, is to be essentially incomplete ones, since they lack determinations in many qualitative features. Compare the following two cases: even if we do not know how many hairs did Alexander the Great have on his head when he died, this is just a problem of epistemic indeterminacy, for there is such a number; on the contrary, there is no answer to the question how many hairs did Sherlock Holmes have on his head when he solved his first case, for this is left unanswered by Conan Doyle in all the books concerning Holmes. The contrast between the completeness of existing individuals and the incompleteness of fictional ones is stressed by Leibniz when he resorts to his 'novel argument', cf. my discussion in Chapter 7. The idea that contingency has to do with the lack of determinacy of merely possible things, however, clashes with the idea that merely possible individuals are completely determinate ones as well (they are non-actualized but still complete concepts), at least from the point of view of God's knowledge thereof.

individuals must be rephrased in a counterfactual way: properly speaking, indeed, a merely possible individual is not an *individual*, it has no properties at all, etc., but it would be (or would have been) an individual, i.e. it would display (would have displayed) all the properties contained in its concept, had it to be actualized.⁷⁶ This counterfactual formulation preserves the restriction of existence ascriptions to the domain of what is actual only.

5.2 Two Leibnizian Strategies: the Double Copula and the Double Account of Possibility

Leibniz's own way of dwelling with this twofold sense of existence consists of two distinct strategies; it should not be too surprising that the first makes sense from the logical-ontological point of view, whereas the second is connected with his modal account. The first strategy has been extensively discussed by authors like Mates and Adams, and amounts to a double reading of the copula, which gives rise to a distinction between essential and existential propositions.

The remark that this distinction makes sense from the ontological point of view is important, for many times (especially in his logical essays) Leibniz takes *Ens* or *Aliquid* as synonym of *Possibile*. This has led many scholars to take it as a modally relevant distinction, which, according to me, is just a mistake. In his logical essays, indeed, Leibniz usually employs *Possible* to characterize what he calls a "term", where a term is said possible if it does not involve a contradiction (the term *A* is possible if it does not contain both *B* and *non-B*). Such a characterization, however, is modally irrelevant, for it ultimately rests on the idea that a term/entity/*aliquid* is something of which something else can be consistently ascribed.⁷⁷

The distinction between essential and existential propositions corresponds to that between the non-temporal and the temporal reading of copula (inherited by Suárez and the late Scholastic philosophy). This distinction is paired by Leibniz with another traditional one, i.e. that between propositions *de secundo* and *de tertio adjacente*, or propositions having, respectively, the form 'AB is' and 'A is B'. However, whereas the tradition equated propositions *de secundo adjacente* with the existential meaning of the copula, and propositions *de tertio*

⁷⁶ Given Leibniz's holistic account of the *series rerum*, indeed, there is no sense in which one can say of a merely possible individual *a* that *a could be actual*, but only that *a could have been actual*, even though it will never will. In an analogous way, Leibniz's commitment to a strong form of determinism, plus his theory of possible worlds, is the source of his rejection of trans-world identity, i.e. the fact that, for any property φ of a, a might not have lacked φ without ceasing to exist (properties have to be understood as time-indexed, of course). In this case, the counterfactual paraphrase is complicated by the fact that, had *a* lacked any φ , it would have been another individual; the only way of making sense of these counterfactuals, therefore, is to resort to a theory of counterparts. Cf. Mondadori, "Reference, Essentialism, and Modality", and Id., "Leibniz and the Doctrine of Inter-World Identity", *Studia Leibnitiana*, 7,1, 1975, pp. 21-57.

⁷⁷ The same holds for Leibniz's characterization of a necessary truth, whereby a proposition p is necessary if its opposite involves a contradiction. This is the syntactical counterpart of the semantical thesis that p is necessary if it holds true *at/of* every possible world. The latter is just an 'extensional' characterization of necessary truths, but it does not concern the meaning of necessity. To say that p is necessary if *not-p* involves a contradiction does not explain necessity, i.e. it does not explain why p is necessary and *not-p* impossible: "Semantically understood, 'implies a contradiction' presumably means "*can't* be true unless a contradiction is". But 'can't' here involves the very notion of necessity that we are trying to analyse [...]" (R. M. Adams, "Divine Necessity", in Id., *The Virtues of Faith and Other Essays in Philosophical Theology*, p. 211).

adjacente with the predicative meaning of the copula, Leibniz, on the contrary, suggests that both these kinds of propositions can be given an essential as well an existential reading.⁷⁸

The other strategy is an apparently bizarre one, i.e. Leibniz's (in)famous doctrine of the 'striving possibles' or, as he calls it, the theory of *existurientia*, that is the idea that possibles have a tendency toward existence which is proportional to their degree of reality or perfection. This account, especially in the formulation given by Leibniz in his 1697 *De rerum originatione radicali* ("On the Radical Origin of Things"), has been regarded as puzzling by many scholars, especially those working in the English-speaking world. One reason might be the apparently 'existentialist' flavour, which, on the contrary, fascinated authors in the continental tradition.⁷⁹

Another problem with this theory, originally raised by Russell, is that, if taken literally, the idea that possibles have in themselves a tendency toward existence, which can be contrasted only by the opposite tendency of other possible but incompossible things, would lead to a necessitarian account of existence (and would be incompatible with God's role in the creation of the world).⁸⁰ In particular, ascribing a tendency to exist to what is purely possible would be the same as rejecting the idea of creation *ex nihilo*, in favour of the view that existence amounts, more properly, to the actualization of a being which was already possible (actualization would replace creation).⁸¹

Therefore, one might ask why one should stress the relevance of such an extravagant doctrine. For several reasons, actually (see my discussion in Chapter 8). First and foremost, however, it is important in order to stress Leibniz's distinction between a merely logical account of possibility from an existential one (or, if you prefer, a pre-existential from a post-existential one).

The distinction was already available in the tradition, which distinguished between *logical possibility* (to be understood as *non-repugnantia*, i.e. lack of mutual contradiction between the notes of a concept) and *aptitudo ad existentiam*, i.e. realizability. The former determines the latter, for only things which are logically possible might be created by God, i.e. they possess an *aptitudo* which, on the contrary, mere imaginary beings (like chimeras) do not possess. Leibniz's version of this theory confers to the term *aptitudo* a more dynamical sense, by talking of a *conatus* or a tendency toward actuality, which would be necessarily exercised unless something were not to impede it.

⁷⁸ More on this in Chapter 9 below.

⁷⁹ Heidegger extensively commented Leibniz's theory of *existurientia essentiarum* in his book on Nietzsche. Cf. M. Heidegger, *Nietzsche*, 2 volumes, Frankfurt a.M., 1961, II, p. 397 and ff. Cf. also H. Bergson's unpublished course on "Leibniz: 'De originatione radicali rerum" (1898), published in F. Worms (ed.), *Annales bergsoniennes*, III, Paris 2007, pp. 25-52. Cf. A. Robinet, *Le sera. Existurientia. G. W. Leibniz*, Paris 2004.
⁸⁰ Cf. Russell, *The Philosophy of Leibniz*, preface to the second edition, pp. xv-xvi.

⁸¹ These are the main reasons why the prevailing view among commentators was that Leibniz's theory of *existurientia* has to be taken *metaphorically*. Which, in a sense, is something that Leibniz himself acknowledged, when pointing out that the conflict among possibles is only an *ideal* one and it takes place not between possible objects (which do not exist) but, rather, among conflicting reasons in the mind of God 'after' (logically, not temporally taken) the moment when he decided to create something. Cf. H. Poser, *Zur Theorie der Modalbegriffe bei G. W. Leibniz*, Wiesbaden 1969, pp. 61-66.

As I show in Chapter 8, however, this quasi-causal account of possibility, far from constituting a new way of blurring the distinction between causal and logical modalities⁸², is a clue to the conclusion that the doctrine of the 'striving possibles' is Leibniz' way to stress the difference between the domain of abstract possibilities and possible individuals.

5.3 A Contemporary Approach. Encoding vs. Exemplification

Both Leibniz's strategies, the twofold reading of copula and the twofold sense of possibility, however, can be translated in a more up to date version by resorting to conceptual tools which were not completely unknown to the pre-Leibnizian tradition as well. First, a distinction between the *attributive* and the *predicative* reading of possibility helps making sense of the ambiguous notion of 'possible existence': in the expression 'possible individual', indeed, 'possible' is a modifier of 'individual', an attributes that (as the tradition said) *alienates* its original sense, for a possible individual is not an individual at all (it is only a concept).

Secondly, one might resort to E. Zalta's distinction between an object's *x* encoding a property *P* and *x*'s exemplifying a property *P*, which has been originally employed to make sense of a Meinongian theory of objects.⁸³ This distinction is very helpful to solve Leibniz's version of the puzzle of existence, for one can say that a merely possible individual (say Adam before the creation) is an object (an *Ens*) which encodes all the properties of the existent Adam (to be the first man, to live in the garden of Eden, etc.) but exemplifies the properties of being a complete concept, of being thought by God from eternity and so on.

On the contrary, all the existence-entailing properties of Adam are properly *exemplified* by the actual Adam, who, however, is said to encode no properties at all. In this way, the twofold reading of the copula can be explained in terms of the difference between the *is* of *exemplification* and *is* of *encoding*. In this sense, the complete concept of a non-actual individual is (*exemplifies*) an abstract object but is (*encodes*) a concrete one, and so on. After all, this whole theory might be regarded as a refinement of the distinction between the temporal and the non-temporal reading of the copula, plus the traditional distinction between formal and material way of speaking (or the distinction between *actus signatus* and *actus exercitus*).

⁸² In Chapter 5 I show that the young Leibniz, because of his closeness to Hobbes, was sometimes led to blur the distinction between the logical and the temporal/causal sense of possibility. The main result of his confrontation with Spinoza, however, is the explicit acknowledgment of the relevance of such a distinction.

⁸³ Cf. E. Zalta, *Abstract Objects. An Introduction to Axiomatic Metaphysics*, Dordrecht 1983, pp. 32-39, and, concerning the problem of existence, pp. 50-52; Id., *Intensional Logic and the Metaphysics of Intentionality*, Cambridge (Mass.)/London 1988,pp. 15-32. The main difference with the Leibnizian framework, however, is that for Zalta (as well as for T. Williamson) 'existence' is a sort of logical property which no thing can fail to have, i.e. everything which exists in the actual world necessarily exists, whereas not everything which exists is necessarily concrete. What the common view would regard as a mere possible but non existing (non actual) thing, then, is properly to be understood as an existing but not concrete thing. This interpretation is incompatible with Leibniz's creationist metaphysics, however, and this is the reason why I have re-interpreted Zalta's distinction by restricting existence to actuality. Cf. my discussion in Chapter 8 below. Notice, however, that, by resorting to his double reading of the copula, and the distinction between *Ens* and *Existens*, Leibniz justifies the possibility of quantifying over a domain of merely possible but non-existing entities. Cf. Chapter 9 below. I think, however, that from the metaphysical point of view, the actualist point of view (according to which there are no existing things which are not actual, where, of course, God is included among the actual things) is the prominent one.

It helps solving the puzzle of existence, because the apparent problem concerning the indiscernibility between Adam as possible and Adam as actual being fails as soon as one acknowledges that Adam-as-possible, for instance, *encodes* the property of being the first man while *exemplifies* that of being a concept, whereas Adam-as-actual-being *exemplifies* the property of being the first man and *encodes* no property at all.

The relationship between the concept of Adam and Adam is characterized by Zalta in terms of the first's being the *blueprint* of the second, where the former encodes all and only those properties which are exemplified by the latter, even though they are not identical: Adam is an individual located in time and space, placed somewhere in the series of things which constitutes the actual world, and, in this sense, he exists (= is actual), whereas the concept of Adam imitates all the properties of Adam by encoding them, but it exemplifies none of them, for it does not exist. In this way, the 'absolute' distinction between the actual and the possible is maintained, and, at the same time, talking of 'possible existence' (i.e. of existence-entailing properties of a non-actual individual) is made possible by resorting to the notion of 'encoding'.

5.4 Possible Existence and Propositions. The Question of Existential Import

The previous reflections on the notion of 'possible existence' might be regarded as a clue to solve the problem connected with the existential import of propositions I have hinted at in a previous paragraph. Concerning the problem of the existential import, Leibniz's last word (limited to the texts available to us) is contained in a text usually referred to as *Difficultates quaedam logicae* ("On Some Logical Difficulties"), where he stresses that a particular proposition, like 'Some man is laugher', lacks existential import when it is interpreted as stating only a relation between concepts, for it corresponds to the proposition 'A laugher-man is an entity (*ens*)', which is said to hold "in the regions of the ideas, and not outside it".⁸⁴

In the framework of his logic of concepts, then, 'Some man is a laugher' has to be interpreted as if some specification of the concept 'man' coincides with the concept of 'laughing entity' (for there are no laughing things which are not men, given that the capacity of laughing is a *proprium* of man). Now, from the point of view of modern logic, it seems that such a solution goes against the rule of existential generalization ($Pa \rightarrow \exists x P(x)$), which is a valid one in classical logic.

There is a sense, however, in which this reading seems to go against what Leibniz himself states in section 71 of the *GI* I have mentioned above, where 'existence' is treated as predicate derivable from the complete concept of Peter. The inference of "Peter exists" from "Peter is a denier" (where, of course, it holds that "Peter-the-denier" = "Peter"), then, should be limited only to the case of existential propositions, i.e. propositions ranging over the entities in the actual world; when read as holding "in the region of ideas" (= essential reading), the only inference allowed would be that from "Peter is a denier" to "Peter-the-denier is an entity".

⁸⁴ *Difficultates quaedam logicae*, after 1690, GP VII, 214. Cf. also the following passage: "The words of our language, then, are ambiguous, but the ambiguity is removed by our analysis. When 'Some man is a laugher' is inferred, it is understood that some species of man coincides with the term 'laugher', i.e. that a laugher-man is a laugher" (*Ivi/LP* 118). Cf. also the Appendix B to Chapter 9.

Notice, however, that in section 71 of the GI, the contraposition at stake is not one between what can be said of a possible and what can be said of an actual thing, but, rather, one between what can be derived from an incomplete concept and what can be derived from a complete one: whereas the complete concept of Peter involves both 'existent' and 'denier', in the case of a proposition like 'Some man is a denier', 'man' does not contain 'denial', as it is an incomplete term, nor does 'man' contain all that can be said of that which it can itself be said".⁸⁵

A solution to this tension might be envisaged by resorting to what Leibniz says about the prohibition of passing from what holds in the "region of ideas" to what holds *in rerum natura* (i.e. in the actual world). What is important, in this case, is to stress the difference between 1) the linguistic level, 2) the conceptual-propositional level ("the region of ideas"), and 3) the ontological level (objects, the actual world). In order to do so, it would be useful to employ a graphic convention, whereby a statement (i.e. something related to (1)) is written as 'Some *A* is *B*', a proposition is written as 'Some *A* is *B*', and the holding of a state of affairs is represented as *Some A is B*.

In this sense, what Leibniz has in mind is the fact that what holds in the region of ideas is the passage from the linguistic to the propositional level, i.e. that from 'Some A is B' to 'Some A is B' (i.e. from 'Some man is a laugher' to 'Some man is a laugher'), whereas it does not hold the passage from the propositional level to the ontological one, i.e. from the holding of 'Some man is a laugher' to *Some man is a laugher*, i.e. to the state of affairs that some man is actually laughing.

The main mistake, here, is the idea that a proposition can establish existence by itself, or, which is the same, that a proposition corresponds to the holding of a state of affairs; for a proposition can only imply another proposition (a concept can only involve another concept), i.e. the only passage to be allowed is that from ideas to ideas, or from propositions to propositions, for the *logical* or *formal* relations between propositions has not to be confused with the level of *causal* relations between states of affairs.⁸⁶

This does not mean, however, that is impossible to state a correspondence, or even a sort of parallelism, between the level of propositions and that of states of affairs; the holding of such a parallelism between the 'order of reasons' and that of 'causes' is established by Leibniz in a well-known passage from the *New Essays*: "A reason is a known truth whose connection with some less-known truth leads us to give our assent to the latter. [...] A *cause* in the realm of things corresponds to a *reason* in the realm of truths [...]".⁸⁷ The distinction between reasons and causes, notice, corresponds to that between the logical and the temporal/causal reading of modality.

When coming to complete concepts and possible worlds, however, the problem might be raised that a proposition does seem to involve the holding of a state of affairs, if not an actual, at least a possible one. This is the sense in which Leibniz says that 'existence' (as well as

⁸⁵ Cf. GI, # 71, A VI 4, 762 /LP 65.

⁸⁶ This formulation is inspired to Boger, "Existential Import", pp. 19-21.

⁸⁷ *New Essays*, IV xvii, 3, A VI 6, 475. On the distinction between causes and reasons, cf. S. Di Bella, "Leibniz on Causation. Efficiency, Explanation, and Conceptual Dependence", *Quaestio*, 2, 2002, pp. 411-48. Cf. also Id. "Leibniz's Theory of Conditions. A Framework for Ontological Dependence", *The Leibniz Review*, 15, 2005, pp. 67-93, especially p. 73 where he draws a parallel with Bolzano's notion of 'consequence', and the distinction between the latter and causation.

'denial') can be derived from the complete concept of Peter. What Leibniz has in mind, if I am not mistaken, is that one cannot derive the existence of a state of affairs AB from the proposition 'A is B', i.e. 'A is B' does not involve A is B, for this would be just a confusion between the order of reasons and that of causes; but one is legitimate to say that 'A is B' involves 'AB exists', which is the statement of an existence holding only "in the region of ideas", i.e. as existence at a possible world, which is the Leibnizian counterpart of existential generalization. This does not involve, however, a sort of ontological commitment to what actually exists *in rerum natura*.

The point can be grasped with a reference to the complete concept of a non-existing thing. Suppose, for the sake of simplicity, that the name 'Pegasus' refers to something possible, i.e. to a concept or an idea (statements about 'Pegasus' correspond to propositions if the notion of Pegasus does not involve a contradiction; in Leibniz's terminology, if the name 'Pegasus' refers to a real essence). Assumed the holding of something like the proposition 'Pegasus is a winged horse', then, one can conclude that 'A winged horse exists' as well as that 'Pegasus exists', for what these propositions state is just the sense in which among the properties that are encoded in the complete concept of Pegasus there is also existence, i.e. its existence at a determinate world, in which, e.g., it is compossible with Bellerophon and so on.

There is no sense, however, in which one can conclude *Pegasus exists* from 'Pegasus is a winged horse', unless the world at which Pegasus is said to exist (better: the maximal set of complete concepts which are compossible with the complete concept of Pegasus) is also the best possible one, which is not the case.

The "principle of the best", i.e. the claim 'what is the most perfect, it exists', is the only exception Leibniz acknowledges to the idea of the impossibility of a passage from the level of ideas (concepts, propositions) and the level of existing things. This is what Leibniz in different occasions calls the *admirabilis transitus a potentia ad actum*, which holds in an absolute sense only in the case of God, for this is the only case in which the essence of something involves its own existence; this is why, in a sense, Leibniz regards the existence of God as a sort of exceptional case, i.e. as the only case of a necessary one.⁸⁸

6. Essences and Possible Worlds. A Problematic Synthesis

In which sense, however, the distinction between the ontological and the modal level of analysis of the notion of 'existence' might help us in weakening the contraposition between the superessentialist (or Russellian) reading and the anti-Russellian one?

⁸⁸ This does not mean, however, that in the case of God the distinction between 'reasons' and 'causes' is abandoned, from, after a period of flirting with the Cartesian and Spinozian notion of *causa sui*, Leibniz will sharply reject the idea of God as *cause of himself*, shifting to the view that God can be said to be only the *reason* of himself (and of the essences or possibles contained in his understanding) and the *cause* of the existence of things; i.e., once again, causality is restricted to the domain of the existence of finite things. This move was motivated by the connection between *causality* and *divine will*, for ascribing something as self-causality to God would amount to a form of theological voluntarism concerning the existence of God himself as well as the status of essences before the creation (this is why Leibniz is a very harsh critique of the Cartesian theory of eternal truths).

A first observation is that Leibniz's superessentialist argument *par excellence* (that we cannot ask what Peter would have done if placed in other circumstances, for he would not have been Peter) always occurs in contexts connected with the problem of theodicy. As shown in Chapter 5, indeed, the core of Leibniz's superessentialism is originally at work in the *Confessio philosophi* even before Leibniz formulated his theory of complete concepts. The same argument, indeed, follows from the holistic account of the *series rerum*, and such an account is connected with Leibniz's argument for absolving God from the charge of having *voluntarily* created evil in the world. It is not a coincidence that in the *Confessio* the same necessity seems to be ascribed to both contingent and necessary truths, for both are said to be depending on Harmony, which does not depend on God's will and, thus, cannot be modified by him.

6.1 Essential/Existential. Categorical or Modal Reading?

In a sense, the *Confessio* is ultra-superessentialist, since also the existence of this world (and of this world only) seems to automatically follow from the very same nature of God; Leibniz's argument, indeed, is that, had this world been different (even though slightly different) from the way it actually is, also God's nature would have been different, but God's nature is immutable, therefore etc. Leibniz's confrontation with Spinoza from the end of 1676 to the first months of 1678 (when he reads the *Opera posthuma*), as well as his discussion with Stensen and Eckhard in 1677, leads him to make an exception for (actual) existence, thus distinguishing between the 'necessary' order of essences and the contingent domain of existing things.

On the contrary, the contingent reading of predication (i.e. Adams' reading which makes room for a distinction between necessary and contingent properties within the complete concept) follows from Leibniz's analysis of predication from the *DAC* onward, where the domain of the ontological subjects, i.e. the domain of what pertains to the individual as individual, is distinct from the domain of what pertains to an individual *qua* member of a species.

Notice, however, that such a distinction can be equally interpreted in terms of one between 'essential' and 'accidental' ones, where the conceptual couple essential/accidental has to be interpreted in an ontological but not in a modal sense (at least if modality is understood in terms of possible worlds).

In Chapter 3, indeed, I have pointed out that Hobbes himself defended a sort of superessentialist view, which is nothing but his own way of rejecting the traditional distinction between essential and accidental predication, i.e. traditional essentialism. What is relevant here, however, is that Hobbes explicitly restricts the meaning of 'accidental' to the categorical sense, i.e. insofar as 'accidental' is the opposite of 'essential', leaving the modal sense of 'accidental' (insofar as it is opposite to 'necessary') wholly aside.⁸⁹

This twofold distinction, the categorical one between 'essential' and 'accidental' and the modal one between 'necessary' and 'contingent', however, has not been very much stressed, also because Leibniz himself does not pay too much attention and very often employs the

⁸⁹ Cf. T. Hobbes, *De corpore*, III, 3.

distinction between 'essential-accidental' (or, alternatively, 'essential-existential') properties as equivalent to that between 'necessary-contingent' ones.

The superessentialist account is defended by Leibniz when he needs to stress the fact that a possible world, i.e. a "series of things" must be taken as one mutually interconnected whole, where the smallest modifications changes its 'numerical essence' (as he says in section 9 of the *Theodicy*). From this point of view, both essential and accidental truths are taken together, as being the object of God's knowledge of the possible, and contrasted with actual existence, i.e. the object of God's knowledge of vision: the former is necessary, the second contingent (the former is pre-volitional, the second post-volitional).

The more fine-grained account, which is emphasized by Leibniz in his passages concerning 'middle knowledge', is explicitly thought of in order to state that there are contingent possibilities; the latter, however, seems to be blatantly at odds with the first account. The possibility of talking of contingent possibles, on the contrary, seems to side Leibniz together with supporters of the irreducibility of 'middle knowledge' to either knowledge of simple understanding or knowledge of vision.

Leibniz's oscillating between these two possibilities, according to me, has to be taken as the clue that, even if did not want to reserve a special place for 'middle knowledge' as such, he struggled for finding a place for its object, i.e. contingent possibilities. This object is sometimes indicated as "contingent possibles", sometimes as "conditioned existences". Conditioned existence is, more or less, what I have indicated so far as 'possible existence', therefore I assume that the object of middle knowledge has to be properly taken as the possibility of individuals (to be contrasted with the possibility of abstract concepts and incomplete notions).

On this particular point, it has been already pointed out that the distinction between possible and actually existing things is an ontological rather than a modal distinction, when the emphasis on middle knowledge (and its reduction to knowledge of vision, i.e. contingent knowledge) has to be regarded as concerned with the ontological status of the individuals known by God rather than with their modal status.⁹⁰. What is important to stress here, is that, at the level of what is merely possible (i.e. at the level of possible worlds or God's ideas) there is a sort of stratification of entities, i.e. a fundamental difference between the level of particulars and that of general things, which is independent from the modally relevant distinction between the possible and the actual.

6.2 The Stratification of the Region of the Possible. The Case of Divine Wisdom

Notice that this distinction (internal or relative to each possible world, or, as the Schoolmen would say, to each world making abstraction from both its existence and its non-existence) plays a pivotal role in many parts of Leibniz's philosophical system. A schematic representation has been provided in the table at the end of Chapter 9 below.

The level of possible individuals and possible worlds, for instance, can be regarded as an intermediate one between the level of abstract possibilities (eternal truths) and that of actually existing things. From the point of view of God's faculties, this intermediate level has been

⁹⁰ Cf. M. Griffin, *Leibniz, God and Necessity*, Cambridge 2013, pp. 146-48.

sometimes referred to by Leibniz as that of God's wisdom (*sapientia*; *sagesse*), which seems to be something in between God's understanding and God's will.⁹¹

The distinction between God's understanding, his wisdom, and his will might be disregarded. Leibniz himself very often reduces it to a simple bipartition between understanding and will. If one disregards it, however, many important questions which arise from Leibniz's texts seem to be unsolvable. Typical examples are: the question whether compossibility is a logical notion or not, i.e. if it is necessary or contingent; the question whether the possibility of the solitary monad is real or just fictional (again: if a world constituted by a solitary monad would be a possible one or not); or, also, the question whether the principle of the identity of the indiscernibles holds in every possible world or just in the actual one. All these questions present a similar structure, and it has been said many times that Leibniz seems to provide different questions to each of them in different texts.

Since I already discuss this point at the end of Chapter 7, I will restrict myself to one particular case only, i.e. that concerning the modal status of the principle of the identity of the indiscernibles. The main idea is that the principle has to be regarded as a necessary one, i.e. one holding in every possible worlds, but there is a passage (in the correspondence with Clarke) where Leibniz seems just to say the opposite: "This supposition of two indiscernibles [...] seems to be possible in abstract terms, but it is not consistent within the order of things, nor with the divine wisdom, by which nothing is admitted without reason"⁹².

Notice that Leibniz is *not* stating the contingency of the principle, if 'contingency' means that there are possible worlds where the principle does not hold; he just says, indeed, that the supposition of two indiscernibles *paroit possible en termes abstraits; mais elles n'est point compatible avec l'ordre des choses,* where the order of things (the domain of God's ordained power) is said to be coincident with the domain of divine wisdom, and we know that the domain of divine wisdom is constituted by possible worlds.

The possibility of two indiscernibles, then, is said to hold only "in abstract terms", which means, first of all, in the case of abstract possibilities, like two geometric figures (remember that in his works on the *mathesis universalis* Leibniz explicitly admits the possibility of indiscernible objects); secondly, it means that the possibility of indiscernibles (as that of the solitary monad) pertains to a domain of possibilities that is not coincident with that of possible worlds (but it cannot be restricted to the actual worlds only). Reference to the principle of sufficient reason, here, has to be properly interpreted as a reference to what D. Rutherford called the "principle of intelligibility", i.e. the restricted version of PSR that states that, in the domain of created (or creatable) things, "nothing happens for which it is impossible to give a *natural* reason, i.e., a reason drawn from the natures of the beings that belong to this world".⁹³

⁹¹ The same occurs with Leibniz's oscillations concerning 'middle knowledge', i.e. if it has to be reduced to knowledge of simple understanding or to knowledge of vision. The domain of 'middle knowledge' is explicitly identified with that of contingent possibles (= possible individuals). A similar problem occurs with Leibniz's tripartion of predicates into *essential*, *natural*, and *accidental* ones (which originates from his discussion in # 16 of the *Discourse*). Cf. in particular LH IV 7C, Bl. 82 and *New Essays* IV, ix, 1, A VI 6, 433-34. All these problems are connected, as I hope to show in my discussion in Section II below.

⁹² Leibniz's fifth paper to Clarke, # 21, GP VII, 394/AG 333.

 ⁹³ D. Rutherford, "Leibniz's Principle of Intelligibility", *History of Philosophy Quarterly*, 9, 1, 1992, 35-49, p. 35.

This is the principle according to which Leibniz says, in the *New Essays*, that not everything which is (logically or metaphysically) possible is, for this very same reason, is in conformity with the order of things.⁹⁴ My hypothesis is that the order of things is not to be understood as coincident with the order of actual things only, but with the order of creation in general. Therefore, whereas the principle is not necessary in the sense of metaphysical or logical necessity, it cannot be said to be contingent either: for the domain of possible worlds has to be restricted to those worlds which are really creatable by God, and every creatable world must be in conformity with the prescriptions of divine wisdom.

6.3 'Intensive'/ 'Extensive'. On Leibniz's Reductionism

The classical interpretation of possible worlds (provided by Mates) is that compossibility is the equivalence relation that partitions the whole set of possibles into equivalence classes, which are mutually exclusive and jointly exhaustive. This means that there are no possibles over and above those which are partitioned into possible worlds. Of course, one might say that compossibility is a relation that concerns only possible individuals, whereas the set of all possibles can be composed also of mere possibilities.

On this point, however, Leibniz's position seems to be quite ambiguous. For the subsisting of an order of possibilities over and above the different classes of possible worlds would be in contrast with a nominalist position, being closer to a form of Platonism.

In a well-known paragraph of the *Theodicy*⁹⁵, he says that 1) the totality of the possibles is coextensive with God's wisdom (if we assume, as the continuation of the passage makes clear, that 'wisdom' stands for 'understanding', we can say that the totality of the possibles is coextensive with God's understanding; 2) the distinction between the level of God's understanding and that peculiar to his wisdom *stricto sensu* (i.e. the distinction between the level of possibles and that of possible world) consists in the fact that combinations among possibles and reflections upon them surpasses divine understanding only *intensively* and not *extensively*.

The distinction between *intensive* and *extensive* concerns two different orders of infinity, and was a traditional one in Scholastic philosophy. The point is that the objects of God's understanding is the totality of the possible; now, assume that the number of all possibles is N, it is impossible even for the divine understanding to understand N+1 possibles⁹⁶; what divine

⁹⁴ Cf. *New Essays*, II, xxvii, 6, A VI 6, 233, where the principle is stated about the possibility of transmigration of souls. Cf. also a relevant passage in the Preface, A VI 6, 66: "I acknowledge that we must not deny what we do not understand, but I add that we are entitled to deny (within the natural order at least) whatever is absolutely unintelligible and inexplicable [...]. [A]lthough what creatures conceive is not the measure of God's powers, their 'conceptivity' or power of conceiving is the measure of nature's powers: everything which is in accord with the natural order can be conceived or understood by some creature". Therefore, the (Cartesian) connection between conceivability and possibility (and the possibility of passing from the former to the latter), which Leibniz rejects in the case of the existence of God, is re-established at the level of what holds within the natural order.

⁹⁵ Cf. *Theodicy*, # 225, GP VI, 252 /H 271.

⁹⁶ Interestingly enough, Leibniz does not pose the problem of the possibility of an actual infinite as far as the totality of what is possible is concerned. In the Paris notes, however, he rejected the possibility of other series of things (other possible worlds) just for the reason that something like a totality of merely possible things is not

wisdom do is to increase intensively divine knowledge by means of (a) an infinity of infinite combination between these very same possibles, and (b) a corresponding infinity of 'deliberations', or, better, 'reflections' (*réflexions*).Notice that reflexive knowledge is typically invoked by Leibniz to explain the case of what we call intensional contexts (i.e. those contexts where the substitutivity of co-referential terms fails).

From this text, we can conclude that, concerning the question whether there are other possibles over and above possible individuals, Leibniz's answer is negative as far as these possibles are understood extensionally; on the contrary, possible individuals add something to the totality of the possibles when this addition is regarded from the intensional point of view.

Given also Leibniz's commitment to the principle of continuity, it might be imagined that such a transition from the level of possibles to that of possible worlds has to be regarded as a gradual and continuous one, i.e. without gaps, at least in the sense that a qualitative distinction might be regarded as a result of an infinite difference in degree).

What I have said so far, then, might explain why, if from one hand, this stratification of the domain of the possible is necessary to Leibniz, from the other hand he is the first to weaken it, especially when talking of essences or eternal truths in a very general sense. A similar problem occurs with the tripartite model I have introduced above, for Leibniz himself tries to reduce the intermediate level to one of the other two. Thus, divine wisdom is reduced either to God's understanding or to his will; middle knowledge is reduced either to God's knowledge of simple understanding or his knowledge of vision; finally, truths about possible individuals are sometimes reduced to essential ones, and, thus, the only extant distinctions is that between essences and existence.

6.4 Essentialism, old and new.

I have suggested that such a reductionist aim (at least in the case of mere possibilities) might be justified by the worry of a reification of abstract entities. More generally speaking, it seems to me that the reductionist attitude is most prominent when the modal point of view prevails over the ontological one, i.e. when what I would call the 'possible-worlds approach' prevails over the old essentialist framework.

What I want to show now, indeed, is that Leibniz's privileging of the 'possible-worlds approach' is somewhat connected with his nominalist sympathies. There is a sense, indeed, in which possible worlds are very naturally connected to (and depending on) a nominalist point of view.⁹⁷ In contemporary modal metaphysics, indeed, possible worlds are just a tool that allows us to provide an extensional treatment of intensional notions, like possibility and

conceivable because it would imply actual infinity (i.e. an actual infinity distinct from the hypercategorematic infinity of God). On this point, he has been probably inspired by H. Fabri, as I show in Chapter 5 below.

⁹⁷ By 'possible worlds approach', I essentially mean the point of view that necessity and possibility must be explained in terms of relativization of truths at possible worlds. This has nothing to do with the restricted idea of possible worlds as 'creatable world' which I have discussed above. It is connected to Leibniz insofar as he can be considered as the forerunner of the idea that a necessary proposition is one that is true at every possible world. If I am not mistaken, however, Leibniz's way of understanding this idea is not exactly the same as that of the possible worlds semantics. Cf. also B. Mates, "Leibnizian Possible Worlds and Related Modern Concepts", in *The Leibniz Renaissance*, Firenze 1989, pp. 173-90.

necessity, through a relativization of the concept of truth. As it has been pointed out, a "full blown 'possible worlds' ontology" in order to work as a ground of modal notions presupposes two main ideas: 1) a Boolean (or Fregean) framework of logic, 2) a nominalist point of view, whereby semantics starts with individuals and sets along with the Boolean (or Fregean) interpretation of logical connectives and quantifiers to build models.⁹⁸

Both (1) and (2) are opposed to the traditional Aristotelian approach, for the latter was substantially based on the following ideas: (1*) a *categorematic* (rather than *syncategorematic*) approach to logic (Aristotelian logic is a logic of classes and not of propositions); (2*) traditional essentialism, i.e. the idea that essences, and relations between essences (species and genera ordered according to the so-called Porphyrian tree), are basic and, in some sense, primitive with respect to the notions of possibility and necessity (talking of essences here means talking of general essences only, for there is no knowledge of what is individual).

The main contrast, then, can be stated in the following way: whereas the contemporary approach ('possible worlds semantics') constructs essences moving from individuals and sets of individuals (possible worlds), the traditional approach (followed by the Schoolmen) started with essences rather than with sets of individuals.⁹⁹ If I am not mistaken, the problem with Leibniz is that he is placed somewhere in between these two views. This is the deep truth I found expressed by Russell in the passage mentioned above, where he speaks of the twofold approach he observed in Leibniz: one moving from general essences, the other moving from (the notion of) individuals.

Now, if it is true that the revolution in the field of logic has to wait for the works of Boole and Frege in nineteenth century, it is also true that point (1^*) of the Aristotelian tradition, i.e. the prevalence of the categorematic approach over the syncategorematic one, had been already weakened by the nominalist tradition.

The conditional reading of essential propositions, i.e. eternal truths, which was conceived in order to conciliate the truth of propositions like 'All men are animal' with the contingency of existence (i.e. with the possibility that there is a state of the world in which there are no men) worked as a sort of ancestor of the Fregean doctrine of universal quantification. At the same time, as I have remarked above, Leibniz could find in Hobbes the idea that existential statements are to be interpreted not according to the traditional categorical structure (subject-copula-predicate) but according something similar to what we call the "existential quantifier".

On the contrary, paradoxically as it might be (for it has been regarded as an anticipation of Boole), Leibniz's mature approach to logic can be regarded as a restauration of the traditional paradigm (1*), for Leibniz's own favourite reading of his calculi is the intensional one (i.e. he takes logic as a logic of concepts rather than as a logic of sets or classes of individuals) and one of his best achievements is the possibility of transforming the conditional proposition into a categorical one, i.e. to reduce all kinds of propositions to the predicative structure based on conceptual containment.

⁹⁸ Cf. J. Coombs, "The Ontological Source of Logical Possibility in Catholic Second Scholasticism", in R. Friedman-L. O. Nielsen (eds.), *The Mediaeval Heritage in Early Modern Metaphysics and Modal Theory, 1400-1700*, Dordrecht 2003, 191-229, pp. 194-99.

⁹⁹ Cf. *Ibid.*, p. 199 and, especially, note 18.

6.5 Platonism vs. Possible Worlds?

Something similar happens as far as points (2) and (2*) are concerned. On one hand, indeed, Leibniz has been regarded as the forerunner of the idea that necessity and possibility claims must be interpreted in terms of possible worlds. The idea is condensed in the famous biconditional which says that, given a proposition p, "p is necessary iff p is true at every possible world", and "p is possible iff p is true at some possible world".¹⁰⁰ Written in this way, this is not a definition of possibility, for possibility is explained in terms of *possible* worlds, and the notion of 'possible world' seems to be a primitive one. Furthermore, the biconditional does not say that the direction of explanation goes from 'necessity' to 'truths at every worlds', since one might equally assume that the direction goes the other way round.

That said, however, it cannot be denied that the privileged direction has been that from left to right, for it is the only one which translate an intensional and obscure notion (like necessity or possibility) into a relatively more transparent one. This is the core of the 'extensionalization' of intensional notions operated by a possible worlds semantics. (If we look at it from the metaphysical point of view, indeed, on the left side we have items like modal notions which, for a nominalist like Quine, are unpalatable for their closeness to other obscure notions like essences and so on; on the right side, on the other hand, we find only individuals and sets or classes of individuals, which can be accepted by a nominalist).

As is well known, there is no clear-cut passage in which Leibniz endorses the view that necessary truths are those which hold at every possible world. The passage in which he comes closer to the modern approach is one where Leibniz was speaking of necessary truths: "These are the eternal truths. Not only will they hold as long as the world exists, but also they would have held if God had created the world according to a different plan".¹⁰¹ At first sight, this seems to be just a more picturesque way of expressing the view that necessary truths are those which are true of every possible world.

It would be interesting, however, to compare this passage with other ones in which Leibniz speaks of the same topic, i.e. the status of 'eternal truths', among which he includes the truths of mathematics. In his discussion with (and his remarks on) Foucher, which I discuss in details in Chapter 8, Leibniz defends the necessity of mathematical truths by stating that their 'reality' is independent from both our thought and the existence of the external world. In particular, he stresses the fact that the truths of mathematical propositions do not depend on the existence of things outside us, to the point that they are generally valid for someone who is asleep as well as for someone who is awaken.¹⁰² And in a letter to Electress Sophia,

¹⁰⁰ I have omitted reference to accessibility relation, for it was unknown to Leibniz. If we assume God's point of view, indeed, it is quite natural to conclude that he has access to every possible world. The main differences with the contemporary approach, however, are that 1) God cannot be said to exist at every possible world nor at some of them, therefore the sense in which God necessarily exists cannot be captured at all by a possible world account; 2) the contemporary approach takes as starting point the actual world, i.e. accessibility is usually understood as other worlds' being accessible to the actual one; in the case of Leibniz (and the Scholastic tradition), possible worlds are first of all accessible to God, for possibles exist only as ideas in the mind of God.

¹⁰¹ De natura veritatis, contingentiae et indifferentiae atque de libertate et praedeterminatione, 1685-86 (?), A VI 4, 1517 (translated by Mates, *The Philosophy of Leibniz*, p. 107).

¹⁰² Against Foucher, Leibniz remarks that, as far as the status of mathematical truths is concerned, the existence or the non-existence of the external world is irrelevant: "Soit qu'il y en aye hors de <nous> soit, qu'il y en ait

tentatively dated 1696, concerning truths of reason, Leibniz notes that these truths are universals, which means they are true for God as well as for an angel and for us, i.e. for any kind of intellect whatsoever; furthermore, he adds: "These eternal truths are the fixed and immutable point, around which everything else turns around [*Ces vérités eternelles sont le point fixe et immutable, sur lequel tout roule*]".¹⁰³

These texts show an unmistakable Platonic flavour, especially as far as the question of the priority between truth(s) and world(s) is concerned. In other words, Leibniz would have never subscribed the view that mathematical propositions are necessary *because* they are true of any possible world, but he would rather say that they are true at every possible (= creatable) world just *because* they are necessary.

After all, the argument is the same Leibniz employed against voluntarism, by restating Plato's argument in the *Euthyphro*, i.e. that something is not just because it pleases God, but it pleases God because it is just. As it has been pointed out, however, posing this question of priority is more or less the same as asking whether we need possible worlds at all for the explanation (or the foundation) of mathematical necessity or not.¹⁰⁴

This point has to be connected with the distinction between the level of essences (in the general sense) and that of possible individuals. In this sense, it is impossible to deny that, as far as what Leibniz explicitly says is concerned, one should not say take necessary truths as "a subset of what is in God's intellect after the consideration of His will", but, rather, necessity should be understood as "what is true *independently* of [possible worlds]", or what is contained in God's intellect before any consideration of his will. In other words, "to understand necessity one must not start with individuals and their properties, but, as with Plato, with essences and their properties".¹⁰⁵

Such a Platonic strand, therefore, is in keeping with traditional essentialism, for it supports the view the essences grounds modality and not vice-versa, but, for the very same reason, is opposed to modern essentialism (based on the 'possible worlds approach'). In the contemporary debate, after Kit Fine's rehabilitation of the traditional framework, many

dans nous, ces pa<rfaites> suites se<ront> toujours v<raies> à l'égard <d'un> homme qui <dort> aussi bien <que> d'un homme <qui> veille'' (A VI 3, 312, note 4).

¹⁰³ Grua 379.

¹⁰⁴ Cf. R. Girle, *Possible Worlds*, p. 91 and 179, where he writes that, also for a nominalist and modal realist as Lewis, logic and mathematics are constant from world to world (logic and mathematics are the same in all possible worlds), and, in this sense, mathematical entities are on a par with properties and relations. The similarity with properties and relations, however, raises the problem of how properties and relations are the same across possible worlds, at least for a nominalist: "But if mathematical objects are on a par with properties and relations, then mathematical truth will be truth in all possible worlds because such truths are necessary".

¹⁰⁵ E. Vailati, "Leibniz on Necessary and Contingent Predication", *Studia Leibnitiana*, 18, 2, 1986, 195-210, p. 210. Vailati also observes that Leibniz's distinction between (general) essences and possible individuals is at the same time too strong and too weak: "It is too strong because [...] no quality belonging to an actual or merely possible created substance *qua* that individual substance is necessary [...]. On the other hand, one could claim that Leibniz's distinction between essences and possible individuals is too weak, because for him *all* the qualities belonging to Socrates are necessary for Socrates' indentity" (pp. 209-210). The second consideration is the problem of super-essentialism, the first one (the contingency of "Socrates is an animal", when Socrates is taken *qua* individual and not *qua* man) is connected with the existential reading of contingency (I discuss it in Chapter 9, where I state that it is defensible within the framework of Leibniz's thought). It should be pointed out, once again, that the sense in which all the properties of Socrates are 'necessary' is true when regarded from the modal point of view (for the definition of 'essential property' accepted by superessentialists is a modal one), whereas the sense in which all the properties of Socrates *qua* individual are contingent ones is the ontological one, or, at least, is not captured by the 'possible-worlds approach'.

philosophers have defended an account of necessity, and modality in general, based on essences rather than on possible worlds.¹⁰⁶ As a consequence, also Leibnizian scholars have tried to see if the essence-based model works better than the 'possible-worlds approach' as a tool to understand Leibniz's foundational account of modality.¹⁰⁷

The intuition behind these attempts is confirmed by what Leibniz says in certain passages like the following one: "*Essence* is the principle of necessary predicates".¹⁰⁸ The same view, notice, occurs in an important text of 1677, which I discuss in Chapter 9 below, where writes: "*Veritates necessariae consequuuntur ex naturis. Ergo et naturae sunt aeternae, non tantum Veritates*".¹⁰⁹

Also in this case, however, one should be very careful when trying to read an author like Leibniz through the lens of contemporary views. From the text of 1677, indeed, it clearly emerges that Leibniz's attention is focused on the field of general essences only (mathematical essences in particular). Moreover, that passage is representative of a stage of Leibniz's inquiry in which he comes very closer to a platonist position (the view that ascribes existence *tout court* to abstract objects like essences or propositions).

It is not by chance, I think, that the very same idea he expresses there, i.e. that not just truths but also essences or natures are eternal, will be considerably weakened by him, and almost reversed, especially by pointing out that talking about essences or nature may be understood as talking about concepts or ideas (in the mind of God), and the latter, in turn, may be reduced to talking about propositions (i.e. truths).¹¹⁰

¹⁰⁶ For the distinction between Aristotelian and Kripkean essentialism, and between these two and neo-Aristotelian approaches, see M. Mariani, "Essentialism in contemporary 'analytic' philosophy", in G. Galluzzo-M. Mariani, *Aristotle's* Metaphysics Book Z: *The Contemporary Debate*, Pisa 2006, 7-57, see esp. pp. 36-40.

¹⁰⁷ For instance, M. Griffin has defended the view that metaphysical necessity (or, better, what he calls 'intrinsic necessity') has to be explained in terms of the existence of something "following from" its essence or possibility (the idea behind Leibniz's view that God is a necessary being); where, however, the characterization of such a "following from" relation is not very clear. Cf. Griffin, *Leibniz, God and Necessity*, pp. 4-5. Another attempt in this direction is represented by the recent work by S. Bender, *Leibniz'Metaphysik der Modalität*, Berlin/Boston 2016,

¹⁰⁸ LH IV 7C Bl. 82. In this text, Leibniz initially distinguishes between *essence* and *existence*, stating that "*essence* is the principle of those properties that belong to a thing *per se*", whereas "*existence* is the principle of those properties which pertain to a things only *per accidens*". The distinction between *per se-per accidens* could be traced back to Leibniz's youthful distinction between *propositiones per se* and *propositiones per accidens*, where the first are the so-called eternal truths and coincide with the domain of necessary truths. Cf. Chapter 3. ¹⁰⁹ De veritatibus necessariis seu aeternis, 1677, A VI 4, 17.

¹¹⁰ A minor problematic point here concerns the status of some fictional entities. In the preceding paragraph, I have assumed, for the sake of simplicity, that 'Pegasus' stands for something like the complete concept of a nonactual thing. In the framework of traditional essentialism, notice, a winged horse would be something impossible for, the essence of the horse is regarded as being 'repugnant' with the essence of any winged animal. The Schoolmen's typical example of an impossible being was that of a chimera. When he wants to deny that the possibles are just fictions, i.e. something which God cannot create, Leibniz usually says they are not chimerical. At the same time, however, there are texts where he clearly associates possibilities and relations with entia rationis. In his early Specimen quaestionum philosophicarum ex jure collectarum (1665), the young Leibniz poses the question whether the Centaur can exist or not. He comments the opinions of the jurists, who say that the Centaur cannot exist, by observing that what they state is only a hypothetical and not an absolute impossibility: "they are denying that it [the Centaur] ever has been, or is, or will be" (q. X, #3, A VI 1, 86). The question whether the Centaur is absolutely impossible or not, however, is left unsolved there. In the corollaria appended to this work, moreover, he adds the following claim: "The being of reason is badly defined, for it neither exists nor cannot exist [Ens rationis male definitur, quod nec sit, nec esse possit]" (A VI 1, 95). The possibility of conciliating essentialism (as the view that species are real and not arbitrary) with the possible existence of monsters is defended in NE, III, vi, see especially #14 and #27 (A VI 6, 311 and 320-1), where

As far as I can see, the Platonist strand is emphasized by Leibniz when discusses of eternal truths, especially when he deals with mathematical objects, for mathematical objects and propositions are regarded by him as a sort of Platonic archetypes which can only be partially approximated by concrete objects in the actual world. On the contrary, the nominalist strand prevails when the possibility of individuals and alternative possible worlds is taken into account. This, I think, is the core of Russell's original intuition I have mentioned above.

6.6 A Twofold Account of Eternal Truths

Two conclusive remarks can be added at this point. First, I believe that this tension between nominalist and Platonist strands is, at least partially, the result of the evolution of Leibniz's thought. In Section 1 below, indeed, I show that Leibniz's early conception of eternal truths is very different from the Platonic ones he adopts in his later text. Although already in his 1671-72 papers he does not refrain from saying that eternal truths are based on something like Plato's ideas, his understanding of the ground of eternal truths, i.e. analytic propositions, was very different (cf. Chapter 3).¹¹¹ Parallel to this, the other relevant modification concerns the introduction of other possible worlds (and possible individuals), where the distinction between concrete and abstract entities does not coincide with that between actual and imaginary ones anymore, but has to be crossed with that between the actual and the possible.

Second, one can take Leibniz's reference to 'eternal truths' (and 'divine understanding') in both a narrow and a broad sense: in the first case (narrow sense), they are just necessary truths concerning general and abstract essences, in the second case (broad sense), they can be extended to all kinds of truths about what is possible.

Such a distinction has been somewhat validated by Leibniz himself in the following passage:

Leibniz starts with the twofold nature of our cognition, i.e. the distinction between truths of reason which are directed towards the "essence or the possibility of things", where essences are taken in a general and abstract sense, and truths of fact, which deal with what is

[&]quot;The whole body of sciences receives from nature itself the following, certain division: our cognition is directed either toward pure concepts and eternal truths or toward confused perceptions of those things which we observe to happen [*eorum quae contingere observantus*]. The former kind of cognitions arises from the concepts innate to our minds alone, and deals with the essence or the possibility of things; the latter requires sensible experience and deals with those things which are *de facto* and actually exist. God alone is able to know all things from himself in a distinct and *a priori* way as if they were eternal truths [*per modum aeternae veritatis*]".¹¹²

Leibniz makes clear that differences among species must be grounded on intrinsic features or natures, even though, most of the times, we are ignorant about them.

¹¹¹ Cf. an earlier text (which cannot be dated very precisely), where Leibniz discusses the axiom: "nihil est in intellectu quod non fuerit in sensu". This axiom is corrected in the following way: "Nihil est in conceptu quod non fuerit in perceptione, seu nihil cogitamus, cui non aliquid simile fuerimus experti saltem intra nos". Furthermore, Leibniz adds that even primitive concepts must be grounded on perceptions, for concept are formed through the memory of perceptions, with the exception of this sole fact, i.e. that we perceive (i.e. are conscious) of having memory. Cf. A VI 4, 57. There is no need to stress the difference between this text and the later 'innatist' approach in the *New Essays*.

¹¹² De divisione orbis scientiarum universi, 1683-85 (?), A VI 4, 524.

contingent in the sense of what is factual and is said to actually exist. When moving to God's point of view, however, both these classes of truths are said to be known by him as if they were eternal truths.

The first perspective corresponds to the distinction between analytic and synthetic propositions; the divine perspective, on the contrary, seems to make the distinction itself completely useless.¹¹³ God's point of view corresponds to a sort of semantic holism (in the Quinean sense), where the distinction between dictionary and encyclopaedia makes no sense (a complete concept is an encyclopaedic voice, recapitulating the whole history of an individual, but is known by God as a dictionary voice). Such a semantical holism corresponds to the ambivalent approach concerning the relationship between possibles as isolated and possibles as distributed into groups in the passage from the *Theodicy* discussed above.¹¹⁴ The same holds in the case of the holistic structure of every series of things (every world), where every slight modification corresponds to an essential alteration of the series itself. The metaphor of the 'ocean' is employed by Leibniz both in the case of knowledge as in that of the structure of possible worlds (cf. the passages quoted in *esergo*).

The first account of eternal truths, then, draws a separation line between the domain of general essences (or abstract terms) and of individuals (actual as well as possible), which are the counterpart of things (*res*). The second, on the contrary, takes together truths about abstract possibilities and truths about possible individuals, in order to contrast the domain of the 'possible' to that of the 'actual' (the actual world). The narrow sense of eternal truths corresponds to what I have called the ontological level of analysis of existence, the broad one to the modal level. Again, the first matches with the anti-Russellian (or anti-superessentialist) reading of Leibniz, the second with the Russellian (or the superessentialist) one.

The first account emphasizes the distinction between 'essential' and 'existential' properties within the complete concept, where 'existential properties' should be properly interpreted as those existence-entailing properties which are *encoded* (though not *exemplified*) by a complete individual concept (what, from the point of view of the ontological analysis, should be properly called the distinction between general and individual/*haeccesitistic* properties).

The second account, on the contrary, emphasizes the difference between the complete concept as involving both (specific) essential and (individual) existential properties, on the one hand, and the instantiation of the concept itself, i.e. actual existence, on the other hand (from the modal point of view, both specific and individual properties are essential to the

¹¹³ In this sense, Y. Belaval noted that in the ontology of God's understanding there is no right to discern between analysis and synthesis. An essence is not analytically predicable of a thing if not through the synthesis of those relationships which individuate it (i.e. which make that an individual one). cf. Y. Belaval, "L'espace", in Id., *Études leibniziennes*, Paris 1993, p. 210.

¹¹⁴ Reference goes to # 225 of the *Theodicy*, quoted above. On this problem, see F. Mondadori, "A Harmony of One's Own and Universal Harmony in Leibniz's Paris Writings", in *Leibniz à Paris (1672-1676). Symposion de la G. W. Leibniz Gesellschaft*, 2 voll. Wiesbaden 1978, vol. 1, 151-68, pp. 159-61. The same problem is discussed (with particular reference to Leibniz's theory of possible decrees) by G. Mormino, "La limitazione originaria delle creature in Leibniz", in B. M. D'Ippolito-A. Montano-F. Piro (eds.), *Monadi e monadologie. Il mondo degli individui tra Bruno, Leibniz e Husserl*, Soveria Mannelli (CT) 2005, 115-39, pp. 135-36.

individual, whereas actual existence is not essential to the individual, when 'essential' is read modally). 115

7 Shaping Leibniz's Metaphysics of Existence

The main aspects of the notion of existence according to Leibniz can be recapitulated at this point. The idea is that of accounting for them through a comparison (and a contrast) with a quite standard account, i.e. what has been called an "elementary concept of existence".¹¹⁶

7.1 A Quasi-Standard Account

The following list is intended to characterize the 'elementary concept' of existence (as reported by Q. Gibson's work):

1) Either something exists or it does not. The principle of bivalence holds for all existential statements, they are all either true or false. The question whether something exists or not is one which presupposes a yes/no answer:

2) There are no degrees of existence. Nothing can have more or less existence than anything else;

3) There are no kinds of existence. To speak of 'kinds of existence' is to make a conceptual mistake: there are different kinds of existing things, but no different kinds of existence;

4) *Existence is not a relative concept*. To exist is to exist absolutely;

5) Existence is not a property. Attributing existence to something is completely different from attributing a property to something. That everything exists is a necessary truth;

6) We cannot classify objects into existent and non-existent.

This account is a non-reductive one also in the sense that many of these points are not independent from the others.¹¹⁷ For instance, points (1)-(4) form a coherent set of ideas concerning the absolute character of existence. Coming to Leibniz, he will always stick to points (1)-(4). Concerning (1), I show in Chapter 7 that one of Leibniz's arguments against the possibility of talking of an existing thing which is not part of actuality, i.e. of the actual world, is that such a hypothesis would lead to a violation of the principle of bivalence.

Concerning point (4), for instance, Leibniz would say that simple substances (monads) and phenomena are different kinds of things, i.e. they have a different degree of *reality*¹¹⁸; one can talk of different levels of reality: that of simple substances, which are absolutely real; that of

¹¹⁵ This distinction corresponds to Adam's between a broad sense of sense of 'essential' and a narrow sense of 'existential' on one hand, and a narrow sense of 'essential' and a broad sense of 'existential' on the other hand. Cf. Adams, *Leibniz*, pp. 45-46. The narrow sense of 'existential', of course, restricts it to what is actual only.

¹¹⁶ Cf. Q. Gibson, *The Existence Principle*, Dordrecht 1998, pp. 4-8, from which I have taken the following six

points. ¹¹⁷ It is not neutral because point (5) would be rejected by all Neo-Meinongian philosophers (who maintain that, actually, existence is a property of individuals and, therefore, that it is not necessary that everything exists).

¹¹⁸ An exception is represented by a text of the Paris period, where Leibniz explicitly endorses the view that 'existence' is said equivocally of souls and bodies, where bodies are clearly constructed as phenomena. Cf. De veritatibus, de mente, de Deo, April 1676, A VI 3, 512. I discuss it in 4.5 below.

phenomena, which is intermediate between the real and the ideal; that of ideal beings like space and time.

In this way, also the idea of a rich ontology is shifted by him from the level of existence to that of essence or possibility: the univocal character of existence is paired with the subsistence of infinitely many degrees of essence or reality.¹¹⁹ These two levels (that of possibility, where the principle of plenitude holds unrestrictedly, and that of actuality), however, are not unrelated; for what exists is what 'emerges' as the set of possible that has the highest level of reality or perfection.¹²⁰

Things are completely different when we focus on (5) and (6). Concerning point (5), the idea is that existence is not a property of individuals, from which, as pointed out by Quine, the consequence follows that "everything exists".¹²¹ This is the most controversial aspect also from the intuitive point of view; for we commonly want to say that is something which is not just such and such, but that it does not exist at all (we do actually employ a lot of negative existential statements). Concerning Leibniz, however, the main problem is that his mature philosophy rejects both the idea that everything exists and that "everything exists" is necessarily true.

At the same time, however, Leibniz would plainly subscribe the view stated in (6), i.e. that we cannot separate, so to say, existent objects from non-existent ones (as we can separated red objects from those which are not red). This seems to be quite puzzling for (5) and (6) seems to be two mutually supporting claims.

7.2 Logical Possibilism and Metaphysical Actualism

I would say that Leibniz's apparently puzzling position (rejection of (5) and acceptance of (6)) is the result of what I call the combination of metaphysical actualism and logical possibilism. The requisite that 'everything exists', indeed, originates from a logical worry, one which has been plainly expressed by Frege in the following terms: "The rules of logic always presuppose that the words we use are not empty, that our sentences express judgments, that one is not playing a mere game with words".¹²² In other words, as Frege points out, a proposition like "Leo Sachse is a man" is the expression of a thought only if 'Leo Sachse' designates something, and designation requires the truth of "Leo Sachse exists", or, in more general terms, that the domain of quantification is not empty.¹²³

¹²² Frege, *Posthumous Writings*, p. 60.

¹¹⁹ Also in this case, a partial exception is represented by a Paris text (where Platonic suggestions are stronger), see *De origine rerum ex formis*, April 1676, A VI 3, 519-20. Cf. my discussion in 7.7 and 9.2.

¹²⁰ On the idea of existence as an emergent property see 9.8 below.

¹²¹ The idea that everything exists, and it is necessarily so, can be traced back to Frege's views in his dialogue with Punjer, where he clearly states the parallel between existence and self-identity. Cf. G. Frege, *Posthumous Writings*, p. 62: "I shall use the fact that instead of 'exists' one can also say 'is identical with itself' to show that the content of what is predicated does not lie in the word 'exists'. 'There are men' means the same as 'Some men are identical with themselves' or 'Something identical with itself is a man'. Neither in 'A is identical with itself' nor in 'A exists' does one learn anything new about A. Neither statement can be denied''.

¹²³ Frege's position makes sense if one remembers that classical logic has been invented (or discovered) in order to solve the problems connected with the foundations of mathematics. When existence is restricted to mathematical existence, indeed, it is not bizarre to understand it as a logical property. The problem arises when the same account is extended to cover the notion of existence *tout court*, as it happens with Quine's theory of

Now, a similar concern can be found in Leibniz's criticism of Descartes' version of the ontological argument, where the point is that one must prove that the term (the idea of) "the most perfect being" is not a "mere game with words"; the difference, however, is that, in order to guarantee a sort of reference to a term, it is not required actual existence (otherwise the ontological argument would be circular) but just possibility.¹²⁴

What is needed in order for the domain of quantification not to be empty, therefore, is not a domain of actual things, but only one of possible ones (the domain of actual things is only a subset of that of possible ones). This is the basic semantic approach in Leibniz's essays on logical calculi, where 'term' is equated with 'entity' (*Ens*), which is taken to range over possible beings or, alternatively, it can be restricted to actual ones only (with no modification for the calculus, apparently).¹²⁵

This, however, immediately poses the problem of the ontological status of possible beings: if they are 'things' in a proper sense, indeed, there is a sense in which one can distinguish between existing and non-existing objects. The mature Leibniz, however, avoids this realist solution by adopting a form of conceptualism, for his logic is a logic of concepts, where those possible beings over which 'terms' or 'entities' range are not objects but concepts. Some ambiguity, however, is at work here. If we take a minimal notion of object (as 'bearer of properties'), where the only constraint to be an object is that it does not involve contradictory predicates, Leibnizian terms must be equated with objects.

This is the point, however, where his logical possibilism is somewhat corrected by his metaphysical actualism (which goes hand in hand with a conceptualist account of *possibilia* as ideas in the mind of God). In other words, it seems to me that one should not be distracted by Leibniz's way of talking in his logical essays, where it seems to adopt a possibilist perspective.¹²⁶ It is true, however, that there are some texts in which he seems to adopt a form

ontological commitment. The point has been originally stressed by Russell in his reply to Hugh Mc Call, B. Russell, "The Existential Import of Propositions", *Mind*, 14, 3, 1905, 398-401, p. 398, where he shows to consider the philosophical meaning of existence as completely different from that of logical existence. (This passage, as far as I know, has not been very much discussed). Later on, however, Russell will change his mind, as it appears in his 1918 lectures, where he explicitly states: "there is not an idea [of existence] that will apply to individuals. As regards the actual things there are in the world, there is nothing at all you can say about them that in any way corresponds to this notion of existence. It is a sheer mistake to say that there is anything analogous to existence that you can say about them" (*The Philosophy of Logical Atomism*, p. 77). Also for Russell, eventually, the philosophical sense of existence is wholly captured by the logical one.

¹²⁴ Cf. also *An jus naturae sit aeternum*, 1695 (?), Grua 637: "Quoties de rebus aeternis quaeritur *an sint*, non quaeritur an habeant existentiam, sed an habeant essentiam, hoc est non utrum existant, sed utrum sint possibiles, an veram habeant ideam, seu definitionem realem. Talis quaestio est an re vera sit, an opinione constet. Atque hoc sensu quaestio an res sit prima est, nam impossibilium nulla cognition est".

¹²⁵ Actually, things are more complicate, especially when Leibniz wants to employ 'existent' itself as a term of his logical language, then considering it no longer as a meta-linguistic item but as a normal term. Cf. my analysis of the piece *De propositionibus existentialibus* in Chapter 9 below.

¹²⁶ This is the basic semantic approach in Leibniz's essays on logical calculi, where 'term' is equated with 'entity' (*Ens*), which is taken to range over possible beings. From the ontological point of view, however, this seems to require an enriched ontology, i.e. one which the domain of actual things does not coincide with everything there is, but only a proper part of it; in other words, it presuppose a distinction between 'being' and 'existence'. Interestingly, a similar approach can be found in the early Russell (before his discussion of and with Meinong). Cf. B. Russell, *The Principles of Mathematics* (1903), second edition, New York-London 1938, especially # 47, pp. 43-44, and # 427, pp. 449-50, where the distinction between 'being' and 'existence' is explicitly stated.

of metaphysical possibilism together with a sort of platonist attitude toward abstract objects (something like the Fregean 'third world' irreducible to both mental and physical entities).¹²⁷

The conclusions Leibniz reaches in texts like *De modo distinguendi*, however, explicitly talks in favour of the view that everything existing must be actual, i.e. that there are no objects which are not actual. In this way, we obtain (on the phenomenological level) the idea of the actual world (the actual *series of things*) as the maximal set of things which is closed under relations of connection, which is just the counterpart, at the level of actuality, of the idea of a possible world as maximal consistent set of complete individual concepts.

7.3 The Early Leibniz's Account

The account of Leibniz's early philosophy (in Section I) shows that the young Leibniz adopted something similar to both points (5) and (6); in particular, contrary to what will happen in his mature writings, he implicitly rejects the view that existence is a property of individuals. Although, as far as I know, there are no texts where the question is exactly framed in these terms, both his reading of predication (where the 'ontological subject', i.e. what properly exists, is presupposed by and extruded from the predicative structure) and his rejection of the ontological argument in 1671 as a circular one (cf. Chapter 4 for details) speak in favour of the idea that existence is not a property.

This also matches with the fact that no metaphysical characterization of existence can be found in Leibniz's pre-Paris writings, whereas the preponderant view is that existence may be accounted for (though not explained away) in terms of distinct perceivability. To say it with a slogan: existence can be experienced but not conceptualized.

The problem of the empty domain of quantification was discussed by the young Leibniz in the framework of the traditional topic of eternal truths, i.e. propositions which predicate (in a necessary or essential way) something of a subject-term which do not necessarily refer to an existing thing.¹²⁸ Interestingly enough, however, the question of the lack of existential import of eternal truths is answered not by resorting to domain of purely possible entities, but, rather, by insisting on the fact that the true logical form of such propositions is not the categorical but the conditional one.¹²⁹

¹²⁷ These texts are discussed in Chapter 9, where I show the problematic aspects connected with them as well as with Leibniz's oscillations between the idea of essences and natures as reducible to propositions and the opposite idea that propositions must be grounded on essences and natures. The logical counterpart of this problem is the possibility of moving from concepts to propositions and from propositions to concepts. Once again, the fact that, from the logical point of view, both directions are available (Leibniz explicitly consider it as a double implication) does not avoid the problem of deciding which is the privileged direction from the metaphysical point of view.
¹²⁸ On the history of this question, see A. Church, "The History of the Question of Existential Import of

¹²⁶ On the history of this question, see A. Church, "The History of the Question of Existential Import of Categorical Propositions", in Y. Bar-Hillel (ed.), *Logic, Methodology, and Philosophy of Science: Proceedings of the 1964 International Congress*, Amsterdam 1965, pp. 417-24; J. S. Wu, "The Problem of Existential Import. From George Boole to P. F. Strawson", *Notre Dame Journal of Formal Logic*, 10, 4, pp. 415-24.

¹²⁹ The young Leibniz does not resort to a domain of possibles as intensional entities. In his 1670 remarks on Nizolius, however, he claims that the ground of eternal truths is represented by possibles taken in an extensional way, i.e. as possible individuals. In Chapter 3 below, however, I show that this is not in contrast with the weak ontology of modality I have ascribed to the early Leibniz.

This is in keeping with the fact that, as I have said above, the young Leibniz has not yet in mind something like a possible-worlds ontology.¹³⁰ This is important for, if I am correct, the young Leibniz is closer to Hobbes than to the Scholastic tradition, i.e. he does not believe that there is something in between the linguistic level and the ontological one (which is restricted to actual entities alone); whereas his mature conceptualism will be characterized by the claim that the domain of possible entities should be characterized as sort of intermediate domain of concepts (the *objective concepts* of the tradition) between the level of words and that of things.¹³¹

The following exposition is divided in three Sections. Each section contains a general introduction, where the main points are summarized as well as the results I think to have achieved. Anyway, the first two sections are mainly focused on the evolution of Leibniz's thought and aim at making sense of Leibniz's views on existence from the point of view of genesis of his ideas.

Section I is devoted to Leibniz's early writings before the Paris writings (roughly speaking, from 1663 to 1676); the exposition of Leibniz's views is associated with a special focus on the sources of Leibniz's early views on essences and eternal truths, i.e. late Scholastic views (through the mediation/criticism of his master in Leipzig, Jakob Thomasius) and Hobbes' philosophy of language and ontology.

Section II has the ambition of providing the reader with a history of the idea of possible world from the no-possible-worlds view defended in the Paris notes to the introduction of alternative 'series of things' at the end of 1670's.

Section III, on the contrary does not follow a strict chronological order: its main aim is to develop a sort of general framework of Leibniz' views of existence within the framework of his general metaphysics (his special metaphysics, like the theory of monads, is left on the background).

¹³⁰ It should be pointed out that the conditional reading of categorical proposition is maintained by the mature Leibniz as well (it is expressly mentioned in the *New Essays*, cf. Chapter 9 below), but the main difference is that, whereas the early Leibniz clearly interprets it in an extensional way (if there is something which is *A* there is also something which is *B*), the mature Leibniz interprets it from the intensional point of view, i.e. as stating a relation between concepts, i.e. 'A is B' does not primarily mean that all the objects falling under A also fall under B, but, rather, that all the concepts which involve A (among their notes), involve also B. (Remember that, for Leibniz, A is B is usually interpreted as standing for "Every A is B").

¹³¹ Once again, this intermediate level of concepts or ideas has an ontological status (a *reality*) not in itself, but only because it is the object of God's thought, and God is an actual entity. This is the way in which, from the metaphysical point of view, Leibniz can reduce possibilist-talk to the actualist-talk of divine ideas. The move is explicitly stated in the discussion with Wagner, see Chapter 8. Such a move, however, can be criticized for two distinct reasons: first, it reduces talking about propositions to talking about ideas in the psychological sense, even if it is a sort of divine-mind psychologism (this is the criticism made by Bolzano); second, reduction of the possibilist-talk to the actualist-talk necessarily requires the existence of God, i.e. metaphysics necessarily requires a theological background (this criticism could be shared by contemporary possible-worlds theorists).

Between Suárez and Hobbes. Leibniz's Account of Existence in his Early Writings

To the best of my knowledge, the first hint at the question of providing a definition of existence in the writings of Leibniz can be traced back to a passage from his 1671 letter to Johann Friedrich of Hannover, containing a short treatise on "the use and the necessity of the demonstrations of the immortality of the soul" (*De usu et necessitate demonstrationum immortalitatis animae*). In this piece, in which Leibniz announces his intention to compose a work on the "Elements of mind" (*Elementa de mente*), he incidentally observes: "I will say something more: neither will it be possible to explain what existence is nor will it be possible to explain how it can be attributed to anything unless a mind is presupposed"; and he immediately adds that if only the philosophers had investigated the very notion of 'existence', it would have been possible to move forward to the demonstration of the existence is and what it adds to essence [*sed Existentia quid sit, quid Essentiae superaddat, nemo hactenus definivit*]".¹

As Leibniz explicitly remarks, the answer to the old question concerning the relationship between essence and existence is an indispensable presupposition to a reliable demonstration of the existence of God. In this text, the young Leibniz is implicitly suggesting that his planned work, the *Elementa de mente*, would be able to provide the required demonstration. Unfortunately, the project of the *Elementa de mente* has never been realized and, among the many drafts Leibniz devoted to it (some of them will be analysed in chapter 4 below), as far as I can see, there is nothing directly related to the above-mentioned demonstration.

On the contrary, it will be only during the period he will spend in Paris (especially the years 1675-1676) that the task of providing a definition of existence will become a pressing issue, as a consequence of his recovery of the ontological proof for the existence of God (as well as of a new conception of essences and their reality). Moreover, as I will show in chapter 4, among the writings connected to the project of the *Elementa*, one can find also an early Leibnizian rejection of the ontological proof.²

¹Leibniz to Johann Friedrich of Hannover, 21 May 1671, A II 1, 114.

² Of course, both in the *Dissertatio de arte combinatoria* (1666) and in the *Confessio naturae contra atheistas* (1668) the young Leibniz proposes a proof for the existence of God; however, these two attempts cannot be regarded as *a priori* proofs in the traditional sense (i.e. from causes to effects). The proof presented in the DAC (cf. GP IV, 32-33) is explicitly based on the reality of motion, and based on the traditional axiom *omne quod*

In the passage quoted above, however, there is another interesting point that deserves a closer look. Leibniz, indeed, says that it would be impossible to explain what existence is and how existence can be ascribed to anything, "unless a mind is presupposed". At first glance, such a remark seems to be both puzzling and obscure, because it is not clear in which sense the presence of a mind (be it the divine or the human one) is required in order to explain the nature of what exists, nor is it clear how the existence of such a mind has to be connected with the relation between essence and existence.

Concerning this passage, it has been suggested that what Leibniz has in mind here is the claim that "something exists if and only if it is a mind-like being or a state of such a being".³ If this reading were correct, the view expressed in that early passage would be very close to the mature Leibniz's notorious view that, properly speaking, the truly existing beings are only monads and monadic states (i.e. perceptions). However suggestive, I think that such a conclusion has not be exaggerated. At the end of this section, indeed, I will try to address the problem whether Leibniz's early phenomenalism might be regarded as a sort of forerunner of his mature views or not.

Without anticipating too much, I would only suggest that one cannot easily project Leibniz's mature views on his early writings, if only because what we can find in the young Leibniz is actually less than what we can find in his mature views (including also the theory of complete concepts which is at the basis of his account in the *Discourse on Metaphysics* as well as his theory of possible worlds).

The same could be said as far as Leibniz's phenomenalism is concerned (i.e. his mature phenomenalism includes his earlier views concerning the question of the existence of the external world and material bodies, but is particularly concerned with the question of the nature or essences of bodies themselves, about which the young Leibniz does not take a clear-cut position).

In the following chapters, I will focus on texts Leibniz wrote before moving to Paris, covering a period of time going from 1663 to 1671-72. The only exception is chapter 4, in which also a selection of texts from the Paris period (and after) will be considered. This choice has been motivated by the fact that a common phenomenalist strand can be detected in Leibniz's reflexions on existence of his Mainz period as well as in those of the Paris years.

As I said above, a systematic account of the relationship between essence and existence, like the one that can be found in Leibniz's mature works, is substantially absent from these early texts. And this could be regarded as a clue to the fact that Leibniz's views on that topic were not so clearly shaped at that time. Of course, this is true, but is a statement that could equally

movetur ab alio movetur and, in particular, on the empirican observation that some particular body is moved. In the *Confessio naturae*, the existence of God is explicitly derived through an argument that shows that both figure and motion of physical bodies can be ultimately grounded in the existence of an incorporeal being (cf. GP IV, 106-9). Both these attempts are interesting insofar as they appear to be a reformulation of traditional arguments (the cosmological proof, in particular) with the ontology of motion derived from the modern natural science. Anyway, there is not attempt at defending the ontological proof, which, as I have said, is explicitly rejected in the *Specimen demonstrationum* (cf. Chapter 4 below). A similar consideration holds in the series of six proofs for the existence of God listed in the 'prospectus' for the project of *Demonstrationes catholicae*, A VI 1, 494-95 (cf. F. Piro, *Varietas identitate compensata*. *Studio sulla formazione della metafisica di Leibniz*, Napoli 1990, pp. 122-25). Also in this case, the Cartesian proof from the concept of the 'most perfect being' is explicitly rejected. [Many thanks to Massimo Mugnai for having directed my attention to the proof in the DAC].

³ C. Mercer, *Leibniz's Metaphysics. Its Origins and Development,* Cambridge 2001, p. 292.

be applied to many other aspects of his philosophy as well. Keep in mind that Leibniz himself acknowledged that, until the period in which he composed the *Discourse on Metaphysics*, i.e. around 1686, he was not entirely satisfied with his metaphysical views.

However, when focusing on the connection between essence and existence and related issues, I think that it is not only the case that the views expressed by early Leibnizian texts were more confused or less clearly expressed than those of his mature works, but, rather, that they were considerably different.

To anticipate a little bit the conclusions I will draw at the end of this section, I am convinced that, contrary to what will be the major trend in Leibniz's mature philosophy, in his early reflections the distinction between what pertains to *essence* and what pertains to *existence* is *not* immediately conceived of in terms of a distinction between the *possible* and the *actual*. On the contrary, from the metaphysical point of view, the contraposition between essences and existence is principally thought of in terms of a contraposition between the *abstract* and the *concrete*; whereas, from the epistemological point of view (or, if you prefer, from the point of view of the *philosophia de mente*), Leibniz is mostly interested in characterizing existence in terms of the criterion for differentiating what is *real* and what is merely apparent or *imaginary*. Of course, both these two polarities (abstract/concrete, apparent/real) will continue to play an important role in Leibniz's mature works as well, but, in that case, they have to be composed and accommodated with a substantially new ontology of the possible (culminating in Leibniz's famous theory of possible worlds).

On the contrary, the conception of existence emerging from Leibniz's early texts seems to have been shaped around two fundamental assumptions of nominalist inspiration: first, the particularist claim according to which individuals (concrete entities) are the only existing beings, second, the claim that what is not actually existing does not possess any reality at all (which deprives non-actualized possible or essences of any, however weak, ontological status).

In particular, one has to remark that, according to Leibniz's first account, existence (taken not as an abstract notion, but as a way of referring to concrete ontological subjects) is placed outside of the field of demonstrative knowledge. Given Leibniz's *conditional* interpretation of universal propositions (i.e., in terms of propositions where the existence of the subjects is only hypothetically assumed), it is somehow natural to conclude that the task of providing a definition of existence in proper terms has to be considered as an impossible one. At the level of predication, indeed, existence (i.e., reference to a domain of existing entities) has always to be presupposed (and that explains why the ontological argument, which is intended to actually prove the existence of a particular object, cannot but fail).

Accordingly, the question of ascertaining what actually exists, shifts from the level of predication and rational knowledge to that of sensible knowledge, i.e. of experience; at this level, however, the main problem is that of providing a set of criteria to (pragmatically) distinguish reality from dreams or hallucinations, or what is real from what is merely imaginary.

For these reasons, I think that the analysis of the account of existence and existence-related issues that emerge from these early writings (be they essays, drafts or just scattered notes) is of indisputable value to a right understanding of Leibniz's philosophical development. This task will be pursued by taking into account, from one hand, the critical reception of the legacy

of (late) Scholastic thought on the young Leibniz (Suárez, but also the nominalist tradition, through the mediation of Leibniz's masters like Jakob Thomasius); on the other hand, the impact of the so called *philosophi novi*, with particular attention to the most influential and pervasive source of Leibniz's early reflections, that is Thomas Hobbes' *De corpore*. The first task will be mainly accomplished in Chapters 1-2, the second in Chapter 3, as far as Leibniz's ontology and theory of predication is concerned, and in Chapter 4, as far as his phenomenalist account of existence is concerned.

Both these sources (Thomasius' rather dismissive, nominalistically oriented reading of Scholastic themes, like the principle of individuation and the eternity of essences, on one hand; Hobbes' criticism of traditional metaphysics based on the analysis of language and his ontologically deflationary reading of the distinction between essence and existence, on the other), however animated by radically different (and also opposed) aims, paradoxically provided the yount Leibniz with a coherent (however limited) set of philosophical tools, which constituted, so to speak, the building blocks with which he started to give a first shape to his own philosophical intuitions.

Chapter 1:

Existence and Individuation in Leibniz's De principio individui (1663)

"Dans mes premieres années j'estois assés verse dans les subtilités des Thomistes et Scotistes" (Leibniz to Princess Elizabeth, November 1678, A II 1, 433=GP IV, 291)

I have said that a systematic account of the essence/existence relationship is not to be found in Leibniz's early works. I have also qualified this claim, by adding that I refer to something like the account that can be found in Leibniz's mature metaphysics of possible worlds and individual concepts. However, one could object to me that such an account or, rather, an inchoative form of it, was right at the centre of Leibniz's first work, his *Disputatio metaphysica de principio individui* (hereafter, *DPI*), the short thesis that a seventeen years old Leibniz defended in Leipzig under the supervision of his master, Jakob Thomasius (who had also written the preface to his pupil's text).

It has been pointed out that, beyond the well-known question of the principle of individuation, the real question with which that dissertation was concerned with was exactly the connection between essence and existence.⁴

This claim is substantially correct, I think, but, again, it needs to be qualified. Before doing this, however, some preliminary remarks are in order.

⁴ See F. Piro, "Vicissitudes de deux oeufs. Principe de raison et principe des indiscernables dans les premieres écrits de Leibniz", in E. Pasini (ed.), *La monadologie de Leibniz. Genèse et contexte*, Milano 2005, pp. 3-30, (p. 8: "Le point crucial de la thèse est probablement ce qu'elle nous dit sur les rapports essence-existence").

About the role and significance of the *DPI* within the context of Leibniz's philosophy, indeed, there is still no consensus among the scholars. Different interpretative trends need to be highlighted. First of all, there are those who have explicitly suggested that the Leibnizian view, according to which a singular substance is individuated by its complete individual concept has been already foreshadowed (albeit only implicitly) by the claim defended in the *DPI*, according to which things are individuated by their "whole being" or "whole entity" (*omne individuum sua tota entitate individuatur*).⁵ Other scholars have developed this suggestion, i.e. that of a strong continuity between the "whole entity" solution and the theory of complete concepts, by stressing the constant influence of scholastic themes throughout the entire development of Leibniz's philosophy.⁶

On the other side, some scholars have rejected the alleged continuity between the "whole entity" and the complete concept, either stressing the fact that the *DPI* amounts to nothing more than a 'scholastic exercise' whose importance should not be exaggerated, or pointing out that, if correctly interpreted, *DPI*'s main thesis amounts to a dissolution of the scholastic and late-scholastic views on individuation rather than to a genuine recovery of them.⁷

I think that the latter reading of Leibniz's first work should be preferred, especially because it allows us to make sense of both what can be actually found and what is still lacking in this text, especially if we compare it with the mature theory of individuation as presented in the *Discourse on Metaphysics*. I am particularly sympathetic with the idea that the *DPI*'s appeal to the *tota entitas* should be read as a kind of "deflationary strategy", and its overall strategy has to be taken as "an exercise of deconstruction of the Scholastic paradigm from within, using the weapons made available by the nominalist variety of that tradition itself".⁸

The correctness of such a reading can be confirmed by several elements, external as well as internal to the Leibnizian texts. Among the external ones, the most striking is the fact that Thomasius himself, in his preface to the work, interprets his pupil's solution within the context of the nominalist tradition.⁹

⁵ See, for instance, B. Mates, *The Philosophy of Leibniz. Metaphysics and Language*, New York/Oxford 1986, pp. 17-8.

⁶ See, in particular, L. B. McCullough, *Leibniz on Individuals and Individuation. The Persistence of Premodern Ideas in Modern Philosophy*, Dordrecht/Boston/London 1996, where the focus on the Scholastic legacy is emphasized even in the subtitle (McCullogh's book is the only monograph entirely devoted to the DPI and provides an integral English translation of the text, which will be referred to in what follows as MLI). On the same track, see J. A. Cover and J. O' Leary-Hawthorne, *Substance and Individuation in Leibniz*, Cambridge 1999, pp. 26-57. See also M. Paolini Paoletti, *Leibniz. La metafisica dell'esistenza*, Milan, 2013, pp. 21-48.

⁷ Both R. Ariew, "Leibniz's Metaphysical Disputation on the Principle of Individuation. A scholastic exercise", in H. Poser (hrsg.), *«Nihil sine ratione». Akten des VII. Intern. Leibniz-Kongresses*, Hannover 2001, pp. 33-40, and J. F. Courtine, "Le principe d'individuation chez Suárez et Leibniz", in A. Heinekamp (ed.), *Leibniz et la Renaissance*, Stuttgart 1983, pp. 174-84, have stressed the context in which Leibniz's DPI has to be placed, i.e. that of an academic dissertation . Courtine has shown that the DPI's strategy could not be easily reduced to its alleged source, i.e. Suárez's fifth *Metaphysical Disputation*. The last point has been developed also by S. Di Bella, "*Tota sua entitate*. Suárez and Leibniz on Individuation", in M. Sgarbi (ed.), *Francisco Suárez and His Legacy*, Milano 2010, pp. 205-226. See also I. Angelelli, "The Scholastic Background of Modern Philosophy: *Entitas* and Individuation in Leibniz", in J. Gracia (ed.), *Individuation in Scholasticism. The Later Middle Ages and the Counter-Reformation*, 1150-1650, New York 1994, pp. 535-42

⁸ Di Bella, "Suárez and Leibniz on Individuation", p. 208.

⁹ See A VI 1, 8: "Sed maxime placet hic Nominalium Entitas, quae simplicissima, sed eadem simul, uti judico, verissima decisione totum hoc nodum [i.e. that of the principle of individuation], et in eo spinosissimas tricas dissecat".

However, the same conclusion can be reached by an internal analysis of Leibniz's text. In particular, when trying to make sense of Leibniz's position in the *DPI*, the first question to ask is: what does *tota entitas* properly mean?

1.1 The general framework

The question is particularly intriguing since Leibniz himself does not spend too much time to explain his own solution directly, but, on the contrary, prefers to follow a somewhat indirect strategy, i.e. to show that, when compared to all other options advanced by the, that based on the *tota entitas* is the only reliable one. As Leibniz himself writes at the very beginning of the *DPI*, "let us first set up the various kinds of views [on the principle of individuation] in order, since truth is discovered by setting opinions off against each other, just as sparks fly when the flint is struck".¹⁰

However suggestive, this metaphor has not to be taken too literally: one should acknowledge, indeed, that the outcome of Leibniz's inquiry, i.e. the 'triumph' of the "whole entity" over the other solutions, is not as much the result of a genuine dialectical process as the consequence of the way in which Leibniz himself had settled the question of individuation in the first paragraphs of the dissertation.

1.1.1 Three preliminary constraints and four possible options

In sections 2-3 of the text, indeed, Leibniz clarifies the scope of his inquiry by preliminarily stating that the question of the *principle of individuation* has to be understood in the following way:

"[...] we treat of something real and what is called a physical principle, which would serve as the foundation *(fundamentum)* for the reason of individual in formal sense or individuation or numerical difference in the understanding, and this especially in created substantial individuals".¹¹

The required principle, then, has to meet some conditions: it has to be (a) "something real" and a "physical principle", which means it has to do with the individual *in re* and not *in conceptu* (or, alternatively, *fundamentaliter* and not *formaliter*), but, at the same time, (b) it should work as the real ground (*fundamentum*) also for the formal notion of the individual, i.e. the numerical difference in the understanding¹²; finally, (c) it has to be applicable to all created substances (i.e. both material and non-material finite substances).

¹⁰ DPI, sec. 2, A VI 1, 11 (=GP IV, 17)/MLI 23 (translation modified).

¹¹ Ivi.

¹² The opposition between "formaliter" and "fundamentaliter" might be an echo of Suárez's discussion in his *Metaphysical Disputation V*, ii, 17 (Gracia 44-45), where he stresses that individuality cannot be conceived of as simply adding a negation to the common nature, i.e. distinction or distinguishability from all the others beings, but it requires something both positive and intrinsic to the individual thing that works as the ground for distinction itself. In the passage from *Disputation V*, Suárez briefly mentions the fact that, although individuality can be regarded as a negation if we speak "formally" of the individual, the question of the principle of individuation does not concern this negation, but, rather, the foundation of this negation (*de fundamento illius negationis*). The connection between individuality and distinction is clearly explained by him in *DM IV*, iii, 12,

The first two conditions (a)-(b) amount to say that the question of the principle of individuation has to be stated in ontological rather than epistemological terms (in Leibniz's own terms, the principle of individuation is a *principium essendi* rather than a *principium cognoscendi*). In other words, Leibniz is distinguishing two different meanings of "principle of individuation": the problem of individuality, i.e. of what it is in a thing (*in re*) that makes it the individual object it is, on one hand, and the problem of choosing the right criteria for identifying and re-identifying particular objects (for instance, through time) and distinguishing them from each other (note that what Leibniz calls the "numerical difference in the understanding" has to be grounded on what individuates things *in re*; I will come in a moment to why Leibniz chose the label "physical principle"). Leibniz will further specify that such a 'real', ontological principle must be also internal, i.e. intrinsic to the thing and not extrinsic to it.¹³

Finally, condition (c) requires that this ontological principle should be a *general* one, i.e. it has to be applicable to all created substances, without differentiating between material and non-material ones. The latter condition immediately rules out Aquinas' theory of individuation. Aquinas, indeed, "maintained that the principle in bodies was quantified matter (*materia signata*) and in angels their entity. Since we shall here abstract from material and non-material substances [...], we shall examine only the general opinions".¹⁴

From this point of view, at least, Leibniz takes the side of Scotus (and Suárez) in judging that the principle of individuation must be general and univocal, i.e. one and the same for all kinds of substances. However, as will become evident very soon, the core of the entire DPI is constituted by Leibniz's refutation of Scotistic haecceity.

After having rejected Aquinas' solution without having discussed it, Leibniz considers the four possible alternatives for a general (universal) principle of individuation (to be evaluated in the light of the three conditions presented above):

"The principle of individuation is taken to be either the *whole entity* (1), or not the whole entity. Less-thanwhole entity is expressed either by *negation* (2), or by something positive. Concerning the positive sense of less-than-whole entity, one may take one of two views: (3) there is a physical part of the individual that terminates its essence, *existence*; or (4) a metaphysical part that terminates species, *haecceity*".¹⁵

where he points out that, although individuality "is by nature prior to its being distinct from other, nevertheless the latter follows from the former without any positive addition being made to the thing itself, but only by negation" (translated by J. J. E Gracia, "Francis Suárez", in Id. (ed.), *Individuation in Scholasticism.*, 475-510, p. 485). Individuality is ontologically more fundamental because distinction requires the existence of other individuals in order to subsist, whereas a thing would be individual even if it were alone in the world.

¹³ Truth to be told, in sect. 2 of the DPI Leibniz does not explicitly states that the principle he is looking for must be an internal one, but this choice is tacitly at work in his subsequent rejection of "negation" as a candidate for the job of individual difference. In sect. 12, Leibniz notes that, if negation is taken as something "outside the mind" [*extra intellectum*], the problem arises of how a positive being can be constituted by a negative one; on the contrary, if negation is taken as something "internal to the mind" [*in intellectu*], then this has nothing to do with the problem of invididuation as such. In both cases, Leibniz concludes that negation must be grounded on something positive. See A VI 1, 14 (= GP IV, 21)/MLI 37.

¹⁴ DPI, sect. 3, A VI 1, 11 (=GP IV 17)/MLI 23. Note that, also on this point, Leibniz follows Thomasius' views. Indeed, in the preface to the DPI, Thomasius addressed a severe criticism to Aquinas' theory of individuation trough the *materia signata*, and concluded that, compared to Aquinas' view, Scotus' theory of *haecceitas* has to be preferred for his generality, since it can be applied to both corporeal and incorporeal substances. However, Thomasius' last word is that, absolutely speaking, the nominalist solution (or, better, dissolution) of the problem of individuation has to be preferred to both Aquinas' and Scotus' views. See A VI 1, 7-8.

¹⁵ DPI, sect. 3, A VI 1, 11 (=GP IV, 17-8)/MLI 23.

The first thing to note is that such a list is completely different from the one proposed by Suárez in his authoritative treatise on individuation, the fifth of his *Metaphysical Disputations*. Suárez's list, indeed, was based on the two traditional kinds of composition widely recognized by Scholastic metaphysicians, i.e. physical composition of matter and form and metaphysical composition of essence and existence. Thus, in section 5 of his *Disputation*, Suárez discusses, respectively, individuation through matter, form, existence and, finally, the *tota entitas* solution.¹⁶

Both Suárez and Leibniz are supporters of the latter, even if the Spanish Jesuit is only one among the many authorities that Leibniz quotes in support of that solution in section 4 of the *DPI* (together with many nominalist thinkers and two more recent authors, Abraham Calov and Daniel Stahl).¹⁷ Again, Leibniz shares with Suárez (and with all the nominalist tradition) the claim that all existing things are individual.

1.1.2 Unum supra ens nihil addit reale: Leibniz's particularism

Such a "particularist claim" has been clearly stated by Suárez in the first section of his *Disputation*, dedicated to the extension of the term 'individual':

"All things that are actual beings or that exist or can exist immediately are singular and individual. I say "immediately" in order to exclude the common natures of beings, which as such cannot immediately exist or have actual entity, except in singular and individual entities".¹⁸

¹⁶Incidentally, notice that Leibniz's partition of the possible principles of individuation (into "entitas", negation, existence and haecceity) resembles more Scotus's original discussion of the topic in Ordinatio II, d. 3, pars 1 (especially qq 1, 2,3 and 6) than Suárez's quadripartion. According to A. Funkenstein, Theology and the Scientific Imagination. From the Middle Ages to the Seventeenth Century, Princeton 1986, p. 138, note. "Fourtheenth- century Schoomen used to distinguish four answers concerning individuation: by matter, by form, by negation, by quantity" (he quotes the text of Johannes de Bassolis as one of the clearest expositions of the Scotist views on individuation). The young Leibniz's closeness to Scotus' original quadripartition, however, does not prove any direct knowledge of the latter by him, since it is probable that he refers to Zabarella's discussion of Scotus in his Liber de constitutione individui, explicitly quoted in DPI, #16, A VI 1, 15 (=GP IV, 22-23). See S. Di Bella, "Il fantasma dell'ecceità. Leibniz, Scoto e il principio di individuazione", in Quaestio 8/1, 2008, 535-67, p. 544. Some years later, around 1668, Leibniz will favourably quote Zabarella's thesis according to which the substantial form is the principle of individuation. However, he also declares that substantial form is the same as the "nature" according to Aristotle and Plato's "idea" (he also claims that ideas in the mind of God are to be identified with the substance and not with the essence of things). See "De transsubstantiatione", 1668 (?), A VI 1, 508 and ff. On Leibniz and Zabarella, see A. Blank, "Jacopo Zabarella and the Early Leibniz on the Diachronic Identity of Living Beings", Studia Leibnitiana, 47, 1, 2015, pp. 86-102. ¹⁷ Daniel Stahl's work had been discussed by Thomasius himself in his *Dilucidationes Stahlianae* (1676), a very influential text for the young Leibniz (even if it has been published in 1676 only, indeed, Thomasius' work was based on his lectures and, as the frontespice of the book explicitly notes, these lectures had been already privatim dictate). Leibniz himself, in the same period in which he worked at the DPI, read and commented Stahl's Compendium Metaphysicae (1655), see A VI 1, 21 and ff. I will discuss some of these Leibnizian notes in the following chapter. In one of these notes, Leibniz favourably quotes Calov's rejection of ens in potentia as true being. On Abraham Calov's *Metaphysica Divina*, see M. Sgarbi, "«Unus, Verus, Bonus et Calovius». L'oggetto della metafisica secondo Abraham Calov", in *Medioevo*, XXXIV, 2009, pp. 381-98.

¹⁸Suárez, *DM V*, i, 4/Gracia 32. As Gracia ("Francis Suárez", p. 486) clearly points out, in saying that 'everything, insofar as it exists, is individual', the expression 'everything' refers to every entity except common natures (like 'human being'), which means: purely spiritual beings, composite beings, material beings and all their features, principles and components. Note that sect. VII of *DM V* is explicitly dedicated to the question of the individuation of accidents. On the contrary, the question of accidents is voluntarily omitted in Leibniz's *DPI*.

Suárez's claim is stated in terms of what exist or can exist immediately in order to stress the difference between individual, true beings, and universals (or "common natures"), which do not exist but are just abstractions, i.e. produced by the intellect (this is particularly clear if one reads Suárez's discussion of individuation in connection with his discussion of universals in the subsequent *Disputation VI*).¹⁹ However, as it has been already noted, since unity is coextensive with being, everything that is an actual being must necessarily have individual unity.²⁰ As it will be straightforward when coming to Leibniz's discussion, however, this conclusion might be reached only by blurring together what the Schoolmen called the 'transcendental unity' and the 'numerical unity' of the thing.

This principle, indeed, is the ground for Leibniz's first and most fundamental argument in defence of the *tota entitas* solution:

"That by means of which something is, by means of it that something is one in number. But any thing is by means of its entity. Therefore, [anything is one in number by reason of its entity]. The major is proved in that one adds nothing real beyond being. All who defend this position use this argument".²¹

Leibniz employs the claim that "one adds nothing real beyond being" (*unum supra ens nihil addit reale*) in order to prove the major premise of his syllogism (*Per quod quid est, per id unum numero est*). It should not pass unnoticed that Leibniz is stressing here a radically nominalist torsion of the claim according to which unity and entity are coextensive concepts. Traditionally, indeed, the convertibility between one and being was accepted at the level of transcendental unity, not of numerical one (at least, the first was an uncontroversial thesis in the Aristotelian tradition, whereas the second, being a typically nominalist thesis, was a matter of controversy).²²

As a matter of fact, however, such a distinction had been already weakened by Suárez, who regarded it as purely conceptual distinction.²³ In a certain sense, one can say that Leibniz is

As to the question of composite substances, Leibniz incidentally notes that the view that form and matter supply the principle of individuation is not in contrast with the *tota entitas* solution, but has to be regarded as subordinate to it, as a special case of a more general view. See DPI, #4, A VI 1, 11 (=GP IV, 18).

¹⁹ Some aspects of Suárez's views on universals will be discussed in Chapter 7 below.

²⁰ See Gracia, "Francis Suárez", p. 487.

²¹ DPI, # 5, A VI 1, 11 (=GP IV 18) /MLI 101.

²² Note that, more than twenty years later, Leibniz will repeat the claim that what is not truly *one* being is not truly one *being* either ("ce qui n'est pas veritablement *un* estre, n'est pas non plus veritablement un *estre*", GP II, 97) in his discussion with Arnauld. In that case, however, the context is completely different and the convertibility of "one" and "being" is employed only to reject the substantiality of aggregates or composite substances. In particular, Leibniz's aim is to show that the existence of composite beings is wholly dependent on that of simple substances. As D. Rutherford, *Leibniz and the Rational Order of Nature*, Cambridge 1995, pp. 130-1 rightly observes, we "must not confuse [Leibniz's] reductionism with his nominalism. The basis of the former lies in the primacy of the existence of substances as *entia per se*, the basis of the latter in the division between *concreta* and *abstracta*". Only the latter topic is discussed at the stage of Leibniz's early philosophy, whereas the question of composite substances vs. simple ones is passed under silence in the DPI (except for the short mention discussed in note 17 above). See also Cover and Hawthorne, *Substance and Individuation in Leibniz*, pp. 45-50 (where they conclude that the "early Leibniz's doctrines of individuation [...] are neutral as to whether there are non-simple substances").

²³ The point has been already noted by Courtine, "Le principe d'individuation chez Suarez et Leibniz", pp. 182-83. Courtine stresses this point in order to show that Leibniz's main thesis was not influenced by Suárez, who, at least from a conceptual point of view, maintained the difference between transcendental and numerical unity (reference is to *DM IV*, ix, 13). However, Courtine himself acknowledges (p. 186) that, sometimes, Suárez seems

endorsing here "a qualified Suarezian nominalism"²⁴, where the qualification and, in particular, Leibniz's distance from Suarez's original account need to be stressed.

1.2 Haecceity and Metaphysical Composition: Leibniz vs. Suárez

The most relevant difference between Leibniz's approach in the DPI and Suárez's seminal text, however, concerns their different attitude toward Scotus' position.

Remember that, according to the partition presented in section 3 of the DPI, haecceity is regarded by Leibniz as a candidate for the principle of individuation in the "physical" sense, where 'physical' has to be contrasted with barely 'conceptual'. Now, in Leibniz's list, the *tota entitas* solution is contrasted with negation, existence and haecceity, insofar as these are regarded as partial aspects of the entity that should account for the individuation of each thing.

Leaving aside negation, which is not intrinsic to the thing itself and, thus, has to be rejected, both haecceity and existence are taken as positive parts of the *entitas*. Existence is taken as a *physical* part that terminates (i.e. completes) the essence, whereas haecceity is taken as a *metaphysical* part that terminates (i.e. completes) the essence. Here, however, the contraposition between "physical" and "metaphysical" part has not the same meaning as that between the physical and the conceptual principle of individuation discussed in section 2.

Both existence and haecceity, indeed, are regarded as principles of individuation in the "physical sense" of section 2, but they are distinguished because haecceity is taken as a part of the essence internal to it or something formal, whereas existence is regarded as something external to the essence itself.

To better understand this point, one has to think that, in criticizing existence as the principle of individuation, Leibniz is criticizing the Thomist thesis of the "real distinction" between essence and existence, whereas, when dwelling with haecceity, Leibniz is criticizing Scotus' theory of the "formal distinction".

As I will show in what follows, in his criticism of the real distinction between essence and existence, Leibniz sides with Suárez (and even with Scotus himself); on the contrary, in his discussion of haecceity, Leibniz is eager to give a picture of Scotus as an "extreme realist" holding that universal have a true reality outside the mind.²⁵

to suggest that the individual unity and the transcendental unity of the entity amount to one and the same thing. According to Gracia, for Suárez individual unity and transcendental unity are extensionally the same but are conceptually different, since transcendental unity must be real, but the only real kind of unity in things is individual unity. However, Suárez's position on this point seems to be a very ambiguous one, see Gracia, "Francis Suarez", pp. 482-3.

²⁴ Cover and Hawthorne, *Substance and Individuation*, p. 31, where the label is referred to Leibniz's (and Suarez's) view that common natures are abstracted by the intellect from singular individual substances, and that, accordingly, between singular things and common natures there is only a *distinctio rationis*. Since there is no real distinction, there is also nothing like a true (be it physical or metaphysical) composition between common natures and individual differences. In rejecting any sort of composition, even a merely conceptual one, however, Leibniz's position can be regarded as a radicalization of Suarez's nominalist tendency (or, which is the same, as an extremely nominalist reading of Suárez).

²⁵ See DPI, #17, A VI 1, 16 (= GP IV, 23)/MLI 56: "Notum autem est, Scotum fuisse Realium extremum, quia universalia veram extra mentem realitatem habuere statuit [...]". For a parallel between Scotus' and the young Leibniz's account of individuation, see T. Hoffmann, "Individuation bei Johannes Duns Scotus und Gottfried

Such a point is explicitly anticipated by Leibniz already in section 5 of the DPI, where he provides his first argument in favour of the *tota entitas* solution, when noticing that the Scotists rejected the major premise of his syllogism, i.e. the convertibility of "entity" (or being) and "individual unity". This can happen because the Scotists admit, between the real and conceptual, also a third kind of distinction, the *distinctio formalis*. Thus, it is not strange at all that the longest part of the DPI, sections 16-26, is devoted to provide a series of arguments against Scotus' position and, in particular, against the very same possibility of a formal distinction (this point is clearly stated in section 24: "If there is no formal distinction, haecceity falls").²⁶

1.2.1 Suárez's Conceptualist Reading of Haecceity

Contrary to Leibniz, Suárez does not include haecceity among the possible options for a principle of individuation in the 'physical' sense. On the contrary, he discusses Scotus' position (together with the nominalist thesis) in the fundamental section II of his DM V, devoted to the analysis of (what we could call) the 'intension' of individuality. The interesting point is that there is nothing corresponding to the content of this section in Leibniz's DPI, and this omission is a very significant one.

In the architecture of Suárez's disputation, indeed, the content of section II, concerning what the individual nature adds to the common nature, serves to balance that of section I, which, as noted above, stressed the particularist claim (shared by all nominalists, Leibniz included) that everything that actually exists (and, maybe, also what only possibly exists) is individual.²⁷

Roughly speaking, the aim of this section is to find conciliation between two apparently opposite views on individuation, namely that of Scotus and that of Ockham and the nominalist tradition. According to the first, "the individual adds to the common nature a real mode, distinct *ex natura rei* from the nature, and that, together with it, it makes up the individual".²⁸ According to this view, the individual adds something to the common nature *and* what the individual adds is something 'real' (a "real mode"), distinct *ex natura rei* from the common nature (such a distinction is less than a real one, between two things that can be separated, but is more than a merely conceptual one: Scotus' formal distinction).

The main point of the Scotist position is that the common nature is something real, with a being and a unity of its own, beyond the individual unity. On the contrary, according to the second view, "[t]he individual adds absolutely nothing positive and real to the common nature, whether really or conceptually distinct from it; rather, every thing or nature is essentially (*per se*), primarily and immediately individual".²⁹

Wilhelm Leibniz", in *Medioevo*, XXIV, 1998, pp. 31-87. Di Bella, "Leibniz, Scoto e il principio di individuazione", shows how in his mature philosophy Leibniz partially recovers some aspects of the Scotist account (however mediated by Suárez's anti-realist reading of Scotus).

²⁶ DPI, #24, A VI 1, 18 (= GP IV, 25)/MLI 67.

²⁷ On the architecture of Suárez's disputation, and its philosophical relevance, see S. Di Bella, "Una questione più sottile che necessaria. Leibniz, J. Thomasius e la ricostruzione/decostruzione delle teorie scolastiche dell'individuazione", in S. Ciurlia et alii (eds.), *Filosofia e storiografia. Studi in onore di G. Papulli*, vol. II, Lecce 2008, pp. 133-58, in particular pp. 142-48.

²⁸ Suárez, DM V, ii, 2/Gracia 41.

²⁹ *Ibid*, ii, 5/Gracia 42-3.
According to the nominalists, the individual adds nothing (really or merely conceptually) to the common nature, then, since where there is no (real or conceptual) addition, there is also no (real or conceptual) distinction between the individual and the common nature. There is nothing that can be regarded as the 'cause' or the 'reason' of the individuality of the individual, simply because everything is *per se* and immediately individual.³⁰

Now, both Suárez's commitment to the *tota entitas* view and his commitment to the particularist claim in section I might induce the reader to believe that he is favourable to the nominalist thesis more than to the Scotist one. However, while embracing the thesis that everything that exists is individual, he does not embrace the nominalist view concerning the nature of individuality, since he recognizes that it would amount to make the entire problem of the principle of individuation pointless.

Thus, in his solution to the question raised in section II, he puts forth a sort of 'third way' between Scotus' and Ockham's views, trying to conciliate the latter's particularism with the claim that the individual adds something real to the common nature:

"I say, first, [a] that the individual adds something real to the common nature, by reason of which it is a particular individual and there comes to it the negation of divisibility into many [individuals] similar [to itself]. In this conclusion we agree with Scotus. [...] I say secondly that [b] the individual as such does not add anything distinct *ex natura rei* from the specific nature. So that in an individual, Peter for example, humanity as such and this humanity, or rather that which is added to humanity in order that it be made "a this" –which is usually called thisness (*haecceitas*) or individual difference –may be distinguished *ex natura rei* and, consequently, may constitute a true composition in the thing itself".³¹

Against the nominalist thesis, Suárez maintains [a] that individuality does add something 'real' to the common nature, but, at the same time, he claims that [b] the individual unity is not distinct *ex natura rei* from the common, specific nature (otherwise there would be a true composition between common nature and individual difference).

Claim [b] is motivated by the fact that the common nature is not a 'thing' properly said, but only something conceptual, since it is the result of an act of abstraction. Then, if the distinction between the common nature and the individual difference is not real, it should be a conceptual one.

This is the third point stressed by Suárez:

"I say, thirdly, [c] that the individual adds to the common nature something conceptually distinct from it, belonging to the same category and metaphysically composing the individual as an individual difference which contracts the species and constitutes the individual. [...] Therefore, it is necessary for it to be distinguished at least conceptually, because if it were not distinguished in any way, it would not be added [to it] in any way. Nor, indeed, does it follow from this that what is added is something conceptual". ³²

From [c], i.e. the claim that the individual adds to the common nature something only conceptually distinct from it, it does not follow, that what is added (the individual difference)

³⁰ Cf. Peter Aureolus, In Sent. II, dist. 9, q. 3, a.3: "Omnis res se ipsa est singularis et per nihil aliud. Igitur quaerere per quod res quae extra intellectum est, est singularis, nihil est quaerere".

³¹ Suárez, DM V, ii, 8-9/Gracia 45-6 (letters added).

³² *Ibid*, ii, 16/Gracia 52 (letter added).

is something conceptual, i.e. a being of reason (*ens rationis*). This is the core of Suárez's interpretation.

1.2.2 Suárez's account of conceptual distinction with fundamentum in re

This point will be made explicit in the discussion of the various kinds of distinctions in Suárez's *Disputation VII*, where he will distinguish two different kinds of conceptual distinction, a first one that is not grounded in reality (*quae non habet fundamentum in re*), and is called *distinctio rationis ratiocinantis*, since it has its source in the operations of the intellect only, and a second one that is grounded in reality (*quae habet fundamentum in re*), and is called *distinction rationis ratiocinatae*, although, Suárez complains, this name could be ambiguous and be a source of misunderstandings.

The nature of this second kind of distinction is explained in the following way:

"a distinction of the reason, because actually and formally, it is not found in reality, but has its origin in the mind; a distinction of the reasoned reason, because it arises not entirely from the sheer operation of the intellect, but from the occasion offered by the thing itself on which the mind is reflecting. Hence the foundation that is held to exist in nature for this distinction is not a true and actual distinction between the things regarded as distinct $[...]^{".33}$

The distinction of "reasoned reason" has its ground in one real thing, however considered in two distinct ways by our mind.

Such a distinction originates from "inadequate concepts of one and the same thing":

"Although the same object is apprehended in each concept, the whole reality contained in the object is not adequately represented, nor is its entire essence and objective notion exhausted, by either of them. This occurs frequently when we conceive an object in terms of its bearing on different things, or when we represent it in the way we conceive these different things. [...] Thus in God we distinguish His justice from His mercy, because we do not conceive the sublimely simple virtue of God as it is in itself and according to the full range of its energy. [...] These considerations enable us to understand, first, that a conceptual distinction is not so termed because it intervenes between entities of the mind (*entia rationis*) [...]. As it clear from the instances cited, things said to be thus distinct are real entities, or rather a single real entity conceived according to various aspects. The same is evident from the fact that reason does not produce the entities it thus distinguishes, but merely conceives things which are not distinct as though they were distinct. Hence it is not the objects distinguished but only the distinction itself that results from the reasoning".³⁴

This long quotation makes clear in which sense Suárez is legitimate to say that, although the common nature and the individual difference are not really distinguished (as two different things), what is added by the individual difference is not a mere "mental entity" but something real.

Note that, in order to explain this acceptation of the distinction of reason, Suárez chooses the example of the distinction between the various attributes in God. God's nature is simple and, therefore, his attributes (like his justice, his mercy, and so on) are not really distinguished; such a distinction, however, is not a fiction of the mind but reflects different aspects of the

³³ Suárez, DM VII, i, 4 /Vollert 18.

³⁴ *Ibid*, I, 5-6/Vollert 19.

same thing (although through an inadequacy in our conception of God's absolute simplicity). Now, Scotus' formal distinction had been originally excogitated just in order to provide an account of the distinction between God's attributes.

Note also that Suarez's position, as condensed in claim [c] above, follows only at the price of putting Scotus' formal distinction between brackets (since [c] relies on the presupposition that if a distinction is not real, it must be conceptual, but the distinction between common nature and individual difference cannot be real, then etc.). However, Suárez does not choose to explicitly reject Scotus' formal distinction, but to provide an extremely charitable reading of it, thus collapsing Scotus' formal distinction into his own *distinctio rationis ratiocinatae*. This is exactly what happens in those paragraphs of section II of DM V where Suárez discusses Scotus's position and concludes that "the distinction which is understood between the common nature abstractly understood and the individual is only conceptual, because the nature as such is nowhere except objectively in the mind" (where one has to stress the reference to the *objective* concept vs. the *formal* one).

However,

"[i]f anyone called that distinction "formal" because the mind conceives a different definition of man as such and of Peter [i.e. of a determinate individual man], he makes a verbal distinction, because, with respect to reality, the distinction is not really found in such a way that those [two things] are understood as distinct *ex natura rei* in Peter and Paul, or as making up a composition in reality, as has been shown".³⁵

Suarez's account, however, is not free from ambiguities. One, in particular, concerns the extent to which one can legitimately talk of a *composition* between the common nature and the individual difference. In the passages quoted above, especially [a] and [b], he said that even if the individual adds something real to the common nature, this addition has to be regarded as a conceptual one and does not give rise to any true composition in the thing itself.

Then, in [c], he repeated that the individual adds to the common nature "something conceptually distinct from it, belonging to the same category and metaphysically composing the individual as an individual difference". Suárez justifies this choice by saying that "it is necessary for it [*individual*] to be distinguished at least conceptually, because if it were not distinguished in any way", as the nominalists claim, "it would not be added [to it] in any way". Then, he goes on to distinguish the reality of what is added by the individual from the barely conceptual character of this addition. From this, it seems that what Suárez called "metaphysical composition" of the individual is just a synonym of conceptual composition. "For", he concludes, "there is not that proper addition in reality, but in each individual there is one entity really having by itself both natures".³⁶

However, the ambiguity is not entirely dispelled: few lines below, Suárez faces the objection raised by the "philosophers' common way of thinking, who explain this contraction of the species into individuals by way of metaphysical composition", where, it seems to me, 'metaphysical' is not to be taken as synonym of 'conceptual'.

In answering this objection, after having stressed the analogy between the relationship of 'genus' and 'species', and 'individual difference', he concludes that "the

³⁵ DM V, ii, 15/Gracia 51-52.

³⁶ *Ibid.*,ii, 16 II, /Gracia 52.

metaphysical composition of the individual must not be denied, because it is enough for it that the specific notion could be [considered] with precision (*praescindi*) by the mind as not included in this individual difference³⁷⁷; where, notice, this reference to the notion of *abstractio praecisiva* (i.e. separation) does not imply the separation in things (on the side of the world, so to say) but only in the (objective) concepts, like in the case of the (objective) concept of 'man' as such, which is said to be *secundum rationem praecisus* from Peter, Paul and other singular men, without any real distinction.³⁸

This point is confirmed in the last part of section II of DM V, where he remarks that "the specific nature expresses an objective concept separate (*praecisum*) conceptually from the individuals". From such a conceptual distinction, however, it does not follow that a real distinction is really possible: the conceptual distinction between common nature and individual is somehow required by the fact that human knowledge does not grasp the individual as it is in itself, but only "things conceived universally, with which definitions and demonstrations are immediately concerned".

As a consequence, it is clear that the concept 'man', signified and conceived as such, does not express or include in its essential notion any individual difference, whence "it can be legitimately concluded that something outside the essence of man so conceived must be added in order for it to be made singular", even if "human nature is not found in reality as common and abstract, in the way it is conceived by the intellect".³⁹

This long *excursus* through Suárez's work has shown that at the level of what Leibniz called the "physical principle of individuation", Suárez is convincingly committed to the (nominalist) thesis that each individual is individuated by its *tota entitas*. However, he does not reject the possibility of talking of individuation in terms of the addition of an individual difference to a common nature, thus making a place for *metaphysical composition* at the level of conceptual analysis.

1.2.3 "Sunt qui Suaresium ad Scotum trahant". Leibniz against Formal Distinction

If we move back to Leibniz's discussion in the DPI, we can easily realize that, while retaining the first point (and, thus, stressing the nominalist tendency implicit in Suárez's work), Leibniz completely rejects the second one, i.e. the possibility to find a place for a "metaphysical composition"⁴⁰ between individual and common nature even in the weakened sense of Suárez's conceptual distinction.

³⁷ *Ibid*,ii, 19 #/Gracia 53-4.

³⁸ See DM II, ii, #16. Suárez's discussion of the so-called *abstractio praecisiva* is deeply intertwined with his account of the distinction of reason as well as with his doctrine of the objective concepts. On Suárez's account of universals as objective concepts, and Leibniz's reception thereof, see my discussion in Chapter 7 below. Cf. also J. F. Courtine, *Suarez et le système de la metaphysique*, Paris 1990, *passim*. On Leibniz's use of the theory of 'objective concepts' see G. Nuchelmans, *Judgement and Proposition. From Descartes to Kant*, Amsterdam/Oxford/New York 1983, pp. 214-32.

³⁹ DM V, ii, 31/Gracia 61-2.

⁴⁰ According to J. Thomasius, *Dilucidationes Stahlianae*, Leipzig 1676, p. 20, there are three ways in which an essence can be said to be *composed*. It can be composed by *logical* parts (*"genus et differentia"*), or *metaphysical* parts (*"essentia et subsistentia"*), or *physical* parts (*"materia et forma"*). The first kind of composition takes place when a mind thinks of an essence in terms of its definition, whereas the other two kinds of composition take place outside the mind (*"in rebus extra mentem"*), respectively in all created substances

From one hand, indeed, he clearly interprets Scotistic haecceity as a 'metaphysical part' that, added to the common nature, 'contracts' the latter and, in so doing, individuates it. From the other hand, however, in his discussion of Scotus, he makes it explicit that there is no third way between a real distinction (implying the independent existence of the two members of such a distinction) and a barely mental one, where the latter implies that there is no such a thing as an "individual difference" properly said; hence, rejecting not only Scotus' formal distinction, but also Suarez's charitable way of reading it.

First, in section 17, after having noted that Scotus was an "extreme realist" about universals, he provides a brief account of his point, by claiming that formal distinction "is supposed to obtain before the operation of the intellect and yet he [Scotus] says that it holds with respect to the intellect".⁴¹

Then, he points out, in section 19, that there are some "who reduce Suarez to Scotus (sunt qui Suaresium ad Scotum trahant)", because of what the former said in DM V, i.e. that "the individual adds something beyond the common nature, however distinguished by reason (ratione distinctum)".⁴² Leibniz's reference is to passage [c] above. Oddly enough, he considers this as an attempt to reduce Suárez to Scotus, because he knows that, for Suárez himself, there is no such a thing as a "common nature", for universals (or, better, common natures) are just the results of an act of abstraction operated by the understanding. After all, indeed, the entire series of arguments that in the DPI Leibniz displays against haecceity could be easily reduced to this one: since universal items do not exist outside the mind, common natures cannot be 'contracted' by anything, not even by individual differences or haecceities.

Leibniz's main premise, i.e. that species "per nihil contrahitur, quia extra mentem nulla est"43, which is the nominalist account of universals he shares with Suárez, is simply assumed, and nowhere does Leibniz argue in favour of it. Consequently, Leibniz's rejection of formal distinction in sect. 22-25 of the DPI amounts to nothing more than to make the consequences of that premise fully explicit.

First, if there are no universals before the operation of the mind, there is also no composition from the universal and the individual difference before the operation of the mind (sect. 23). Then, there is no formal distinction, since formal distinction requires that common nature and individual difference are distinguished before the operation of the mind (although not separable from each other). Finally, if there is no formal distinction, haecceity falls (sect. 25).

⁽metaphysical composition) and in corporeal substances (physical composition). The term subsistentia refers to "existence", but in a particular case, namely that of (ontologically independent) substances. According to Suárez, for instance, the term substantia originates from both the idea of the suppositum, that in which the accidents inhere (substantia comes from substare, being a thing that supports the being of accidents), and that of subsistentia, i.e. the property of being something that exists in se (and not in something else) and per se (independently of any other being). The latter characterization is an absolute one, while the former is a relative one. See Suárez, DM XXXIII, i, #1. S. Di Bella has pointed out to me that such distinctions were originally introduced in the philosophical debate in order to provide an articulation on the dogmas about Christology. Concerning the latter point, one can refer to Suárez's DM XXXIV as well, which deals with the primary substance and the suppositum, and their distinction (where 'primary substance', in this case, is referred to the divine, i.e. non-created one). Furthermore, in DM XXXI, Suárez's discussion of essence and existence is constantly referred to the particular case of the relation between Christ's humanity and his existence. ⁴¹ DPI, # 17, A VI 1, 16 (=GP IV, 23)/MLI 56.

⁴² *Ibid.*, # 19, A VI 1, 16 (= GP IV, 24)/MLI 60. The printed text of the DPI erroneously refers to "Disp. Met. 5, sect. 11 n. 16", whereas the correct reference is to section II, n. 16 (as pointed out by Cover and Hawthorne, Substance and Individuation, p. 33, n. 28), that is to the text [c] quoted above, see n. 29.

From this line of argument, it clearly emerges that for the young Leibniz there is no true distinction except real distinction: "Those things that differ before the operation of the mind are separable (*Quae ante operationem mentis differunt, separabilia sunt*)".⁴⁴ This holds in the case of the distinction between genus and difference and, Leibniz concludes, it should hold also in the case of the distinction between species and individuals.

Leibniz's most extensive discussion of formal distinction occurs in section 24, where, first of all, he provides a synthetic account of the view defended by Scotus and his followers, here called "Formalists". By means of such a formal distinction, Scotus takes to be distinguished (a) the attributes of God and the personal relations from his essence; (b) the quiddities of things among themselves and from their being known by God (the kind of diminished being Scotus called *esse cognitum*); (c) superior predicaments from inferior ones, genus from difference, and essence from existence. Point (a) had been already stressed by Suárez in his own discussion of Scotus' formal distinction. As to Leibniz, we know that in the very same period in which he worked at the DPI, he rejected the formal distinction between God's essence and his attributes as a threat to divine simplicity.⁴⁵

Point (b), with its reference to the way in which essences are distinguished among themselves and from God, will play a fundamental role in Leibniz's mature metaphysics of possible worlds (whereas, as I will show in the next chapter, it seems to play no role in the early Leibniz's account of possibility). Finally point (c), with its reference to the distinction between genus and difference and, especially, between essence and existence, is a further confirmation of the fact that, in the architecture of the DPI, there is place only for one kind of distinction "on the side of the world", i.e. real distinction, and on this basis Leibniz proceeds to reject all the alternatives to its own view.⁴⁶

⁴⁴ *Ibid.*, # 22, A VI 1, 17 (= GP IV, 24)/MLI 63. The point is repeated in #23: "Everything that before the operation of the mind really differs from another, such that neither is part of the other either wholly or partly, can be separated from the other. For in those things adequately different neither stands in need of the other for its own *esse*" (GP IV, 25/MLI 65).

⁴⁵ See Notae ad Danielem Stahlium, 1663-64 (?), A VI 1, 30. Interestingly enough, few years later, in a text devoted to a defence of Trinity against the objections moved by the Socinian A. Wissowatij, Leibniz's attitude toward the 'formalist' approach seems to have changed, at least for what concerns distinction between God's attributes: "Thus in the strictest sense it cannot be said that God is one, so that in him in reality or before the operation of the mind distinct entities [distincta] do not exist. For, if a mind exists, it must be that there are in it [...] power, knowledge, and will. In truth, it would be a contradiction if there were not a real difference [reale discrimen] among these. To be sure, since they are formally different, this will be a difference by reason of analysis [distinctio rationis ratiocinatae]; on the other hand, this difference has its foundation in the thing itself; there will therefore be in God three really distinguished foundations" (Defensio trinitatis contra Wissowatium, 1669 (?), A VI 1, 526). On Leibniz's defense of the Trinity against Wissowatij, see M. R. Antognazza, Leibniz on the Trinity and Incarnation, 16-30, especially p. 28, from which the translation of the passage above is taken). The interesting point is that, in this text, formal distinction is clearly equated with a distinction of ratio ratiocinata, i.e. a conceptual distinction with fundamentum in re (which was Suárez's interpretation of formal distinction). Note, also, that Leibniz emphasizes here the 'reality' of such a distinction. The inclination toward a more 'realist' reading of universals and attributes is a constant of Leibniz's theological writings. A similar trend can be detected concerning the question of the reality of accidents (weakened, when not rejected, in Leibniz's metaphysical drafts, and affirmed in his theological texts), cf. my remarks in Chapter 9.6 below.

⁴⁶ See Cover and Hawthorne, *Substance and Individuation*, p. 37.As Cover and Hawthorne rightly point out, Leibniz never attributes to Scotus the claim that species are separable from haecceities and thus emerging as really distinct: "Leibniz intends to attribute to Scotus the view that common natures are *real* and *other than haecceities* –with his 'apart from' [*praecisa* in the original] [...] being the best one might do by way of a neutral term not explicitly bringing the language of numerical distinction to bear" (ibid., p. 35). Of course, in Leibniz's

Finally, against the attempt to read the formal distinction as a distinction of reason, Leibniz contends that, if this is the real interpretation of the formal distinction, it is of no help in solving the question of the principle of individuation, which, as stated at the beginning, "ought to be sought apart from the intellect".⁴⁷Paradoxically as it might be, Leibniz's reasoning seems to be the following: if the supporters of the formal distinction try to weaken it by reading it as a simple conceptual distinction, then the question of individuation (in its metaphysical, ontological sense) seems to dissolve. But, Leibniz concludes, this is absurd, and it is why the formal distinction, in order to make sense, cannot be disjointed from an extremely realistic account of universals.

Even Leibniz's favourite account, i.e. the *tota entitas* solution, however, seems to amount to the same dissolution of the problem of individuation, since, in a more comprehensible formulation, it says just that each individual is individuated by itself, so that the mysterious *tota entitas* of any individual x is x itself.⁴⁸

Note, however, that there is no way to take this claim as equivalent to Leibniz's mature account, whereby each individual is individuated by its complete concept. First of all, indeed, the very same possibility of a conceptual individuation seems to be blocked by Leibniz's initial statement that the principle of individuation has to be sought apart from the intellect. Of course, it is true that, even for the young Leibniz, there is a primacy of essence over existence, at least for what concerns the question of individuation; even Leibniz's apparent commitment to individual essences, however, does not allow us to conclude that the "whole entity" of the *DPI* is the same thing as the complete individual concept.

Later on, we will see that the young Leibniz explicitly rejects the possibility of something like an intellectual cognition of the individual as such. For the moment, however, what the DPI says about the relationship between essence and existence seems sufficient to me to dispel the plausibility of such a reading.

1.3 Essence and Existence.

Leibniz against the Real Distinction

As anticipated in the last paragraph, one could say that the young Leibniz accepts the view according to which there are individual essences, or, better, the only real essences are individual ones (general essences being nothing but abstractions).⁴⁹ Such a commitment seems to be implied by what Leibniz says, in sections 7-8, where he is defending the claim that every individual is individuated by its whole entity: there is a nature, e.g., in Socrates, which is intrinsically determined outside the mind (*extra intellectum*), and this follows from the rejection of universals *in rebus*. If there is no such a thing as a nature indifferent to being

opinion, a position according to which common natures have a reality independent of the operations of the mind and, at the same time, are not really distinguished (separable) from the individuals, is untenable.

⁴⁷ DPI, # 24, A VI 1, 18 (= GP IV, 25)/MLI 66.

⁴⁸ This point is clearly stated by I. Angelelli, "The Scholastic Background of Modern Philosophy: *Entitas* and Individuation in Leibniz", in Gracia (ed.), *Individuation in Scholasticism*, p. 539.

⁴⁹ Such an account had been defended by Suárez as well as from other early modern Schoolmen. Cf. Chapter 8.4 below.

determined as the nature of Socrates or Plato or of someone else, it follows that "the nature of Socrates individuates itself" and that the humanity of Socrates intrinsically differs in number from the humanity of Plato.

1.3.1 The ambiguity of 'existence' as the principle of individuation

Against this view, Leibniz lists three arguments, which he dismisses as 'of little importance'. The second one, however, is worth quoting, since it introduces for the first time the topic of the distinction between essence and existence:

"If essence in itself lacks existence, and it does not imply it, it follows that essence is indifferent in itself [to existence]. But the first is true in that what can be and can be conceived as opposite to something else does not include that something else. But essence can be and be conceived without existence. Therefore [essence does not include existence]. I respond: essence is either taken as it is in the intellect and for the quidditative concept and on this view existence is not [contained] in the idea of essence; or it is taken according as it is in the thing and on this view I deny that it can be without existence".

This objection applies to the contraposition between essence and existence the same problem raised few lines above about the common nature, i.e. the question whether there can be an essence (nature) indifferent with respect to existence and non-existence (indifferent with respect to being the nature of this or that individual).

Note that the objection comes from Soncinas, who, being a Thomist, was a supporter of the real distinction between essence and existence: the objector's point is that, since essence can be conceived without existence, then they are really distinct and, thus, there is an essence indifferent to existence as well as to non-existence. Leibniz's answer is that such a distinction holds only *in intellectu* and not *in re* (and the passage from conceivability to real distinction, at least in this case, is invalid). If essences are self-individuated natures, then they cannot be really distinguished from the existing individuals.

This point will be expanded in sections 13-15 of the DPI, where Leibniz discusses and rejects existence as the principle of individuation. As I said above, whereas his discussion of haecceity is entirely devoted to a demolition of the theory of formal distinction, the discussion of existence as the principle of individuation is particularly concerned with the theory of a real distinction between essence and existence.

Leibniz introduces the discussion by pointing out that the view according to which existence individuates

"[...] can be taken in two ways. In one way, existence might be some real mode, intrinsically individuating the thing and distinct *a parte rei* from its essence. If this is the case, it can by no means be defended, as will become clear shortly. But, if [existence] differs only mentally from essence, [this position] agrees

⁵⁰ DPI, #10, A VI 1, 14 (=GP IV, 20)/MLI 103 (translation modified). As shown by McCullogh, such an objection is taken from the Thomist philosopher Paulus Soncinas, *Quaestiones Metaphysicales Acutissimae*, Venice 1588 (reprinted Frankfurt am Main 1967), p. 164: "It should be known, first, that actual existence is outside the idea of the quiddity of anything finite. This is plain, because no thing can be understood the opposite of something pertaining to its quiddity, just as it is plain that man cannot be understood to be inanimate or irrational. But any finite quiddity can be understood not to be. Therefore, existence is not in the idea of quiddity" (translated by McCullogh, *Leibniz on Individuals and Individuation*, p. 166).

uncommonly well with us. Moreover, it expresses in what respect essence would be the principle of individuation". 51

The thesis that existence is the principle of individuation is ambiguous, because it can be taken in two different senses: (a) a realistic sense, following the view that essence and existence are really distinct (and, then, that the latter and not the former individuates), (b) a nominal one, if one maintains that between essence and existence there is only a distinction of reason.

In case (b), however, such a thesis is just a misleading way of expressing the *tota entitas* view, and this, Leibniz adds, helps us to understand in which respect essence can be regarded as the principle of individuation. On the contrary, if (a) is the case, that view cannot be defended, because there is no real distinction between existence and essence.

On this point, Leibniz faithfully follows Suárez's account in the fifth section of his DM V, even though he makes explicit reference only to the work of his master in Leipzig, Johann Adam Scherzer.

Suárez himself, indeed, begins by pointing out that the opinion concerning existence can be rejected in two ways, i.e. either assuming that it is based on a real distinction or asserting that existence is nothing but the actual entity of each thing. The last one is rejected only in the sense that is an obscure and ambiguous formulation of the true view, insofar as "it attributes to existence rather than to essence the reason for individuation, even though this does not apply to existence except insofar as it is the same with essence".⁵²

In addition, the thesis that existence is distinguished from essence only by a distinction of reason is the thesis defended by Suárez himself in his DM XXXI, *On the essence of finite being as such, on its existence, and on their distinction*, a sort of seminal text for the discussion of this topic in the entire early modern period. Also in this case, however, even if in a less prominent way than that concerning the interpretation of haecceity, the position held by the young Leibniz does not retain the whole of the position endorsed by his great scholastic source.

1.3.2 Suárez against the real distinction

Leibniz's discussion of existence in the DPI is entirely focused on point (a), i.e. the rejection of the view that existence and essence are distinguished *a parte rei*.⁵³ As I remarked above,

⁵¹ DPI, #13, A VI 1, 14 (=GP IV, 21)/MLI 46.

⁵² Suárez, DM V,v, 2/Gracia 114.

⁵³ In the late Scholastic thought, the view that existence and essence were really distinct was commonly defended by Thomistic thinkers, and rejected by all the other schools. However, it is very unlikely that such a view had been actually defended by Aquinas himself, whose genuine conception of being and essence had been quite misunderstood by his followers. For a synthetic but detailed exposition on the history of this misunderstanding, see P. Porro, "Qualche riferimento storiografico sulla distinzione di essere ed essenza", in Tommaso D'Aquino, *L'ente e l'essenza*, Milano 2002, pp. 183-215. For a standard presentation of Aquinas' views, see A. Kenny, *Aquinas on Being*, Oxford 2002. For an overview of the different positions on the distinction between essence and existence during second Scholasticism, one can usefully refer to P. Di Vona, *Studi sulla scolastica della Controriforma. L'esistenza e la sua distinzione metafisica dall'essenza*, Firenze 1968.

this was also the main target of Suárez's discussion of existence in DM V. However, in order to reject the real distinction, Suárez puts forth three arguments, none of which is discussed by Leibniz.

The interesting point is that Suarez's arguments, especially the first one, seem to be in keeping with Leibniz's mature views on individuation and existence (more than with the attitude shown by the young Leibniz in his early texts). All these three arguments follow the same strategy, i.e., that of conceding, for the sake of the argument, that existence and essence can be really distinguished, and concluding that, also in that case, existence cannot work as a principle of individuation.

The first one moves from the premise that essence as such, i.e. as it is before being actualized (that is, at the level of pure possibility), is made individual; therefore the common nature (the general essence) "is not contracted into the individual essence by existence". The interesting point is that, together with general essences (like "man"), which are common to many individuals, Suárez explicitly makes room for individual essences, because, as he says, "Peter and Paul, as abstracting from actual existence, that is, as possibles, intrinsically include their individual natures (*rationes*), by which they are distinguished"⁵⁴.

The same point is stressed in a passage from DM XXXI, where Suárez criticizes some theologians who say that "existence means the individual nature but essence only means the specific nature prescinded from individuals", so that the distinction between essence and existence is a distinction of reason of the same kind of that between the species and the individual. However, Suárez rejects this comparison (between the contraction of the common natures into an individual and the actualization of an essence) by pointing out that "essence can be not only specific but also individual and singular", and, similarly, that "existence itself can be conceived of in general and can be singular", even though existence in general (as well as the general essence) in only an abstraction, for "the existence of Peter is one thing and that of Paul is another".⁵⁵

In DM V, however, Suárez adds something more about the relationship between essential and individual differences:

"[...] because specific, that is, essential, differences accrue to the species by a necessary connection, according to which propositions in which essential predicates are predicated are said to be perpetually true; [and] so, [likewise], its individual difference accrues to the individual. Hence, it is as necessary for Peter to be this man, as to be man, and it is as necessary for Peter to be placed under man, as [it is] for man [to be] under animal. Therefore, this contraction and subordination is not caused by actual existence, which comes contingently to the fully constituted and individuated essence".⁵⁶

The priority of essence over existence is stated in a very strong way, not only by assuming the existence of individual essences, but also that one and the same necessity holds between the predication of essential properties in the traditional sense (like "Peter is a man") and that of individual differences ("Peter is this man") which turn out to be individually essential.

⁵⁴ Suárez, DM V,v, 3 /Gracia 114.

⁵⁵ DM XXXI, vi, 16/Wells 96-7.

⁵⁶ DM V,v, 3 / Gracia 114. Interpreters have rightly stressed the 'superessentialist' consequences of this claim and, of course, its affinity with Leibniz's mature views. See Courtine, "Le principe d'individuation chez Suarez et chez Leibniz", pp. 187-88, and, especially, Di Bella, "Suarez and Leibniz on Individuation", pp. 223-26.

In other words, Suárez is claiming not only that individuals as such are perfectly and completely determined at the level of unactualized possibilities (remember his reference to Peter and Paul taken "as possibles"), but also that, from the modal point of view, individual differences (properties that belong to the individual as such and not as a member of a general species) have the same status of essential properties.

Then, he concludes that existence "comes contingently to the fully constituted and individuated essence", which sounds very similar to the superessentialist reading of Leibniz as claiming that existence (or possible non-existence) is the only contingent property that can be said of an individual (having to do with the instantiation or non –instantiation of a complete concept).

Of course, behind this Suárezian passages there are theological reasons connected with the debate on the so-called *scientia media* as well as the status of essences in the mind of God (eternal truths are briefly mentioned in the passage above). I shall come back to this point in the next chapter.

For the moment let me say that also Suárez's other two arguments, dwelling with the contraposition between act and potency, are based on the priority of essence over existence. Essence, indeed, has to be conceived of as already individualized, because, otherwise, existence should be understood as the act of an undetermined potency and not of a singular one. Finally, since essence "is both prior in the order of nature and also in perfection" to existence, existence itself will be a 'this' (i.e. the existence of Peter or that of Paul) only because is the actualization of an individual essence (of "*Petrinitas*" or "*Paulinitas*", to employ a jargon that Leibniz himself will use sometimes).⁵⁷

Now, it is interesting to note that such a primacy of essence was already present in Scotus' discussion of existence as a principle of individuation. Of course, in the case of Scotus it is not entirely legitimate to speak of "individual essences", because, according to him, individual difference (haecceity) cannot be equated to a form, properly speaking (even though Leibniz is inclined to read haecceity right in this way).⁵⁸

However, in rejecting the view that existence is the principle of individuation, Scotus stresses exactly this point: that existence cannot have proper differences which are different from that already present in the essence; on the contrary, the being of existence is exclusively (*praecise*) determined by essential determinations and, thus, it cannot determine anything else.⁵⁹

In particular, Scotus points out that existence receives all its determination from what he calls the "predicamental coordination", i.e. the categorial order of essences. Since existence presupposes the order and distinction of essences, it cannot provide a reason for its being singular, i.e. for its being 'this' existence, so that the same problem about what makes the common nature an individual can be proposed again about what makes existence a 'this'. Note that Scotus' point will be literally rephrased by Suárez in his third argument.⁶⁰

⁵⁷ Especially in a text concerning "middle knowledge", see *Scientia media*, November 1677, A VI 4, p. 1374.

⁵⁸ I am not interested in making claims about the correct way of interpreting Scotus' view on this delicate topic. See P. King, "Scotus on Singular Essences", in *Medioevo*, XXX, 2005, pp. 111-37. On the problem of knowledge of the singular in Medieval philosophy, see also C. Berubé, *La connaissance de l'individuel au moyen âge*, Paris 1964.

⁵⁹ See Scotus, Ordinatio II, d. 3, pars 1, quaestio 3, n. 61 and 62 (the latter says: "sed existentia, ut determinata et distincta, praesupponit ordinem et distinctionem essentiarum").

⁶⁰ Cfr. Scotus, Ordinatio, II, d.3, pars 1, quaestio 3, n. 64 with Suárez, DM V, section 5, #5.

1.3.3 The young Leibniz on Essence and Existence

Coming back to Leibniz's discussion in the DPI, one can see that the Scotist argument is briefly referred to at the end of section 15, but without any discussion (Leibniz limits himself to quote many authorities supporting that view). On the contrary, the single argument he displays in that section is somewhat different from those elaborated by Suárez (and also by Scotus). His own argument can be summarized as follows. If essence and existence are not really distinguished (are the same *a parte rei*), then existence cannot be the principle of individuation.

At this point, Leibniz focuses entirely on showing that the premise is true: if one assumes that essence and existence can be separated from each other (as required by a real distinction), only absurd consequences follow, in particular, it follows that "essence exists apart from existence". Separated from existence, essence can be either a (1) real thing or (2) nothing.

If (2) holds, that amounts to say they are not really distinguished.

The interesting point is Leibniz's rejection of (1):

"If, on the other hand, [essence] is a real being, it is either purely potential or actual being. Without doubt [it must be] the former, for it cannot be actual except through existence which, however, we have supposed to be separated. If, therefore, essence is purely potential, all essences are prime matter. For two purely potential things do not differ, not even by relation to act, because this relation, since it would be to a being in potency, is not real. If, therefore, essences are not different from matter, it follows that matter alone would be the essential part and things do not differ by species, for example, the essence of a brute and the essence of a man. For neither includes form, which is the principle of specific distinction and two purely potential things do not differ. And, if you say that they differ through relations to the Ideas, there is no real relation, for then there would be an accident in God".⁶¹

The only point Leibniz retains from his sources is the interpretation of the couple 'essence/existence' in terms of 'potentialiy/actuality'. If we make the hypothesis that essence can be separated from existence, indeed, essence should be understood as a kind of potential being (otherwise, it would collapse on existence, against the hypothesis).

However, what is really interesting in Leibniz's *reductio* is that, according to him, potentiality has not to be understood in terms of a singular or determinate potency, but, rather, of a purely indeterminate one, i.e. *prime matter*. Leibniz immediately equates "potential being" with "prime matter", and, consequently, proceeds to show that, conceived in that way, essences would be completely undifferentiated, not differing by species either (there would be no way to distinguish the essence of a brute from that of a man, since the only principle of distinction is form). In this way, the traditional distinctions between genera and species (at the basis of Aristotelian essentialism) would completely disappear.

It should be stressed the fact that, contrary to the Scotist tradition, followed by Suárez himself (as showed above), Leibniz here does not conceive non-actual essences in terms of *possibilia* or completely determined individual essences; on the contrary, they are equated

⁶¹ DPI, # 15, A VI 1, 15 (=GP IV, 22)/MLI 47.

with bare potentiality, i.e. prime matter: something completely undetermined and unable to provide the ground of distinction even for traditional essences ("man", "brute"), let alone for individual ones! As usual in the case of Leibniz's choices in the DPI, the authority of Thomasius could have played an important role in this case as well.

Thomasius, indeed, criticized the Thomistic doctrine of individuation in the case of both material and immaterial substances. In the first case –corporeal substances are individuated by matter –, he traces back this theory to the (dangerous) influx of ancient Greek philosophy, which took matter (taken as pure potentiality) as an independent and uncreated principle external to God; in the second case –angels are individuated by their species, i.e. by form –, he criticized the extension of this thesis to human souls, by pointing out that if there are specific differences in the human souls, the uniqueness of human essence would be jeopardized.⁶²

Interestingly enough, in the *Theodicy* (1710), Leibniz will show to have retained the core of Thomasius' criticism to Plato's indeterminate matter:

"The ancients attributed the cause of evil to *matter*, which they believed uncreated and independent of God: but we, who derive all being from God, where shall we find the source of evil? The answer is, that it must be sought in the ideal nature of the creature, in so far as this nature is contained in the eternal truths which are in the understanding of God, independently of his will. [...]Plato said in *Timaeus* that the world originated in Understanding united to Necessity. Others have united God and Nature. This can be given a reasonable meaning. God will be the Understanding; and the Necessity, that is, the essential nature of things, will be the object of the understanding. And therein is found not only the primitive form of good, but also the origin of evil: the Region of the Eternal Truth must be substituted for matter when we are concerned with seeking out the source of things".⁶³

In this well known passage, Leibniz defends a form of Christian Platonism, replacing Plato's matter (and necessity) with the ideal nature of things, which is contained in the eternal truths, i.e. that region of ideas or possibles which is the *internal* object of God's understanding (where the word "internal" needs to be stressed in contraposition with Plato's matter which is external to God); the substitution of matter with God's ideas has to be operated in order to explain the source of things in agreement with the truth of Christian theology.

In Leibniz's mature view, as summarized in the *Theodicy*, this approach is very similar to that defended by Suárez in the passage quoted above, where the Spanish Jesuit pointed out that essences are already individual at level of pure possibilities, before God actualizes them.

On the contrary, the perspective that emerges in the passage from the DPI quoted above is considerably different. Note that the young Leibniz takes into consideration and immediately rejects the hypothesis that essences can be distinguished "through relations to the Ideas" [which I take as a reference to divine ideas], because "there is no real relation, for then there

⁶² See for example, J. Thomasius, *De Ideis Platonicis exemplaribus* (1659), in Id., *Orationes partim ex umbone academici*, Leipzig 1683, pp. 297-98, where Aquinas' theory of matter as the principle of individuation is traced back to Plato's hypostatization of prime matter. The same point will be repeated in Thomasius' preface to the DPI, when, together with the criticism to matter as the principle of individuation, he will address his criticism to specific individuation as well, see A VI 1, 6-7. On this point, see the remarks of Di Bella, "Leibniz, Scoto e il principio d'individuazione", pp. 540-2. On prime matter, see also Thomasius, *Theses philosophicae: an Deus sit materia prima*, Leipzig 1668.

⁶³*Theodicy*, #20, GP VI 114-5/H 138-9.

would be an accident in God". This remark is too cursory to be fully understandable. It can be read as stating that if essences are not already distinguished in themselves, they cannot receive such a distinction through an act of intellection by God, because this would be only something contingent and extrinsic: reference to the unreality of relation is in the right place here, since, among what the Schoolmen counted as purely "extrinsic denominations", relations produced by a mere act of understanding (typically: the relationship between the knower and the thing known) played a central role.⁶⁴

It is difficult to say if this passage should be taken merely as an *ad hominem* argument against the supporters of the real distinction or if one can read in it a subtle criticism of the doctrine of *esse cognitum*, i.e. the theory according to which the ontological status of essences (prior to their creation) is a diminished one and consists in their being known by God (the thesis that Leibniz himself will defend in his mature view). At the end of the next chapter, I will bring some evidence in favour of the latter (in particular, showing that the young Leibniz seems to share Ockham's criticism of the subsisting of ideas in the mind of God).

For the moment, what is certain is that, contrary to Suárez's passage above, there is no explicit commitment to an ontology of individual essences taken as merely possible. As I will show in detail in the following chapter, indeed, the young Leibniz's attitude toward potential being (and, then, bare *possibilia*) is a very deflationist one, in keeping with the teaching of his master Thomasius.

Chapter 2:

"The essences of things are not eternal, unless they are in God". Nominalism and Eternal Truths in Thomasius and the young Leibniz

"[...] cavendum ne in hoc argumento ultra Deum progrediamur cum iis, qui pronunciant, etiam sublato Deo, sublato omni intellectu, (consequenter etiam divino,) mansuras esse nihilominus connexionum veritates" (J. Thomasius, *Dilucidationes Stahlianae*, I, 6, n. 102, p. 66)

"Feu M. Jacques Thomasius [...] n'a pas mal observé [...] qu'il n'est pas à propos d'aller tout à fait au-delà de Dieu : et qu'il ne faut point dire avec quelques Scotistes, que le verités eternelles subsisteroient, quand il n'y auroit point d'entendement, pas même celuy de Dieu" (Essais de Théodicée, # 184, GP VI, 226)

⁶⁴ See M. Mugnai, "Leibniz's Ontology of Relations. A Last Word?", in *Oxford Studies in Early Modern Philosophy*, VI, 2012, pp. 171-208, p. 192. In the Scholastic jargon, such relations were called "relations of reason" and were regarded as a type of "being of reason" (*ens rationis*).

In the preceding section I have remarked that Leibniz's re-proposition of the old controversy on the principle of individuation has to be understood in the context of his commitment to a nominalist view of common natures, universals and abstract entities in general. In this sense, contrary to the appearances, Leibniz's explicit commitment to a nominalist perspective in his 1670 preface to Nizolius and the critique to Scholasticism expressed therein (but it is a widespread attitude that emerges in many texts from the same period)⁶⁵ are not in contrast with Leibniz's approach in the DPI.

However, it is still not clear to what an extent one might regard Leibniz as a full-fledged nominalist, especially if, as many scholars have suggested, his particularism about actual entities (the claim that everything that exists is individual) goes hand in hand with a sort of Platonism about ideas and possibilities.

Among the scholars, some have regarded this alliance between nominalism (about the actual) and Platonism (about the possible and, in general, ideal entities) as one of the main tensions within Leibniz's philosophical system, whereas others have pointed out that Leibniz's position should be better conceived of in terms of a *conceptualist* view about ideas (divine ideas, in particular, are just concepts in the mind of God), which is not in contrast with his nominalism about actual beings (interpreted as a strong rejection of the actuality of all non-concrete kinds of being).

The latter position seems to be more in keeping with the views expressed by Leibniz in his mature works. However, when dealing with the young Leibniz, especially with the texts written before his Paris period, his views on this point appear to be not so clear-cut, and, moreover, I think there is enough evidence to maintain that they are not fully coincident with his later ones.

2.1 The young Leibniz: What kind of Nominalism?

As far as the mature Leibniz is concerned, it has been stressed that the contraposition between the issue concerning the "reality" of divine ideas (think of essences and possibilities insofar as they are understood by God) and Leibniz's nominalism is quite misleading.⁶⁶

⁶⁵ In addition to the *Preface to Nizolius*, one can find frequent criticisms of the Schoolmen's way of doing philosophy in Leibniz's letter to Thomasius (which has been reprinted in appendix to the former) as well as in his first writing on the questions of theodicy, *Von der Allmacht und Allwissenheit Gottes und der Freiheit des Menschen*, 1670-71 (?), A VI 1, 537-46. See also Leibniz's 1673 text on *L'Auteur du peché*, A VI 3, 150-51, where he explicitly shares Hobbes' criticism of the Scholastic view that evil is just a privation, and, thus, God is not responsible for that. Later on, Leibniz himself will reconsider his own position on this point, rehabilitating the core of the Scholastic view, cf. *De libertate, fato, gratia Dei*, A VI 4, 1605. The Scholastic view will be reinterpreted by Leibniz in connection with his theory of the essential limitation of creatures (cf. Chapters 7 and 8 below).

⁶⁶ The contraposition between nominalism and Leibniz's account of divine ideas has been emphasized by B. Mates, *The Philosophy of Leibniz*, pp. 176-78, who, moving from a Quinean worry about ontological commitment to intensional entities, suggested to read Leibniz's talking of the reality of possibles in God's understanding in dispositional terms, i.e. as talking about God's capacities or intentions. The plausibility of such a reading has been questioned by F. Mondadori in his review of Mates' book, in *The Philosophical Review*, XCIX, 4, 1990, pp. 613-29, where he rightly points out that the idea of a (modally non-vacuous) disposition to think makes no sense when God's understanding is concerned. On the question of the "reality" of ideas in the mind of God, see M. Mugnai, "Leibniz's Nominalism and the Reality of Ideas in the Mind of God", and F. Mondadori, "Modalities, Representations and Exemplars: the "Region of Ideas", both published in A.

Nominalism, indeed, rests on the division between concrete and abstract beings, where the former are the only kind of beings existing in the actual world, while the latter (species or general essences, relations, possibilities, and so on) have only an existence in the understanding, and, in this sense, can be regarded as mere "beings of reason" (*entia rationis*). However, this claim can be interpreted in two different ways, a weak and a strong one, as F. Mondadori has shown in details.⁶⁷

2.1.1. Full-fledged vs. weak Nominalism

In particular, Mondadori clearly envisages that Leibniz's particularist claim, according to which the only members of the actual world are individual substances (with individual accidents) and nothing else, is compatible with two different interpretations. The difference between these two interpretations rests on the sense in which one has to interpret reference to *reality*.

According to the first, (1) "real" is opposed to "unreal *tout court*"; according to the second, on the contrary, (2) "real" is contrasted with "ideal". Therefore, when saying that abstractions are not real, one can mean either (1) that abstractions are unreal *tout court* or (2) that they are just ideal entities, having no actuality (they are not members of the actual world) but only a kind of reality *secundum quid*. The same, of course, can be said of possibles. According to (1), abstractions (as well as possibles) do not even count as ideal entities (i.e. as entities having the kind of being of the objects of understanding), they simply do not have any being at all.

Again, according to (1), "reality" coincides with "actuality" and there is no third possibility between to be real and to be nothing: "there are no such things as (merely) "ideal" entities", because "to assert that something is not "absolutely real" is just to say that it is unreal *tout court*, or, equivalently, that it has no *esse* whatsoever".⁶⁸

In contemporary terms, this approach would be characterized as a (strict) actualist position, as in the case of Quine's notorious rejection of purely possible beings. On the contrary, the point of view expressed by (2) cannot be confused with a full-fledged Platonist position (at least, according to the use of Platonism in the contemporary debate in philosophy of logic or mathematics) nor with something like Meinong's distinction between existing and barely subsisting things. The ontological status of ideal beings according to (2), properly speaking, is that of the *objective being* in the Scholastic jargon, in particular that of the *esse cognitum* of the Scotist tradition: a kind of diminished being, distinguished from the being of actual entities on one hand, and from that of the merely fictional ones on the other one.⁶⁹

Heinekamp-W. Lenzen-M. Schneider, *Mathesis Rationis. Festschrift für Heinrich Schepers*, Münster 1990, respectively, pp. 153-67 and pp. 169-88.

⁶⁷ For this distinction, see F. Mondadori, "Nominalism", in Q. Racionero-C. Roldan (eds.), *G. W. Leibniz: analogia y expression*, Madrid 1995, pp. 173-88. Mondadori distinguishes between 'full-blooded' and 'qualified' nominalism, where the first option is coincident with Mates' reading (see the preceding note).

⁶⁸ Mondadori, "Nominalism", p. 175.

⁶⁹ I am not ascribing a nominalist position to Scotus and the Scotists (quite the contrary, as we have seen, Scotism is regarded by Leibniz as a form of extreme realism on universals). I owe clarification on this point to a conversation with Massimo Mugnai. My claim is restricted to the idea that possibilities and ideal entities in general have a kind of *diminished being*, regarded as distinguished from both the full being of existence and the pure nothing. Notice that the very same possibility of such an intermediate kind of being has been questioned by full-fledged nominalists. On the contrary, a conciliation between nominalism about actual entities and

As anticipated above, according to many interpreters, position (2) seems to fit better with Leibniz's considered way of dealing with abstractions and ideal entities, even though this does not mean that his position is entirely free from difficulties.⁷⁰Of course, when disposing of something as a realm of "ideal" entities (according to the sense of "ideal" in (2) above), the fact that the distinction between concrete and abstract beings represents a distinction in thought that is not reflected in the (actual) world (the domain of existing things), *does not* imply that these entities are wholly arbitrary or fictional entities. In particular, since the end of the 1670's, Leibniz is particularly eager to distinguish his own nominalist position from Hobbes' conventionalism (according to which truths are wholly arbitrary).⁷¹

This passage is fundamental to understand the genuine import of Leibniz's theory of truth in terms of the containment of the (concept of the) predicate in the (concept of the) subject, and, in particular, Leibniz's warning that such an account of truth must be grounded in reality.⁷²

On one hand, indeed, Leibniz holds that the sense of *inherence* involved in his conceptual containment theory of truth (*praedicatum inest subjecto*) cannot be understood in terms of the inherence of real accidents (be they general or individual) in an individual substance, since this would imply a reification of abstract entities. On the other hand, he wants to overcome the threat of Hobbesian conventionalism about truth, holding that the reason for which a proposition is true (i.e. the concept of the predicate is contained in that of the subject) cannot rest just on arbitrary connections among our ideas.

Now, reference to divine ideas (essences as contained in God's understanding) is required in order to provide a solution to this dilemma. The connection between the notions of the two terms (subject-and predicate-concept) of a true proposition has its ground not in things in the actual world but in the essences of things contained in God's understanding. As it has been written, indeed, "the assertion of the reality of divine ideas is in fact the only way to uphold a nominalist ontology, while at the same time preserving an objective ground for possibility and truth".⁷³

conceptualism about abstract and possibilia was, so to say, the 'trademark' of Suárez' s interpretation of Scotus (both in the case of universals and in that of essences). Whereas Leibniz's considered views on this point will be very close to those of Suárez (cf. my discussion in Section Three, especially Chapter 8 below), I believe that the young Leibniz shares Thomasius' scepticism about the contamination between nominalism and Scotism attempted by Suárez and other modern Schoolmen. See my discussion in this chapter, below.

⁷⁰ In particular, some difficulties remain concerning the priority of the concrete over the abstract in the case of ideas *in mente Dei*. See my discussion of this point in Chapter 8 below.

⁷¹ Mugnai, "Leibniz's Nominalism",pp. 157-59, rightly shows how Leibniz's anti-conventionalist argument in his 1677, *Dialogus*, has to be compared with the metaphysical background provided by two short drafts of the very same period, *De veritatibus necessariis seu aeternis* and *De veritatis realitate*. Although apparently diverging, these texts present two views that are actually complementary. Whereas the *Dialogus* is focused on the question of the basis of truth (*fundamentum veritatis*), the other two texts develop the topic of the reality of truths (especially the question of the so-called eternal truths).Cf. my discussion of these texts in Chapter 9 below.
⁷² In a famous passage from the *Discourse on Metaphysics*, #8, Leibniz says that "it is evident that all true predication has some basis in the nature of things ("dans la nature des choses")" and immediately refers it to what the philosophers call "inherence" (*inesse*). See A VI 4,1540 /AG 41. And in another passage in which he repeats that a proposition is true if the predicate is contained in the subject, he adds that, for this reason (*proinde*), "it is necessary that some connection holds between the concepts of the terms, i.e. there should be an objective foundation (*a parte rei*) from which the reason for the proposition can be given" (Cout. 401-2). On this notion of 'reality', cf. also Chapter 6 below.

⁷³ Rutherford, *Leibniz and the Rational Order of Nature*, p. 119. The account of Leibniz's theory of truth and inherence briefly sketched in these paragraphs is greatly indebted to Rutherford's reading of Leibniz's nominalism. On the same vein, see the remarks in S. Di Bella, *The Science of the Individual: Leibniz's Ontology*

However, this rather complex sophisticated account (which connects Leibniz's views on truth with his ontology) presupposes a whole array of (mutually interconnected) concepts, the most important among which are the conceptual containment theory of truth, possible worlds and an account of individuality in terms of complete concepts (plus the relation of 'expression' holding among the concepts in human mind and divine ideas).⁷⁴

As I will try to show in this and in the following chapters, none of these items were available to the young Leibniz, at least until the very end of 1670's. For example, Leibniz's ontology of possible worlds does not emerge until the period between Leibniz's last year in Paris and his first years in Hannover. More or less in the same period he starts working on an account of substance in terms of "completeness" (at the beginning, focusing on substance as a complete being, then moving on the completeness of the notion). His theory of truth in terms of conceptual containment emerges in the essays on logical calculus of the first Hannoverian period, around 1678-79.

Therefore, some caution is in order when dealing with Leibniz's early views, at least if one does not want to commit the mistake of projecting Leibniz's mature views on the earlier stages of his philosophical development. The temptation is particularly strong especially when, as in the case I will discuss soon, Leibniz's mature views seems to provide a good framework to make sense of the scattered, sometimes confused and even conflicting opinions held by him as a young philosopher. I think, however, that such a temptation should be resisted.

2.1.2 "Essentiae rerum sunt sicut numeri"

Coming back to the question of Leibniz's contamination of Platonism (or conceptualism) and nominalism in his first years, many authors have focused their attention on two of the corollaries that immediately follows Leibniz's *DPI*. The third and fourth corollaries to the DPI, indeed, respectively say: "The essences of things are similar to numbers" (*"Essentiae rerum sunt sicut numeri"*), and "The essences of things are not eternal unless they are in God" (*"Essentiae rerum non sunt aeternae nisi ut sunt in Deo"*).⁷⁵

Apparently, these two theses are completely unrelated to the main body of Leibniz's dissertation, a fact that makes their correct interpretation extremely difficult (the discussion of such corollaries was probably left to an oral debate, and this gives us no help in order to explain them). In particular, scholars have paid a lot of attention to the first thesis, i.e. the comparison between essences and numbers, because of its unquestionable similarity with Leibniz's commitment to the combinatorial project (expressed for the first time in his 1666's work, *Dissertatio de arte combinatoria*).

of Individual Substance, Dordrecht 2005, p. 38, where, in dealing with the topic of abstraction, he notes that Leibniz "shifts onto divine ideas the epistemological burden which realists attributed to universal within things". For a detailed account of Leibniz's theory of truth that stresses his correspondentism with possible rather than actual beings, see J. B. Rauzy, *La doctrine leibnizienne de la vérité: aspects logiques et ontologiques*, Paris 2001, esp. chaps. 1 and 2.

⁷⁴ Leibniz's mature system has been described as a system of mutually interconnected concepts by F. Mondadori, "The Leibnizian Circle", *Rice University Studies*, 63/4, 1977, pp. 69-96.

⁷⁵ DPI, corollaria, A VI 1,18 (= GP IV, 26).

This analogy had been stressed by Leibniz himself, who, in several occasions, employed an arithmetic simile in order to describe the derivation of the essences of finite things from the essence of God, stressing the fact that all the numbers (the essences of finite beings) are just different way of composing the same unities (i.e. the divine essence itself). This approach, in particular, will be typical of Leibniz's metaphysical papers in his Paris notes.⁷⁶

Moreover, the thesis that the essences of things are similar to numbers will be explicitly stated to support a discernibility claim concerning all essences: "The essences of things are similar to numbers. As there are no two numbers equal to each other, in the same way there are no two essences which are equally perfect".⁷⁷ The last passage is intended to show that, for any two essences whatsoever, one of the two will necessarily contain more perfection (i.e. quantity of reality) of the other one. Think of possible worlds as collections of essences (individual essences, viz. complete individual concepts), and you will obtain that, for any two possible worlds that God can pick out, there should necessarily be one that is more perfect that the other. Generalizing, you will obtain that, for any *n*-ple of possible worlds, there will necessarily be a most perfect one (if the same property can be extended from couples to n-ples of essences/worlds, of course).⁷⁸

⁷⁶ To my knowledge, the first mention of this analogy is to be found in a marginal note to the text of the *Demonstrationum Catholicarum Conspectus*, dated around 1668-1669 (but, as the editors observes, the marginal notes had been added only later), see A VI 1, 495: "In which way God is omniscient and in which way every property is contained into definitions, it can be wonderfully illustrated by the example of numbers; for example who knows that 3 equal to 1, 1,1". The same topic will be developed and expanded in the Paris notes, where the parallel will assume a stronger ontological significance. There, indeed, the derivation of all (finite) things from God will be understood (according to a Platonic or Neoplatonic framework) in terms of the derivation of the properties, expressed in the definitions of finite beings, from a common essence, viz. the divine one. See, for instance, A VI 3, 518-9: "Just as the number 3 is one thing, and 1,1,1, is another –for 3 is 1+1+1, and to this extent the form of the number 3 is different from all its parts –in the same way creatures differ from God, who is all things" (DSR, 67). See also A VI, 3, 385, 474, and 573, for other passages on the same vein. This point is deeply intertwined with the topic of the divine essence (as composed of absolute perfections) related to Leibniz's renewal of the ontological proof.

⁷⁷De necessitate eligendi optimum, 1677 (?), A VI 4, 1352.

⁷⁸ See Deus nihil vult sine ratione, 1678-1681 (?), A VI 4, 1389. In order to justify the claim that "God always choose the most perfect", Leibniz makes the following assumption: "Assume that there can never be found two things which are equally perfect, but one of them will be always more perfect than the other, which hypothesis, surely, is not impossible nor absurd. On the contrary, it is extremely probable, since the essences of things are similar to numbers and there are no two equal numbers". Notice that Leibniz always claim that the relation of "to be more perfect than" holds between couple of essences –essences taken two at once –, but his conclusion is supposed to hold for a very greate (and, perhaps, infinite) number of essences. The same problem affects Leibniz's notorious proof of compatibility among divine perfections, which is supposed to show that the concept of God as the most perfect being is possible. Also in that case, Leibniz assumes that, if compatibility holds between couples of perfections, it will hold for any n-ple of perfections as well. Of course, the problem concerns what we could call the associativity of the compatibility between perfections or essences, i.e. the fact that, given any three perfections (or essences) p, q, r, and a relation of compatibility to be expressed by the symbol *, if p * $q^* r$, then it holds that $(p^*q) * r$ (or, also, $p^*(q^* r)$). Notice that in his essays on logical calculi, Leibniz ascribes to the operation of real addition (which stands for the conjunction or the logical product of two concepts) both idempotence and commutativity, whereas associativity is not counted among the axioms of the calculus (even though he clearly employs it in proving theorems). Cf. C. Swoyer, "Leibniz's Calculus of Real Addition", Studia Leibnitiana, 26/1, 1994, pp. 1-30. Both Massimo Mugnai and Sergio Bernini have pointed out to me that, probably, Leibniz did not recognize the necessity of explicitly assuming associativity as an axiom, since it holds quite 'naturally' when a finite number of concepts is taken into account. However, the problematic point concerns the passage from a finite to an infinite sum, which is relevant in both the examples taken from Leibniz's metaphysics considered in this note. Concerning divine perfections, in his discussion with Jaquelot Leibniz explicitly acknowledges that a complete enumeration of them cannot be accomplished; cf. GP III, 454 note. Concerning the other question, notice that, from the fact that, given any two essences A and B whatsoever,

However, when used to justify God's submission to the principle of sufficient reason (PSR), the thesis that the essences are like numbers is to be understood as referring not only to general, specific essences but also to individual ones.

In the case of the early Leibniz, on the contrary, it seems to me that the significance of that thesis has to be understood in accordance with its use in the tradition of Aristotelianism. The remote origin of the claim, indeed, is to be found in a passage from Aristotle's *Metaphysics*⁷⁹, intended to show that, exactly like a number (say, number 3) changes its nature if you remove a unity from it (obtaining 2) or add a unity to it (obtaining 4), the same holds in the case of essences if you change something from their definitions.

With hindsight, it is tempting to see in this passage one of the inspiration for Leibniz's mature doctrine that each property of an individual concept is essential to it, so that each property of an individual turns out to be essential to it. However tempting, one should remind that in the writings of Leibniz's masters, the Aristotelian thesis of essences like numbers was unequivocally interpreted as referred to specific essences only.

2.1.3 Summary of the following paragraphs

In the following paragraphs, I will show, first, that Leibniz's thesis that essences are like numbers is not incompatible with his dissatisfaction with a "component ontology" which emerged from the previous analysis of the DPI. Second, I will focus on Leibniz's second corollary, that concerning the eternity of essences in God, showing that it is not in contrast with the early Leibniz's refusal to tribute any sort of reality to possible beings. The second point, in particular, will deserve a special attention, because of its relevance to the topic of existence as well as the fact that it usually went unnoticed in the secondary literature.

2.2 At the root of Leibniz's early theory of essences/1: Thomasius' account of Eternal Truths

First of all, let me remind that the claims "the essences of things are similar to numbers" and the "essences of things are eternal" correspond to, respectively, rule V and VI of Daniel Stahl's *Regulae Philosophicae*, a text commented by both Leibniz's teachers in Leipzig, Johann Adam Scherzer and Jakob Thomasius.⁸⁰

either A must be more perfect than B or vice versa, Leibniz concludes that, *therefore*, there must be an essence C that is the most perfect of all the others. This is the ground of Leibniz's mature view that what exists is the most perfect entity or, which is the same, the most compossible one. For other difficulties connected to this metaphysical account of 'existence', see Chapter 8 below.

⁷⁹ Aristotle, *Metaphysics*, VIII, 3 1043 a29-1044 a 14, in which Aristotle compares definitions with numbers. For a commentary of Aristotle's text, see *Aristotle's Metaphysics Books Z and H*, translated and commented by D. Bostock, Oxford 1994, pp. 261-71. On Aquinas' commentary, see Di Bella, *The Science of the Individual*, p. 31.

⁸⁰ On Leibniz's teachers, see C. Mercer, "The Young Leibniz and His Teachers", in S. Brown, *The Young Leibniz and His Philosophy (1646-76)*, Dordrecht 1999, pp. 19-40. However, the exactness of Mercer's reading has been questioned by the recent contributions of M. Picon, "Actualism and Analyticity: Lutheran Metaphysics and the Foundation of Knowledge in the Young Leibniz", *The Leibniz Review*, 24, 2014, pp. 47-67, and "The summulists' disputes *de constantia subjecti*': The young Leibniz and his teachers on eternal truths and

2.2.1 Thomasius' account of essences in the Dilucidationes Stahlianae

As far as the comparison between essences and numbers is concerned, both Scherzer and Thomasius stress that the analogy is intended to show the "indivisibility" of essences. In particular, Thomasius explicitly remarks that Aristotle's dictum can be applied only to composite essences, i.e. to the essences of created beings, thus excluding the essence of God, which is absolutely simple: "Pay attention not to extend this rule to essences of both substances and accidents *as they stand out in God*. In this place, indeed, they are subject to no composition at all and, for that reason, they are more similar to unity than to number".⁸¹

Accordingly, the comparison between essences and numbers has to be interpreted only metaphorically and *secundum quid*. In a general sense, since each number can be decomposed into unities, it can be called to be divisible; however, as far as its "formal unity" is concerned, each number, for instance number three, not only is undivided in itself and distinguished by all other numbers (four, five, six and so on), but it can be said to be indivisible, although only in a particular sense. Number three is divisible insofar as it can be divided into three unities, but, at the same time, it is indivisible *"in plures scil. talia qualis est ipse*", i.e. it cannot be divided into a plurality of number three(s), since it is not *"intensionis aut remissionis* […] *capax*".⁸² If you divide it in this sense, for instance by adding or subtracting one unity, it will perish as number three, i.e. as that specific number, since you will have changed its own definition.

This parallel can be applied to essences, whereby Thomasius has clearly in mind specific essences only (species and genera). They are both divisible and indivisible. Divisible, insofar as they can be de-composed into parts (*ob compositionem ex partibus*), be they purely logical or conceptual (genus and difference), metaphysical (like essence and existence) or physical (form and matter). Indivisible only "*ob illarum partium certi generis naturam*", which means "*indivisibilis in plura tanquam partes similares*": for instance, if you remove from the definition of 'animal' (taken as "*substantia animata et sensitiva*") the specific difference "*sensitiva*", you will get the definition of another essence, i.e. that of a plant; if you add the specification of "*rationale*" to it, you get the definition of the human being.⁸³

Note that, from Thomasius' explanation of Aristotle's dictum, two things are to be remarked. The first is that the two accounts of the divisibility/indivisibility of essences are conceived of as reciprocally independent: the thesis that essences, on the specific level, are indivisible is autonomous from the claim concerning the composition/decomposition of essences into (real or conceptual) parts.

Second, once one has excluded the divine essence from the range of applicability of the dictum, Thomasius easily acknowledges that it can be applied to the essences of finite things

existence", *Intellectual History Review* 2014, pp. 1-17. My reading of Thomasius' work has been heavily influenced by Picon's excellent works.

⁸¹ Thomasius, *Dilucidationes Stahlianae*, p. 18 (italics in the original).

⁸² Ibid, pp. 18-9. See also J. A. Scherzer, Vade mecum sive Manuale philosophicum, Leipzig 1675, pp. 10-11. On Erhard Weigel's interpretation of the dictum, see F. Piro, Varietas identitate compensate, p. 77.

⁸³ *Ibid.*, pp. 20-1. The examples are quoted from a passage of the Aristotelian philosopher Giovanni Crisostomo Javelli (1470-1538).

as they are *in rebus* as well as *in mente humana*, which means that the dictum itself does not commit you to a realist rather than nominalist view of essences.

Both these remarks, I think, help us to understand that, far from being in contrast with Leibniz's nominalist account of individuation, the simile between essences and numbers can be perfectly compatible with it. In particular, it is compatible with both Leibniz's rejection of the metaphysical composition of common nature and individual difference (as exemplified by Scotus' theory of haecceity) and the physical composition of essence and existence (as exemplified by the Thomist theory of the real distinction).

In addition, one has to remark that, as it has been observed many times, Leibniz's sympathy for the simile between essences and numbers is at the basis of his interest in the combinatorial project as exposed in his 1666 DAC, where he moved from Hobbes' suggestion that thought could be equated to a calculus. However, this Hobbesian heritage should warn us against the tendency to attribute to Leibniz a Platonist attitude toward essences. Quite the contrary, the assimilation of (general) essences to numbers points toward their abstractness, since number itself was regarded by Leibniz as an abstract entity.⁸⁴ Thus, like numbers and relations, essences are to be counted among abstractions.

2.2.2 Thomasius and the problem of the 'reality' of essences. An overview

At this point, however, it is still open the question of whether it is possible to ascribe to essences a certain degree of reality or not, i.e. if they are to be understood as merely ideal beings or not (according to the full-blooded nominalism). The other corollary to the DPI mentioned above, "the essences of things are not eternal unless they are in God" seems to go in direction of the first option (see point (2) above). Also in this case, however, it would be better to begin with the interpretation that Thomasius gave of the rule according to which the "essences of things are eternal".

Whereas in the case of the preceding rule, Thomasius' discussion amounts just to a mere rephrasing of a topic already discussed in the Aristotelian tradition, the amount of space he devotes to a discussion of the eternity of the essences (about fifty pages) is a clue to the fact that he was particularly concerned with that.

As already noted in the discussion of the previous rule, indeed, Thomasius was particularly interested in defending the theological claim that God is absolutely simple and that only God is eternal. The entire purpose of his discussion, then, is to stress the fact that, properly speaking, no kind of eternity can be attributed to essences in themselves, because that would be a threat to God's absolute simplicity and to his uniqueness as well (since it would imply that there is something eternal and necessary *but* distinct from God himself).

Thomasius's strategy consists of two steps: first, showing that eternity can be attributed to essences only in an equivocal sense and that, properly speaking, that amounts to say just that

⁸⁴ That number is an abstraction is explicitly stated in the preliminary part of the DAC, #5, A VI 1, 170 (= GP IV, 35)/L 76, where he writes: "The concept of *unity* is abstracted from the concept of one being, and the whole itself, abstracted from unities, or the totality, is called *number*". Then he claims that 'quantity' and 'number' are not really but only conceptually distinguished. Note that quantity itself, together with quality and relation, was regarded as an "affection of being", i.e. an abstraction, and opposed to concrete being, noting that only the latter can be properly called being, whereas "the affections of being are not themselves being" (*Ibid.*, #1).

propositions involving essential predication are necessary; second, how to defend the necessity of essences and essential proposition without positing something necessary 'outside' God himself.

I think that the central points of Thomasius' analysis were at the basis of Leibniz's claim that "essences are eternal only in God" and provide the key to understand his early defence of eternal truths.

For these reasons, as in the preceding section I analysed in details some points of Suárez's position on individuation, in this section I will heavily rely on Thomasius' exposition in order to clarify the point of departure of Leibniz's early discussion of possibility and existence and the points of contact/distance between the early Leibniz and the Scholastic tradition on the topic of existence.

At the end of the section, I think that the reader will be able to fully understand the rationale for Leibniz's strong rejection of the real distinction between essence and existence which we encountered in the DPI.

2.3 Thomasius' Deflationary account of Essences in mente Dei

As in the case of his criticism of Aquinas' theory of individuation, also in that of the eternity of the essences Thomasius' position can be described as an attempt to safeguard the doctrine of Christian religion from the dangerous positions inherited from the ancient (in this case: Platonic) tradition. As remarked in the previous paragraph, indeed, Thomasius harshly criticizes Plato for having posed essences in a sort of intelligible world external to God himself. According to Thomasius, this dangerous idea has somewhat contaminated a great part of the debate among the Schoolmen about the status of essences in God.

As a sort of preliminary to the discussion, then, Thomasius chooses to put forth some linguistic and conceptual clarification that will play a fundamental role in the following solution to the question (note that such an emphasis on terminology and other linguistic aspects of philosophy will be retained by his pupil Leibniz in the *Preface* to Nizolius).⁸⁵

2.3.1 God's knowledge of essences in seipso. A recovery of Aquinas?

First of all, Thomasius claims that the distinction between essences *in Deo* and *in creaturibus* is an equivocal one: "The essences of the creatures, indeed, insofar as they are in God, to speak properly, are not the essences of creatures, but the unique and most simple essence of God himself [...] only taken in relation to creatures".⁸⁶ Accordingly, the term "the essences of creatures" cannot be taken as an intrinsic denomination at all, but just as an extrinsic one.

Thomasius' first clarification is nothing but a strong restatement of Aquinas' exemplarism, i.e. the doctrine whereby essences as such, before the creation of the world (that is, taken as

⁸⁵ Both Thomasius and Hobbes (see the following Chapter) share the idea that philosophical inquiry must be preceded by a sort of 'linguistic therapy'. Leibniz's sympathy toward this attitude is clearly expressed in his discussion of Nizolius.

⁸⁶ Thomasius, *Dilucidationes Stahlianae*, p. 26.

possible and not actualized) are, properly speaking, nothing, i.e. have no ontological status on their own, being nothing but God's infinite power.

As it has been clearly pointed out, Aquinas' doctrine provides a negative answer to the question about the ontological status of essences (or possibilia), even though not to the question concerning their logical/modal status.⁸⁷ The latter question, indeed, simply asks what is for something to be possible and, as such, it does not commit anyone to ascribe any ontological status whatsoever to possibilia. Aquinas, indeed, while maintaining that something is said to be possible if its concept does not entail a contradiction, does not ascribe to possibles any ontological status at all.

From an ontological point of view (not from a logical one), possibles are said to be possible only by means of reference to God's infinite power (*potentia*), and essences are said to be the essences of creatures by means of reference of God's essence. Before their actualization, then, essences are completely deprived of any ontological status at all, and talking of the reality of essences can only be understood as an (improper) way of talking of the absolute reality of divine essence. Since, from an ontological point of view, before the creation, there is nothing but the divine essence, reference to reality of essence can be take as a reference to divine essence only: in particular, talking of creatures *qua* possible is just talking of the different respects in which the divine essence is imitable (cf. Thomasius' reference to divine essence "sumpta tantum cum relatione ad creaturas", where the relation is that of imitability).

God's knowledge of possible creatures is not to be conceived of as his (alleged) knowledge of essences as they are in themselves (*in seipsis*), but rather (and only) of essences as they are *in seipso*, i.e. in God himself. Thus, the only way of correctly understanding the claim that essences exist (or are eternal) in God is to deny that they can have some kind of being in themselves and to claim that the only thing that properly exist is God's *creatrix essentia*.

In this sense, then, Thomasius is quite correct in assuming that to claim that essences exist (are eternal) in God is only a misleading way of expressing the claim that, in themselves, they have no reality at all. ⁸⁸ Thomasius' principal concern, as we already know, was to safeguard God's simplicity against the position of a plurality of essences distinct and separated from his own essence.

This was also one of the problems at the origin of the exemplarist theory, which tried to find a balance between God's knowledge of the possibles (conceived of as the exemplars for the

⁸⁷ On the scholastic debate on the ontological status of possibilia, see F. Mondadori, "Quid sit essentia creaturae, prisuquam a Deo producatur': Leibniz's View", in A. Lamarra-R. Palaia (eds.), *Unità e molteplicità nel pensiero filosofico e scientifico di Leibniz*, Firenze 2000, pp. 185-223, and Id., "II ne faut point dire avec quelques Scotistes': Leibniz on the Reality and the Possibility of the Possible", in *Studia Leibnitiana*, 46/2, 2014, pp. 206-233. On the same debate in the second Scholasticism, see J. Coombs, "The Ontological Source of Logical Possibility in Catholic Second Scholasticism", in R. L. Friedman-L. O. Nielsen (eds.), *The Medieval Heritage in Early Modern Metaphysics and Modal Theory*, Dordrecht 2003, pp. 191-229.

⁸⁸ As Mondadori ("Leibniz on the Reality and the Possibility of the Possible", p. 211) explains: "The incorrect claim that "there are" such things as *possibilia* must accordingly be replaced by the correct claim that the divine essence *can* be imitated in such-and-such respects, i.e. more precisely, that God has the "virtus" to see to it that his essence is in fact imitated in those respects". According to Aquinas, unactualized possibles (those things that do not exist, did not and will never exist) are known by God as if they were possible by means of his "virtus" (*quasi eius virtuti possibilia*), which has to be understood as referred to their existence in the divine power only (God "*non cognoscit ea ut existentia aliqualiter in seipsis, sed ut existentia solum in potentia divina*"). See Aquinas, *Summa contra Gentiles*, I, cap. 66. n. 10). Because of this reference to God's power, it cannot be regarded as a reductionist account of modal concepts, but only as a deflationary thesis concerning the ontology of modality.

creation of the world) and his absolute simplicity. For that reason, according to Aquinas, God does not know the essences as they are in themselves (*in seipsis*), i.e. in conceiving something different of himself; on the contrary he conceives everything possible by conceiving himself according to the different respects in which his essence can be imitated.

It should be warned, however, that Thomasius' recovery of something like Aquinas' doctrine has to be interpreted as a sort of reaction against the view of the early modern Schoolmen, who, on this point, followed Scotus more than Aquinas. As it will be clear in a moment, more than in the theory of exemplar causality in itself, Thomasius is rather interested in the deflationist conception of the possibilia implied by Aquinas' theory (as it will be clear in a moment, indeed, Thomasius is looking at it from a nominalist perspective). In particular, it should be noted that the Thomist paradigm, based on the axiom "*scientia Dei est causa rerum*" went through an irremediable crisis in the early modern Scholastic debate. ⁸⁹

The exemplarist paradigm, indeed, was based on two presuppositions that were completely reversed in the late Scholastic period: (1) the idea that God's knowledge of his own essence is (logically and ontologically) prior to the knowledge he has of the essences of other things, based on the analogy between the priority of the knowledge of the cause on that of the effect⁹⁰; (2) the distinction between divine and human understanding with respect to causality: God knows things insofar as his science is the cause and the measure of things, whereas the human understanding is somewhat 'caused' by them. In other words, insofar as the divine science is the (exemplar) cause of things, God's understanding represents the standard of things, whereas, on the contrary, the human understanding needs to be adjusted to things in order to know them.⁹¹

2.3.2 Thomasius' Nominalist Stance

Thus, at the basis of Thomasius' rejection of the real distinction between essence and existence (i.e. of a theory that was commonly defended by Thomist philosophers and theologians), there is his strong rejection to ascribe any reality, any ontological status to essences prior to their actualization. Deprived of their actual existence, indeed, essences have no reality elsewhere, not even in God's understanding. The only kind of being essences can have is the formal being (*esse formaliter*, opposed to mere *objective being*) they have *in rebus*

⁸⁹ On this point, see J. Schmutz, "Un Dieu indifférent. La crise de la science divine durant la scolastique moderne", in O. Boulnois-J. Schmutz-J. L. Solère (eds.), *Le contemplateur et les idées*, Paris 2002, pp. 185-221. The papers contained in this volume are extremely helpful to understand the development and the crisis of the model of divine science from the middle age up to the time of Malebranche and Leibniz.

⁹⁰ See Aquinas, Summa contra Gentiles, I, c. 49 nn. 1-2 : "Ex hoc autem quod Deus seipsum cognoscit primo et per se, quod alia a se in seipso cognoscat ponere oportet. Effectus enim cognitio sufficienter habetur per cognitionem suae causae: unde et scire dicimur unumquodque cum causam cognoscimus. Ipse autem Deus est per suam essentiam causa essendi aliis. Cum igitur suam essentiam plenissime cognoscat, oportet ponere quod etiam alia cognoscat". See also Id., Summa Theologiae, Ia, q. 14, a. 5.

⁹¹ See Aquinas, Summa contra Gentiles, I, c. 61 b. 7: "Scientia intellectus humani a rebus quodammodo causatur: unde provenit quod scibilia sunt mensura scientiae humanae; ex hoc enim verum est quod intellectu diiudicatur, quia res ita se habet, et non e converso. Intellectus autem divinus per suam scientiam est causa rerum. Unde oportet quod scientia eius sit mensura rerum: sicut ars est mensura artificiatorum, quorum unumquodque in tantum perfectum est inquantum arti concordat". On Aquinas' theory of divine ideas, see G. T. Doolan, Aquinas and the Divine Ideas as Exemplar Causes, Washington 2008, esp. ch. 1. On Aquinas' sources, see also V. Boland, Ideas in God according to Saint Thomas Aquinas, Leiden-New York-Köln 1996.

ipsis singularibus, i.e. as created beings (and, in this respect, such a denomination is a perfectly intrinsic one).⁹²

Note also that Aquinas' deflationist theory of essences and possible beings in God will be used by Arnauld against the mature Leibniz's theory of (purely possible) complete individual concepts, and, in that occasion, it will be (albeit implicitly) rejected by Leibniz himself.

According to Arnauld, indeed, Leibniz would be responsible of an illegitimate confusion between our way of knowing things (even possible ones) and the way in which God does.⁹³ At that point, however, Leibniz was already in possess of his theory of possible worlds, which, among other things, implies the ascriptions of some (however weak) ontological status to possibilia. In addition, Arnauld's emphasis on difference in kind (and not only in degree) between the divine and the human understanding should have displeased Leibniz, who perhaps suspected him to be dangerously close to the Cartesian doctrine about the creation of eternal truths.

Thomasius' second preliminary remark concerns the different ways in which the eternity of essences has been interpreted by the Schoolmen. He claims that the question could be interpreted in two different senses, a *logical* and a *metaphysical* one. According to the logical sense, the term "essences" is taken as a shorthand for essential propositions, which are complex beings (*entia complexa*), and the question is about whether such propositions have eternal truth or not. On the contrary, who understands the question according to the *metaphysical sense*, erroneously takes (*usurpat*) the term "essences" as referred to *entia incomplexa*, i.e. to the natures of created beings (rather than the propositions having them as their objects), asking if they are eternal beings or not.⁹⁴ As it will be clear from what follows,

⁹² Thomasius, *Dilucidationes Stahlianae*, p. 29.

⁹³ See Arnauld to Leibniz, May 13, 1686: "I confess in good faith that I have no idea of these purely possible substances, that is to say the ones that God will never create. And I am very much inclined to think that they are chimeras that we create, and that what we call possible, purely possible, substances cannot be anything other than God's omnipotence [...]. For I am convinced in my own mind that although one talks so much of these purely possible substances, nonetheless one never conceives of any of them except under the idea of some one of those which God has actually created" (GP II, 32/LA 31-2, translation modified, italics mine). Two points of Arnauld's objection should have been highly unpalatable to Leibniz: first, talking of mere possibles as "chimeras" means to deprive them of any sort of reality (against Leibniz's doctrine of the reality of possibles that coincides with their 'tendency to exist'). Second, Arnauld's reference to the fact that talking of possibles should be properly understood as talking of God's active and infinite power ("une puissance active et infinie", ibid.). Such a reference could be interpreted in terms of Descartes' (and Spinoza's) account of divine omnipotence as the foundation of eternal truths. I think this would be a mistake, but such a misunderstanding is indicative of the way in which Aquinas' venerable doctrine had been completely misplaced in the post-Cartesian context. After all, Suárez himself reproached Aquinas' foundation of essential truths in the divine essence, by pointing out that it could be interpreted as a disguised form of voluntarism, see DM XXXI, xii, 40 and 46 (quoted below).On Arnauld's position, see in particular V. Carraud, "Arnauld: de l'occamisme au cartésianisme", Chroniques de Port-Royal: Antoine Arnauld (1612-1694). Philosophe, écrivain, théologien, 44, 1995, pp. 259-82. For the opposite position, see E. Scribano, "Le 'spinozisme' d'Arnauld", in W. Van Bunge-W. Klever (eds.), Disguised and Overt Spinozism around 1700, Leiden/New York/Köln 1996, pp. 291-304.

⁹⁴ See Thomasius, *Dilucidationes Stahlianae*, p. 25. On Thomasius' treatment of propositions, see Id., *Erotemata logica pro incipientibus* (1670) Leipzig 1692, p. 51 and ff. See, in particular, pp. 52-3, where he explains the traditional distinction between the existential and the essential meaning of the copula (propositions *secundi adjecti* vs. propositions *tertii adjecti*), and, especially the claim that, in the case of propositions *secundi adjecti*, the term "being" (*ens*) has to be regarded as the predicate implicitly concealed in the copula, so that a proposition like "*Deus est*" has to be analysed into "*Deus est ens*". Such a treatment of existential propositions was a traditional one, according to G. Roncaglia, *Palaestra Rationis*, Florence 1996, *passim*. A similar strategy will be employed by Leibniz in his 1686 formalization of the Aristotelian square. See *Generales Inquisitiones*, ## 144-49, discussed in Chapter 9 below. Contrary to what Leibniz will do, however, Thomasius seems to reject

Thomasius' principal aim is to weaken the ontological import of the reference to the existence and the eternity of essences; that is the main reason why he privileges the logical question about necessary propositions over its metaphysical counterpart, regarding the latter as a misunderstanding originated from the influx of the Platonic tradition.

2.4 Thomasius on Eternal Truths:

A (full-fledged) Nominalist Approach

Focusing on the logical interpretation of the question concerning essences, Thomasius distinguishes three main solutions, each of which corresponds to a different approach in the Scholastic tradition. The main contraposition is that between the *Nominales* and the *Reales*, whereas the first (the followers of Ockham) deny that essences are eternal, while the second are divided into the Thomists, who claim that essences are eternal only in God, and the Scotists who claim that essences are eternal *extra Deum*. As already noted in the case of Leibniz's reading of Scotus in the DPI, also in the case of the doctrine of essences Scotus is regarded as an extreme realist. In another passage, Thomasius seems to consider Scotus' doctrine as a continuation of Henry of Ghent's theory of the *esse essentiae*, the essential being proper of creatures before their actualization (which provides them with an *esse existentiae*). Of course, this is just Thomasius' account, for Scotus explicitly dissented from Henry on this point, and he has also elaborated his own theory in opposition to Henry's (cf. below).

This is just an echo of a long-standing debate among the Schoolmen between the detractors and the supporters of Scotus' doctrine of the objective being (*esse objectivum*). The latter was intended by Scotus as an *esse cognitum*, i.e. to be as being object of knowledge, a kind of being intermediate between the *esse simpliciter* of actual existence and the pure absence of being of the *ens rationis*. Scotus' detractors criticized the doctrine of objective being, accusing it of endowing the essences of creatures (before God decided to create them) with a true real being, a sort of existence before actual existence, which was regarded as both absurd and dangerous (being at pain with the very same notion of *creatio ex nihilo*). The latter was the way in which late Schoolmen read Henry of Ghent's theory of *esse essentiae*, and both Henry and Scotus were paired with the doctrine of the independent existence of essences defended by the theologian John Wyclif, whose doctrines had been condemned as heretical by the Church in 1428.

On the contrary, Suárez wanted to save Scotus' doctrine of the objective being from the extreme reading of his opponents. For instance, he attacks Cajetan's view, according to which the *esse cognitum* is some kind of real being intrinsic to creature before their creation, "for Scotus himself expressly shows that this being of being known, just it is forthcoming to the

the tendency to nominalize propositions and treat them as terms (or concepts), or, at least, he is worried by the possibility of taking the being of propositions as referring to a kind of being distinct from actual being and subsisting in itself. His strategy, then, is to take talking about essences or natures as a misleading way of talking about (essential) propositions, and to claim that the question concerning the (alleged) eternity of the former has to be properly re-formulated into the question concerning the necessity of the latter. On the nature of propositions in early modern times, it is very useful to see also G. Nuchelmans, *Late Scholastics and Humanist Theories of Proposition*, North-Holland 1980.

creatures from the knowledge of God, is not in them some real being intrinsic to them. Nor it is sufficient to ground a real relation but one of reason only".⁹⁵

As in the case of the doctrine of haecceity, Suárez's reading of Scotus is a charitable one, whereby Scotus' theory is interpreted in terms of Suárez's own view of the distinction between essence and existence as a distinction of reason. Exactly as in the case of haecceity, Thomasius is on the opposite side and regards Scotus' position as a form of extreme realism. On this point, Thomasius was probably influenced by the polemics internal to the Scotist school itself about how to correctly interpret the theory of objective being.⁹⁶ Note that, in his account of the question of essences, Scotus' realist position is equated to that of Plato. Such a position is regarded by Thomasius as both "inadequate and false" (*nec pertinens nec vera*) and contrasted with the positions held by Aquinas and the *Nominales*.

At this point, from what he said in his preliminary remark, one could think that Thomasius' preference goes to the position of Aquinas, but that would be a mistake. Aquinas' position is judged as "true but inadequate", while, on the contrary, the nominalist position is "both adequate and true". Aquinas' doctrine is true, as Thomasius himself remarked in the passage quoted above, but his view, whereby "the ideas of things in God are not of creatures but the essence of God himself" is *impertinens*, insofar as it is not, properly speaking, an answer to the question of eternal truths (i.e. that of the necessity of propositions).

On the contrary, the doctrine held by *Nominales* is the only one to be at the same time true and adequate.

A clarification is in order here. Thomasius believes that Thomists and Nominalists took the term "essence" in two different senses, and that, once that this equivocation is clarified, these two positions can be easily reconciled. Aquinas' defence of the eternity of essences in God, indeed, is only a defence of the eternity of the divine essence (since talking of the essences of creature is a misleading way of talking of God's essence).

On the contrary, the Nominalists rejected the eternity of essences, because they take "essences" as referring to Platonic ideas, incorruptible entities, which are separated not only from matter but even from God himself.⁹⁷ When essences are taken in the latter sense, then, it follows that the only true and appropriate solution is the nominalist one, that the essences of created things are not eternal at all, an opinion that Thomasius shows to consider without difficulties (*plane nihil habet difficultatis*) if one had already accepted that there can be no real distinction between essence and existence (a thesis which is in keeping with the tenets of Christian religion, according to which the existence of things is not eternal, so that there can be nothing as a realm of eternal essences).⁹⁸

⁹⁵ Suárez, DM XXXI, ii, 1/Wells 57. In the following paragraph, in order to defend his point, Suárez refers to the passages in which Scotus himself criticizes Henry's doctrine of essential being. On the interpretations of the *esse essentiae* in modern Scholasticism, see J. Schmutz, "Les paradoxes metaphysiques d'Henri de Gand durant la seconde Scolastique", in *Medioevo* 24, 1998, pp. 89-149.

⁹⁶ Cf. J. Coombs, "The Possibility of Created Entities in Seventeenth-Century Scotism", *Philosophical Quarterly* 44, 1993, pp. 447-59.

⁹⁷ Thomasius, *Dilucidationes Stahlianae*, p. 29 and 32-3.

⁹⁸ *Ibid.*, p. 34.

2.5 Eternal Truths:

The Suárezian Synthesis and its Breakdown

It is worth noting that the solution Thomasius ascribes to the *Nominales*, is nothing but a radicalization of the solution advanced by Suárez in his DM XXXI. I would say better: Suárez's position is a very complex one and, in a sense, it is an attempt to conciliate two different views on the topic. Regarding this synthesis as an instable one (and rightly so, I would say), Thomasius chose to separate the two elements of the Suarezian synthesis, retaining the first while rejecting the second.

Exactly as in the case of the young Leibniz's (and Thomasius') view on individuation, also Thomasius' position on the question of essences can be labelled as a form of "qualified Suarezian nominalism", one in which the qualification is important, however, and worth to be explained in details.⁹⁹

2.5.1 Suárez's First Account in DM XXXI

Suárez's account, as presented in DM XXXI, is the attempt to find a synthesis between two different views concerning the reality of essences, two views which, for the sake of clarity, I will label as (A) and (B). The main question is about the kind of being that can be ascribed to creatures before they are produced by God (*quid sit essentia creaturae priusquam a Deo producatur*).

According to (A), the answer is a deflationist one: before they are produced by God, essences are nothing at all (*omnino nihil*). This means that, first, if we abstract from existence, essences possess no kind of reality. Following this principle, Suárez is lead to reject Henry of Ghent's talking of an *esse essentiae* distinguished and separated from the existential being of actual creatures and to provide an interpretation of Scotus' theory of *esse cognitum* which stresses the fact that such kind of being is not intrinsically possessed by creatures in themselves, but is only an extrinsic denomination "from the potency of God and a non-repugnance on the part of the creatable essence".¹⁰⁰

The main reason in favour of (A) is that it is in keeping with the Catholic doctrine whereby, before the act of creation by God, there is nothing which possesses a true real being distinct from the being of God himself. Otherwise, one should say that God did not create all things from nothing, but he only actualized some things which already possessed some sort of essential being (or, to use Suárez's own words, to say that "God created all things from an existential nothing but not from an essential nothing"). That would be absurd, because "what has nothing of existence is either simply and utterly nothing or it is not. If it is not, then God absolutely and simply did not create all things from nothing".¹⁰¹ As a consequence, it must

⁹⁹ Thomasius never explicitly quotes Suárez's text in his discussion of eternal truths. However, reference to Suárez's DM XXXI, as well as to G. Vasquez's theory of essences, was explicit in Daniel Stahl's text. See Stahl, *Regulae philosophicae*, Sengenwald 1662, p. 25.

¹⁰⁰ Suárez, DM XXXI, ii, 2/Wells, 59.

¹⁰¹ *Ibid*, ii, 4/Wells, 59-60

necessarily be acknowledged, concluded Suárez, that "when the existential entity, which is imparted to a creature by some effecting is removed, the essential entity is utterly nothing".¹⁰²

The view defended in (A) is in keeping not only with the traditional account of creation but also with the nominalist claim that there is no real distinction (hence, no distinction at all) between essence and existence. Such a position, however, faces with several difficulties which were commonly raised by the supporters of the real distinction.

Among those reported by Suárez, the most relevant are the following: (1) "because essential predicates are predicated or can be predicated truly of the essence from the eternity; every truth, however, is based on some being", that is the problem of the so-called essential truths and of their truth-makers; (2) "because created things in terms of essential being are arranged under a definite genus and species; thus a rose is of the same species whether it exists or does not exist; indeed, the humanity of the created Peter and that of the creatable Peter is numerically the same essence. Hence, in both states it retains some essential entity", in other words, if there is no real distinction between Peter conceived as actual and as a purely possible (creatable) essence, what is the difference between the existent and the merely possible? If existence adds nothing to an essence (which is already conceivable as it is in itself), where does the distinction between the existent and the merely possible lie? (note that such a problem will be fundamental for the mature Leibniz's formulation of his "puzzle of existence", especially in connection with his doctrine of complete concepts)¹⁰³; (3) if the essence of a creature in itself and as it is an object of God's scientia simplicis intelligentiae (i.e. God's knowledge of the possible, to be contrasted with his knowledge of what is actual, scientia visionis) is nothing real, than there is no difference between a possible being and a being of reason (ens rationis). But, if this is true, how can there be a "science of real being (ens), since, properly speaking, it is about essence and not about existence?"¹⁰⁴

The last objection is particularly relevant, since it attacks the very same definition of metaphysics that Suárez defended: metaphysics as science of being, in the sense of *essentia realis*, where the term 'real essence' is not restricted to what actually exists (it contains the existent as well as the possible), but excludes only the being of reason, like chimeras and other contradictory objects.¹⁰⁵

¹⁰² *Ivi*/Wells, 60.

¹⁰³ It was a typical argument advanced by the Thomist theologians, supporters of the real distinction: the essence of Peter *qua* existing being is identical and numerically the same as the essence of Peter *qua* possible *ab aeterno*; however, existence, conceived of as an act (*existentia exercita*, to be contrasted with existence *in actu signato*) cannot be included in that very same essence of Peter. Thus, the existence of Peter has to be distinguished from his essence as conceived by God. See Di Vona, *Studi sulla scolastica della controriforma*, p. 118. On Leibniz's formulation of the "puzzle of existence", see Chapter 8.6 below.

¹⁰⁴ Suárez, DM XXXI, ii, 6/ Wells, 60-1. I have omitted another objection (the first in Suárez's list), since it is of little relevance to the topic of our discussion.

¹⁰⁵ A clarification is in order here. If one moves form a contemporary account of "logical possibility", it is very difficult to see why something like a chimera or a winged horse are to be regarded as examples of what is logically impossible. One should remind, however, that the notion of "logical possibility" in the medieval and late Scholastic philosophy is intrinsically connected to Aristotelian essentialism and the system of the Porphyrian tree. For the Schoolmen, then, the adjective "logical" (in "logical possibility") had a more restricted significance than it has for us. For example, a proposition like "humans are rational animals" was typically regarded as a necessary truth, whereas "humans are stones" was typically regarded as a proposition involving a logical impossibility: "This perspective holds that there is a structure of connected "beings" which bear the defining aspect or "nature" of individual entities. These "beings" are called "essences". These essences are related to possibility because the defining aspects they contain determine whether statements about them express

In mentioning these objections, Suárez says they are of little weight. However, the problems concerned with the objection raised in point (3) is, according to me, the main reason for his shifting from account (A), which is compatible with full-blooded nominalism, to account (B), since only the latter allows him to provide a distinction between the possible creature and beings of reason.

To objections (1) and (2), indeed, Suárez is able to provide an answer which is still compatible with the view defended in (A). Against (2), indeed, Suárez replies that the very same objection is based on a premise that cannot be accepted, i.e. the real distinction between essence and existence. If one take it only as a distinction of reason (with *fundamentum in re*), the objection falls short, for the classification or arrangement under certain genera and species that one truly ascribes to possible things (Peter *qua* possible), "is not formally in things but in the intellect", even though "it has a foundation in things either as they exist in act or can exist and terminate objectively the knowledge by which they are known to be bound to be of such a nature and essence, if they come to be".

The last hypothetical clause ("if they come to be") introduces the solution that Suárez arranges against (1), namely the objection based on the eternal truths and their truth-makers.

Against (1), indeed, Suárez claims that, for God to know from eternity the truth of a proposition such 'Man is an animal', "it was not necessary for the essence of man to have some real being in act from eternity, because that being does not signify an actual and real being but only the intrinsic connection between such extremes [i.e., the two terms, "man" and "animal"]".¹⁰⁷ The necessity one ascribes to the proposition (in saying that 'Man is an animal' is a necessary truth) is not an absolute one of being (*essendi*) in terms of some real being in act, but it "involves a conditional necessity, for, surely, if man is to be produced, he will, of necessity, be a rational animal". This necessity is just a "certain objective identity of man and animal", an identity "God knows most simply", i.e., perhaps, by intuition, whereas we know it "by the composition which the word *is* signifies when we say that man, from eternity, is a rational animal". And Suárez specifies that the kind of being involved by the copula *is*, in the case of propositions of eternal truths, "pertains to that third way in which being is sometimes said to signify the truth in a composition", i.e. what the logicians called a proposition *de tertio*

consistencies or not. [...] Humans cannot be stones. Why not? The reason usually given for the impossibility is that the term 'human' stands for an essence that is related to all the other essences in such a way that it (human) is "repugnant" to being a stone" (J. Coombs, "The Ontological Source of Logical Possibility", p. 195). Analogously, a chimera was regarded as the paradigmatic case of an impossible being, since its concept implies essences (like that of a lion and that of a snake) that are mutually repugnant according to the structure of Porphyrian style essentialism. On the chimera, see S. Ebbesen, "The Chimera's Diary", in S. Knuuttila-J. Hintikka (eds.), The Logic of Being, Dordrecth 1986, pp. 115-43; E. J. Ashworth, "Chimeras and Imaginary Objects: a study in the post-medieval theory of signification", Vivarium, 15, 1977, pp. 57-77. Many problems with Leibniz's views on essentialism originate from the fact that, whereas he is one of the first to approach the problem from the modern perspective of possible worlds (thanks to a nominalist approach, in which individuals to properties, and the essential/accidental distinction is derivative with respect to the are prior necessary/contingent distinction, where the latter is defined in terms of truth at all/some possible worlds), at the same time he struggles to maintain some tenets of the old essentialist framework, in which essences (as intensional entities) are primary with respect to individuals or classes of individuals (and essence plays an explanatory role with respect to necessity, and not the opposite). See also my discussion in the General Introduction above.

¹⁰⁶ Suárez, DM XXXI, ii, 9/Wells 62.

¹⁰⁷ *Ibid.*, ii, 8/Wells 62.

adiacente, to be contrasted with a proposition de secundo adiacente (like "Deus est", where there is an explicit ontological commitment and the copula has an existential import).

This solution will be developed and expanded by Suárez in section 12 of his DM XXXI, which is probably the most important part of the text and is entirely devoted to the topic of eternal truths. The topic is particularly important since it touches the very nature of science (i.e. demonstrative knowledge) and its object.

Remember that in the context of Aristotelian essentialism, the proper object of science is constituted by universal and necessary propositions. However, once one has stated (as Suárez did) that, with the removal of existence, the essences itself perish, the conclusion seems to follow that "those propositions, wherein essential predicates are attributed of a thing, are neither necessary nor possessed of eternal truths". Indeed, "if, with the removal of existence, essence is nothing, therefore neither is it a substance, nor an accident and, consequently, neither a body nor a soul nor other things of this kind. Therefore, no essential attribute can be rightly predicated of it".¹⁰⁸ Note that the same concern about the status of science is, according to Thomasius, the principal reason why many authors have erroneously defended the 'eternity' of essences.¹⁰⁹

Also Thomasius' rejection of Aquinas' view on divine ideas qua solution to the problem of eternal truths finds a parallel in the text of Suárez, who claims that is not enough to maintain, with Aquinas, that "with the destruction of the existence of creatures, these enunciations [eternal truths] are true, not in themselves, but in the divine intellect". The main problem with this solution, according to Suárez, is that it falls short of accounting for the difference between necessary and contingent truths, since not only eternal truths (wherein essential properties are predicated) but also all accidental or contingent true ones find a place in the divine understanding.

Moreover, the Thomist solution can lead one to think that God's knowledge is the reason why those truths are called true, which would amount to say they are true because of God's will. On the contrary, "those enunciations are not true because they are known by God, but rather they are thus known because they are true".¹¹⁰

2.5.2 Suárez's Second Account in DM XXXI

As a consequence, Suárez concludes that necessary propositions (in which essential properties are predicated) have eternal truth "not only as they are in the divine intellect but also in themselves and prescinding from it".¹¹¹ At this point, however, Suárez's position becomes more 'realistic' in spirit, something which should have displaced Thomasius.

On one hand, indeed, Suárez is eager to put forth a quite deflationary account of the nature of essences as they are in themselves. On the other hand, indeed, the problem of eternal truths (and God's knowledge thereof) leads him to stress the need of some objective ground which should be regarded as independent from God' thought as well as from his will.

¹⁰⁸ Ibid., xii, 38/ Wells, 199.

¹⁰⁹ See Thomasius, *Dilucidationes Stahlianae*, p. 34.

 ¹¹⁰ Suárez, DM XXXI, xii, 40/ Wells, 200.
 ¹¹¹ *Ivi*/Wells 201.

This second aspect of Suárez's account will be at the ground of the late Scholastics' tendency to emphasize the independence of essences on a sort of transcendental ground, which will constitute the proximate cause of Descartes' rejection thereof, and the main polemical target of his notorious theory of the creation of eternal truths.

Suárez's solution can be summarized in two steps. First, he distinguishes two different ways of signification that can be attributed to the copula *is*, which connects the two terms ("extremes") of such propositions: an *existential* and an *essential* one.

According to the first, the existential reading, a proposition like 'Man is an animal' indicates a real and actual connection, where the truth of the proposition depends on the actual existence of the terms, because the copula is not divorced from time ("it indicates a real and actual duration, which is nothing, after the existence of the terms has been removed"). Thus, if you imagine a situation in which there is no man in the world, the proposition 'Man is an animal' would be false according to the existential (temporal) sense. According to the second, the essential sense, a proposition like 'Man is an animal' can be true even though its component terms do not exist, and, since "the copula *is*, in the stated sense, does not indicate existence, it does not ascribe actual reality to the terms in themselves". The illusion of such an ontological commitment can be dispelled if one thinks that the true logical form of such propositions is a conditional one: "when we say 'Man is an animal', while abstracting from time, we say nothing else than that this is the nature of a man, that it is impossible for man to come to be without being an animal".

In other words, the true logical form of such proposition is something like: 'if something is a man', it is an animal, where the 'something' plays a similar role to that of the variable x in contemporary first order logic (like "For every x, if x is man, then x is an animal"), where, however, the implication has to be interpreted not in terms of the familiar Russellian conditional, but in that of the strict implication¹¹² ("it is impossible that something is a man without being an animal").

The second step consists of providing an answer to the question concerning the nature of such a necessary connection between non-existing terms. Whereas the first step was mainly focused on the problem of the true logical form of necessary propositions of eternal truths, the second is concerned with the ontological ground of that necessity.

¹¹² This is not completely true, however, for, according to the truth-conditions of strict implication, a hypothetical proposition with an impossible premise (i.e. a premise false in every possible world), would be vacuously true. Notice that it is exactly in order to avoid a similar conclusion that Suárez adds the further condition that the necessity of the connection (between the antecedent and the consequent) must be grounded on the connection between ideas, i.e. on logical possibility. The main idea is that, given that the notion of an individual, say Peter, is a logically consistent one (it belongs to a domain of logically possible entities), then if Peter is human, than he is necessarily rational (where 'is' in 'Peter is human' is existentially interpreted, i.e. if Peter the human being is actualized). For a more formal account of this idea, see Chapter 8 below.

¹¹³ Suárez, DM XXXI, xii, 44-45/ Wells 203-4. The thesis that a necessary predication as in the case of "man is animal" can have only a conditional form has been proposed by Ockham, see *Summa logicae*, III-2, v (pp. 512-3). Ockham distinguishes two senses of necessary, an absolute one (to be perpetual and not-corruptible), which can be truly attributed to God only, and a relative one (the sense in which essential propositions cannot be false). Accordingly, even though genera, species and all the other kinds of universals are corruptible, once they are detached from the knowledge God has thereof, and thus they can be nothing, nonetheless one can still do science about them, i.e. one can form necessary propositions about them. From the historical point of view, the idea that at least certain categorical propositions may be considered as conditional ones must be traced back to Boethius, cf. A. Maierù, *Terminologia logica della tarda scolastica*, Roma 1972, pp. 376-79

Having rejected theThomist account (which grounds the eternal truths in God's understanding), the only alternative is that such a necessity should arise from "the object itself and not from the divine exemplar".

But how can it be when the object in question does not exist?

"To this it seems we have to say that this connection is nothing else than the identity of the terms which are in essential and affirmative propositions [...]. For every truth of an affirmative proposition is founded on some identity or unity of the terms which, though conceived of by us in a complex way, and by way of the joining of a predicate with a subject, is still in reality nothing but the very entity of the thing. But identity, since it is a property of being (*ens*) [...], it is found proportionally in every being (*ens*) or in every state of being (*ens*). Consequently, just as an existing man and animal are the same in reality, so a possible man, or anything that can be an object to the science or exemplar of man, has identity with animal taken proportionally. Hence this identity is sufficient for founding that necessity, and it can be found in a being (*ens*) in potency, though it is nothing in act, because it adds nothing to a being (*ens*) in potency, except a relationship of reason in regard to our concepts."¹¹⁴

In the first step, Suárez shows that necessary propositions expressed in their categorical form are convertible into conditional propositions, leaving aside the problem of the necessity of that condition. In the second step, the necessity of the connection is justified by means of a reference to the identity of the terms of the propositions, pointing out that the act of joining a predicate with a subject that occurs in a judgment is in reality nothing different from "the very entity of the thing" (the two being distinguished only through a relation of reason in regard to our concepts).

He further specifies, however, that the identity sufficient for grounding the necessity of the connection between the subject and the predicate of the proposition, can be found "in a being (*ens*) in potency, though it is nothing in act". Such a reference to an *ens in potentia* seems to be difficult to conciliate with the view defended in (A), the nominalistic claim whereby there is nothing intrinsically real to being in potency as such.

The reason why Suárez shifted from (A) to (B), or, if you prefer, tried to conciliate the two accounts, can be explained if we come back to objection (3) mentioned above, the one concerning the distinction between the possible as such and the being of reason.

As I remarked above, for those who hold a full-blooded nominalist view, if one abstracts from what is actual, there is nothing real left, from which follows that there is no way to distinguish a non-actualized possible entity (such a possible man) from an *ens rationis*. A distinction between the two, however, seems to be required not only for theological reasons (whereas possible beings are something creatable, even though not actually created, this does not hold for beings of reason, which are placed outside the scope of God's absolute power either), but also for the very same notion of metaphysics Suárez defends.¹¹⁵ Thus, under the common notion of the *esse objectivum* as *esse cognitum*, Suárez is lead to distinguish between an *ens reale* and an *ens rationis* properly said.

Against objection (3), indeed, he replies:

¹¹⁴ *Ibid*, 46/Wells, 206.

¹¹⁵ On Suárez's notion of metaphysics see DM I-II, and the seminal text of Courtine, *Suarez et le système de la metaphysique*, part II, in particular pp. 195-227.

"[...] the answer is that the creature's possible essence insofar as it is the object of divine knowledge is not a being (*ens*) fashioned by the intellect, but is a being (*ens*) truly possible and capable of real existence. Thus it is not a being of reason but it is in some way comprehended under the real being. For I have already explained above that the essence of a creature still unproduced is in some way a real essence (*essentia realis*).¹¹⁶

The main reference is to the discussion in DM II, where Suárez deals precisely with the topic of "real essence". Distinguishing between two ways of taking the notion of "being", as a verb (*ens participialiter sumptum*) and as a name (*ens nominaliter sumptum*), the first standing for the existential being (or, better, the act of existing: *actum essendi, ut exercitum*), the second standing for the essence of a thing which has or can have being in the first sense, Suárez states that the latter, being in nominal sense, is the proper object of metaphysics. Being taken as a name, however, is what possesses a real essence, and that is the mark that distinguishes it from mere beings of reason: the *ratio* of that kind of being, indeed, consists of having a real essence, i.e. "*non fictam, nec chymericam, sed veram et aptam ad realiter existendum*".¹¹⁷

In this way, metaphysics includes not only what actually exists but also what has an "aptitude to exist", something of which the mature Leibniz will be reminiscent when he will develop his theory of the possibles as having a tendency to exist (proportional to their degree of reality or perfection).

Now, it is important to stress that, in his theory of the real essence (including the possible as well as the actual), Suárez finds a place for the Scotist theory of objective being as *esse cognitum*.

Instead of a simple distinction between what has being (= what is actual) and what has no being at all (= is nothing), as in the case of the full-blooded nominalism, the (B) account makes room for three different roles, since, from one hand, the real being (the *essentia realis*) is opposed to the pure being of reason as fabricated by the intellect, as something is opposed to nothing; on the other hand, however, the real being, as merely possible, is opposed to what actually exists, as nothing is opposed to something.

In this way, account (B) absorbs account (A), by simply saying that, yes, being in potency is nothing if compared to actual being of existence, but, properly speaking, it is only a relative kind of non-being, to be distinguished from the absolute kind of nothing which is represented by beings of reason (which have no reality at all).

Notice that the distinction between the real being (i.e. the possible) and the mere being of reason plays an important role in Suárez's account of the truth-makers for eternal truths. Since necessary propositions like 'Man is an animal' do not depend on an efficient cause for their truth (they require an efficient cause for their existence, i.e. the creation of men), then the objection arises that a proposition like "a chimera is a chimera" would be true as well.

However, Suárez points out that "we should assign a difference between necessary connections, conceived and enunciated between possible things or real essences, and between imaginary things or beings of reason". The difference consists in the fact that in the former the connection between the terms "is so necessary in terms of an intrinsic relationship of terms abstracting from actual existence, that it is still possible in relation to actual existence". When we say 'Man is an animal', the copula *is* abstracts from time, but it still indicates "that

¹¹⁶ Suárez, DM XXXI, ii, 10/Wells, 63.

¹¹⁷ *Ibid.*, II, 4, 4.

man has a real essence so definible, or (which is the same) that man is such a being (ens), which is not a fiction but real, at least possible".¹¹⁸

2.6 Thomasius, Leibniz and the rejection of ens potentiale: Existence as the ground of essential truths

Coming back to the text of Thomasius, it seems evident to me that his account is based on a nominalist reading of Suárez, a reading that separates (A) from (B), retaining and emphasizing the former while rejecting the latter.

In a sense, one could say that Suárez tried to find a conciliation between Ockham and Scotus, whereas Thomasius prefers to employ the Ockhamist, nominalist tradition against the Scotist tradition, and, in this way, he has to demolish the synthesis between the two attempted by Suárez. In another sense, one could say that, as a matter of fact, the Suarezian synthesis was not entirely successful and without tensions.

Take for example the case of eternal truths. Suárez clearly wants the eternal truths be grounded on some kind of 'being', which has to be carefully distinguished from the actual being of existence. As we read above, the connection between the terms in those propositions is grounded in some potential being. Potential or possible being, however, was defined by Suárez in merely negative terms, i.e. in terms of non-repugnance or absence of contradiction.¹¹⁹

This negative account fits well with the first step of Suárez's account of eternal truths, where he claims that their true logical form is a conditional one. In knowing (the truth of) 'Man is an animal', indeed, God does not know any positive reality which would subsist independently of his own essence, but he is only knowing the existence that such an essence would have were to be actualized by God: if men were to be created by God, they were to have such and such essential properties. As it has been pointed out, the only kind of being at stake here is the esse veritatis propositionis, and the perspective on possibility involved here is a postexistential one (God knows that, if such a connection were to be instantiated in the actual world, nothing contradictory would follow from it).¹²⁰

On the contrary, when emphasizing the reality of essences (in the sense of the essentia *realis*), he seems committed to a shift from a barely negative to a positive account of possibility: "the more Suárez moves within the context of essentia realis [...], the more his perspective tends to move in a context where possibility and the truths based thereupon are completely underived"¹²¹, especially because the context of real essence is one in which God and the creatures are both conceived under the common concept of ens nominally taken (the univocal account of being is, of course, a heritage from the Scotist tradition).

¹¹⁸ *Ibid.*, XXXI, xii, 45/Wells, 205.

¹¹⁹ See the distinction between positive and negative possibility in DM XXX, xvii, 10, where the first is identified with the active power of God, the second with the non-repugnance. From which it follows that the possible as such, as distinguished from God's absolute power, has no real/intrinsic characterization at all. ¹²⁰ I owe the distinction between post-existential and pre-existential account of possibility to N. J. Wells' preface

to his edition of DM XXXI, in particular p. 23 and ff. I am just summarizing his point in order to show that his criticism of Suárez is somewhat similar to the one implicit in Thomasius' account of eternal truths. ¹²¹ Wells, p. 24.
Talking of essences as completely underived is the same as talking of possibility in a *pre-existential* sense. In contemporary terms, an actualist view corresponds to the post-existential account, whereas a possibilist views seems to be more in keeping with a pre-existential account of possibility.¹²²

Thomasius has no problem to accept the negative account of possibility and the first part of Suárez's solution to the problem of eternal truths (with some qualification, however), whereas he rejects the second step of Suárez's solution. The main reason is that Suárez's positive account has a sort of realist *coda* that Thomasius cannot accept. From the claim that the eternal truths are true not because God knows them, but, rather, God knows them because they are true, it follows that these truths would be true even independently from God's existence.

Suárez himself formulates the hypothesis –a *per impossibile* one, of course –whereby, if God did not exist, those truth would still be true, just in order to prove the complete independence of the truth of these propositions from divine knowledge.¹²³

2.6.1 Against modal transcendentalism. Thomasius vs. Cajetan's Thought-Experiment

As far as the truth of necessary propositions is concerned, and, as we know from above, the ultimate ground for their necessity is in the nature of possibles as such (i.e. the identity and the non-repugnance among the terms of such propositions), this passage seems to suggest that the ultimate source of logical possibility itself is not in God, but, rather, is independent from him, a view that has been dubbed as "modal transcendentalism".¹²⁴ The main idea is that

¹²² The distinction between "possibilism" and "actualism" is extremely pervasive in the contemporary debate on the metaphysics of modality. Nonetheless, as it has been noted, "the use of the latter two terms has become badly confused". See T. Williamson, *Modal Logic as Metaphysics*, Oxford 2013, p. 22, who proposes the following explanation: "the actualist holds that everything is actual, while the possibilist holds that not everything is actual, although everything is possible. If so, what is for something to be actual, or to be possible? 'To be actual is to be in the actual world' is no better than a pseudo-explanation, for 'in the actual world' is more obscure than 'actual'". That is the reason why some philosophers, Wiliamson included, prefer to reject such a distinction. I will preserve it, however, by calling 'actualist' everyone who claims that there are no possibilities which do not have an ontological ground in some actual being (conversely, 'possibilist' will be everyone who claims that there are possibilities which are not grounded in some actual being). The main problem with possibilism is that it is at pains toaccount for actuality, at least if one does not want to accept a relative account of actuality as an indexical notion. I will come back to the latter point in the following chapters, when dealing with Leibniz's account of the actual world.

¹²³ Cf. Suárez, DM VIII, vii, 27. The relevance of this passage has been emphasized by Courtine, *Suarez et le système de la metaphysique*, pp. 315-6. He rightly points out that those passages from Suárez were the polemical target against which Descartes developed his radical theory of the creation of eternal truths. That clearly emerges from Descartes's letter to Mersenne, May 6, 1630, in which he claims: "Pour le vérités éternelles, je dis derechef que *sunt tamen verae aut possibiles, quia Deus illas versa aut possibiles cognoscit, non autem contra veras a Deo cognoscit quasi indipendenter ab illo sint verae.* [...]Il ne faut donc pas dire que *si Deus non esset, nihilominus istae veritates essent verae*; car l'existence de Dieu est la première et la plus éternelle de toute les vérités qui peuvent être, et la seule d'où procèdent toutes les autres" (AT I, 149-50). Cf., by contrast, Suárez, DM XXXI, xii, 40, as well as G. Vasquez, *Commentaria ac Disputationes in primam partem S. Thomae*, disp. 32, ad q. 10, art. 3. See also T. J. Cronin, *Objective Being in Descartes and in Suárez*, Rome 1966, and J. L. Marion, *Sur la théologie blanche de Descartes. Analogie, creation des vérités eternelles et fondement*, Paris 1981 (Marion is also the source of Courtine's discussion of the Suárez/Descartes connection).

¹²⁴ The term has been originally coined by S. Knuuttila, with reference to Scotus and Ockham's theories of modality, see Knuuttila, *Modalities in Medieval Philosophy*, London/New York 1993. For its application to the context of the late Scholastic debate, see J. Coombs, "The Ontological Source of Logical Possibility", pp. 201-9.

necessary and possible truths are prior to any intellect and being, be it the divine or the humane one, even though their ontological ground is not actual, i.e. it cannot be described as actually existing in any sense whatsoever.

Not surprisingly, "modal transcendentalism" is harshly criticized and ultimately rejected by Thomasius, who, at the end of his discussion, recalls the traditional thesis that the existence of creatures depends on divine will, whereas their truths (i.e. the truths concerning their essences) depend on a sort of correspondence with the divine intellect; at this point, however,he warns not to push this argument to its extreme consequence, i.e. to not go *ultra Deum* together with those "who claim that, even removed God's existence, removed any understanding (and, consequently, even the divine one), nonetheless the truths of the connections [between the subject and the predicate of eternal truths] would still hold"¹²⁵.

As an example of such absurdities, he quotes the thought-experiment advanced by Cajetan, who, in order to prove that essences and the connections holding among them do not have an efficient cause, claimed that, even if everything were annihilated, including God, but not me (a solitary mind), then my knowledge of a non-existent rose would still remain.¹²⁶

Later on, in the debate among Schoolmen, this thought-experiment was discussed and generalized, in order to prove that the existence of some mind or understanding is required in order to activate the connection holding between the subject and the predicate of necessary and possible propositions, whose truths, however, is completely independent from the fact of being thought by any intellect whatsoever.

If, *per impossibile*, God did not exist, it would still be true that humans are rational animals, since the proposition 'Humans are rational animals' is a necessary truth (i.e. its truth is entirely independent from any cause as well from any act of knowledge). However, the connection between "human" and "rational animal" acquires some kind of being (or reality)

¹²⁵ Thomasius, *Dilucidationes Stahlianae*, p. 66. This passage will be quoted by Leibniz in the *Theodicy*, #184: "Feu M. Jacques Thomasius [...] n'a pas mal observé [...] qu'il n'est pas à propos d'aller tout à fait au delà de Dieu: et qu'il ne faut point dire avec quelques Scotistes, que le verités eternelles subsisteroient, quand il n'y auroit point d'entendement, pas même celuy de Dieu. Car c'est à mon avis l'entendement Divin qui fait la realité des Verités eternelles [...]" (GP VI, 226). Mondadori, "Leibniz on the Reality and the Possibility of the Possible", pp. 228-33, correctly remarks that Leibniz replaces Thomasius original reference to Cajetanus's argument (quoted in the main text below) with a reference to "certain Scotists". However, it should be pointed out that Leibniz's reference to Thomasius is mediated through Bayle (since the text of the *Theodicy* is nothing but a long commentary to Bayle, after all). Bayle quotes that passage from Thomasius ("Cavendum ne in hoc argumento ultra Deum progredire...") in a marginal note of his Continuation des pensées diverses (1705), Amsterdam 1722, CLII, p. 773, where also Bayle refers to Cajetan's thought's experiment. However, in another passage of the same work, and precisely in a marginal note to section CXIV, Bayle writes: "Note that there are some Christian theologians (most notably, Scotus) who have said that the essences of things are eternal outside God's understanding. See Thomasius in dilucidation. Stahlianis, p. 25 ff.". Reference goes to those sections in which Thomasius actually discusses Scotus's views, whereas the passage at p. 66, quoted by Bayle in the previous note is not explicitly addressed against Scotus. Leibniz, however, puts these two references together; his reference to debates among Scotists make me think that he might refer to the controversy between Punch and Mastrius (where the first held a position similar to that criticized by both Thomasius and Leibniz). However, I would not exclude that Thomasius' original intention (in his remark at p. 66) was to criticize the position of those (like Gabriel Vazquez) who believed that not only the possibility of the possibles, but also their reality (their ontological status) should be taken as independent from God's understanding (thus going beyond Scotus himself). On this point, cf. J. L. Solère, "Bayle et les apories de la science divine", in Le contemplateur et les idées, 271-326, in particular pp. 287-94.

¹²⁶ For the text of Cajetan, see Coombs, "The Ontological Source of Logical Possibility", p. 203.

only insofar as it becomes the object of thought of some mind which actually thinks it, typically the divine mind.¹²⁷

This sophisticate account, which, as we already note, had an unequivocal Scotist flavour, was the main target of Thomasius' criticism, which is substantially based on a distinction between the logical and the ontological aspect of the question concerning eternal truths, where the logical aspect is privileged and emphasized, whereas the ontological one is weakened and criticized as a source of errors and misunderstandings.

According to Thomasius, if one takes "eternity" in its proper sense, i.e. as indicating a perpetual existence, there is no acceptable sense in which the essences of things can be regarded as eternal. Nor can it can be said, as some Schoolmen did, that, even if, properly speaking, the essences of things are not eternal (there are neither men nor animals before God created them), however the connections holding between those essences (like in 'All men are animals') subsist *ab aeterno*.¹²⁸ Thomasius proceeds to reject that view by means of a *reductio*: the connection holding between the terms of an essential proposition may be said to exist *ab aeterno* either by existing *intra Deum* or *extra Deum*, but in both cases the consequence is absurd. If these connections eternally exist in God, God's simplicity will be jeopardized, if they are external to God, there will be something eternal beyond God, which is the same mistake Thomasius envisages in Scotus' position.

Thomasius' own solution to the puzzle of eternal truths consists in denying "eternity" to the object of divine science, since what distinguishes true science from mere opinion is not that the object of the former is eternal, but rather that the object of the former is necessary, whereas that of the latter is only contingent.¹²⁹

¹²⁷ Of course, this process does not presuppose any temporal sequence at all; the only priority at stake is only a logical or 'natural' one. The fact that the connection between "human" and "rational animal", in order to be real (in the sense of essentia realis) requires the presence of some mind, is not a rejection of the fact that, if per impossibile, there were no such a mind, the truth of "humans are rational animals" would not vanish, since truth has to do with logical possibility, which is independent from any intellect at all. See the following passage from the Thomist Sylvester of Ferrara's commentary to the Summa contra Gentiles, II, cap. 52: "In the divine mind there are eternally ideas of all natures, from which, having been posited, the connection of the substantial predicate with the subject results" (quoted and translated by Coombs, "The Ontological Source of Logical Possibility", p. 205). The idea that relations, be they real or not, immediately result once their relata are posited (i.e. relations supervene on the position of their relata) was a common one, at least among non-realist philosophers. See Mugnai, Leibniz's Theory of Relations, pp. 111-31. Following Scotus' dictum, the possibility of things is to be taken as *formaliter ex se* and *principiative ab intellectu*, i.e. in order for a thing to be possible, it is sufficient that its concept does not involve a contradiction, whereas, in order to be intelligible (to have some reality), it is required that such a non-contradictory concept be thought of by the divine understanding (the same holds, mutatis mutandis, in the case of propositions). Cf. Scotus, Ordinatio, I, d. 43, q. un., n. 7. In the 17th century debate, such a position was defended, among others, by the Scotist B. Mastri, who distinguished between the possibles having their possibility ex se (formaliter) but not a se (principiative). See the passages quoted by Coombs, "The Ontological Source of Logical Possibility", p. 223. On the contrary, Scotus' theory of the dependence of the (reality of) the possibles from God's understanding was criticized by G. Vasquez, who wanted to stress the complete priority of the possibles over the divine understanding (see the passages quoted in Schmutz, "La crise de la science divine durant la scolastique moderne", pp. 195-8).

¹²⁸ This view had been defended by Fonseca and others (Soncinas, Sylvester of Ferrara, Domingo De Soto and Domingo Bañez), who maintained that, even if essences are created (and, then, produced by an efficient causation), the connection among them, represented by the copula *is* (like in "man *is* animal") are not, and, in this sense, they are deprived of a temporal dimension as well. Coombs, "The Ontological Source of Logical Possibility", calls it the "string view", see pp. 196-97. The "string view" had been already rejected by Suárez, DM XXXI, xii, 39.

¹²⁹ See Thomasius, *Dilucidationes Stahlianae*, p. 38.

Thus, the controversial claim "essentiae rerum sunt aeternae" has to be translated into the less controversial "propositiones essentiales sunt necessariae", where, Thomasius claims, 'necessity' has to be interpreted according to the logical and not to the metaphysical sense. Thus, we are dealing with propositions, interpreted as the objects of the second operation of mind (namely, judgment), which composes and divides and has it place only in the created understanding and not in the divine one (posing composition and division in God's understanding, indeed, would constitute a threat to divine simplicity).¹³⁰ He also specifies that the term 'essential' has to be taken as referred to those propositions in which either genus or differentia (or both) are predicated of species ('Man is a rational animal'), or species is predicated of the individual ('Socrates is a man'), thus leaving no space for individual essences as in the Scotist or Suarezian tradition.

2.6.2 Thomasius and Leibniz against the Nominal Sense of 'Being'

Moreover, against the account defended by Suárez, Thomasius remarks that it is not necessary, in order to explain the way in which essential propositions are true, to resort to the conditional interpretation, since (following Fonseca) he believes that it is the truth of the conditional proposition that has to be grounded on the categorical one, and not the reverse. The only condition, however, is that the copula of those proposition be interpreted making abstraction from time ("*cum praecisione ab omnibus temporum differentiis*").¹³¹

Note, however, that this point is a very ambiguous one, since, in the last analysis, Thomasius will defend the claim that the copula of such propositions can make abstraction from the *present time* (and, in this sense, it is not necessary that the subject of the proposition refers to an object actually existing), but he will maintain that, nonetheless, it has to be indexed to some (past or future) moment of time.

He agrees with Suárez, on the contrary, in saying that the necessity expressed by essential propositions is grounded in the identity of the subject with the predicate, which is such that, if the predicate is denied of the subject, it will engender a contradiction (so that, in saying 'Man is not an animal' amounts to say 'Man is not a man'). In the case of Suárez, however, as we showed above, grounding the (conditional) necessity of essential propositions of the identity between their constitutive terms was tantamount to ground it on some potential or possible being, the *essentia realis* which was the proper object of metaphysics.

In Thomasius' opinion, on the contrary, such an account of being is only a source of equivocations. He recalls the traditional distinction between being as a participle (as referred to what actually exists) and being as a name (which refers to what can exist, making

¹³⁰ Ibid., p. 41, where Thomasius specifies that, in the case of the divine understanding, one can speak of propositions only in an improper sense, since "the divine understanding distinguishes what is true from what is false not by dividing and composing, but by means of a very simple intuition (*simplicissima intuitione*)". Even if Leibniz will always maintain that between the divine and the created understanding there is only a quantitative and not a qualitative difference, he himself will not refrain from claiming that "Dieu seul a l'avantage de n'avoir que de connoissances intuitives" (NE, IV, xvii, 14, A VI 6, 490), where, however, God's intuitive knowledge has to be interpreted as the fact that in God's mind there are distinct ideas only, see *Theodicy*, #192, GP VI, 230. The connection between distinct ideas and intuitive knowledge has been fully explained in the famous *Meditationes de cognitione*, *veritate*, *et ideis*, 1684, A VI 4, 585-92.

¹³¹ Thomasius, *Dilucidationes Stahlianae*, pp. 41-2.

abstraction from actual existence), only to criticize the Schoolmen who take the being-asname as a sort of potential being, i.e. "quasi speciem seu gradum faciunt Entis". Against them, Thomasius explicitly claims that he takes being-as-a-verb, i.e. the being of actual existence, as the primary and only meaning of the term "being", whereas "potential being" can be called "being" only in an equivocal sense.

On this point, notice that the young Leibniz is just a follower of Thomasius's teaching. In his early notes on Daniel Stahl (written around 1663-4, probably), he criticizes Stahl's distinction between *ens participialiter* and *ens nominaliter sumptum*, where the latter is taken as referred to essence "*non habita ratione actualis existentiae significare, et sic rosa in hyeme esse volunt*", which was one of the typical Scholastic example for a possible but non-actual being. Against this essential notion of being, Leibniz notes:

"Potential being can be called 'being' (*Ens*) only in an inappropriate way. Otherwise, indeed, it would follow that God could not make that being become non-being, i.e. he could not annihilate it. It will be enough to say that being is in potency only by changing the meaning of the term (*termino alienante*), as a husband in potency is not a husband. If the author [Stahl] wants to maintain the expression "potential being", it should explain it not as if it were in potency with respect to being (*ens*), rather with respect to existence".¹³²

In rejecting potential being, Leibniz claims that it can be called a "being" only improperly, because the addition of 'potential' to some term alters or modifies the very same meaning of the substantive it is added to, as in the case of a "husband in potency", which is no husband at all.

In contemporary terms, Leibniz is rejecting what can be called a *predicative reading* of the possible, i.e. the reading whereby the expression "possible husband" is equivalent to something like "there is something which is a husband and that very same thing is possible", from which follows that a possible husband is a husband, a possible rose is a rose, and so on.

In claiming that one should read "potential being" as potential with respect to existence and not to essence, one could think that Leibniz is allowing what nowadays is called an *attributive reading* of the possible, where "possible" plays the same role of "alleged" in the expression "an alleged friend", where it is clear that an alleged friend is no friend at all. "Potential" (exactly as "alleged"), therefore, represents an example of what Leibniz, following Thomasius, called a *terminus alienans*, i.e. one which denies the proper meaning of the term that it precedes (a 'potential rose' is not a rose, an 'alleged friend' is not a friend, or, to quote Thomasius' example, a 'potential rich man' is not a rich man).¹³³ Note that 'alienation'

¹³² A VI 1, p. 23. See also *Ibid.*, p. 40: "*Ens pot*[entiale] *non* [est] *Ens. Calovius*", where the reference is to the work of A. Calov. Cf. Picon, "Actualism and Analyticity", pp. 50-1. Note that the very same example of the rose in winter (a typical one in the Scholastic debate) will be positively recovered by Leibniz himself in a passage in which he defends the validity of the ontological argument: in interpreting (or, better, misinterpreting) Aquinas's remark that the argument presupposes the very same being of God, Leibniz observes: "*seu ut ego interpretor, essentiam habere, saltem qualis est rosae in hyeme, seu talem conceptum esse possibilem*" (*De synthesi et analysi universali*, 1683-85 (?), A VI 4, 542). The example of the 'rose in winter' is also famously quoted by Descartes in his conversation with Burman, in passage where Descartes defends the conceptual (but not real) distinction between essence and existence, see *Descartes' Conversation with Burman*, ed. and transl. by J. Cottingham, Oxford 1976, p. 36.

¹³³ See Thomasius, *Dilucidationes Stahlianae*, p. 50: "*Ens autem potentiale aequivoce Ens esse probatur inde, quia* potentiale *qua tale, terminus est alienans, seu id, quod praecedit, negans: sicut potentia dives revera est non-dives*". The distinction between the predicative and attributive function of an adjective had been originally

(*alienatio*) was a sort of technical term in the post-medieval logic, employed to signify a particular kind of restriction (on the supposition of terms)¹³⁴, one in which a term is used improperly in an extended, metaphorical sense.¹³⁵

In addition to that, Thomasius adds that the idea, whereby there could be some degrees of nothingness, something which is more or less "non-being" than something else, is blatantly absurd. But this goes against the idea that there is something, like the being of what is possible or of the "real essence", which is nothingif compared to the being of existence (as in Suárez's account (A)), but, nonetheless, it is something (or a non-nothing¹³⁶) with respect to the being of beings of reason (as in Suárez's account (B)). In other words, Thomasius embraces what we called above a full-fledged (or full-blooded) nominalist view.

2.6.3 Existence (not Essence) as the ground of necessity

proposed by P. Geach, "Good and Evil", in *Analysis*, 17/2, 1956, pp. 33-42. It has been applied to the case of "possible" by T. Williamson, "The Necessary Framework of Objects", in *Topoi*, 19, 2000, pp. 201-8, and, later, Id., *Modal Logic as Metaphysics*, 10-14. For Williamson, to say that something is a "possible F" means that something (which 'exists' in a broadly logical sense) is not F but could be F. However, he seems to think of a possible object as of an abstract object (viz. a possible stick) existing (according to an absolute, logical sense of 'existence') without being a stick, i.e. without being concrete or situated in space and time.

¹³⁴ On the theory of supposition, see also P.V. Spade, *Thoughts, Words and Things: An Introduction to Late Medieval Logic and Semantic Theory*, 2002 (online version), see especially chapter 10 devoted to the theory of 'ampliation'; Maierù, *Terminologia logica della tarda scolastica*, especially Chapter 2, "*Ampliatio-restrictio (coartatio)*", pp. 139-194. For the theory of supposition in late modern Schoolmen, reference goes to Ashworth's book quoted in the following note.

¹³⁵ See Maierù, *Terminologia logica della tarda scolastica*, p 185; E. J. Ashworth, *Language and Logic in the Post-Medieval Period*, Dordrecht/Boston 1974, p. 92. In addition to what I said above, notice also that in DM II, iv, 11, Suárez employs the distinction between precisive and negative abstraction to distinguish being in the nominal sense from potential being in the Aristotelian terms, i.e. in so far as being-in-potence is opposed to being-in-act in a privative or negative sense. On the contrary, precisive abstraction makes possible that being in nominal sense can be regarded as abstracted from what actually exists but without signifying the privation or negation of existence at the same time (since the *essentia realis* wants to cover both the actual and the possible). On the other hand, by collapsing being in the nominal sense to potential being in the traditional sense, Thomasius and the young Leibniz are rejecting the very same possibility of the operation attempted by Suárez.

¹³⁶ To be historically accurate, one should say that, in calling the pure possible a "purely objective potency (potentia objectiva)", Suárez denied it could be regarded as a real and positive thing. The only intrinsic character that an essence/ a possible being possess by itself (without reference to God's power) is its non-repugnantia, i.e. the fact of not implying a contradiction. Even though the simple non-repugnancy of the pure possible is what allows it to have an aptitude to exist, such a possibility has always been described by Suárez by means of a double negation, probably to avoid the risk of attributing an independent reality to the possible as such. He never explicitly puts it in a positive way, i.e. he never says that the aptitude to exist is an intrinsically positive character that goes beyond the mere non-repugnancy (or absence of contradiction). Other authors from early modern Scholasticism, however, were far less cautious than Suárez on this point, by simply noting that a double negation is an affirmation, after all, and, thus, that, in addition to the simple absence of contradiction, something positive has to be found in the very same possibility of things. See for example, Fonseca, Commentariorum in libros Metaphysicorum Aristotelis Stagiritae, Köln 1615, V, c. 28, q. 4, s. 2, col. 975: "Nam aptitudo ad existentiam idem est quod possibilitas rerum: at possibilitas [...] non pura negatio repugnantiae dicenda est". A similar thesis was defended by Hurtado de Mendoza, according to whom "aptitudo seu non repugnantia ad essendum non est mera negatio: sed conceptus aliquis positivus" (P. Hurtardo de Mendoza, Disputationes metaphysicae, Lyon 1617, disp. 8, s.1, #9. Both passages are quoted in Schmutz, "Le paradoxes métaphysiques d'Henri de Gand", pp. 123-5. Notice that a similar oscillation between a negative and a positive account of possibility will emerge in Leibniz's mature account, when dealing with the topic of the of the possibles' striving toward existence. See the texts discussed in Chapter 9 below (especially my discussion of 'existurientia').

Having rejected the claim that possible beings ground the necessity of eternal truths, Thomasius concludes that existence is the true foundation of necessity ("*Enim vero* existentia *fundamentum est necessitatis*").¹³⁷ First of all, however, he distinguishes between absolute and hypothetical necessity, and says that only the latter can be ascribed to creatures. In itself, this distinction is traditional and not original at all¹³⁸, however, the interesting point is that Thomasius makes explicit that the conditional necessity has to be interpreted in a *temporal* way, i.e. as referred either to present or to past or future, like in the case of the traditional "necessity of the present" (according to which, 'it is necessary that, when something exists, it exists'; where necessity is clearly a hypothetical one only).

Take, for example, the proposition "homo existit": if taken in an absolute sense, this proposition is contingent, since men could not exist/have existed (think of a situation in which all men disappear from the earth, in that case "homo existit" would be false). However, if you add a temporal determination (and the same temporal determination) to both the subject and the predicate of the proposition, you will obtain the following proposition, "homo dum existit necessario existit", where it is specified that the temporal conjunction can be interpreted as "man, insofar as he exists" or "man, as long as he exists", etc. The same holds not only in the case of the present time, but also in that of the past or the future, with the only warning that the same temporal determination (be it past, present or future) be added to both the subject and the predicate of the same proposition.

In this way, Thomasius claims, existence is the true foundation of the conditional necessity of essential propositions: the necessity that we attribute to the essences of creatures (and, consequently, to the propositions that ascribe essential properties to them) is only a hypothetical one, and, most important, it is not grounded on some potential being abstracted from time (as for Suárez), but, rather, on existence conceived of as temporally indexed.¹³⁹

Therefore, in saying that "Man is an animal" is an eternal truth, there is no reference to some eternal being coeternal with God nor with some ontologically weakened potential being; on the contrary, its genuine sense has to be understood as indexed to every temporal determinations (what the tradition called the 'total denotation' of a term), like in the following: "Qui fuit homo, fuit animal", "Qui est homo, est animal", "Qui erit homo, erit animal".

If on the other hand, one applies two different temporal determinations to the terms of the propositions (or, taken in its conditional form, one to the copula in the antecedent and another one to the copula in the consequent), like in "*Qui* fuit *homo*, est *animal*", he will obtain a completely different proposition, one that can be either contingently true (if it refers to a man

¹³⁷ Thomasius, *Dilucidationes Stahlianae*, p. 56.

¹³⁸ On the concept of hypothetical necessity, see F. Mondadori, "Necessity ex hypothesi", in The Leibniz Renaissance

¹³⁹ The same position had been defended by Scherzer, *Vade Mecum*, p. 12, where he stresses that one should "use existence as a touchstone to determine what essence is due to that being (*"tu ipse uteris existentiam tamquam lydio lapide, ut per illam probares, qualisnam essentia utrique fit debita"*). Translation of this passage is taken from M. Picon, "The summulists disputes *de constantia subjecti*': the young Leibniz and his teachers on eternal truths and existence", in *Intellectual History Review*, 2014, pp. 1-17 (p. 6). I am greatly indebted to M. Picon's work, as far as the connection between Leibniz's early views on essences and those of his teachers are concerned.

¹⁴⁰ Thomasius, *Dilucidationes Stahlianae*, p. 56.

born in the past and still alive) or false (if it refers to someone who is not still a man but a cadaver).

And what about the proposition "*Socrates est Socrates*", referred to Socrates who is not alive anymore? Should we say that it is false? It would turn out to be false if it is interpreted as "*Qui* fuit *Socrates*, est *adhuc Socrates*", but it would be true (and blatantly so) if correctly interpreted as "*Qui* fuit *Socrates*, fuit *Socrates*".

In this way, the traditional problem of the *constantia subjecti*, i.e. how the propositions could have real truth if the subject they are made upon does not exist, is resolved without resorting to what is a logically possible but a non-actualized being, i.e. to what the Schoolmen called the being in nominal sense.

In his preliminary presentation of the topic (in section 52), Thomasius apparently endorsed the traditional view, whereby the subject of essential propositions refers to (*supponit pro*) being in nominal sense, i.e. making abstraction from time and, especially, from present time (the same holds for the copula, which has to be assumed "*cum praecisione ab omnibus temporum differentiis*").

At the end of his exposition (in section 86), however, he makes clear that his previous presentation has to be qualified in the following manner: reference to being in nominal sense has to be taken not in the broad sense of the Scholastic tradition, but as restricted to the being of creature *and*, more important, as implying existence taken not only as present, but also as past and future.

Of course, in so doing, he is not providing a charitable interpretation of the Suarezian doctrine, but, rather, undermining it from inside (exactly as in the case of the principle of individuation). This suggestion can be confirmed from the further clarifications Thomasius

Paradoxically as it may be, Thomasius says that, for him, to say that the nominal being makes abstraction from time (*praescindere ab omni tempore*) just means that it makes abstraction from existence as indexed to the present time, but can be extended to both past and future existence as well!¹⁴¹

¹⁴¹ *Ibid.*, p. 58. However, as E. J. Ashworth points out, in the post-medieval discussion of necessary truth, it was not uncommon to assume that a proposition like "Man is an animal" is true ex hypothesi, i.e. given that "the course of nature instituted by God does not change and the copula is absolved from time only in the sense that all times are denoted indifferently" (Logic and Language in the Post-Medieval Period, p. 88). She also adds that the reading of "abstraction from time" as the fact that the copula refers to no time all was typically rejected by nominalists and accepted only be realists. As in the case of Thomasius, some authors claimed that the idea that such propositions were eternally true arose from Aristotle's erroneous assumption that the world was eternal. Thus, Thomasius' position seems to be in keeping with the claims of the nominalists, in particular those interested in providing an extensionalist interpretation of necessary propositions. Among those who, on the contrary, intended to provide an intensionalist reading of such propositions, Ashworth mentions the position hold by 17th century authors like Smiglecius and Isendoorn, who accepted a double reading of the copula, whereby the proposition "a rose in winter" is false if 'is' is taken to mean actual existence, whereas it is true if 'is' is taken to mean an "essential connection of terms which however does not exist except in reason", since "the concept of flower is included in the concept of rose" (Ibid., p. 69). Such a reading stresses the intensional interpretation of the copula in terms of the inclusion of the concept of the predicate in that of the subject, a move that will be emphasized by Leibniz's mature theory of truth. The second interesting point is their claim that the ground of necessity is to be found not in actual existence, but in an essential connection existing only in reason, which seems to resemble Leibniz's mature view according to which eternal truths find their ontological ground in the divine understanding. See also G. Roncaglia, Palaestra Rationis. Discussioni su natura della copula e modalità nella filosofia 'scolastica' tedesca del XVII secolo, Florence 1996, pp. 119-20.

adds to his main exposition.¹⁴² I will focus just on the last one, where Thomasius mentions the thesis of those (like Suárez) who explain essential propositions by resorting to their conditional or hypothetical sense. According to them, indeed, 'Man is an animal' has to be interpreted as "*si est homo, est animal*", whereas Thomasius prefers to read it as "*qui est homo, est animal*", without prejudicing the hypothetical sense of the necessity they express.

As far as I can understand it, Thomasius' dissatisfaction with the conditional formulation concerns with the preference with a strictly extensional interpretation of essential propositions, and, in particular, the fear one might be legitimated to read the conditional clause "*si est homo, est animal*" as ranging on a domain of objects including not only the actually existing beings (in the broad sense of what is present, past or future) but also merely possible ones.

On the contrary, as I will show in a moment, the young Leibniz seems to accept the traditional conditional reading, not because he is inclined toward an ontology of possible entities (as he will be in his mature views), but, rather, because the conditional reading (without any commitment to an ontology of possible objects) was accepted by Hobbes and other authors.

2.7 Necessity, Essentialism, and Some Open Questions

A last point in Thomasius's account of essential propositions has to be emphasized. It concerns the distinction between two different kinds of "hypothetical necessity" that can be ascribed to created beings. The first one is the necessity of existence, which everyone takes as hypothetical (like in the traditional "homo existens, quando existit, necessario existit"), the second is the necessity of essence, whose hypothetical character needs to be stressed.

2.7.1 Two senses of (hypothetical) necessity: existential and essential

The first, necessity of existence, is grounded on existence as such, i.e. insofar as it answers the question "*an sit*?", whereas the latter, necessity of essence, is grounded on existence only insofar as it is conceived *per modum essentiae*, i.e. it can answer the question "*quid sit*?". Even if we can abstract essence from existence, they are only one thing in reality.

The main difference between the two, however, is that the necessity of existence can be applied only to accidental and contingent propositions, that are those in which not only the subject refers to something contingent, but also the connection between subject and predicate is a contingent one, like in the proposition *"homo est doctus"* (which can be taken as necessary only when read as *"homo, quando est doctus, est doctus"*).

¹⁴² For instance, he takes Fonseca's thesis that, in order to grant the truth to essential propositions the existence of their subjects is not required, as if it were referred to existence at the present time only (instead of existence *tout court*), and, thus, repeats that existence (be it present, past or future) is still required for those propositions to be true. He also adds that, when saying that the copula has to be assumed making abstraction from any temporal determination, this has to be understood that the copula should range on all the temporal determinations, i.e. for what existed, is existing and will exist. And this is the only acceptable sense in which one can say that the copula ranges over what is possible (again, here 'possible'= what was, is or will be actual). See *Ibid.*, 58-9.

On the other hand, the necessity of essence takes place only in the field of essential propositions, namely those in which, even if the subject in itself is contingent (better: the subject refers to an object which does not exist necessarily), nonetheless the connection between the subject and the predicate is a necessary one. In this case, for the necessity of the connection to be exhibited, it is not necessary to place the predicate in the subject (like in the case of the necessity of existence, where "homo est doctus" has to be interpreted as "homo doctus est doctus", i.e. "man, when he is learned, is (necessarily) learned"): in the case of the essential proposition "homo est animal", the correct analysis is "qui est homo, est animal", and not "homo, quando est animal, est animal".

In the case of accidental propositions (like "man is learned"), it is possible to conceive, without contradiction, the connection of the subject with the opposite predicate ("man is unlearned"), whereas in the case of essential propositions this can never happen. In the first case (accidental propositions), the necessity at work (necessity of existence) is only a necessity *sensu composito*, i.e. *ade dicto* necessity. In the case of the essential propositions, on the contrary, one would be tempted to say that the necessity (of essence) has to be interpreted as a *de re* necessity.

2.7.2 Essentialism and the problem of de re necessity

On this point, however, Thomasius seems to be very reluctant. He just says that the necessity of essential propositions is "less impure" than that of the accidental ones and that, when compared to the latter, the former can be called an "absolute" necessity. But he immediately points out that a proposition like 'Man is animal' has to be taken as necessary and universal *as if* it were true in virtue of its own nature ("*quasi ex vi suae naturae*").

On one hand, indeed, Thomasius wants to preserve the distinction between essential and accidental predication according to the framework of traditional essentialism. On the other hand, however, he wants to keep separate the conditional and hypothetical nature of propositions (be they essential or accidental) from the absolutely necessary nature of God. Only God, being endowed with an eternal and immutable existence, can be said to be a necessary being (according to what Thomasius calls "pure and absolute necessity"), whereas all created beings do not exist by themselves but only insofar as they are created by God, and, accordingly, the necessity of the propositions dealing with the natures of created beings has not to be taken as a sign of their necessary existence.¹⁴³

Essential propositions can be said to be absolutely necessary only when compared to accidental propositions, whereas, when compared with God, they must be taken for necessary only in a hypothetical sense.

This sort of necessity (hypothetical *simpliciter* and absolute only *secundum quid*) is sufficient to ground the knowledge (*scientia*) of created beings. However, those who think that the proper object of science is the possible being of creatures would be dissatisfied with this interpretation of essential propositions.

Against the latter, Thomasius points out that, even ascribing necessity to being taken as possible (or in a nominal sense), the problem of the foundation of science would not be solved

¹⁴³ See *Ibid.*, pp. 53-4 and 62.

at all: (1) because, as showed above, "possible being" is no "being" at all, but only non-being (and there is no science of the non-being); (2) because the very same necessity guaranteed by the non-repugnance (between the subject and the predicate of the proposition) can be extended to accidental connexions as well, so that it would turn out that, at level of pure possibility, it is as necessary (i.e., necessary *simpliciter*) that 'Man is animal' as it is that 'Man is white.¹⁴⁴

Point (1) is only a repetition of Thomasius' refusal to ascribe any ontological status to possible beings. Point (2), on the contrary, is extremely interesting, since it deals with a delicate question, and one that will be fundamental for Leibniz's thought as well.

Thomasius quotes with favour what Fonseca says about those who maintain that propositions like "Man is an animal" are necessary *simpliciter* insofar as they are understood as ranging over possible beings (*secundum esse possibile*).Fonseca explains that two interpretations of this claim are available: the proposition "*homo est animal*" should be read as "*homo est animal possibile*", which, in turn, could be interpreted either (a) as equivalent to "*homo potest esse animal*", or (b) as taking man's being an animal as equivalent to the fact that man's being animal can exist *in rerum natura*. The latter, being a sort of existential reading of possibility, goes without difficulty, whereas the former, (a), presents the problem raised in point (2) above, i.e. that the same necessity seems to be applied to both essential and accidental propositions.¹⁴⁵

Ironically enough, as showed above, Suárez himself employed a somewhat similar argument against the Thomist claim that eternal truths are true not in themselves but only in the divine intellect, because essential as well as accidental truths are eternally present in the divine understanding.¹⁴⁶

However, Suárez's position was not entirely free from a sort of super-essentialist conclusion, as we already know from the discussion on the principle of individuation. The two cases, however, do not completely overlap. Suárez's point, indeed, concerned the distinction between general essences and individual ones, and the modal status of such individual

¹⁴⁴ *Ibid.*, p. 63..

¹⁴⁵ Fonseca, *Commentariorum*, Lib V, cap. V, q. 1, 321 c. Incidentally, one can note that point (b) in Fonseca's analysis corresponds to Ockham's characterization of the "possible" in *Ordinatio*, I, dist. 43, q.2: "*Nec est proprius modus loquendi dicere quod esse possibile convenit creaturae, sed magis proprie debet dici quod creatura est possibilis, non propter aliquid quod sibi conveniat sed quia potest esse in rerum natura*" (p. 650). Of course, it cannot be taken as a genuine definition of what is possible, since it does not properly explain away its explanandum (reference to what *can* exist is still a reference to possibility). Ockham's point, however, is just to reject the idea (defended by Scotus) that "to be possible" is not something that really inheres to creatures themselves, i.e. it is not something that creatures receive from God as a principle (*principiative*), as in Scotus' theory of the production of creatures in the intelligible being (*esse intelligibile*).

¹⁴⁶Notice that the same difficulty has been raised by Gassendi against Descartes' Platonic theory of essences as presented in the *Fifth Meditation*. Gassendi's strategy consists in reducing Descartes' view to that of the Schoolmen, according to which the natures (essences) of things are eternal and eternally true propositions can be asserted of them. A conclusion that Gassendi finds hard to accept, first because it seems to suggest that there can be something eternal distinguished from God himself; second, because "it is impossible to grasp how there can be a human nature if no human being exists, or how we can say a rose is a flower when not even a rose exists". At this point, Gassendi adds the following remark: "since the proposition 'Man is animal' has no greater necessity than the proposition 'Plato is a man', it follows that even the latter proposition will have eternal truth, and the individual essence of Plato will be just as independent of God as the universal essence of man [...]"(AT VII, 319-20/DPW II, 222, italics mine). In his answer to Gassendi's objection, Descartes will explicitly refer to his theory of the creation of eternal truths (never mentioned in the text of the Meditations). Cf. also P. Gassendi, Disquisitio Metaphysica, Amsterdam 1664, 236-38.

differences (whether they are to be regarded as essential to the individual or merely accidental). He seems to conclude that the same necessity has to be ascribed to Peter's being *a* man as to Peter's being *this* man, thus implicitly accepting that individual accidents are essential to the individual.

On the contrary, Thomasius seems to be mainly concerned with the conflation between the modal status of essential and accidental predications at the level of general essences only: the examples he takes from Fonseca are "Man is an animal" vs. "Man is white". No reference is made to the controversial topic of individual essences, probably because it was completely extraneous to Thomasius' own philosophical horizon.

When defending the meaningfulness of the distinction between accidental and essential predication, indeed, he seems to be interested in preserving the core of traditional essentialism, even though, as I remarked above, he was somewhat incline to ground the necessity of propositions like "Man is an animal" on a sort of conceptual necessity (remarking that this proposition has to be taken as necessary and universal "*quasi ex vi suae naturae*"). In his view, then, the traditional distinction between essential and accidental predication could be preserved in a philosophical framework dominated by strong nominalist sympathies.¹⁴⁷

On the contrary, he shows that it is the supporter of a realist (or moderately realist) view of possible beings that should be lead to the conclusion that such a distinction is pointless or, at least, to accept the conclusion that essential and accidental predications, being both necessary in the same way, cannot be distinguished from a modal point of view.

2.7.3 A Suárezian Anticipation of Russell's View?

Note that such a conclusion seems to have been adumbrated in the passage from Suárez quoted above. It is interesting to see that, for Suárez, if one accepts the view that there is only a conceptual distinction between common nature and individual difference (as he does), one can also accept the thesis that individual differences are essential to the individuals: "for what wholly [and] intrinsically constitutes and composes this individual is its proper difference together with the common nature; this individual cannot only not be, but it cannot even be conceived, without such a difference". However, he immediately adds some restrictions concerning this "cannot be conceived".

In particular, he stresses that "according to the manner of speaking of dialecticians and metaphysicians followed in our way of thinking", the individual essence cannot properly be called "essential", in order to distinguish it from the specific difference. A serious restriction on the possibility for our minds to have knowledge of individuals as such is introduced here: our mind conceives "that in which those individuals agree among themselves as something (*quid*)one and as that which is formal in them and which confers science by itself". This is the reason why there can be no scientific definition of the individual but only of the common and

¹⁴⁷ One should remember that medieval nominalist thinkers were able to maintain the distinction between essential and accidental predication, and, thus, to endorse a form of essentialism that was sufficient to provide the ground for Aristotelian science. On this point, see for instance G. Klima, "The Essentialist Nominalism of John Buridan", *Review of Metaphysics*, 58, 2005, pp. 739-54. On the contrary, as we will see in the next chapter, Hobbes' nominalism will represent a break with the Ockhamist tradition on this point, since his theory is entirely based on the blurring of the traditional distinction between essential and accidental predication.

specific concept. Human knowledge, indeed, "does not descend to particulars in accordance with their proper and individual notions, because it can never perceive them as they are in themselves nor do so with the accidents proper to the individuals". However, what is forbidden to human knowledge (according to the Aristotelian dictum: *scientia non est de singularibus*¹⁴⁸), seems to be allowed to divine knowledge.

From one hand, indeed, he sticks to the traditional view ("there is no scientific definition except of the common and specific concept"); from the other hand, however, he claims that "there is no doubt that individuals, even if they differed in number alone, have distinct essences in reality, which, *if conceived and explained as they are in themselves*, will be made clear by diverse concepts and definitions".¹⁴⁹ In the latter case, "they will have also distinct properties at least in reality or according to some mode of their own, under which notion they fall under angelic or divine science".¹⁵⁰

At this point, however, the problem shifts from human to divine science, but it has not yet been solved. Reference to divine knowledge of individual essences, indeed, can be taken only as a reference to God's knowledge of the possible, i.e. God's *scientia simplicis intelligentiae*, which is presupposed by God's science of the actual (*scientia visionis*), since everything actually existing has to be first of all conceived of as possible. God's knowledge of the possible is an abstractive science (in the sense that it makes abstraction from the actual existence of its objects), one which, insofar as takes as its object merely possible things is *absolutely necessary*, since the very same possibility of creatures is a necessary one ("*Est autem scientia, ut terminata ad res possibiles, simpliciter necessaria, quia possibilitas creaturarum necessaria est*").¹⁵¹

Here, it is explicitly stated that God's knowledge of what is possible is necessary *simpliciter* because its object is a necessary one. And it could not be differently, since, as Suárez himself remarks, divine science can be knowledge in proper sense only if its truth is adapted to its object, thus, in the same way, the necessary status of such science has to be modelled on the necessary status of its objects.¹⁵² However, if what is possible is necessarily so, it would be extremely difficult (not to say impossible) try to find a place for contingency at the level of pure possibility (existence, then, would constitute the only contingent aspects in created things).

As we will see when dealing with Leibniz's mature views on the possible, he himself will be at pain in trying to conciliate the need to find a place for contingency at the level of what is purely possible with the necessary (and necessitating) character of God's *scientia simplicis*

¹⁴⁸ See, for instance, Aquinas, *Sententia Metaphysicae*, lib. 2, l. 4 n. 8, and lib.7, l. 15, n. 4.

¹⁴⁹ Suárez, DM V, ii, 37/Gracia 65, italics mine

¹⁵⁰ Ivi.

¹⁵¹ Suárez, *De divina substantia*, III, ch. 4, n. 2 (Vivès I, 207a).

¹⁵² See Suárez, DM VIII, v, 5, where he says that, in considering divine science as a *simplex intelligentia creaturarum secundum esse essentiae seu possibile*, it must be affirmed that the truth of that science consists *in conformitate ad illa objecta*, i.e. to the essences of creatures taken as possible, and that, from this point of view, divine science is not the cause of those objects, but, rather *mera intuitio et quasi speculatio*, which is the reason why things do not have such and such essences because they are known by God, but, on the contrary, they are known by him in those ways because they have such and such essences. Where, notice, there is no contradiction between the claim that God's knowledge of the possibles is a "bare intuition" and the claim, in the passage quoted above (in the main text), that is an abstractive science. In the latter, indeed, abstractive is intended as abstracting from existence, whereas in the former passage intuitive knowledge is to be contrasted with a discursive one.

intelligentiae.¹⁵³ (As Leibniz makes clear, this problem is nothing but a generalization of the ancient question concerning God's knowledge of contingent futures).

2.8 Leibniz's Nominalist Account of Divine Ideas

As far as the young Leibniz is concerned, we have already seen how, in the *DPI*, he cursorily rejected the possibility to confer to essences (abstracted from existence) the status of purely potential beings. In the same period, he clearly endorsed Thomasius' view, according to which potential being is no being at all, thus rejecting to ascribe any reality at all to what is not actually existing.

Now, we are in condition to make sense of the rather obscure passage from sect. 15 of the DPI, where he seemed to claim that, if essences are abstracted from existence and reduced to the status of purely potential being(s), then one must conclude that there is no principle of specific distinction among two purely potential beings, *and* this holds even if you want to say that they differ through relation to (divine) ideas, because, as Leibniz remarks, in that case there would be no real relation at all.

The point Leibniz was making could be summarized as follows: imagine that you want to save the plausibility of the claim that two essences (abstracted from existence, thus taken as purely potential beings) could be distinguishable, then, in order to do so, you resort to the claim that their distinguishability can be grounded in divine ideas, i.e. they are distinguished insofar as they are conceived by God. But, Leibniz remarks, this would not work as well, since divine conceivability would ground only a relation of reason, and a relation of reason cannot ground a real distinction. After all, Leibniz is just repeating the criticism nominalists moved against Scotus' theory of the 'reality' of possibles (the so-called production of creatures *in esse intelligibili*).

For instance, Ockham objected to Scotus that a creature, insofar as it is conceived of by God, does not receive anything *formaliter* (i.e. no positive, intrinsic reality) but only an extrinsic denomination (exactly as in the case of human and other created acts of understanding). In particular, Ockham points out that the relation between God and a merely possible creature might be regarded either as a real relation or a relation of reason. But the former cannot be the case, thus it could be only the latter.¹⁵⁴

At the basis of Ockham's criticism there is, of course, the nominalist assumption that there is nothing in between a real and a barely rational distinction, but, in addition to that, there is also the claim that God's knowledge of creatures is a direct one and is not mediated by something like divine ideas.

¹⁵³Cf. for instance *De natura veritatis, contingentiae et indifferentiae atque de liberate et praedeterminatione*, 1685-86 (?), A VI 4, 1515. As usual, among the Leibniz scholars, Russell expressed this position in the most clear manner: "But propositions about contingency itself, and all that can be said generally about the nature of possible contingents, are not contingent; on the contrary, if the contingent be what actually exists, any proposition about what *might* exist must be necessary" (B. Russell, *A Critical Exposition of the Philosophy of Leibniz, #*13, p. 30, and also the passage discussed in the Introduction above.

¹⁵⁴ Ockham, *Ordinatio*, I, dist. 43, q. 2, p. 646.

The common view, which Ockham attacks, said that God does not conceive of creatures in a direct way, but only insofar as they are represented by the divine essence. Rejecting the identification of divine ideas with divine essence (because essences are many and God's essence is absolutely simple), he also rejects the possibility of identifying ideas with a relation (*respectus*) between God and creatures.¹⁵⁵ Not only a real relation is to be excluded, but also a mere relation of reason, since a relation of reason is directed to beings of reason, but if ideas are to be identified with beings of reason, they cannot work as exemplars of real beings.

Thus, Ockham's conclusion is that creatures themselves are ideas: they are not to be taken as reasons that allow God to conceive of creatures and are different from creatures themselves, since there is nothing real 'in between' God's absolutely simple essence and creatures in themselves: "God himself or the divine essence is one intuitive cognition both of itself and of everything else producible and not producible, that is so perfect and so clear that it is also an evident cognition of past, future, and present things [...]".¹⁵⁶

After the analysis of Thomasius' account in the preceding paragraphs, it is not difficult to see how his attempt to conciliate Aquinas with the *Nominales* was actually indebted to the Ockhamist tradition.¹⁵⁷ And the same can be said of the young Leibniz, who, in some occasions, shows to support just the Ockhamist view that divine ideas are *ipsae creaturae*.

In a draft devoted to a defence of transubstantiation, written around 1668, Leibniz writes that the divine mind consists of the ideas of all things ("*Mens divina enim Ideis omnium rerum constat*"), but, in a marginal note, he specifies that "ideas are the same as the substantial forms of things. Thus ideas are in God as all action is in an agent, and as creation is in God. If it is asked whether an idea is created or not, I reply: is the created thing a creature or not?.¹⁵⁸

And in a series of annotations on the same topic, he adds that "there are no ideas in God except as there are things outside of him", and that the "ideas of God and the substances of

¹⁵⁵ [Massimo Mugnai points out that it is difficult to understand how ideas might be identified with a peculiar kind of relation. However, it seems to me that the relational status of divine ideas is clearly endorsed by the mature Leibniz, who stress their 'representative' character, as in his notes on Twisse, cf. Grua 355-56, as well as in his remarks on Locke's critique of Malebranche, cf. GP VI 576; in the latter passage, Leibniz states that ideas are "just relations that result from the attributes of God". Both these passages are quoted and commented in Chapter 8.5 below].

¹⁵⁶ Ockham, *Ordinatio*, I, dist. 38, q. u., p. 585. However, the discussion on ideas is to be found in dist. 35, q. 5, esp. p. 488 and ff. Translation of the passage quoted above is taken from M. McCord Adams, *William Ockham*, Notre Dame (Indiana) 1987, 1078. The connection between Ockham's rejection of divine ideas and his criticism of Scotus has been clearly pointed out by MrCord Adams, who writes: "according to Ockham's later view, when God understands creatures from eternity before they are produced in real existence, such creatures are nothing. Likewise, the divine ideas, which are the creatures themselves, are nothing. Since God does understand creatures such propositions as 'A man is understood' and 'A horse is understood' are true. But these propositions can be true, even if horses and men are nothing at all. The only thing that must exist in order for them to be true, is God's really existent act of understanding' (ibid., pp. 1077-78).

¹⁵⁷ See Thomasius' *De secta nominalium* (1658), in Id., *Orationes, partim ex umbone templi academici, partim ex auditorii philosophici recitatae, argumenti varii*, Leipzig 1683, pp. 241-274 (this text has to be read together and contrasted with the oration on Platonic ideas, which I have mentioned in the previous chapter and which immediately follows the oration on nominalism in the 1683 volume). On Thomasius' views on the history of nominalism, one can now see S. Di Bella, "Alle origini della storiografia moderna sul nominalismo: il *De secta nominalium* di Jakob Thomasius", in A. Bertolacci-A. Paravicini Bagliani (eds.), *La filosofia medieval tra antichità ed età moderna. Studi in memoria di Francesco Del Punta*, Firenze 2017, pp. 471-89.

¹⁵⁸De transubstantiatione, 1668 (?), A VI 1, 511 and 510 n./L 118 and 120. See also Ibid., p. 512, where he writes: "Ideae Dei sunt Substantia rerum non tamen essentia rerum".

things are the same in fact (*idem re*), but distinguished only in relation, as action and passion".¹⁵⁹

At this stage, then, it seems to me that Leibniz's position can be regarded as closer to a strict nominalist view of divine ideas (probably filtered through the mediation of Thomasius' teaching) than to the Scotist view that divine ideas have an objective reality in God's understanding, i.e. they are ideal entities (as it will be in his mature philosophy).

Leibniz's claim that "ideas are in God as all action is in an agent", indeed, seems to be reminiscent of Ockham's view that explains divine ideas in terms of God's act of intellections, so that, properly speaking (i.e., with 'metaphysical rigour'), there are no such things as divine ideas over and above God's intellections.

Chapter 3:

Leibniz's Early Account of Existence and Eternal Truths (1663-1672)

"Quia demonstratio est subjectum propositionis categoricae universalis necessariae, [...] talis autem resolvi potest in hypotheticam, v.g. omnis homo est animal, seu: si quis est homo, ille est animal, quod eleganter observavit *Th. Hobbes lib. De corpore*" (Specimina Juris, 1669, A VI 1, 380)

> "Il faudroit pourtant expliquer plus distinctement la Notion du concrete et de l'abstrait" (*Entretien de Philarete et d'Ariste*, 1713, GP VI,583)

3.1 Metaphysics as a System of Hypothetical Truths, and the Exclusion of Existence from its Domain

I think that one of the most interesting aspects of Leibniz's first philosophy concerns his own, positive account of the question of eternal truths (the same topic discussed at length by Thomasius in the passages quoted in the last chapter).

Let me start by noting that the issue of eternal truths was posed by Leibniz at the centre of the discussion of metaphysical questions from the very beginning, as proved by the following note to the text of Stahl:

¹⁵⁹ A VI 1, 513/L 118-9. The connection between this passage and an Ockhamist conception of ideas has already been stressed by Picon, "Actualism and Analyticity", p. 56. See also Di Bella, *The Science of the Individual*, p. 135. For the role of these passages in the context of Leibniz's defence of transubstantiation and his early reflections on the connection between mind and body, see Antognazza, *Leibniz on the Trinity and the Incarnation*, pp. 34-41.

"Metaphysics, i.e. First Philosophy, is a System of Theorems. A theorem is a proposition that would be true even if nothing existed, i.e. a proposition that is only hypothetical or can be resolved into hypothetical ones. First philosophy has been defined in this way by Honoratus Fabri, whose *Scientia rationis universalium* has been edited by Mosnerius, and Thomas Hobbes, who divided his work *De corpore* in two parts, which are the First Philosophy, abstracted from existence, and the Physics, concerning the cause of things existing in the world. Metaphysics is the mere work of reason and can be drawn from definitions; on the contrary, the fundaments of Physics are posited by the sense". ¹⁶⁰

This passage is extremely interesting, for several reasons. First, it deals with metaphysics conceived not as the science of 'real being' (*essentia realis*) but as a system of propositions that can be demonstrated (theorems), of which Leibniz says they are all hypothetical propositions or can be resolved into hypothetical ones.

Note that Leibniz seems to be particularly eager to stress the conditional nature of those propositions and, apparently, he does not share Thomasius' dissatisfaction with this way of rendering necessary essential propositions. This should be hardly surprising, however, if one thinks that Leibniz has always been interested in the logic of hypothetical reasoning and the treatment of conditionals, as it is clearly testified by his early works on the logic of juridical reasoning. For instance, in his 1665 *Disputatio juridica de conditionibus*, he refers to the class of conditional propositions - which would be true even if all the things in the world were annihilated-, as to "abstract" ones, explicitly contrasted with those who are true of what is actual.¹⁶¹

3.1.1 Conditional vs. Unconditional Knowledge: Hobbes and Leibniz

Notice also that the traditional distinction between essential and existential truths is explicitly rephrased in terms of a distinction (and a contraposition) between the abstract and the concrete. To this, one has to add that the hypothetical nature of "eternal truths" of metaphysics is not invoked with reference to the authority of the Schoolmen, but, rather, to that of the *philosophi novi*, among which Leibniz mentions the Cartesian Jesuit Honoré Fabri and, especially, Thomas Hobbes. As we will see in what follows, indeed, Hobbes' *De corpore* represents the fundamental source to understand several tenets of Leibniz's early philosophy.

For the moment, let me focus on the fact that Leibniz expressly mentions the distinction established by Hobbes between the first philosophy (corresponding to the second part of the *De corpore*) and the physics itself (corresponding to the third and the fourth part of the *De corpore*), stressing the fact that Hobbes' metaphysics, as a mere rational science which can be drawn from definitions, makes abstraction from existence, whereas the treatment of existence, i.e. the true causes of the things actually existing in the world, is demanded to physics

¹⁶⁰Notae ad Daniele Stahlium, 1663-64 (?), A VI 1, 21-22.

¹⁶¹De conditionibus, 1665, # 18, A VI 1, p. 103. See also De doctrina conditionum, 1669, A VI 1, 373. On this topic, see H. Ishiguro, "Leibniz on Hypothetical Truths", in M. Hooker (ed.), Leibniz: Critical and Interpretive Essays, Minneapolis 1982, pp. 90-102. See also H. Schepers, "Leibniz' Disputationen 'De conditionibus': Ansätze zu eine juristischen Aussagenlogik", in Akten des II. Internationalen Leibniz-Kongresses, Wiesbaden 1973, Band IV, pp.1-18. On Leibniz's early theory of 'conditions', one can also see also M. Armgardt, Das rechtlogische System der Doctrina Conditionum von G. W. Leibniz, Marburg 2001, and P. Boucher's introduction to G. W. Leibniz, Des Conditions-De Conditionibus, introduction, translation and notes by P. Boucher, Paris 2002.

(remember the DPI's characterization of existence as a "physical principle"). One could say that, in the young Leibniz's philosophical framework, the hypothesis of the annihilation of the world, with which Hobbes begins his metaphysics, has taken the place of the scholastic hypothesis on essential propositions remaining true even if (*per impossibile*) God did not exist.¹⁶²

Finally, take note that the distinction between metaphysics and physics (or between the abstract and the concrete) is ultimately grounded on the dualism between reason and sensibility (*sensus*). Such a dualism will play a fundamental role in Leibniz's characterization of the existent in terms of sense perception, as we will see in the next chapter. For the moment, let me point out that this dualism finds its origin in Hobbes' epistemological thesis that sense perception is at the basis of every form of knowledge, where the point that is particularly relevant to our discussion is Hobbes' emphasis on the *unconditional* character of perception vs. the hypothetical, i.e. *conditional* character of rational knowledge,

The latter point is clearly stated in the following passage from the Leviathan:

"There are of knowledge' two kinds, whereof one is 'knowledge of fact'; the other, 'knowledge of the consequence of one affirmation to another'. The former is nothing else but sense and memory, and is 'absolute knowledge'; as when we see a fact doing, or remember it done; and this is the knowledge required in a witness. The latter is called 'science', and is 'conditional'; as when we know that: 'if the figure shown be a circle, then any straight line through the centre shall divide it into two equal parts'. And this is the knowledge required in a philosopher; that is to say, of him that pretends to reasoning".¹⁶³

Of course, this distinction between 'knowledge of fact' and 'knowledge of reason' will be relevant to Leibniz's mature distinction between truth of reason and truth of fact. What I want to point out here, however, is the relevance of such a distinction for the articulation of the young Leibniz's philosophy, especially for what concerns his conception of rational knowledge.

Note that, on the basis of this distinction between rational and factual knowledge, Hobbes keeps separate philosophy, or the kind of knowledge"required in a philosopher", from history (both natural and civil), which is explicitly mentioned in the continuation of the passage as the main field of factual knowledge.¹⁶⁴

Now, this distinction is implicitly at work in a fundamental passage from the DAC, where Leibniz excludes singular propositions from the field of his combinatory art, which, on the contrary has to do only with "theorems", i.e. to propositions having eternal truths:

¹⁶² Hobbes' thought experiment concerning the annihilation of the world (one in which the entire world is annihilated with the only exception of one man) presents some similarities with that proposed by Cajetanus (and briefly discussed by Thomasius, see above) in his commentary to Aristotle' s *Posterior Analytics*, where he imagines that everything (including God) is annihilated with the exception of a solitary mind, to show that this solitary mind could still have knowledge about the properties of triangles or roses even if every conceivable cause that could produce them has been removed. Despite these apparent similarities, the two thought experiments are intended to prove different claims. Hobbes' fictional hypothesis, indeed, is intended to show that sensible qualities belong to the field of the sensing subject or, better, to its phenomena, and not to the field of the sensing subject or, better, to its phenomena, and not to the field of theology of divine omnipotence, see Y. C. Zarka, *La decision métaphysique de Hobbes. Conditions de la politique*, Paris 1987, pp. 44-58.

¹⁶³ Hobbes, *Leviathan*, London 1651, ch. IX (EW III, 71).

¹⁶⁴ The same distinction is implicitly recalled in the definition of philosophy at the beginning of *De corpore*, I, 2, where both sense and memory are excluded from the kind of knowledge ascribed to philosophy.

"Admonendum denique est, totam hanc artem complicatoriam directam esse ad theoremata, seu propositiones quae sunt aeternae veritatis, seu non arbitrio Dei, sed sua natura constant". On the other hand, singular propositions, among which Leibniz mentions historical ones (like "Augustus was emperor of Rome") as well as observations (i.e. general propositions, but whose truth is not grounded in essence, but in existence), are true "almost by chance, or for God's will" ("quasi casu, id est Dei arbitrio").¹⁶⁵Among general observations, Leibniz includes propositions like "All men grown up in Europe have knowledge of God", of which there is no demonstration, properly speaking, but only induction (or, at least, they can be proved sometimes only by means of other observations plus the intervention of some theorems¹⁶⁶).

3.1.2 Singular propositions and existence in the DAC

From this distinction between knowledge in proper sense and historical observations, Leibniz draws the confirmation of the Aristotelian claim that there is no science of individual things (*scientia non est de singularibus*):

"Hence it is clear why it is said that singular propositions do not have demonstration, and why the very profound Aristotle posed the *loci* of arguments in *Topics*, where propositions are contingent and proofs are probable, whereas there is only one *locus* for demonstration: definition. When something is predicated of something else, without being deduced from the intimate nature of the latter –for instance, that Christ was born in Bethlehem –nobody will rely on definitions; history, on the contrary, will provide matter and occasions for remembering".¹⁶⁷

¹⁶⁵ DAC, # 83, A VI 1, 199 (= GP IV, 69). According to this passage, contingent propositions (singular ones and empirical generalizations) are said to be grounded in actual existence, i.e. on God's will. Of course, this does not mean that the existence of things *entirely* depends on God's arbitrary will, even though, as it has been pointed out, in this period Leibniz is not free from some voluntarist strand, as in the case of his partial appraisal of Trasymachus's definition of justice as the "interest of the stronger", where, however, he points out that only God, being omnipotent, can be regarded as the stronger, see A VI 1, 230. For a commentary of similar passages, see G. Mormino, *Determinismo e utilitarismo nella Teodicea di Leibniz*, Milano 2005, pp. 24-36, who rightly emphasizes the influence of Hobbes' views on the young Leibniz's conception of the right. As we will see in the following chapters, starting from 1671-72, Leibniz will become very careful to avoid any reference to something like God's arbitrary will.

¹⁶⁶ General observations that can be proved by means of a combination of theorems and other observations are what Leibniz calls "mixed truths", a sort if intermediate case between truths of reason and truths of fact, which are explicitly mentioned in a 1671 letter to Magnus Hesenthaler, A II 1, 199-200. On this kind of truths, see M. Mugnai, *Introduzione alla filosofia di Leibniz*, Turin 2001, pp. 81-4. Extensive considerations on the limits of induction (and the necessity to employ universal propositions also in case in which it is not possible to attain perfect certainty but only a moral one) are contained in Leibniz's *Preface* to Nizolius, 1670, A VI 2, 431-32(= GP IV, 161-62)/L 129-30.

¹⁶⁷ DAC, # 84, A VI 1, 199 (=GP IV, 69-70), translated in Di Bella, *The Science of the Individual*, p. 42. Reference to Aristotle's *Topics* is not a purely decorative one, since, from the very beginning, Leibniz's encyclopaedic project consisted of two parts, an *ars judicandi*, corresponding to analytics, and an *ars inveniendi*, corresponding to the topic, where the latter, in particular, was concerned with a catalogue and a study of relations. See, for instance, ## 24-25 of the *Nova methodus discendae docendaeque jusrisprudentiae*, 1667, A VI 1, 279, to be compared with # 85 of the DAC, where Leibniz explicitly mentions the work of Johann H. Bisterfeld. On Bisterfeld and Leibniz, see M. R. Antognazza, "*Debilissimae Entitates*? Bisterfeld and Leibniz's Ontology of Relations", in *The Leibniz Review*, 11, 2001, pp. 1-22; M. Mugnai, "Der Begriff der Harmonie als metaphysische Grundlage der Logik und Kombinatorik bei J. H. Bisterfeld und Leibniz", *Studia Leibnitiana*, 1973, pp. 43-73. See also Piro, *Varietas identitate compensata*, pp. 21-30.

Among the many consequences that can be derived from this position, one needs to be particularly emphasized here: the extrusion of existence (and the knowledge thereof) from the domain of rational knowledge, i.e. analytical science based on definitions and demonstrations. Since existence (i.e. actual existence) pertains only to singular beings, whereas demonstrations only deal with abstract essences and connections between essences (or, better, essential propositions), it will follow that judgments concerning existence are to be placed among the truths of fact and, as such, they cannot be analytically derived from the nature of things (as Leibniz claims, when something is predicated of something else, without being deduced from the inner natures of things, nobody can rely on definitions).

This suggestion finds a further confirmation in what Leibniz says in the corollaries added to the *DAC* (originally prepared for public disputation), where, under the title of "logic", the first corollary says: "There are two primary propositions. The first is the principle of all theorems or necessary propositions: *what is (so) either is or is not (so)*, or conversely. The other is the basis of all observations or contingent propositions: *something exists*".¹⁶⁸In a sense, the origin of Leibniz's inclination to consider existence as a very peculiar property of things, one that cannot be posited on a par with all the other predicates that can be ascribed to a subject, can be found in this very early position of him.

On the contrary, the contingent/individual features of things (which, in the DAC, are excluded from the domain of analytic knowledge), will be later included by Leibniz in his account of substance in terms of complete (individual) concepts. After all, indeed, a complete concept is nothing but something from which the whole 'history' of an individual can be 'analytically' derived (at least, from God's point of view). In this case, however, the complete concept is not just the (theological) counterpart of the ontological subject of the DAC, but constitutes also an *individual essence*, in which both essential and accidental (necessary and contingent) features must be contained. Of course, this twofold aspect of the complete concept will represent the main reason of Leibniz's many oscillations about the notion of 'existence'.¹⁶⁹

It will be hardly surprising, then, to discover that, in these early texts, there is no attempt to provide something like a definition or an *a priori* characterization of existence, whereas, on the contrary, one can find the first attempts to provide what we can call an epistemic

¹⁶⁸ DAC, A VI 1, 228 (= GP IV, 41, n.)/L 74.

¹⁶⁹ In many passages of his mature writings, Leibniz associates the contraposition between essence and existence to that between the essential (and necessary) properties of a thing, on one hand, and the accidental (and contingent) ones, on the other. Cf. New Essays, IV, ix, 1 A VI 6, 433: "[...] and in this sense also the philosophers very often distinguish between what pertains to the essence and what pertains to existence, ascribing to existence everything which is accidental or contingent". The point to be stressed is that, in these occurrences, 'essence' has to be taken in the traditional sense, i.e. as referring to general essences (species, genera) only, not to individual ones. The point is clearly stated at LH IV 7 C, Bl. 82: "Essentia est principium eorum quae rei competunt per se. Existentia est principium eorum quae rei competunt per accidens. Atque hoc sensu solet distingui inter essentiam rerum atque existentiam: sive inter rei ideam et statum in quo reperitur". As these passages makeclear, Leibniz is adopting here a distinction inherited by the tradition; a distinction that, however, has to be compared with his new account based on the theory of complete concepts. In the continuation of the latter passage, indeed, Leibniz states that "Essence is the principle of necessary predicates", whereas "Existence is the principle of accidental ones"; in a marginal note, however, he adds: "The complete concept is the principle of all of them [Conceptus completes est principium omnium]". Another point that has to be stressed is the (unintended?) conflation of the modal distinction between 'necessary' and 'contingent' with the predicative/ontological one between 'essential' and 'accidental'.

characterization of existence, according to which existence is equivalent to what can be sensed.

3.2 At the Root of Leibniz's Early Theory of Essences/2: Hobbes' Analysis of Predication and its Ontological Consequences

Before discussing Leibniz's account of existence in details, however, there is still something to say about the status of those "theorems" or propositions of "eternal truths" that, according to Leibniz, constitute the proper object of metaphysical knowledge.

In a passage from one of the many drafts concerning the projects of his *Elementa Juris Naturalis*, dated 1671, Leibniz writes:

"The doctrine of right belongs to those sciences which depend on definitions and not on experience, and on demonstration of reason and not of sense; they are problems of law, so to speak, not of fact (juris, non facti). For since justice consists in a kind of congruity and proportionality, we can understand that something is just even if there is no one who practices it or upon whom it is practiced. Just so the relations of numbers are true even if there were no one to count and nothing to be counted, and we can predict that a house will be beautiful, a machine efficient, or a commonwealth happy, if it comes to being, even if it should never do so. We need not wonder, therefore, that the principles of those sciences possess eternal truth. For they are all conditional truths (conditionalia) and treat not of what does exist but of what follows if existence be assumed. They are not derived from sense but from a clear and distinct intuition (*imaginatio*), which Plato called an idea, and which, when expressed in words, is the same as a definition. That which can be understood clearly, however, is not always true, though it is always possible; and it is also true, in addition, whenever the only question is that of possibility. But whenever there is a question of necessity, there is also one of possibility, for if we call something necessary, we deny the possibility of its opposite. It therefore suffices to demonstrate the necessary connections between things and their consequences in this way: by deducing them from a clear and distinct intuition (that is, when it is expressed in words, a definition), through a continuous series of definitions which imply them; that is, through a demonstration".¹⁷⁰

This very long quotation provides us with a remarkable synthesis of many aspects of Leibniz's early account we need to discuss in details.

First of all, Leibniz repeats that (a) scientific knowledge rests on definition and not on experience, and this is why certain propositions (like the mathematical ones) can be true even if there were no existent things corresponding to their subjects (nothing to be counted, for instance); that can be explained by (b) the conditional natures of such (eternal) truths, which treat not of what exists but only of what follows if (and when) existence is assumed. Third, (c) they are said to be derived not from sensible intuition but from a "clear and distinct *imaginatio*", which, insofar as it considered in itself, can be called an "idea" in the Platonic sense, whereas, when it is expressed in words (i.e. in a propositional form), it can be called a "definition".

Fourth, concerning (d) the modal status of such propositions, Leibniz points out that the question concerns the necessity of the connections between things and their consequences,

¹⁷⁰Elementa Juris Naturale, 1670-71 (?), A VI 1, 460/L 133.

which can be proved by deducing them (connection and consequences) from a definition through a demonstration, that is "a continuous series of definition which imply them" (that is the standard account of demonstration according to Leibniz; the interesting point here is its connection with an epistemic account of modality, see the characterization of the "possible" above, as whatever can be clearly and distinctly understood).

All these points (a)-(d) need to be discussed, in order to clarify Leibniz's original positions.

3.2.1 Propositions per se and per accidens.

In particular, concerning (a), i.e. the conditional nature of "eternal truths", as I noted above, Leibniz seems to depart from Thomasius' rejection of ascribing to these propositions a conditional structure as their proper logical form. As I remarked above, Thomasius' choice was probably motivated by his preference for an extensionalist interpretation of essential propositions and by the fear that the conditional reading (like "*si est homo, est animal*" for "*homo est animal*") could be read as promoting an ontological commitment to intensional entities (like possibilia), which Thomasius could never accept. Without rejecting the hypothetical necessity of a proposition like 'Man is an animal', he preferred to paraphrase it as 'Whoever is a man, is an animal' (*qui est homo, est animal*).

If I am not mistaken, the young Leibniz, on the contrary, will prefer to retain the conditional form of essential propositions (and, thus, a preference for the intensional reading), while, at the same time, rejecting any ontological commitment to entities like possible beings (and, thus, allowing for an intensional reading on the logical-linguistic level, but not on the ontological one).

In the DAC and in other few places, indeed, Leibniz mentions a way of paraphrasing propositions which is very similar to that adopted by Thomasius. However, whereas Thomasius adopted it in order to paraphrase necessary essential propositions, Leibniz explicitly restricts it to the paraphrase of singular propositions only: for example, "Socrates is the son of Sophroniscus" becomes "Whoever is Socrates, he is the son of Sophroniscus (*Quicunque est Socrates, est Sophronisci filius*)".¹⁷¹

This ways of paraphrasing propositions is attributed to the (for us, rather obscure) German 17th century logician Johannes Raue (Ravius, in the Latin form). Fortunately, Raue's position has been reconstructed by I. Angelelli, who provided us with a detailed account of his analysis of predication.¹⁷² However, as G. Nuchelmans has noted, this very same procedure (which Leibniz ascribes to Raue) can be traced back as far as to the logical texts of the 14th century.¹⁷³

The core of the Raue-style analysis concerns the way of understanding the function of the copula "is" in propositions like 'Man is an animal' or 'Peter is a man'. Both the subject- and the predicate-term (S and P) are replaced by phrases introduced by a relative pronoun, like (in

¹⁷¹ Cf. DAC, #24, A VI 1, 182-3/GP IV 50-1.

¹⁷² See I. Angelelli, "On Johannes Raue's Logic", in I. Marchlewlitz-A. Heinekamp (hrsg.), *Leibniz'* Auseinandersetzung mit Vorgängern und Zeitgenossen, Stuttgart 1990, pp. 184-190. See also G. Roncaglia, *Palaestra Rationis*, pp. 143-45.

¹⁷³ Cf. Nuchelmans, *Judgment and Proposition*, p. 225, where he refers to Paul of Venice's *Logica magna*. Cf. also Nuchelmans, *Late-Scholastic and Humanist Theories of the Proposition*, 1980, pp. 62-4.

Latin) "*id quod est S*" and "*id quod est P*", so that the true form of a proposition of the form "S est P" is something like "*id, quod est S, est id, quod est P*". For instance, "*homo est animal*" becomes "*is qui est homo, est is qui est animal*", where the true copula is only the one in the middle, that which connects the two complex items "*is qui est homo*" and "*is qui est animal*". This genuine copula is always expressed at the present tense, whereas the other two, auxiliary copulas, can express the "differentiae temporis".

As Angelelli points out, for the contemporary reader, the most interesting thing is the similarity between Raue's and Frege's analysis of proposition, especially since Raue "emphasizes that "S", the subject, "*homo*", in his analysis is predicated of the *tertium commune* just as is the predicate "P" [the *tertium commune* is the third common entity underlying both S and P, to which both of them refer]".¹⁷⁴ In this way, a proposition like 'Man is an animal', should be interpreted as: everything, to which it can be attributed the property of being a man, is the same thing as that to which can be attributed the property of being an animal.

According to this strategy of paraphrases, both the subject and the predicate are just two names and the second (P) is predicated of the first (S), and the propositional copula (in the original proposition "S is P") plays just the role of a sign connecting two names. On the other hand, the ontological notion of 'inherence' shifts, so to say, outside of the proposition, since the true copula is no longer the propositional one but only that which connects both the subject- and the predicate-term to an extra-propositional subject, as in the scheme "the x which is S is the x which is P" (where the true copula is only that which connects both S and P to the extra-propositional x).

Again, this scheme perfectly matches with an account in which the existent (as the true ontological subject) corresponds to the x in the scheme above, and stands completely beyond the propositional structure, which corresponds to our (im)possibility of conceptualizing it.

Now, Leibniz employs this particular analysis of propositions in a text devoted to a defence of the Trinitarian dogma against the Socinians. The theological aspect of this paper is not particularly relevant to our discussion and, thus, can be ignored.¹⁷⁵

What is particularly important is the kind of restriction that Leibniz applies to the range of propositions that can be paraphrased in the way indicated by Raue, introducing a distinction between propositions *per se* and *per accidens*. Only in the first case, that of propositions *per se*, it is correct to express them as in the case of "*omnis homo est rationalis*", whereas, in the case of propositions *per accidens*, an expression like "*omnis homo est albus*" could be misleading.

The reason why the latter formulation would be incorrect is that, even if it is actually the case (say: in the present state of the world) that every man is white, that does not mean that "whiteness" immediately pertains to humanity. On the contrary, the correct way of expressing that would be the following: "omnis qui est homo, est albus".¹⁷⁶ Note that Leibniz applies Raue's analysis not only to singular propositions (like "Socrates is the son of Sophroniscus") but also to that class of general propositions whose truth is not based on essence (i.e. on conceptual connections), but which are true "almost by chance", as Leibniz himself remarked

¹⁷⁴ *Ibid.*, p. 188.

¹⁷⁵ See Antognazza, *Leibniz on the Trinity and the Incarnation*, pp. 22-30.

¹⁷⁶ A VI 1, 520, note. See also *De lingua philosophica*,1687-88, A VI 4, 889.

in the passage from the DAC quoted above. It means: it cannot be applied to all those propositions of fact that have been excluded from the domain of Leibniz's *ars complicatoria*.

The restriction of intensional interpretation to general propositions, and, among them, only to necessary ones (what Leibniz called "per se" propositions) seems to have been motivated by the fact that an application of such an interpretation to the case of singular propositions was blocked because there was no way to make sense of how singular terms could be endowed with an intension. A solution to this problem will be provided by Leibniz's mature theory of complete individual concepts. The passages from the *DAC* quoted above seem to be indicative of the fact that such a solution was completely unknown to the young Leibniz.

3.2.2 Conditional Reading and Conceptual Containment: Hobbes' theory of predication

It should be clear now why Leibniz cannot accept Thomasius' strictly extensionalist reading of essential propositions, but choose to restrict the range of application of the Raue-style paraphrase only to field of propositions of fact. That does not mean, however, that this move compels him to a further ontological commitment to some class of non-actual entities. In point (b) above, indeed, Leibniz specifies that eternal truths have a conditional nature exactly because they deal with what follows if the existence of something else is assumed.

A reading of such propositions that puts emphasis on the fact that their truths exclusively depends on conceptual connections between the terms on one hand, and that rejects any commitment to entities different from what actually exist on the other, had already been proposed by Thomas Hobbes, who, on this point, seems to be the most influential source of the young Leibniz. In the passage quoted above, the distinction between propositions *per se* and *per accidens* is a quotation from the distinction Hobbes made in chapter III of his *De corpore*.

There, indeed, Hobbes distinguishes between necessary and contingent propositions in the following way: a proposition, like "Man is an animal", is necessarily true because, at any time whatsoever we suppose the name "man" be attributed to some thing, also the name "animal" will be attributed to that very same thing. Note that Hobbes explicitly mentions reference to time as well as to conceivability in his account of what is to be a necessary proposition (a proposition is necessary "quando nulla res concipi potest sive fingi ullo tempore, cujus nomen sitsubjectum, quin ejusdem nomen sit etiam praedicatum").¹⁷⁷

Note also that in this account both the subject and the predicate of the proposition (in this case, "man" and "animal") are taken as names of the very same thing, according to the account of proposition that Hobbes gave in *De corpore*, III, 2, where he stated that a proposition is a speech consisting of two names connected by a copula, by means of which the man who speaks means that he takes the latter name (the predicate) to be the name of the same thing whereof the former (the subject) is the name, or, which is the same, the former is contained in the latter (the subject is contained in the predicate).¹⁷⁸

¹⁷⁷ Hobbes, *De corpore*, III, 10 (OL I, 33-4).

¹⁷⁸ *Ibid.*, III, 2 (OL I, 27). Hobbes' account of the truth-conditions of propositions makes clear he is committed to what has been dubbed the *identity theory* of predication. In the medieval logical tradition, one can distinguish

Even though in his general account of proposition Hobbes explicitly states that the containment has to be understood in an extensional way (inclusion of the subject in the predicate), it should be remarked that, nonetheless, when coming to necessary propositions, he seems to make room for an intensional reading of containment, since he says that "in every necessary propositions, the *predicate* is either equivalent to the subject, as in the proposition "*Man is a rational animal*", or is part of an equivalent name, as in the proposition "*Man is an animal*" "¹⁷⁹, for the name "rational animal" (which is equivalent to "man") is composed of two names, "rational" and "animal" (and, thus, the correct analysis should be something like "a rational animal", or something like that).

On the contrary, a contingent proposition is one that can be true at one time and false at another time, like "Every crow is black" (the kind of proposition Leibniz would have labelled as a 'general observation'). Unlike what happens in necessary propositions, in contingent ones (even in those that happen to be always true, "by chance", as Leibniz would have said) the predicate cannot be regarded as part of a compounded name which is equivalent to the subject name, and that is the main reason why these propositions are contingent. These contingent propositions are exactly those which Leibniz called propositions *per accidens* and to which he applied the style of paraphrases modelled on Raue's analysis of the copula.

At the end of the same paragraph, Hobbes adds another very interesting remark:

"From this [what he has already said about necessary and contingent propositions], it is also clear that truth does not pertain to things but to speech only: there are, indeed, some truths which are eternal, for it will be eternally true that *if it is a man, it is an animal*, but it is not necessary that man or animal should exist eternally".¹⁸¹

In this passage, Hobbes not only anticipates what he will state in the following paragraph, i.e. the equivalence and the mutual convertibility between necessary propositions and hypothetical ones, but he also points out that, in the case of eternal or necessary truths, the truth in question does no pertain to things (there is no such a thing like an ontology of eternal truths) but to the linguistic dimension only.

between the so-called *inherence theory* of predication and the *identity theory*. According to the first, an affirmative categorical proposition (S is P) is true only if an individual property signified by P actually inheres in the thing(s) referred by S (in'Socrates is white', 'white' designates a form which actually inheres in Socrates). According to the second, S is P is true only if its subject- and the predicate-term refer to the same thing(s), so that, for instance, 'Socrates is white' is true only if Socrates (the reference/denotation of 'Socrates') is among the white things (the reference/denotation of 'white'). Of course, the identity theory was favoured among nominalist thinkers. However, Hobbes's innovation with respect to the nominalist tradition consists in rejecting Ockham's distinction between *connotation* and *denotation*, which allowed him to maintain the distinction between accidental and essential predication. In the case of a proposition like 'Socrates is white', for instance, 'white' has Socrates as its primary referent (denotation), but secondarily signifies 'whiteness'. On the contrary, in the case of abstract terms concerning the essence of the subject (like 'humanity'), Ockham assunes that 'humanity' is simply a synomim of 'man', and, thus, 'humanity' has no secondary significance (or connotation) at all. In this sense, Hobbes' strategy consists in extending to all kind of abstract terms the solution Ockham employed for essential abstract terms, to the effect that the distinction between essential and accidental predication is practically cancelled.

¹⁷⁹ *Ibid.*, III, 10, (OL I, 34).

¹⁸⁰ Cf. Di Bella, *The Science of the Individual*, p. 49: "[...] an unmistakable intensional reading of containment is put forward, when Hobbes deals with necessary propositions". See also *Ibid.*, 47-54, for a very interesting account of the topic of necessary truths in Hobbes.

¹⁸¹ *De corpore*, III 10 (OL I, 34).

In order to understand the point, which is the truly revolutionary aspect of Hobbes' analysis, and will be decisive for the young Leibniz, we should give a closer look to Hobbes' account of eternal truths.

3.3. Hobbes on Existence and Eternal Truths: From Essences to the "Consequences of Essences"

In his unpublished work dedicated to a criticism of Thomas White' s *De mundo*, the so-called *Anti-White* (or, also, *De motu, loco et tempore*), Hobbes had the occasion to compare his own account of necessary truth with the traditional view, and, especially, to discuss this topic in connection with that of the distinction between essence and existence (which was the leading thread of the discussion of both Suárez and Thomasius, as shown above).

3.3.1 The distinction between ens and esse

In a couple of paragraphs, Hobbes introduces two fundamental tenets of his ontology, that are the reduction of essence to a simple accident (or, better, the obliteration of the distinction between essential and accidental predication) and the identification of essence and existence.¹⁸² For the moment I will focus only the second point, even though, as I will show, the two questions are deeply interconnected (and Hobbes' deconstruction of traditional essentialism will play a fundamental role for the young Leibniz's account of inherence and his theory of abstracts).

About essence and existence, Hobbes writes that "to exist" (*existere*) has exactly the same meaning as "to be" (*esse*) or, which is the same, "to be an entity" (*esse ens*). Of course, Hobbes points out, this does not mean that there is no distinction between the predicative and the existential use of the verb "to be", on the contrary one must stress the distinction between propositions like 'Man is an animal' (*homo est animal*), on one hand, and 'Man is' (*homo est*), on the other hand.

In the first case, indeed, there is no ontological commitment to the existence of men, for the proposition states only that a connection holds, whereby if there is a man, then there is also an animal. Propositions of the first kind are necessary and universals, whereas propositions of the second kind are singular and contingent, for "*homo est*" just means that among the beings that constitute the entire universe there is at least one which corresponds to "*homo*".

It is interesting to point out that Hobbes' analysis seems to fit very well in the framework of modern formal logic, since, whereas propositions like 'Man is an animal' correspond to universally quantified ones and are free from existential import (they are true even if there are no men at all), propositions like 'Man is' are correctly interpreted as existentially quantified

¹⁸² My reconstruction of Hobbes' semantics and ontology is heavily indebted to the following sources: A. Minerbi Belgrado, *Linguaggio e mondo in Hobbes*, Roma 1993, esp. pp. 63- 105; Zarka, *La decision métaphysique de Hobbes*. 104-150; M. Pécharman, "Le vocabulaire de l'être dans la philosophie première: *ens, esse, essentia*", in Y. C. Zarka (ed.), *Hobbes et son vocabulaire*. *Études de lexicographie philosophique*, Paris 1992, pp. 31-59; Nuchelmans, *Judgment and Proposition from Descartes to Kant*, pp. 123-37.

ones, stating that at least one object in the domain of discourse corresponds to a man (Hobbes speaks of "bodies" instead of "beings" or "objects", because for him the truly existing beings are only bodies, and not spiritual substances as well).¹⁸³

However, as Hobbes observes, the difference between the predicative and the existential use of "to be" is not enough to justify the claim that essence and existence are truly distinct items: "The reason why our metaphysicians have regarded essence and existence as different, seems to be the fact that they have not distinguished what follows from essences [*essentiarum consequentias*] from essences in themselves".¹⁸⁴ In a proposition like "Man is an animal", indeed, "to be an animal" (*esse animal*) follows and will eternally follow from "to be a man" (*esse hominem*), and, thus, it is eternally true that "man is an animal". This fact, the holding of a logical connection between the two terms of a proposition, has been regarded by metaphysicians as evidence of the fact that essences (even when abstracted from existence) are eternal.

This claim, taken together with the refusal to take existence, i.e. actually existing beings, as eternal, has lead metaphysicians to the conclusion that *esse* and *existere* are to be necessarily taken for two really distinct items, i.e. to the real distinction of essence and existence.¹⁸⁵

¹⁸³ The difference Hobbes is hinting at is just that between ' $\forall x (Hx \rightarrow Mx)$ ' and ' $\exists x Hx$ ', where 'H' stands for 'human' and 'M' for 'mortal', and its much deeper than that between the universal affirmative and the particular affirmative proposition in the framework of traditional (Aristotelian) logic, for (1)the UA is assumed by Aristotle as having existential import, since the universe cannot be empty (and, therefore, the passage from UA to PA is a legitimate one), and (2) the particular proposition is not interpreted as an existential one, i.e. the quantifier is not 'existential' but just 'particular'. Concerning (1), the Aristotelian premise (that the existence of the subject is a necessary condition for the truth of the UA) went into a crisis already in the Medieval tradition, at least in the case of those universal propositions where the connection between the subject and the predicate was meant to represent not just a matter of fact but a conceptual connection; then, the Aristotelian view will be definitively superseded by the Fregean account of quantification. Concerning (2), things are more complicate, especially as far as the connection between the UA and the PA is taken into account. A discussion of the difference between the point of view of modern logic and that of the Scholastic (or late Scholastic) tradition can be found in F. C. Wade's Introduction to John of St. Thomas, Outline of Formal Logic, edited by F. C. Wade, Milwaukee (Wisconsin) 1955, pp. 10-23. Concerning PA, he writes: "[...] in Traditional Logic, Some men are white means that the quality white modifies some cases of man [...]. The point of the I proposition [i.e. the PA] is not the existence of some men but the whiteness of some men" (p. 22). If I understand his point well, he defends the idea that the difference between the ways in which traditional logic and symbolic logic look at the connection between UA and PA amounts to the difference between the first privileging the intensional and the second the extensional reading of propositions (see p. 13). Interestingly enough, the question of the relation between UA and PA (and the problem of existential import) would constitute a problem for Leibniz as well, as witnessed by his texts on "Some logical difficulties", published in GP VII, pp. 211-17. There, notice, Leibniz moves from the 'Hobbesian' point of view, according to which the UA is without existential import, where the PA has to be taken as existentially loaded; but he immediately shifts to the view that a particular proposition (like "Some man is a laugher") can be understood as holding true in regione idearum, i.e. "if 'laugher' is taken for some species of possible entity, just as 'soldier' is a species of 'man'" (LP 115). The interesting point is that the distinction between the non-existential and the existential reading of the PA is traced back to that between the intensional and the extensional reading of it, cf. GP VII 214/LP 118. The distinction is explicitly paired with that between the essential and the existential reading of propositions, explicitly introduced in the GI. Cf. my discussion in Chapter 9 below.

¹⁸⁴ Hobbes, Anti-White, xviii, 5, p. 335.

¹⁸⁵ Cf. *Ivi*.

3.3.2 "Consequentiae essentiarum". De dicto necessity and the rejection of essentialism

Hobbes' emphasis on the distinction between "essences" and "the consequences of essences" needs to be explained. First of all, his reference to "our metaphysicians" is a polemical reference to the text of White he is commenting, but can be generalized to cover the position of many authors in the Scholastic tradition. We already know that Suárez had rejected the real distinction between essences and existence, and, at the same time, put emphasis on the twofold reading of the copula in essential and existential propositions.

However, Suárez's aim was that of grounding the truth of eternal truths (which do not range over actual beings) on his account of essential being taken in a real sense (as "real essence"), exactly the kind of solution that Hobbes rejects with his distinction between "essences" and "consequences of essences". Moreover, as I mentioned above, Suárez himself discussed and rejected the positions of those Thomists who held that, even if essences before the creation are nothing at all (and, thus, cannot be the truth-makers for eternal truths), the connections of the essential predicates with the essences themselves are eternal (and, thus, even if the essences are created, the connection holding among them are not).¹⁸⁶ However possible that the so-called "string view", rejected by Suárez, could have influenced Hobbes' talking of "consequences of essences", his own point of view is far more radical than that of those late Scholastic metaphysicians, especially for what concerns the status of that "necessity" to be ascribed to eternal truths.¹⁸⁷

When claiming that to be eternal and necessary are only "the consequences of the essences", Hobbes is claiming that necessity has to be ascribed only to the logical implication that holds between the two terms of a proposition, and that this logical implication has its basis in a linguistic stipulation, according to which when we say of something that it is a "man", we are also saying that the same thing is an "animal".

In the *De corpore*, Hobbes explains that "*homo est animal*" is a true propositions because "whatever thing is called a man, the same is called also animal", but he also emphasizes the fact that truth pertains to propositions only (and not to things), in the sense of pertaining to a mere linguistic stipulation, since "the first truths were all originated from the arbitrary act [*ab arbitrio*] of those who were the first to impose names upon things, or received them from the imposition of others. For it is true, for example, that *man is an animal* for the reason that it pleased men to impose both names on the same thing".¹⁸⁸ Since the imposition of names on things is an arbitrary act, truth cannot be regarded as a sort of correspondence between names and things, or, better, between names and the essences of things, but, at least in the case of necessary and eternal truths, it concerns only the connections between the names and the *consequentiae essentiarum*, where 'essences', however, no longer retain their traditional status.

¹⁸⁶ Cf. Suárez, DM XXXI, xii, 41-42.

¹⁸⁷ On this point, see also G. Paganini, "Hobbes' Critique of the Doctrine of Essences and Its Sources", in P. Springborg (ed.), *The Cambridge Companion to Hobbes*' Leviathan, Cambridge 2007, pp. 337-57. Paganini correctly remarks that Suárez cannot be regarded as a source of Hobbes' doctrine in the positive sense (rather, he represents the main target of Hobbes' critique). Furthermore, he interestingly connects Hobbes' view with Valla's criticism of the Scholastic 'barbaric' language.

¹⁸⁸ Hobbes, *De corpore*, III, 7-8 (OL I, 31-32).

In asking what kind of necessity one has to ascribe to a proposition in which the predicate necessarily follows from the subject, Hobbes answers that it is a "necessity of the consequence" (*necessitas consequentiae*, i.e. hypothetical necessity), which, however, has been falsely attributed to the things themselves: the "*non posse aliter concipere*", which prevent us, for example, to conceive of a man who is not an animal, does not mean an "incapacity due to things, but to ourselves".¹⁸⁹

Necessity finds its own place only in the proposition, i.e. in the structure of predication, and, ultimately, rests on a linguistic stipulation concerning the meaning of names. The propositional nature of necessity (or, alternatively, the idea that necessity is always *de dicto* and not *de re*) has to be stressed in order to understand Hobbes' emphasis on the identity of existence and essence, on one hand, and the rigid distinction between the existential and the predicative use of the copula, on the other.

One point Hobbes wants to establish, when stressing the non-existential import of the socalled eternal truths (i.e. of propositions concerning the consequences of essences), is the prohibition to move from a necessity internal to the proposition to a real necessity "in things". The distinction between the only apparently categorical structure of such propositions and their true hypothetical form amounts just to this. A proposition like "Man is an animal" tells us something about the meaning of the term "man" and not about the existence of human beings.

Those propositions only are demonstrable exactly because a demonstration consists in showing the inclusion of the subject in the predicate (according to Hobbes' favourite extensional interpretation), and such an inclusion can be showed "*ex ipsis vocum explicationibus, sive definitionibus*", i.e. by means of a chain of definitions:

"This is the reason why the truth that can be demonstrated is the truth of consequences, and in every demonstration the name [vox] which is taken as the subject of the conclusion that has been demonstrated, has to be taken as a name not of an existent thing, but only of a *supposed one*, and the conclusion has not a categorical, but only a hypothetical strength. For instance, if you have demonstrated a certain property about the triangle, it is not necessary that a triangle exists, but only that it is hypothetically true that, if a triangle exists, it has that property. On the contrary, if you want to prove that something exists, sensation is required, that is experience. *Even in that case, however, one does not properly demonstrate it: indeed, if someone one would strictly demand the truth from someone else who claims that Socrates lives or exists, he will prescribe him to add the constraint that, if he has not seen a spectre, or a phantasm or he has not dreamed, then he has seen Socrates, and, then, Socrates exists".¹⁹⁰*

This passage might appear as just a repetition of what I have already said at the beginning, when pointing out that Leibniz derives from Hobbes the contraposition between universal and necessary propositions that can be properly demonstrate and singular propositions, which concern existence (remember that everything which exists is individual) and require sensible experience. However, it is worth considering it for two reasons.

First, it specifies a point that will become a pervasive one in Leibniz's early account of existence: once existence has been placed among those aspects of things that cannot be derived from the nature of things, but only ascertained moving by sensible experience, it

¹⁸⁹ Hobbes, Anti-White, XXVIII, 7, p. 337.

¹⁹⁰ Hobbes, Anti-White, XXVI, 2, pp. 308-9 (italics mine).

follows that the main question about it is not to provide a correct definition of existence (which would be impossible, by hypothesis), but that of providing a set of criteria to (pragmatically) distinguish reality from dreams, what is really existing from what is just imaginary (or, as Leibniz will say, distinguish true phenomena from imaginary ones). Note, indeed, that in the passage just quoted Hobbes concludes that we can legitimately say that it is true that Socrates exists since we have seen him, but only provisionally (i.e. under the constraint we are not dreaming or just imagining Socrates).¹⁹¹

Secondly, this passage helps explaining the step further that Hobbes took with respect to what the tradition told about the relationship between existence and essence. After all, indeed, the fact that necessary propositions have no existential import was a sort of commonplace among the Schoolmen, but this did not prevent them from attributing another kind of being (a diminished one) to essences. On the contrary, Hobbes wants to dissociate the link the tradition had usually acknowledged between 'eternal truths' and 'essences': from the necessity of eternal truths, neither the eternity of essences follows nor their reality, where 'reality' is to be distinguished from 'actual existence'.

The, albeit relative or diminished, ontological autonomy of essences deprived from actual existence, is explicitly denied and replaced with the claim that, when considered apart from actual existence, essences amounts to nothing else than "a linking of terms by means of the verb 'is'" ("*nominum copulationem per verbum*, est"), as Hobbes objects against Descartes' recovery of essences in the fifth *Meditation*:

"And hence essence without existence is a mental fiction. It seems that essence is to existence as the mental image of a man is to a man; or the essence of Socrates is to the existence of Socrates as the proposition 'Socrates is a man' is to the proposition 'Socrates is, or exists'. Now, when Socrates does not exist, the proposition 'Socrates is a man' signifies merely a linking of terms; and 'is' or 'to be' carries the image of the unity of a thing to which two terms are applied".¹⁹²

Here the connection between the two aspects of Hobbes' theory mentioned above, the rejection of any real distinction between essence and existence and the reduction of mere essence to a connection of names by means of the verb "to be", is extremely clear.

If one wants to employ Locke's terminology, one could say that, for Hobbes, there are only nominal essences and not real ones (as a consequence of the fact that true definitions are the nominal definitions only).¹⁹³ Note, in particular, what Hobbes said in the last part of the quoted passage, when he explains that, taking 'Socrates is a man' as free from existential import, it means just a linkage of terms and the copula 'is' "carries just the image of the unity of a thing to which [the] two terms are applied".

It is a reference to the account of proposition I have mentioned above, whereby a proposition states just the fact that the two terms, the subject and the predicate, are two names of the same thing. Now, however, this account matches well with Hobbes' logical-ontological program of dispensing with abstract terms.

Remember that, in the passage from the *Anti-White* mentioned above, Hobbes did not just write that, in the case of necessary truths, the property of being an animal follows from that of

¹⁹¹See the many Leibnizian passages on the 'dream argument' discussed in Chapter 4 below.

¹⁹² Third Objections, AT VII, 194 (DPW, II, 136).

¹⁹³ See Zarka, *La decision métaphysique de Hobbes*, pp. 129-30.

being a man, but he chose to employ the (apparently bizarre) infinitive forms "to be a man" and "to be an animal" (*esse hominem, esse animal*) which is just a reference to his own theory of the accidents that he had already presented in the paragraph immediately preceding that from which the quotation is taken, and that will be repeated and clarified in chapter III of the *De corpore*.

3.3.3 Hobbes' reductionist program

In the account of his ontology presented in the *Anti-White*, Hobbes says that the most general division of names is that between *ens* and *esse*, which, at the propositional level, corresponds to the distinction between the subject and the predicate. On the other hand, at the ontological level, it corresponds to the distinction between the body (the only truly existing being, for Hobbes) and the accidents of the body.

The problem, however, is that, if at the grammatical level the distinction between a name (*ens*) and a verb (*esse*) is clear, the question whether the subject of a proposition is a true name is not a so simple one. Indeed, in the case of the proposition 'Man is an animal', we do not have just a subject ("man") to which we ascribe the predicate "to be an animal", because we can rewrite that proposition in the form "To be a man is to be an animal" (*"Esse hominem est esse animal"*), and, in this manner, we have always a name that originates from propositions by the linkage of the copula with a predicate.

However, Hobbes maintains, one of the main tasks of philosophy consists in distinguishing if the name that is the subject of a proposition includes (albeit) implicitly the term "*esse*" or not (which is the same as distinguishing if the thing that is signified by a certain name is a body or an accident).¹⁹⁴

Hobbes' final aim is a reductionist one. He aims to show that (1) every kind of predication is predication of the accidents of some being (= body), which means the collapse of the traditional distinction between essential and accidental predication; (2) the ontological status of an accident is only that of a mode of a body, i.e. the mode according to which a determinate body is presented to our senses (or, alternatively, the mode in which we conceive it). ¹⁹⁵

This task is accomplished through linguistic analysis, and, especially, an analysis of predication showing that abstract terms are entirely reducible to concrete predicates (so "whiteness" can be reduced to "to be white", as well as "humanity" can be reduced to "to be a man", and so on). The deflationary account of the nature of the copula, which is regarded as mere sign of the identity between the thing denominate by the subject and that denominated by the predicate of a proposition, is functional to the rejection of any ontological interpretation of the predication.

As Hobbes explicitly remarks several times, indeed, that this function of linking together two names is carried out by means of the verb "to be" is only a contingent matter, something pertaining to the structure of our own language, and not something necessary, since there could be many other ways to express the same combination of two names (for example, by

¹⁹⁴ See Hobbes, Anti-White, XXVII, 1, pp. 313-4.

¹⁹⁵ See Minerbi Belgrado, *Linguaggio e mondo in Hobbes*, p. 71.

means of a simple juxtaposition of these names, as if, instead of "*homo est animal*", you just write "*homo animal*").¹⁹⁶

The discussion of abstract terms is located in the chapter devoted to the analysis of propositions, just because Hobbes' point is exactly that abstract terms have a derivative nature with respect to predication: "concrete", say Hobbes, is the name of any thing which we take as existing, and, therefore, we call it a *subjectum* or *suppositum*; "abstract", on the other hand, is that which in any subject (that we take as existing) denotes the cause of our imposing to that being the concrete name.

For instance, among the concrete terms Hobbes includes "body", "cold", "Appius" and so on, whereas, the corresponding abstract terms are "to be a body" (*esse corpum*), "to be cold" (*esse frigidum*), "to be Appius" (*esse Appium*). These infinitive forms, however, are not "abstract names", since abstract names are only the corresponding adjectives used as a noun, as in the case of "corporeity", "coldness" or "Appiety". The latter distinction might seem to be irrelevant, but it is a fundamental one: whereas abstractions in their infinitive form play an important and, perhaps, unavoidable, role, i.e. that of denoting the cause of the corresponding concrete name, abstract names, on the other hand, when taken in their referential form (as if they were names of some real entity) are just deceptive, an illegitimate reification of fictional entities, which is the main error that Hobbes detects in the work of the metaphysicians, old and new (as in the case of White and Descartes).¹⁹⁷

Thus, Hobbes proceeds to carefully distinguish a positive usage of abstracts term from a wholly illegitimate one. The positive usage consists in the fact that, without abstract terms, "we cannot, for the most part, either reason, or calculate the property of bodies", i.e. they are useful fictions that help us in our scientific activity (and, in general, in every activity of reasoning, which Hobbes notoriously equated to calculation).

On the contrary, the abuse of abstract terms consists in the fac that, moving from the legitimate and useful way of employing them in the activity of calculcation, the metaphysicians are lead to believe that "we can speak of accidents as if they might be separated from all bodies", or from their subjects. In a sense, we could say that their mistake consists in believing that it is possible to move from a distinction of pure reason to a real distinction, i.e. to a real separation, or, in other terms, that from mere talking about abstracts in isolation from their subjects (which is an useful fiction, right, but always a fiction), we should commit us to accept abstract entities in our ontology.

From this misunderstanding, says Hobbes, it follows the genesis of expressions like "abstract substances" or "separate essences" and also the confusion of words derived from the Latin verb *est*, like *essentia*, *entitas*, *entitativum*, *realitas*, *quidditas* and others, about which Hobbes remarks that it would have been impossible to hear them among those nations among which copulation is not worked out by means of the verb *est*, but only by means of "*verba adjectiva*" like "run", "read" (*currit*, *legit*) and others. And since also these populations can excellently do philosophy even without relying on the verb "to be", all these forms derived from the being of copula are totally unnecessary in order to philosophize correctly.¹⁹⁸

¹⁹⁶ See Hobbes, *De corpore*, III, 2 (OL I, 27-8), and cf. the Latin version of the *Leviathan*, ch. 46, OL III, 497-8. ¹⁹⁷ On this Hobbesian analysis of abstract terms, Cf. S. Di Bella, "L'astratto e il concreto. Hobbes, Leibniz e la

riforma dell'ontologia", *Rivista di storia della filosofia* 2, 1998, pp. 235-66.

¹⁹⁸ See Hobbes, *De corpore*, III, 4 (OL I, 30-1).

3.3.4 Abstraction and existence

Notice that, among the abstract names Hobbes regards as derived from concrete ones, there also the names *entitas* and *essentia*, whereas the term *ens* is numbered among the concrete terms (and implicitly equated to what actually exists).¹⁹⁹ The same conclusion could be drawn also about the abstract name *existentia*, by pointing out that it does not refer to nothing further than to the class of existing beings (that is, of beings as such), and, as in the case of other abstract terms, it would be illegitimately (and deceptively) treated as referring to something in itself.

In this sense, thus, one could say that Hobbes would have subscribed Hume's notorious claim that there is no special or distinct idea of existence, or, to quote Hume's words, that the idea of existence "is the very same with the idea of what we conceive to be an existent" (sometimes condensed in the slogan: 'existence makes no difference').²⁰⁰ With respect to Hobbes, however, the latter claim should be qualified, since he explicitly puts some restriction on what we should take as a conceivable entity, but this is a point we can pass over for the moment.

What is relevant here is to understand what follows from Hobbes' talking of "essence" (and "existence") as an abstract term, and, moreover, how this can help us illuminating Hobbes' claim that eternal truths concern not essences but only the consequences of essences. Remember that, for Suárez, the term "*ens*" could be taken in two distinct senses, as a participle of the verb "to be" (*esse*) or as a name. In the first case, it refers only to what actually exists, whereas in the second case, the so-called *ens nominaliter sumptum*, it refers to a "real essence", insofar as the latter makes abstraction (*abstractio praecisiva*, which implies no exclusion of what it is abstracted from) from actual existence.

¹⁹⁹ The distinction between *ens* and *esse*, in Hobbes, corresponds to that between the domain of actually existing objects (that, for Hobbes, are only bodies) and the reasons why we impose concrete names on individual things (or, which is the same, the accidents that are said to inhere to the things and that are just the many different ways in which we can conceive of individual things). See, for example, the following passage, from *Anti-White*, xxxiv, 2, p. 381: "Rursus nominibus positivis duo rerum genera denotantur, nimirum *ens & esse*: sub ente continentur ea quae existent, vel extiterunt, vel extitura sunt. Sub *esse* continentur modi quibus entia concipiuntur, quae vocari solent accidentia". Of course, as rightly pointed out by M. Pécharman, "Le vocabulaire de l'être", p. 33, *ens* and *esse* are not to be taken as referring to genera existing *in rerum natura*, since talking of genera of nominated things is simply to make reference, indistinctly, to any member whatsoever of the many things nominated by means of such a common name. As Leibniz would have said, they refer to a distributive totality, not to a collective one (see his criticism of Nizolius, GP IV, 160). But the idea was already at the basis of Hobbes' characterization of a "universal" as a "common name" in distributive sense, see *De corpore*, II, 9 (OL I, 18).

²⁰⁰ See P. D. Cummins, "Hume on the Idea of Existence", *Hume Studies*, XVII, 1, 1991, pp. 61-82. For the thesis that "existence makes no difference", see F. Berto, *Existence as a Real Property. The Ontology of Meinonghianism*, Dodrecht/Heidelberg/New York/London 2013, pp. 12-4 (the first part of the book consists in a detailed criticism of such a claim). Take note of the fact that the sense according to which "existence makes no difference" is that whereby existence does not add any informative content with respect to other properties of individuals (the informative content of "John is tall, polite and existent" seems to be the same as that of "John is tall and polite", at least in a referential context), and that is the main reason why many philosophers conclude that existence cannot be regarded as a property of individuals (but, rather, as a property of concepts). Of course, there is another sense according to which, on the contrary, existence makes a great difference, and it is that whereby I cannot buy anything with one hundred possible dollars (except, perhaps, merely possible things).

Now, it is true that, for Hobbes, the only legitimate way of understanding the term "being" is to count it among the concrete names, but this does not absolutely mean that it can be equated to Suárez's nominal sense of "being", since the latter, as we know, is the result of an act of abstraction and, therefore, according to Hobbes, it would be only an illegitimate reification of something derivate from a concrete term.

This does not even mean, however, that Hobbes' understanding of "being" as a concrete term could be equated with Suárez's participial sense of being.²⁰¹ The main difference is, again, the fact that Hobbes understands the identity of essence and existence in a much more radical way than Suárez (and others) did. See, for instance, the following passage, in which Hobbes argues that "to be" (*esse*) and "essence"(*essentia*), as well as "to exist" (*existere*) and "existence" (*existentia*) have exactly the same meaning:

"When we simply [*simpliciter*] say that 'something is', indeed, [...] we want to say the same as if we say 'something is a being' [*aliquid est ens*], or 'something is existent' [*aliquid est existens*], because the term "*ens*" simply posited has the same meaning as "*existens*", since both *ens* and *existens* have the same essence; or, the essence of the existent is the existence, as well as the essence of being. Therefore, the essence of being and its existence are the same, be it a being from itself or from another [i.e. non-created or created]".²⁰²

In stating the equivalence between "something is" and "something is a being", by saying that in the first case the predicate is implicitly implied by the copula, thus transforming a proposition *secundi adjecti* in the corresponding proposition *tertii adjecti*, Hobbes' principal aim is that of rejecting the possibility of any derivation of existence from the essence of a thing (in particular, in the case of the existence of God).

In any case, however, it should not be interpreted as an attempt to treat existence as a predicate of things (or an accident, in Hobbes' terminology), but refers to that account of "being" (*ens*) as the most general concrete name I have mentioned above.

In this sense, it is re-confirmed that the only ontological commitment Hobbes accept is that to "being" in the sense of what is actual (which also mean to put existence outside of the order of predication in which the verb "to be" plays the part of the copula).²⁰³

3.4 Leibniz's Reception of Hobbes' General Framework: The Concrete/Abstract Contraposition

If I paid so much attention to the details of Hobbes' theory, it is because I think that the young Leibniz has been heavily influenced by it, to a much wider extent than the one scholars have usually been disposed to acknowledge.

²⁰¹ On this point, see M. Pécharman, "Le vocabulaire de l'être", pp. 49-50.

²⁰² Hobbes, Anti-White, XXIX, 9, p. 346.

²⁰³ In this sense, Zarka, *La décision métaphysique de Hobbes*, p. 130, is right when he claims that for Hobbes existence has to be regarded as an "absolute position". See also Ibid., p. 135, where he notes: "La separation antépredicative de la representation et de la chose se transforme donc, au niveau linguistique, en une separation de la predication et de l'étre". This separation between existence and proposition will have a counterpart in the separation between the genuine ontological subject (which is extra-propositional) and the structure of predication.

3.4.1 Leibniz and the Hobbesian Framework: the Preface to Nizolius

Of course, it is Leibniz himself who, in his 1670 *Preface to Nizolius*, emphasizes the relevance of Hobbes' criticism of the abuse of abstract terms in philosophy, stressing in particular the remark concerning the dispensability of the copula *est* as the connecting link between the two terms of a proposition as evidence of the fact that the most part of Scholastic philosophy was based on a misunderstanding, i.e. on the reification of a contingent linguistic phenomenon.

And he also explicitly endorses Hobbes' program of dispensing (almost) completely with abstract terms in philosophy:

" [I]t appears certain that this passion for devising abstract words has almost obfuscated philosophy for us entirely; we can well enough dispense completely with this procedure in our philosophizing. For concrete are really things; abstractions are not things but modes of things. But modes are usually nothing but the relations of a thing to the understanding, or phenomenal capacities [*apparendi facultates*]. Indeed, modes can be repeated to infinity, so that there are qualities of qualities and numbers of numbers. If all these were things, not only infinity but contradiction would result. For if being-ness [*Entitas*] were a being [*Ens*], if real-ness [*Realitas*] were a reality [*res*], if something-ness [*aliquiditas*] were something [*aliquid*], the thing would be the form of itself, or a part of its own concept, which implies a contradiction. If therefore anyone wants to give a perfect exposition of the elements of philosophy, he must abstain from abstract terms almost entirely".²⁰⁴

Note, in particular, the emphasis on the fact that concrete, individual things are the only real things (the only items that should properly be called *res*), since abstractions are not *res* but only "modes of things" (*rerum modi*).

This point had already been highlighted in the DAC, where, in the opening section of the work (*Cum Deo!*), Leibniz wrote: "Metaphysics [...] deals with being and with the affections of being as well. Just as the affections of a natural body are not themselves bodies, however, so the affections of a being are not themselves beings".²⁰⁵ In this passage, one can easily see that Leibniz's comparison of the "affections of being" to the "affections of a natural body" is an implicit reference to Hobbes' ontological framework.

As we already know, indeed, Hobbes reinterprets the contraposition between *ens* and *esse* in terms of a contraposition between *existens* and *inesse*, i.e. between what really exists (is a real being) and what is not a being properly said, but only an accident, i.e. a mode according to

²⁰⁴ Ibid., A VI 2, 417 (= GP IV, 147)/L 126.

²⁰⁵ DAC, #1, A VI 1,170 (=GP IV, 35). And, in the following paragraph, he makes explicit that affections are the same as the modes of a being, and that these modes can be either absolute (like *quality*) or something relative (*quantity* and *relation*). And in # 3 he adds that it is obvious that neither quality nor quantity nor relation are beings, and that they pertain to the object of metaphysics only "*in actu signato*" (ibid.). The traditional distinction between *actus exercitus* and *actus sign(ific)atus*, at least as it was understood by the authors of the sixteenth and the seventeenth century, can be identified with the difference between a form as it is actually present in particulars and a form as it is conceived in abstraction from any subject in which it is realized, i.e., it is nothing than a rephrase of the distinction between *in concreto* and *in abstracto*. Other times, the same distinction was employed to point out at what we call the distinction between the use and the mention of a term. See G. Nuchelmans, "The Distinction *actus exercitus/actus significatus* in Medieval Semantics", in N. Kretzmann (ed.), *Meaning and Inference in Medieval Philosophy*, Dordrecht/Boston/London 1988, pp. 57-90.

which can be conceived (this is how Hobbes understands the inherence of the accident in its subject, a point repeated by Leibniz in the passage above, when he points out that modes are just "*apparendi facultates*"). This is the result to which Hobbes gets in the first part of the *De corpore*.

At the same time, in the second part of the work, the *Philosophia prima* properly said, he adds a further step, claiming that the contraposition between *existens* and *inesse* has to be understood as a contraposition between what is a body (*corpus*) and the natural accidents of a body.

This is the kind of restriction that Hobbes imposes to the characterization of a "being" as whatever can be conceived of or imagined, since the concept of imagination is deeply intertwined with the notion of space (or, better, "imaginary space"), it follows that being in a proper sense is only what can occupy a portion of imaginary space, i.e. a physical body.²⁰⁶

Now, of this scheme, based on two steps (the interpretation of *ens/esse* as *existens/in-existens*, and the interpretation of *existens/in-existens* as *body/natural accident*), Leibniz can retain the first one, the nominalist foundation of the distinction between the concrete and the abstract, while putting into brackets the second, i.e. the materialist reduction (and, eventually, rejecting it: we know that the main effort of Leibniz's first philosophy will consists in the attempt to find a place for a metaphysics of the "mind", based on a re-interpretation of the Hobbesian notion of *conatus*, which, according to the intention of Leibniz himself, should avoid materialistic consequences). In this way, the Hobbesian account of the concrete/abstract distinction (and Hobbes's exclusion of abstracts from the domain of ontology) was regarded by the young Leibniz as a solid logical-ontological framework for his own nominalistically-oriented metaphysics.

3.4.2 Language, reality, and the rejection of any intermediate level

Both Hobbes and Leibniz think that the reification of abstract terms leads to the kind of infinite regress Leibniz denounced in the passage quoted above. There, he points out not only that, for example, by taking the abstraction *entitas* as signifying an *ens* would lead to an infinite regress (because, in that case, the *ens* in question would have an *entitas* in its turn, which, being an *ens*, would have another *entitas*, and so on)²⁰⁷, but also that such a regress would lead to a contradiction, since it would involve a sort of self-predication of such forms (a thing being form of itself), which, for Leibniz, would be the same as to say that it would be part of its own concept and, thus, a part would coincide with the totality of which it is part, a conclusion that he regards as contradictory.²⁰⁸

 $^{^{206}}$ The premise for the reduction of what exists to bodies is contained in chapter VII of the *De corpore*, which starts with the annihilating hypothesis and presents the theory of imaginary space. The reduction properly said is presented in *De corpore*, VII, 1-3, in which the theory of abstracts is explicitly reformulated as a theory of the accidents of natural body. For Leibniz's confrontation with this part of the philosophy of Hobbes, see Chapter 4 below.

²⁰⁷ Same criticism in Leibniz's late remarks on Stegmann cf. Jolley 204.

²⁰⁸ In the passage quoted above, indeed, Leibniz notes that if abstract terms were to be considered as things in themselves, then a sort of self-predication of forms would follows (*Realitas* would be a *res*, and so on), i.e. "the thing would be the form of itself, or a part of its own concept, which implies a contradiction". The sense in which this self-predication implies a contradiction can be understood if one acknowledges that the *definiendum*
As Leibniz repeats, only concrete things are beings, abstracts are only modes of things, namely "relations to the understanding". Remember that for Hobbes the accidents are not separable entities, but only constitute the reason for imposing certain names on things (since we know things only through their accidents, at least for what concerns the knowledge *tou dioti*, i.e. rational knowledge to be contrasted with sensible knowledge or knowledge *tou oti*)²⁰⁹, and that is why we should attribute them certain names, which also allows the scientist to investigate the properties of things without taking into account the subjects to which they inhere.

However, the reason for imposing certain names upon things is not something that comes first from the logical-ontological point of view, and that is why the names of accidents (abstract names) are only derivative of concrete names (a thing is not said to be "white" because of the "whiteness", but, on the contrary, "whiteness" is derivative from the thing's being white or, as Hobbes usually writes, from its "to be white", *esse album*, since the infinite form allows us to understand that abstract terms are logically posterior to the structure of predication and not prior to it)²¹⁰. The accident is always a mode in which a determinate thing (a body, for Hobbes) is conceived by us under a determinate aspect rather than under another; and if we want to substitute the infinitive "to be white" with the substantive "whiteness", we should keep in mind, however, that these abstract terms will always be equivalent to their infinitive forms, since they always, albeit implicitly, imply a reference to the "*esse*".

From the ontological point of view, the accident and the body to which it inheres are inseparable; the distinction is carried out only at a propositional level (for the purpose of isolating the reason or the cause for which a particular thing is called with a particular name)²¹¹, and it stands just at that level.

²⁰⁹ See Hobbes, *De Corpore*, VI, 2 (OL I, 59-60).

⁽the concept to be defined) is the 'whole', while the concepts which constitute the *definiens* are the 'parts'. Therefore, the name to be defined would be repeated into the definition, and the whole would be part of itself. This sort of impredicative character of definitions is explicitly forbidden by the 7th property of every good definition listed by Hobbes in *De corpore*, VI, 15. Again, for Leibniz the proposition "the whole is greater than the part" is counted among the primary propositions, demonstrable moving from definitions only and, thus, very close to identical propositions, as he himself says in a paper written around 1671-72, *Demonstratio propositionum primarum*, A VI 2, pp. 482-3. The demonstration presented in that paper is a refinement of that originally proposed by Hobbes in *De corpore*, VIII, 25.

²¹⁰ Hobbes' contraposition between the substantive and the infinitive form of abstract expressions ("whiteness" vs. "to be white") will be echoed by the mature Leibniz's distinction between "philosophical" and "logical abstracts", where, again, the latter (*"to sapientem esse*" instead of the philosophical abstract *"sapientia"*) make explicit the propositional genesis of those expressions, even though they will be employed in the context of logical calculi to allows the reduction of propositions to terms. See *Generales Inquisitiones*, 1686, ## 138-43, A VI 4, 777-79. The same distinction is discussed in the later *De abstracto et concreto*, 1688, A VI 4, 992 and ff., in which Leibniz explicitly notes that philosophical abstracts are (supposed to be) prior to the concretes whereas logical (i.e. propositional) abstracts are posterior to them. The Hobbesian origin of Leibniz's theory of logical abstracts, see M. Mugnai, *Astrazione e realtà. Saggio su Leibniz*, Milano 1976, *passim;* J. B. Rauzy, "Leibniz et les termes abstraits: un nominalisme par provision", in *Philosophie*, 39, 1993, pp. 108-28.

²¹¹ See the example Hobbes himself provides in *De corpore*, III, 3: "For example, when we see a thing or conceive in our mind some visible thing, that thing appears to us, or is conceived by us, not in one point but as having parts distant from one another, that is, as being extended through a certain space. Since, therefore, we have chosen to call a thing so conceived *body*, the cause of that name is that thing is *that thing to be extended* or *extension* or *corporeity*. In a similar way, when we see a thing that appears sometimes here, sometimes there, and call it *moved* or *transferred*, the cause of that name is that thing's *to be moved*, or its *motion*" (OL I, 29).

The sort of categorical mistake that Hobbes tributes to the metaphysicians of the past and of his times is that of treating merely linguistic distinctions as if they were real distinctions. Note that, when talking of "linguistic distinctions", we are talking of distinctions which, of course, are not real (in the sense of the distinction between two entities that can be separated), but are also different from those conceptual distinctions, based on the so-called "objective concepts", which were allowed in Suárez's metaphysics (for example, in his account of individuation, or in his theory of the essence/existence distinction as a conceptual distinction with *fundamentum in re*) and which will be re-discovered by the mature Leibniz as well. Being a radical nominalist, Hobbes maintains that what is not really distinguishable, can be distinguished only in a nominal sense, and in his philosophy there is no room for a sort of realm of concepts which stand in between names and things.

Now, the point I want to stress concerns the fact that, contrary to what has been maintained by many scholars, the young Leibniz was quite faithful to the Hobbesian program, to the point of subscribing even the radical conclusion I have mentioned in the latter paragraph, i.e the nominal character of definitions and demonstrations as well (given the account of demonstration as a chain of definitions).

3.5 Leibniz's Demonstratio propositionum primarum.

A Theory of Nominal Definitions?

3.5.1 The ultimate ground of conditional truths. De dicto or de re necessity?

In a paper on hypothetical truths, H. Ishiguro points out that Leibniz's interest in this kind of propositions has always been connected "with his philosophical interest in the nature of things, and in essences".²¹²Concerning the question of what is the ultimate ground of conditional truths, Ishiguro aptly recalls the controversy between realists and nominalists, pointing out that the core of such a controversy concerns the question "whether *de dicto* necessity depends on *de re* necessity or vice versa", and this, she observes, "is to ask whether all notions of *de re* necessity [the core of every essentialist doctrine] derive *ex vi terminorum* or not".

When coming to Leibniz, however, she says that "there is no room for so simple an opposition", because Leibniz believed that "things have natures or constitutional properties that make them behave in the way they do", but also that "we know these constitutional properties by acknowledging certain hypothetical truths". For Leibniz, Ishiguro concludes, "propositions are made up of ideas, which he calls 'terms'. So necessity for Leibniz does derive *ex vi terminorum* (he considered himself a nominalist). However, just as truth may be ascribed to a proposition, but is nevertheless a truth concerning the objects the proposition is about, so the necessity that is ascribed to a hypothetical proposition may concern the things the hypothetical proposition is about. It is *de re*, or about the nature of things".²¹³

²¹² Ishiguro, "Leibniz on Hypothetical Truths", p. 91.

²¹³ *Ibid.*, pp. 97-98.

An account that tries to conciliate the thesis that necessity is always propositional with the claim that, however, hypothetical truths concerns the natures of things (and, thus, are *de re* and not *de dicto*) is made possible by Leibniz's commitment to the reality of ideas as the kind of special objects the propositions are about (and which are the proper truth-makers of hypothetical propositions).

The truth of such propositions does not depend on the way in which the actual world is nor just from the meaning of the expressions they contain (in this sense, they are not analytical truths, since the meaning of the predicate is not just part of the meaning of the subject).

Notice that Ishiguro's analysis of the nature of hypothetical truths is mostly based on Leibniz's 1675 letter to Foucher, a very important document of the Paris period, in which, for the first time, Leibniz explicitly states that the possibility, impossibility or the necessity of things "is not a chimera which we create, since all that we do consists in recognizing them [...]. But this possibility and this necessity form or compose what are called the essences or natures and the truths which are usually called eternal", specifying that, for instance, the nature of the circle together with all its properties "is something which exists and is eternal (*est quelque chose d'existant et d'eternel*)".²¹⁴ Remember that the expression "chimera" was the typical example of what the Schoolmen called a "being of reason"; thus, by saying that possibilities and necessities are not chimerical, Leibniz is granting them an ontological status, some kind of being in between that of the pure beings of reason (which are nothing) and the kind of being of actual existence (note also Leibniz's emphasis in claiming that the idea or nature of the circle is something "existing and eternal", where, of course, existence is not to be taken as simply actual existence).

This account of eternal truths, which rests on a defence of the real nature of essences and ideas (at least in the mind of God), which will represent the standard account given by Leibniz from the end of the Paris period to the end of his life, is not adequate to capture the views that emerge from Leibniz's early writings.

Concerning the latter, indeed, it seems to me that Leibniz's understanding of the necessity of eternal or necessary truths is much closer to the full blooded nominalist view whereby the necessity of those propositions is granted by their analyticity than to the later view according to which it relies on the reality of ideas in the mind of God.²¹⁵ And that the kind of

²¹⁴ Leibniz to Foucher, 1675, A II 1, 246(= GP I, 369)/L 152. I will come back to this text at the beginning of Chapter 8 below.

²¹⁵ In his analysis of the DAC, Stefano Di Bella has highlighted the presence of two (apparently) contrasting theories of abstraction. The first is concerned with the fact that "our mind is indeed so prolific in abstracting, that whichever things be given, surely it is able to find a genus, that is a concept which is common to them and only to them" (DAC #53, A VI 1, 192 = GP IV 61), which, as Di Bella notes, involves a sort of "conceptual relativity", potentially crushing the entire hierarchical order of the Porphyrian tree (with the only exceptions of the most simple concepts and the *infimae species*). In the very same paragraph of the DAC, however, Leibniz introduces a somewhat different point of view, according to which "Even if our mind does not find the common genus, God or angels will know it; therefore a foundation of all these abstractions will pre-exists" (Ivi). This second remark seems to put a constraint on the selection of intermediate species, in contrast with the apparent arbitrariness of the combinatorial construction suggested by the first passage above. See Di Bella, The Science of the Individual, pp. 37-8. The first remark seems to be more in keeping with Hobbes' account of abstraction and, in particular, his thesis that abstractions are just linguistic constructions, which do not call for a *fundamentum in* re. The second one, on the other, seems to blink at the idea of a conceptual distinction with fundamentum in re, which, however, is available only to a divine or an angelic mind (and not to the human mind). What is relevant here, I think, is the fact that, at this earlier stage of his philosophical development, Leibniz does not dispose of something as the notion of "expression", which is exactly the tool that would enable him to bridge the gap

justification that Leibniz provides of their necessity is very similar to the one he could find in the writings of Hobbes.

3.5.2 The nature of definitions. Leibniz's approach to conventionalism in the Demonstratio

To substantiate my claim, I will refer to a text composed around 1671-2, which has been entitled (by the editors) *Demonstratio propositionum primarum* ("On the Demonstration of Primary Propositions"), in which, among other things, one could find one of the first formulations of Leibniz's principle of sufficient reason. The essay, however, is mainly concerned with the idea that in order to produce a demonstration of a proposition, one has to rely on the analysis of terms and, in particular, on their definitions.

Leibniz begins by stating that "no proposition should be accepted without proof, and no word without explanation", which is nothing more than a statement of what Leibniz will call the project of his *scientia generalis*, i.e. of a logical reconstruction of the entire body of human knowledge up to its absolutely first principles, even though, as Leibniz himself immediately remark, this search for a rigorous demonstration of every proposition can (and, perhaps, should) be postponed in order to enable us to go on with scientific discoveries without excessive delay.

Then, he states that a *definition* has to be taken as the "explanation of a word" ("*vocis explicatio*"), whereas a *demonstration* is the same as "the explanation of a proposition" ("*propositionis explanatio*"). Alternatively, he labels a definition as an "*idea significata*", which I take to mean an idea expressed through sensible signs (like characters), and, consequently, a demonstration is a "*ratiocinatio significata*"; the first is a chain of ideas, the second a chain of definitions.²¹⁶

Note the similarity between these attempts to characterize a definition and what Leibniz says in the passage from the *Elements of Natural Law* quoted at the beginning, where conditional truths (and definitions are conditional truths) were said to be derived from "a clear and distinct *imaginatio*, which Plato called an idea, and which, when expressed in words, is the same as a definition". I think that this sense of "idea", to be understood in a broadly psychological sense (to be clarified in the following chapter), is what Leibniz has in mind, when, distinguishing, as usual, between propositions of reason and propositions of fact, states that the former "are those which derive from ideas alone, or, what is the same, those which originate from conjoining definitions, owing nothing to the senses".

Among them, Leibniz includes the hypothetical, necessary and eternal truths (like the "abstract" propositions of geometry, arithmetic and phoronomy, which is, more or less, what we call kinematics), like "the whole is greater than the part" or "nothing is without a reason" (both of which will be demonstrated in the last part of this essay), or "the areas of circles are

between the discursive order of the human mind and the 'real' order of things as they are reflected into the divine mind. Without "expression", indeed, the ontological grounding of our abstractive processes is forced to stay in the background, since it cannot play the role it will have in Leibniz's mature account, and, thus, reference to it risks being just ornamental.

²¹⁶Demonstratio propositionum primarum, 1671-72 (?), A VI 2, 479 (translated by M. Dascal, in appendix to his *Leibniz. Language, Signs and Thought*, Amsterdam/Philadelphia 1987, 147-59, p. 147. Cf. also M. Picon, "Le fondement des propositions de raison dans les écrits de Mayence", H. Breger (ed), *Natur und Subjekt : Vorträge / IX. Internationaler Leibniz-Kongress*, 2011, 831-840.

proportional to the squares of their diameters", and so on. All these propositions are said to rest on definitions only.

At this point, however, Leibniz wants to face an objection, which run as follows:

"But –you may ask –how is it possible that definitions alone generate something new in the mind? Aren't in fact the 'new' propositions merely the old ones expressed in another way? And what is the use of proving a theorem, if I already know all about it, except the words? [...] Suppose someone learns Arithmetic, including, e.g., the Pythagorean table. What does he learn? Does he learn something new, except the words? When I learn that two multiplied by two is four, do I learn more than a numeral name, whose use –afterwards –in speaking and calculating, is more economical? And yet, without such words, or *any other constant signs in their places*, Arithmetic would be completely useless for us. Therefore, it is true to say that he who learns only matters of reason, theorems and definitions, does not in fact learn anything but how to use what is already known".²¹⁷

The objection is a traditional one against the 'analytic' nature of logic, most notably of Aristotelian syllogistic, which points out at the fact that, if the conclusions are already contained in the premises (and a logical derivation is just a making explicit of what is only implicit in them), then when we prove some conclusion, we do not know anything new, but we always makes explicit what we already know (albeit in an implicit way only).

This objection can be generalized to the class of all those propositions which, according to Leibniz, rest on definitions only: if a definition is just an explanation of the terms we are using, then a demonstration based on definitions does not produce anything new, and, thus, is useless.

In his reply, Leibniz starts complaining about the fact that those who put forth such an objection "have not yet understood the mysteries of science, and of ideas, and of what Plato called 'reminiscence'". This reference to Plato notwithstanding, Leibniz does not reject the core of the objection, on the contrary, he himself points out that "it is true to say that he who learns only matters of reason, theorem and definitions, does not in fact learn anything but how to use what is already known".

However, against the objection above, he points out that this kind of knowledge is not useless, but, on the contrary, extremely useful, exactly because, as he writes,

"[r]easoning and demonstration do not amplify our thoughts, but only order them. Theorems have no other use than to say many things compendiously. And this implies that they are good for usage, for when many things are expressed compendiously, it is easy to run through them simultaneously in order to compare them in thought and to coordinate them in order to solve problems[...]".²¹⁸

What Leibniz is emphasizing here is the utility of employing characters or other sensible signs (and words are among them), since, without these, arithmetic and all the other sciences "would be completely useless for us", otherwise nobody could calculate very large numbers "if he had to imagine distinctly, for each number, all the units comprised in it", since it would take too much time and, moreover, it would be impossible for our memory to retain them. In a similar way, "nobody could follow a lengthy reasoning with his mind if certain signs or names had not been devised"; if we could not employ sensible characters (what Leibniz calls

²¹⁷ A VI 2, 480-1 (Dascal 148-9), italics in the original.

²¹⁸ *Ibid.*, p. 481 (Dascal 149-50).

"blind thought" or *cogitatio caeca*), it would be impossible for us to conduct demonstrations beyond a certain level of complexity; this, notes Leibniz, "would be impossible if, suppressing the names and all the equivalents signs, we should use the definitions instead of the defined terms".²¹⁹

I do not want to discuss here the topic of *cogitatio caeca* and its relevance to Leibniz's project of a *characteristica universalis*, also because it should be well known to everyone interested in Leibniz. On the contrary, I will focus on the fact that, while stressing the usefulness of theorems in order to abridge series of definitions that, otherwise, would be too long to be computed by any human understanding, Leibniz plainly accepts the idea that demonstrations do not amplify our thoughts, since they are just explanation of terms (and, on the other hand, complex terms are just signs which stand for a series or chain of definitions). The analytical nature of definitions, then, is accepted insofar as they are just explanations of *how* we use determinate signs (or terms or words), whereas they can be said to be "productive" (i.e. to produce something new) only from a psychological point of view.

3.5.3 Ideas, definitions, and Leibniz's first solution to the conventionalist threat

Notice that already in his notes to Nizolius, written a couple of years before the text just examined, Leibniz repeatedly observed that, properly speaking, true definitions can be only explanation of names, or, if you prefer, nominal definitions (as it was for Hobbes): a definition, indeed, is "nothing else than an accurate explanation of a name".²²⁰

This point has been overlooked by many scholars who have taken Leibniz's *Preface to Nizolius* as a sort of first manifesto of his criticism of Hobbes' conventionalism about concepts and definitions. This is what would emerge from the following, notorious passage, in which Leibniz regards himself as a nominalist but, at the same time, wants to distance himself from what he calls Hobbesian super-nominalism.

Talking about the criterion of choosing the hypothesis that explain the same set of phenomena with the least number of presuppositions, Leibniz observes that

"From this principle the nominalists have deduced the rule that everything in the world can be explained without any reference to universals and real forms. Nothing is truer than this opinion, and nothing is more worthy of a philosopher of our time. So much so that, I believe, Occam himself was not more nominalistic than is Thomas Hobbes now, though I confess that Hobbes seems to me to be a super-nominalist [*plus quam nominalis*]. For not content like the nominalists, to reduce universals to names, he says that the truth of things itself consists in names and what is more, that it depends on the human will, because truth allegedly depends on the definitions of terms, and definitions depends on the human will. This is the opinion of a man recognized as among the most profound of our century, and, as I said, nothing can be more nominalistic than it. *Yet it cannot stand. In arithmetic, and in other disciplines as well, truths remain the same even if notations are changed, and it does not matter whether a decimal or a duodecimal number system is used.*²²¹

²¹⁹ A VI 2, 481 (Dascal 149).

²²⁰ A VI 2, p. 454. See also *Ibid.*, p. 456, where, commenting Nizolius, he makes clear that definition can be of names only.

²²¹ A VI 2, 428-29 (= GP IV, 158)/L 128 (italics mine).

Here, after having briefly described Hobbes' position as an extremely conventionalist one, in which truth depends on definitions of terms, which, however, are arbitrary, and truth itself is an arbitrary matter, Leibniz replies that, as the example from the different notations that can be used in arithmetic shows, this cannot be the case (at least as a general claim about every truth of reason).

However, the passage which contains Leibniz's counterexample to (his interpretation of) Hobbes, the one I have put in italics, does not belong to Leibniz's original edition of the *Preface*, and it is also absent from the second edition of the text published in 1674.²²²

The passage in question, indeed, presents many similarities with the kind of criticism that Leibniz will address to Hobbes in his 1677 *Dialogue*, which, in fact, proposes the same example taken from arithmetic ("...with numbers, things will always come out the same way, whether one uses the decimal system or, as some have done, the duodecimal system"), in order to prove the claim that "the basis of truth is always in the very connection and arrangement of characters":

"For though the characters are arbitrary, their use and connection have something that is not arbitrary, namely, a certain correspondence [*proportio*] between characters and things, and certain relations among different characters expressing the same things. And this correspondence or this relation is the ground of truth. For it brings about that whether we use these characters or others, the same thing always results, or at least something equivalent, that is, something corresponding in proportion always results".²²³

The core of Leibniz's rejection of the thesis that truth is arbitrary (even though he himself acknowledges that the choice of characters is an arbitrary one) is his insistence on such a notion of "correspondence", or, as he will say in the essay *Quid sit idea*, "expression", between characters and things, to be interpreted as a relation between "certain relations among different characters" and the corresponding relations among different things (i.e. as a relation that preserves the possibility of passing from a consideration of the relations among characters, without necessarily supposing a relation of similarity between the former and the latter).²²⁴

Together with the notion of correspondence (or expression) between characters and things, Leibniz's reply to Hobbes' thesis about the arbitrary nature of truth is based on a defence of "real" vs. "nominal" definitions, which is nothing but a corollary of his ideas about expression: Leibniz will call "real" all those definitions of a (complex) concept whose logical possibility can be proved *a priori*. Such definitions are called "real", and contrasted with merely "nominal" ones (those in which it has not been proved whether the *definiendum* is possible or not), because the logical possibility of the concept is enough to ensure that an essence *a parte rei* corresponds to the concept in question.

Now, if I am not mistaken, the kind of solution Leibniz presents in the *Dialogue* and in other writings from the end of the 1670's onward was not already available to him at the time when

²²² Cf. Picon, "The Summulists' disputes de constantia subjecti", p. 8 and ff.

²²³Dialogus, August 1677, A VI 2, 24/AG 271.

²²⁴Different explanations of the notion of 'expression' have been provided. See at least M. Kulstad, "Leibniz's Conception of Expression", *Studia Leibnitiana* 9, 1, 1977, pp. 55-76; C. Swoyer, "Leibnizian Expression", *Journal of the History of Philosophy* 33, 1, 1995, pp. 65-69.

he wrote his notes to Nizolius as well as the *Demonstratio propositionum primarum*. To be clear, I am *not* claiming that, at the time when he was writing the *Preface to Nizolius*, Leibniz should be regarded as a supporter of Hobbes' conventionalism about truth. What I want to say, on the contrary, is that that very same problem, the problem of the conventional nature of truth (and the consequent contrast between the nominal and the real character of definitions) was not considered so pressing by him as it will be at the end of 1670's.

My point can be further clarified by taking into consideration Leibniz's different versions of the same paragraph in his 1672 *Accessio ad arithmeticam infinitorum*.²²⁵ In the passage Leibniz had originally written, indeed, he introduced the topic of definitions by observing that, in order to work at the improvement of philosophy, no proposition has to be taken for granted "if not those which either consist in an immediate sensible observation or are demonstrated, with the only exception of definitions, which, as it has been pointed out many times by Galileus, are arbitrary and cannot be disputed, if there are clear enough only".

Then, he immediately proceeds to the following criticism of Hobbes' views:

"On this point, however, Hobbes was mistaken, i.e. that he maintained that the truth of all propositions derive from human arbitrium. First of all, indeed, one has to make an exception for those propositions which rest on sense, like that: I sense myself as being sentient. But also those which are known from the sense experience and, with the help of definitions, can be demonstrated; like those which can be demonstrated from the previous proposition: that I sense myself or that I think, therefore: I am. It is certain (from the sense) that I sense myself as sensing. [...] Also identical propositions, or those which affirm the same of the same thing, and with the very same words, are to be excluded. But, when the same is said of the same with the same words [...] or different definitions of the same defined concept are reciprocally stated, or, when part of one single definition is said of the defined thing or of another definition of the same thing, then it is evident that the truth of the proposition derives from human arbitrium. For a definition is from the human arbitrium. But, to tell the truth, all the axioms which do not depend on sense, and, therefore, all the theorems of those sciences which are independent from sense and experiments are propositions of this sort [...]. What could we learn, you will ask, when we investigate the theorems of such sciences? I will answer: nothing, if not to think more quickly and more distinctly in a practical sense, i.e. by employing certain symbols to put order among those ideas which we have already known and received from senses; i.e. those symbols are names or characters".226

As one can immediately see, the position expressed in the first draft of this paragraph is the same as that defended in the *Demonstratio propositionum primarum*.

Then, we can give a look at how Leibniz re-writes this passage in the second version:

"It emerges, therefore, that also the following propositions: "things equal to a third one are equal with each other", "equal things added or subtracted to equal things make the same", "the whole is bigger than the part" [...], since they can be questioned, require a demonstration, and, if they are true, they can be demonstrated from the terms themselves, i.e. by means of definitions. [...] However, someone would object that, if all the axioms can be demonstrated from the definitions of names, then all the truths will depend on human arbitrium, since the definitions of names are arbitrary. Such an opinion which is in Hobbes has been rejected by learned people. To this claim, however, I answer that propositions do depend on definitions, insofar as they are expressed by means of words or other symbols. But non-symbolic thoughts [*cogitationes asymbolas*], i.e. the very same connections between ideas, derive either from sense or from a distinct imagination [...]

²²⁵ On the *Accessio*, see also M. Picon, "Leibniz, Hobbes et les principes des sciences", in É. Marquer-P. Rateau (eds.), *Leibniz lecteur critique de Hobbes*, Montréal/Paris 2017, pp. 53-76.

²²⁶ Accessio ad arithmeticam infinitorum, end of 1672, A II 1, 227-28.

Therefore, it seems to me that one should distinguish between two kinds of propositions: those whose truth depend on sense such as experiments or observations of nature, and, on the other hand, those the truth of which derives from a clear and distinct imagination, i.e. from ideas, or, if you prefer, from definitions. For a definition is nothing but the signification of an idea, and of this kind are theorems of arithmetics and geometry. Marks and symbols are arbitrary, be they words or other characters; ideas themselves, on the other hand, look like the same for everyone".²²⁷

Notice how in this version both the comparison with mathematics and the formulation of the Hobbesian difficulty about the conventional character of propositions are presented in their definitive forms (as they will be formulated in the *Dialogus*).

In other terms, the emphasis on the nominal character of definitions (which, as we have seen above, has been originally shared by the young Leibniz) was not regarded as very troublesome by him: in the texts quoted above (*Demonstratio* and the first version of the *Accessio*), he does not detect any contrast between "ideas" and "definitions" (on the contrary, a definition was conceived as a "signified idea"). Such a distinction is not present in the second version of the *Accessio*, where, "ideas" and "definitions" are on the same side, but "ideas" are clearly distinguished from their sensible (and conventional) counterpart, "characters".

Some years later (in the Paris notes), finally, Leibniz will focus his attention on the possibility of the contrast between ideas and definitions, delineating an interesting opposition between two different processes, which he labels "process by ideas" and "process by definitions" or characters. For it is only whe the possibility of such an opposition pops up that the issue of providing a distinction between merely nominal and real definition becomes more pressing.²²⁸ Such a opposition will make the pair with that between an epistemic and a logical concept of 'possibility', where the first is based on bare conceivability and the second on logical consistency (see the last paragraph of this chapter, below). At the same time, the occasion which leads Leibniz to stress such an opposition will be provided by his recovery of the ontological proof (which he had rejected as circular in his pre-Paris writings, cf. Chapter 4 below).

3.5.4 Semiotical vs. Semantical Account?

I think that the issue can be further clarified if we make clear that Leibniz's two different approaches to the topic of definition are somewhat connected with two distinct problems. A great progress in this direction has been made possible by the analysis of M. Dascal, who has clearly distinguished between two different senses in which one could take the thesis that definitions are arbitrary, and, then, showed how Leibniz provided two distinct replies to these different questions.

²²⁷ Ibid., 228.

²²⁸ Reference is to the *De mente, de universo, de Deo*, December 1675, A VI 3, 462/DSR 3-5. The passage in question has been analysed by M. Dascal, "Signs and Thought in Leibniz's *Paris Notes*", in Id., *Leibniz*, pp. 47-59. Cf. also Mugnai, "Leibniz and Bolzano on the 'Realm of Truths'", in *Bolzano's Wissenschaftslehre 1837-1987*, Firenze 1992, pp. 207-20. See also another important note from the Paris period in which the difference between ideas and characters is explicitly employed against the possiblity that God could conceive something impossible, A VI 3, 396-97.

Dascal notes that the thesis that a definition is arbitrary can be taken to mean either (a) that the relation between the *definiendum* and the *definiens* is arbitrary, since the same concept (*definiens*) might have been connected to other names or vice versa, or (b) that the combination of concepts that constitutes the *definiens* is itself an arbitrary one, since it is subject to no constraints at all. Accordingly, he shows that Leibniz's theory of real definitions can be regarded as a "semantical" solution to question (b), whereas, in order to respond to question (a), Leibniz is content to provide what Dascal calls a "semiotical" solution.²²⁹

Since these two solutions are complementary, Dascal concludes that Leibniz did not have to abandon the latter in favour of the former. However, that does not exclude that the "semiotical" solution was the only one available to Leibniz at the beginning of the 1670's, whereas the "semantical" one will be the result of his elaboration on the concept of possibility during the Paris years and will be finally established only in texts of the end of the 1670's like the *Dialogue*.

The "semiotical" solution, in very rough terms, is based on the idea that, although, characters in themselves are arbitrary, their use and their connection are not completely arbitrary, which has to be interpreted as Leibniz did in the *Demonstratio propositionum primarum*, where he claims that "it is true that he who learns only matters of reason, theorems, and definitions, does not in fact learn anything but *how to use* what is already known" (italics mine), where the emphasis, one would say, was entirely put on the pragmatic relevance of connection between terms and definitions.

In calling this approach "semiotical", Dascal wants to stress the fact that it purports to solve the difficulty (that between the *definiens* and the *definiendum*) at the level of signs (or characters) themselves, by simply showing the existence of certain relations between characters (which are particularly useful to the advancement of our knowledge). Leibniz's thesis, writes Dascal, "is that one can overcome the difficulty *at the level of signs themselves*, without the intervention of the ideas or of the things these signs are supposed to refer to".²³⁰

What is relevant here is that Leibniz considers the definition, first and foremost, as a sign-tosign relation, by considering not the single term (or character) in isolation, but the whole set of conditions that pose constrains on that kind of relation (conditions like operational rules and correspondences, and so on).

On the contrary, in his second approach, based on the notion of "real definition", attention is focused on the *definiens* as such, in order to overcome a problem that the first solution, the "semiotic" one left unanswered, i.e. the undesired consequence that the terms in themselves, when considered in isolation, remain completely arbitrary.

This, I would say, was not a big problem for the young Leibniz's philosophy, where, if I am correct, the arbitrariness of isolated concepts is diminished by the emphasis on experience as the source of our concepts (note, not only external experience, but also internal, or

²²⁹ See M. Dascal, "Leibniz's Early Views on Definition", in Id., *Leibniz*, pp. 61-79, esp. 61-2.

²³⁰ *Ibid.*, p. 63. Dascal correctly observes that Leibniz's semiotic account of definition is similar to the type of definition that C. I. Lewis called "symbolic statement", where the speakers decide to employ a determinate sign as an abbreviation for a chain of other signs of the language, which is, in fact, a purely syntactic definition; on the other hand, Leibniz's account of "real definitions" should cover both what Lewis calls "explicative statements" and "dictionary definitions" (see Ibid., 65-66).

psychological, one: as we will see in what follows, the young Leibniz adopted a very broad notion of "sense", which covered both internal as well as external sense).²³¹

On the contrary, it becomes a big problem for Leibniz, when, discussing Descartes' intuitionism during his Paris years, he becomes very sceptical about the possibility of grounding metaphysics on too much subjective criteria like that of "evidence" (and, then, he will shift from an epistemic to a logical account of possibility, at the same time stressing the fact that the logical notion is the most appropriate way to capture the notion of an essence).

The core of Leibniz's second solution, according to Dascal, relies on the fact that, while assuming the arbitrariness of the relation between *definiendum* and *definiens*, he tries to secure a non-arbitrary basis for the *definiens* itself, by granting the possibility of its subject (which means: what the definitions refers to is not just a fiction nor the product of our imagination, but an essence, subsisting independently *a parte rei*, even though only at the level of divine ideas).²³²

What I would like to stress is that a doctrine of real definitions is entirely absent from the horizon of Leibniz's early philosophy, and for a good reason. Such a doctrine, indeed, presupposes something like a metaphysics of real essences (on the model of Suárez' *essentia realis*) and the commitment to an ontology of possible and not only actual beings (where the former, however, are interpreted as ideal entities, namely, as the objects of divine understanding). A solution which is in keeping with what we have called "weak nominalism" (the thesis according to which what is actual does not constitute the totality of what is real,

²³¹ See what Leibniz says in his Commentatiuncula de judice controversiarum, 1669-71 (?), especially # 66, A VI 1, 558, where, in order to solve the problem of controversies, Leibniz suggests to produce a "book of definition", to be written down according to the natural order, in which "all the used names are to be defined, until indefinable terms be reached". Indefinable terms, however, are those qui nudo sensu constant, a characterization Leibniz employs also in the text of the Accessio, cf. A II 1, 228 ("At cogitationes asymbolas [...] aut a sensu esse, aut a distincta imaginatione [...]"), where the distinction between 'sense' and 'imagination' corresponds to that between external and internal sense (see the following Chapter, especially the subsection on the Nova Methodus). In the Commentiatiuncula, ## 66-70 (A VI 1, 558-59), Leibniz clearly proposes a catalogue of human knowledge to be distinguished between the 'a priori' (definitions and theorems) and the 'a posteriori' (history and the experiments), where the first part corresponds to the vocabulary and the second to the encyclopedia, to employ a pre-Quinean distinction between the analytic and the synthetic (a posteriori). Of course, the introduction of the theory of 'real possibility' will force Leibniz to expand his notion of 'analyticity', and, since he does not accept the Kantian idea of a synthetic a priori knowledge, the theory of complete concept will amount to a sort of conflation between vocabulary and encyclopedic voice (the complete concept of Caesar represents the history of Caesar, but from the point of view of God's a priori knowledge, it corresponds to a sort of a vocabulary description more than an encyclopedic voice). ²³² I believe that Leibniz's doctrine of real definitions originated from his confrontation with Descartes' theory of

²³² I believe that Leibniz's doctrine of real definitions originated from his confrontation with Descartes' theory of ideas and, in particular, the renewal of the ontological argument for the existence of God, as one can see from what Leibniz says in *De mente, de universo, de Deo*, December 1675, A VI 3 462 and ff.. This is also the way in which Leibniz himself reconstructs his own philosophical development, cf. *De Synthesi et Snalysi universali seu Arte invienendi et judicandi*, 1683-85 (?), A VI 4, 541-42. He also observes, however, that his account of real definition provides a good response to Hobbes' challenge. In addition to A VI 4, 542, one can see Leibniz's letter to Gallois, October 1682, where, the (Cartesian) axiom according to which "what can be derived from a definition, can be enunciated of the defined thing", Leibniz says, must be restricted to those definitions only which do not imply a contradiction (i.e. those in which the *definiens* is proved to be possible). And he adds: "Par la même consideration je satisfis aux difficultés qui avoient embarassé M. Hobbes, car Hobbes soutenant avec raison, que toute verité necessaire peut estre demonstrée par les definitions, et reconnoissant les definitions pour nominales seulement et arbitraires, il luy sembloit donc que les verités seroient encor arbitraires, faute d'avoir consideré, qu'il ne depend pas de nous de former les definitions, puisqu'il faut y employer des notions qui soyent possibles, et compatibles, et que par consequent toute definition reelle peut passer pour un theoreme ou demonstrable ou evident, contenant la possibilité de son sujet; quoyque apre`s cela il depende de nous d'imposerun nom à la chose" (A II 1, 529).

and there is place for an ontology of ideal entities), but is incompatible with the kind of "strong nominalism" (or full-blooded nominalism) we have attributed to the young Leibniz (the thesis according to which what is not actual, i.e. what is not an individual existing being, is un-real *tout court*).²³³

Such an ontology of the possible (which will be at the basis of Leibniz's notorious doctrine of possible worlds), indeed, had been rejected by the young Leibniz, who, on this point, followed the example of his teacher Thomasius.

3.6 Leibniz's Criticism of Nizolius: An Anticipation of the *"pays des possibles"*?

At this point, however, someone could object to me that what I have said so far is not correct, since a hint toward a broadening of the ontology to the realm of the possible (in addition to that of the actual) was already at work in Leibniz's discussion of Nizolius in 1670.

The topic is the same we already encountered in Suárez, Thomasius and Hobbes: demonstrative science concerns universals, not individuals, the latter, indeed, exist only in a contingent way, whereas a proposition like "Man is an animal" seems to be eternally true, and, thus, its truth cannot be grounded on the contingent fact that men do actually exist. In the discussion of Nizolius, this topic is intertwined with the question of universals, because, in his radical attempt to eradicate universals, Nizolius comes very close to the conclusion that a demonstrative science properly said is impossible, or, at least, this is the interpretation that Leibniz has given of Nizolius' claim.

Leibniz, indeed, blames Nizolius for having maintained that "a universal is nothing more than all singulars taken simultaneously and collectively", i.e. that universals are "collective wholes".²³⁴

What Leibniz criticizes is not the identification of a universal with a discrete whole (vs. a continuous one), but the further identification of discrete and collective whole, so that the concept of the genus "man" would signify the collection of all men taken together, as well as the term "herd" signifies a collection of sheep taken together. But when we say 'All the men are animals', we interpret "all" as "every", i.e. in a distributive and not collective sense (otherwise we would have the absurd conclusion that, in saying that "all men are animal", we would say that the whole genus "man" is itself an animal).

²³³ See one of Leibniz's marginal remark to the book of Nizolius, A VI 2, 457, n. 38, where he maintains that *ens* and *res* amount to the same thing, and, thus, there are no beings which are not things (and vice versa), which means that those things which are not beings, for instance: fictional things (*res ficta*), are not things (*res*) in a proper sense. Then, he adds that, if one equates *esse* and *ens*, one has to take *res* in a narrower sense than *ens*, since there are *beings* which are not *things*, like individual accidents ("we do not say that qualities are things, but only modes of things"), concluding that a being (*ens*) can be either a thing or a mode (individual accident). The reduction of *ens* to the being of individual substances, and of *esse* to the *in-esse* of accidents, was at the centre of Hobbesian ontology (see n. 184 above). On the contrary, in his later works, Leibniz will constantly claim that the notion of *ens* has a much broader extension than that of *existens* as well as that of *res*, identifying *ens* with what is merely possible or conceivable. Cf. the passages quoted by Rutherford, *Leibniz and the Rational Order of Nature*, pp. 105-7.

²³⁴Preface to Nizolius, A VI 2,430 (= GP IV, 160)/L 128.

Thus, following a suggestion that he could find in Hobbes as well as elsewhere (and, perhaps, was not unknown to Nizolius himself)²³⁵, Leibniz assumes universals as discrete distributive wholes, which, he thinks, is the only way to safeguard the very same possibility of demonstrative knowledge: "If universals were nothing but collections of individuals, it would follow that we could attain no knowledge through demonstration [...] but only through collecting individuals or by induction".²³⁶

As we already know, the young Leibniz clearly distinguished between general propositions, whose truth can be justified (at least in part) on an inductive basis, and "eternal truths", the necessary propositions which are the proper object of demonstrative knowledge; for example, that 'Three times three is equal to nine' is a proposition whose truth cannot be inductively derived from the collection of all the singulars, because one could never be certain of its truth until every singular thing has been examined, which would impossible, since their number is an infinite (or indefinite) one.²³⁷

3.6.1 Leibniz's Notes to Nizolius

In his private notes to Nizolius, however, Leibniz develops another line of criticism. This second line (which is connected with the first, of course) was mainly directed against Nizolius' claim that, once genus and species have been reduced to just collections of singulars (*"Talia enim sunt, ut nos arbitramur, vera genera et vera species, hoc est, vera singularia seu verae multitudines singularium"*), had all the singulars been removed from the world, then, *eo ipso*, genus and species would disappear as well.

Leibniz takes this conclusion as if Nizolius wanted to conclude that, in the unlucky circumstance that all men were extinguished, a universal proposition like 'All men are animals' would cease to be true.

Then, such a proposition would turn out to be not an eternal (i.e. a necessary) one, a conclusion which Leibniz cannot accept:

"He [Nizolius] is wrong about this point, since, even if all the singulars were removed from the world, nonetheless the truth of the universal proposition will be preserved at the level of possibles [*in possibilibus*]. Indeed, even if all the elephants in the world were killed, this proposition will still remain true: "*every elephant is an animal*". It can actually been resolved, indeed, into this other conditional one: "*if something is an elephant* (no matter if it exists now or not), *it is an animal*"²³⁸

²³⁵ The accuracy of Leibniz's interpretation of Nizolius has been questioned by Angelelli, who maintains that "Leibniz's account of Nizolius'universals begins with a quite misleading formulation", referring to the passage quoted above, in which Leibniz says that for Nizolius universals are just "*omnia singularia collective simul sumpta*" (Leibniz would have erroneously interpreted Nizolius' understanding of the copula in terms of classmembership instead of class-inclusion). See I. Angelelli, "Leibniz's Misunderstanding of Nizolius' Notion of 'Multitudo'", *Notre Dame Journal of Formal Logic*, VI, 4, 1965, pp. 319-22. Leibniz's criticism of Nizolius has been defended by Rauzy, *La doctrine leibnizienne de la vérité*, pp. 184-200, whose point, however, is not very persuasive, as argued by M. Mugnai in his review of Rauzy's book in *The Leibniz Review*, vol. 12, 2002, pp. 53-64.

²³⁶A VI 2,430/L 128.

²³⁷ See A VI 2, 452, n. 19.

²³⁸ A VI 2, 448, n. 6.

The claim that the truth of universal propositions rests not on the actually existing individuals but, rather, *in possibilibus*, makes us think to an anticipation of what will be Leibniz's future commitment to the 'realm of possibles', i.e. to his mature doctrine of possible worlds.²³⁹ Once again, however, I suspect that, in so doing, we would just looking at the young Leibniz from the point of view of its mature philosophy (especially insofar as his mature position seems to be the most obvious and plausible one).

On the contrary, I believe that, concerning his understanding of modality and, especially, his doctrine of possibility, there are substantial differences between the young and the mature Leibniz.

In order to make my point completely persuasive, however, I should introduce some other issues, concerning the genesis of Leibniz's notion of possible worlds and related concepts, which cannot be anticipated here.

Therefore, a proper justification of my position will be deferred to the following chapters (Section II, in which I will provide an account of how Leibniz came to work out his ontology of possible worlds). For the moment, I will restrict myself to put forth an alternative reading of those passages from Leibniz's notes to Nizolius, which can make sense of them withoutany commitment to something as a "realm of possibles" (in the sense of Leibniz's later views) and, thus, is perfectly compatible with the young Leibniz's commitment to what I called strong or full-fledged nominalism.

In this way, I try to show only that to provide such a reading is compatible with the letter of what Leibniz says and, thus, it is possible to read him in this way; later on, when discussing the development of Leibniz's view on modality, I will show that such a reading is not only a possible one, but that it should be preferred to the traditional one.

First of all, let me quote other two passages from the notes to Nizolius, in which Leibniz expresses his point of view. In commenting a passage from book IV of Nizolius' work, he notes: "To tell the truth, even if men were not regenerated, but the whole mankind were extinguished, nonetheless many true things could still be said about the mankind, since it would be still true the following proposition: '*If a man is given* (even if at the present moment there is none), *it is necessary that he is an animal*"".²⁴⁰

And, in commenting Nizolius' claim that, since it is certain that universals (according to the point of view of realism about them) are false, then that knowledge that is said to be about universals only (the traditional understanding of knowledge according the Scholastic tradition), cannot be true, Leibniz notes:

"This does not follow [from what he says]. Since knowledge is not only about existing things, but also about possible ones, and it is not concerned with the fact whether a triangle actually exists or not, but only with what follows if it does exist, for instance how its angles are. Knowledge, therefore, does not concern real universals, but only all singular things, also the possible ones".²⁴¹

Note that in this passage Leibniz emphasizes that demonstrative knowledge (or science) does not concern the factual question of what exists, but only what follows (*consequens*) from the

²³⁹ For a suggestion in this sense, see, for example, Mugnai, "Leibniz's Nominalism", pp. 155-56.

²⁴⁰ A VI 2, 451, n. 18.

²⁴¹ A VI 2, 461, n. 49.

existence of something (e.g. a triangle), which is nothing but the same point stressed by Hobbes with his distinction between "essences" and "consequences of the essences", which has been discussed above.

However, I think that the key to understand Leibniz's point here can be found in the last line of the quotation: "Scientia igitur non est de universalibus realibus, sed de omnis singularibus etiam possibilibus" (emphasis mine).

The contraposition at stake, indeed, is not as much one between the actual and the possible as one between universals *in rebus* (which Leibniz rejects) and singular things, i.e. individuals, possible as well as actual. As it has been noted, the paradox is that "in one of the most anti-realistic of Leibniz's writings, universal truths are framed not so much in the frankly intensionalist language of conceptual inclusion, but in the quasi-extensionalist one of possible individuals".²⁴²

When discussing Thomasius' view on eternal truths, I have already pointed out at the fact that, in the tradition of the late-Scholastic semantics, the most popular interpretation of a proposition like 'Man is an animal' was one in which the subject-term "man" stands for its 'total denotation', namely for all men that are, were or will be. Following this tradition, Thomasius explained the fact that the copula in universal propositions is abstracted from time in the very peculiar sense that the copula makes abstraction from the present time (i.e. from what exists now) and, thus, could be extended to both past and future existents as well.

Note that in both the passages quoted above, when Leibniz has to make clear in which sense universal proposition are independent of what actually exists, actual existence is always considered as indexed to the present time: "Si quis datur homo (tametsi *nunc* nullus detur), necesse est, ut sit animal", and "Si quis est Elephas (sive *jam* sit, sive non sit), ille est animal" (emphasis mine).²⁴³ This interpretation was the most popular, at least among the nominalist thinkers, also because the opposite account, that of the realists, was regarded as a very implausible one, insofar as it pretended to claim that a proposition like 'A man is an animal' is about individuals and, at the same time, to assert that its truth is independent of the existence of either man or animals.²⁴⁴

Reference to individuals was required by the fact that the terms occurring in those propositions were said to have "personal supposition", i.e. what we would call 'referential use', and not 'simple supposition', as in the case of "man" in a proposition like 'Man is a species', which is a typical non-referential context).²⁴⁵ Since the hypothesis of a reference to

²⁴² Di Bella, *The Science of the Individual*, p. 135, who sees Leibniz's view in this passage as in accordance with Ockham's theory of ideas, explaining that in God's understanding we do not find the universal idea (like "humanity") but only the ideas of possible individuals, and that divine ideas are just these possible individuals. I have discussed this point in Chapter 2 above. For the theological view (defended by late Schoolmen like Suárez) that God has ideas of individuals only, see Chapter 8 below.

²⁴³ This remark has been pointed out to me by Marine Picon in a private communication. I am indebted to her for having pointed out the problems concerning the 'traditional' reading of Leibniz's notes to Nizolius.

²⁴⁴ See Ashworth, *Language and Logic in the Post-Medieval Period*, p. 89, and the section on Thomasius above.

²⁴⁵ This point emerges clearly from a passage from the *Summulae* (1529) of Domingo de Soto, in which the Dominican theologian says that in propositions like "man is a rational animal" or "every triangle has tree angles", "the subject stands for all their significates even if none of them exist and that is what we call to supposit naturally [...]. For we do not claim that these propositions are true because their terms would supposit simply for eternal essences of things, but because they supposit personally, for the individuals, even if they do not exist" (p. 19 v, quoted and translated by Picon, "The young Leibniz and his teachers", p. 3). Personal supposition was usually divided into natural and accidental one, where the latter was restricted only to the time

something like individual concepts had not been considered by the tradition (and by the young Leibniz as well), the nominalist solution was by far the most plausible one.

3.6.2 Names or natures? The problem with the truth-makers of mathematical propositions

The passage in which Leibniz uses the example of the triangle and its properties might seem to be the most difficult to justify from this perspective, since it explicitly says that demonstrative knowledge about geometrical figures is not concerned at all with the fact whether a triangle exists *in rebus*, but only with what would follow from its possible existence. It is not a case that, traditionally, mathematical objects have been the privileged case for a sort of Platonic ontology of ideal things.

However, I think that Leibniz's approach in his note to Nizolius was not too far from that adopted by Hobbes in his reply to Descartes (who, incidentally, was defending a sort of Platonist account of mathematical essences in his fifth *Meditation*).

Hobbes' strategy consists in distinguishing between the "name" and the "nature" of a thing, for instance of a triangle, and proceeds by showing that the name persists even if the thing perishes (together with its nature), and, since universal propositions are about names and not about natures or essences of things, universal propositions can be true even if the things cease to exist:

"If the triangle does not exist anywhere, I do not understand how it has a nature. For what is nowhere is not anything, and so does not have any being or nature. [...] But once we use the label 'triangle' to apply to the things which we think gave rise to the idea of a triangle, then the name remains even if the triangle itself is destroyed. Similarly, once we have conceived in our thought that all the angles of a triangle add up to two right angles, and we bestow on the triangle this second label 'having its angles equal to two right angles', then the label would remain even if no angles existed in the world. And thus eternal truth will belong to the proposition 'a triangle is that which has its three angles equal to two right angles'. But the nature of a triangle will not be eternal, for it might be that every single triangle ceased to exist. Similarly, the proposition 'Man is an animal' will be eternally true because the names are eternal; but when the human races ceases to be, there will be no human nature anymore".²⁴⁶

My conclusion might appear a little disturbing to those who (correctly) maintain that Leibniz's theory of essences should be regarded as closer to Descartes' than to Hobbes' one (I am referring only to Descartes' account of essences in the fifth *Meditation*, and *not* to his notorious theory about the creation of eternal truths, which, of course, will be one of the main targets of Leibniz's criticism from the end of the 1670's).

However, as far as the young Leibniz is concerned, I believe that things need to be reconsidered. In order to realize it, it will be sufficient to pay attention to the (quite crude) empiricist account of truth that one can find in the *Preface to Nizolius*. A detailed account of this early Leibnizian theory of truth cannot be provided here; I want to focus only on what Leibniz says about mathematical truths.

determined by the verb (usually: the present time), whereas the latter stands for the total denotation of the term (reference was extended to both past, present and future existence).

²⁴⁶ AT VII, 193/PWD, II, 135-36.

Leibniz's main claim is that "an utterance is *true* whose meaning is perceived through a right disposition of both the percipient and the medium; for clarity is measured by the understanding, truth by sense" (I will come back to this distinction in what follows).

The interesting (and, perhaps, perplexing) point is that this account does not apply only to the truth of empirical or factual statements (like 'Rome is situated on the Tiber'), but Leibniz maintains that "something similar is true in abstract matters as well":

"the sentence 'The number 2 is even', is true because if I see (or hear, touch, think of) the number 2, I see one and one (by the definition of the number 2 perceived through hearing or reading) and nothing more. Hence I see two parts in the pair, one and one, equal to each other and making up the whole, since one equals one. But a number whose parts make up the whole and are equal is called even (by the definition of even, perceived through reading or hearing). Therefore, whoever perceives that a given number is 2 perceives that it is even and therefore that the given sentence is true".²⁴⁷

If compared to passages taken from the writings of the mature or the late Leibniz, this text should appear as remarkably surprising. First, in the definition of truth, Leibniz textually says that we can perceive or sense the "significate" of an utterance; then, he proceeds by talking of definitions (like that of "even" or of "number 2"), which are said to be perceived "through hearing or reading". Of course, this has something to do with the emphasis Leibniz always stresses on the indispensability of sensible signs (or characters) for the very same possibility of our knowledge.

The claim that "a definition is nothing but the expressed meaning of a word or, more briefly, the meaning signified [*significatio significata*]" is clearly stated in the *Preface*.²⁴⁸And, as I showed above, such an emphasis plays a fundamental role in Leibniz's first theory of definitions (where definitions were conceived of in purely "semiotic" or "syntactical" terms).

3.7 A Weak Foundation of the Possible: "Clear and Distinct Conceivability"

Coming back to the *Preface* to Nizolius, the best thing we can do to try to make sense of what Leibniz says here and in other texts of his earlier production, is to begin from the claim, quoted above, according to which "clarity is measured by the understanding, truth by sense". As a matter of fact, in the *Preface*, Leibniz seems to be more interested in discussing 'clarity' than 'truth', and, moreover, to stress the relevance of 'clarity' not only for what concerns the choice of terms or words, but also the construction of speech (in the context of his criticism of the obscurities of the philosophical jargon of the Schoolmen). However, clarity has a far broader sense, as it appears from its definition: "That is *clear* which is well perceived; so speech is clear if the meanings of all its words are known, at least to the attentive".²⁴⁹ Such a

²⁴⁷ A VI 2, 409(= GP IV, 138-39)/L 121. On this passage, and Leibniz's characterization of truth in the Preface to Nizolius, see also the Appendix to Chapter 4 below,

²⁴⁸ A VI 2, 411(= GP IV, 140)/L 123.

²⁴⁹ A VI 2,408-9 (= GP IV, 138)/ L 121.

characterization of what is to be 'clear' has an unmistakable Cartesian flavour, since it just recalls Descartes' definition of what is for a perception to be clear.²⁵⁰

Here, as well as in the young Leibniz, 'perception' is taken in a very broad sense, to cover acts of both sensible and intellectual apprehension.²⁵¹ When claiming that, as truth is measured by the sense, clarity is measured by the understanding, Leibniz is pointing out to the fact, if I am not mistaken, that clarity has to be taken as the criterion for possibility. This can be confirmed by a quick examination of some passages in which he tries to explain the notion of possibility.

3.7.1 The Modal Square in the Elementa juris naturalis

As far as 'possibility' is concerned, let me recall that in the long passage from the *Elementa Juris Naturalis*, from which the discussion has taken the start, Leibniz connected his conception of an "idea", taken as a clear and distinct *imaginatio* (which, when expressed in words, gives rise to a definition), to the notion of possibility: "That which can be understood clearly [...] is not always true, though it is always possible; and it is also true, in addition, whenever the only question is that of possibility", whereas, on the other hand, when the question concerns necessity (of a proposition), one has to prove the impossibility of the opposite, "for if we call something necessary, we deny the possibility of its opposite".²⁵²

Since his very early writings, then, Leibniz has been interested in pointing out the possibility of characterizing 'necessity' in terms of 'possibility' (since 'necessary p' can be considered equivalent to 'not possible *non-p*') and vice versa (since 'possible p' can be considered equivalent to 'not necessary *non-p*'), following the Scholastic tradition of the "modal square". However, he seems to take the notion of 'possibility' and 'possible' as the fundamental one, by assuming that 'possible', 'impossible', 'necessary', and 'contingent' can be characterized, respectively, as 'whatever can be the case (be true)', 'whatever cannot be the case (be true)',

²⁵⁰ Cf. Descartes, *Principia Philosophiae*, I, # 45: "I call a perception 'clear' when it is present and accessible to the attentive mind –just as we say that we see something clearly when it is present to the eye's gaze and stimulates it with a sufficient degree of strength and accessibility" (AT VIII 22/DPW I, 207). Notice that, when Eckhard will repeat to him the Cartesian account of a clear and distinct concept ("Clarum voco conceptum qui menti meae attendenti intime praesens est et apertus: distinctum, in quo nihil est, quod non sit clarum, seu quod perfecte non intelligam"), Leibniz will reply that, if one can accept this understanding of 'distinct' (as a concept all the concepts thereof are clear), the explanation of 'clear' is unsatisfying, since all the concepts we have are "intimately present to the mind", and the specification concerning the attentive mind is nothing but a way of explaining a metaphor (*clarum*) by means of another metaphor (*apertus*). See A. Eckhard to Leibniz, May 1677, A II 1, 338 and n 35 (= GP I, 238 and n. 34).

²⁵¹ This (wide) sense of 'perception' is derived from Descartes and the Cartesian tradition. For Descartes 'thought' and 'perception' can be taken as synonymous (and both of them are synonym with 'consciousness'). Cf. Descartes's statement at the beginning of the Geometrical Exposition which follows the *Second Replies*: "*Thought*. I use this term to include everything which is within us in such a way that we are immediately aware of it. Thus all the operations of the will, the intellect, the imagination and the senses are thoughts" (AT VII 160/DPW II, 113). Cf. also *Third Replies*: "There are other acts which we call 'acts of thought', such as understanding, willing, imagining, having sensory perceptions and so on: these all fall under the common concept of thought or perception or consciousness [...]" (AT VII, 176/DPW II, 124). Cf. also the definition of *cogitatio* in the *Principia*, I, 9, AT VIII-1, 7. For the connection between this sense of perception as immediate knowledge see Chapter 4 below (and, in the appendix to Chapter 4, reference to the theory of *apprehensio simplex*). For a discussion of Cartesian texts, cf. R. Descartes, *Discours de la méthode*, texte et commentaire par É. Gilson, Paris 1967, pp. 292-93.

'whatever cannot not-be the case (not-be true)', 'whatever can not-be the case (not-be true)', where, properly speaking, the notion of possibility is not explained away.²⁵³

At the same time, however, the notion of 'possibility' (and, derivatively, all the other modal notions) receives a characterization in terms of 'clear and distinct conceivability' (again, a modal notion), which has to be emphasized, since it represents the main basis of Leibniz's early account of modality.²⁵⁴

Talking of 'clear and distinct conceivability', as I have already noted, has a clear Cartesian flavour, even though I think this analogy should not be exaggerated: Leibniz's direct confrontation with Descartes will take place only after 1675, and, after that, it will be clear that the two understand the relationship between 'conceivability' and 'possibility' in two opposite ways, but this will be just the output of a change of mind about the foundation of possibility in the mind of Leibniz.

Note, indeed, that in these first writings, there is no trace of the question whether it is clear and distinct conceivability that grounds possibility (as logical possibility), as it was according to Descartes, or it is logical possibility that grounds genuine conceivability (as it will be for Leibniz).²⁵⁵ On the contrary, in the texts we are analysing now the two characterizations, the (so to say) epistemic and the logical one, go hand in hand.

3.7.2 Leibniz's early account of possibility: 1670-71

See, for example, the digression on possibility that is contained in one of Leibniz's earliest (1670-71) attempt to tackle the problem of "theodicy", the unfinished German essay *On the Omnipotence and Omniscience of God and the Freedom of Man*. Here, Leibniz claims that an explanation of what words like 'possibility' or 'necessity' mean is required by the fact that we do use and understand them when we talk, and this cannot be reduced to a mere matter fact, but calls for a rational (i.e. not based on perception or experience) demonstration: "if you want to prove that something that neither is nor was can be or cannot be, then you employ not

²⁵³ A VI 1, 466. For a detailed analysis of this schema, see H. Poser, *Zur Theorie der Modalbegriffe bei G. W. Leibniz*, Wiesbaden 1969, 16-25. The most relevant aspect of these fragments on natural right consists in the attempt to show the connection between what we call "alethic" and "deontic" modalities. According to W. Lenzen, Leibniz has not only discovered the analogy between the logical laws for alethic modalities on one hand, and deontic modalities ('allowed', 'obligatory', 'forbidden' etc) on the other, but has also envisaged the idea of defining the latter in the terms of the former. See W. Lenzen, "Leibniz on Alethic and Deontic Modal Logic", in D. Berlioz-F. Nef (ed.), *Leibniz et le Puissance du Language*, Paris 2005, 341-62. On the history of modal concepts and on the "modal square", see also M. Mugnai, *Possibile-Necessario*, Bologna 2013, passim.

²⁵⁴ In the *Confessio Philosophi* (1672-73), however, Leibniz presents both derivations, one that moves from the necessary and derives all the other modal notions in terms of necessity and negation, and one that moves from the possible, understood as 'what is clearly understood', where he corrects himself and claims that the verb *posse* should be removed from the definition of what is possible, see A VI 3, 127. Notice, however, that in both cases, logical and epistemic characterizations of the 'possible' (and other modal concepts) go hand in hand.

²⁵⁵ For Descartes, at the conceptual level, a contradiction originates from the fact that the concepts we are employing are confused and obscure, whereas, when employing clear and distinct concepts, no contradiction at all can occur (see his replies to the second set of Objections, AT VII, 152). To Jaquelot, who, following the Cartesian turn, maintains that the clarity of a concept or idea brings with itself the very same possibility thereof ("j'ay suppose dans mes argumens que la claret d'une idée emporte necessairement avec soy la possibilité"), Leibniz replies: "Au contraire: de la possibilité se doit conclure la clarté, car la possibilité de la chose est la veritable marque qu'on en peut avoir une idée claire et distinct". GP III, 448 and 449.

feeling [as in the case of the proposition 'the fire is warm'] but rather distinct rational grounds".²⁵⁶

However, to ask "What is possibility?" seems to be fanciful, especially if, says Leibniz, you rest on what the Scholastics have said *de radice possibilitatis* ("on the root of possibility"), which Leibniz (in the wake of Thomasius and, especially, Hobbes) looks as a series of "fantastic and confusing things that you will thank God when they stop".

On the contrary, Leibniz suggests one has to focus not on some subtle and intricate philosophical theory, but on the linguistic practice of common people, on what they mean when they say that something is possible:

"If one considers their actions or, more especially, what they say and think, it will be the case that now and then they offer a past or present example, and then the matter is settled. For what happened can happen. But occasionally, owing to a lack of comparable examples, they need another tactic; they use examples for this which seem just a little or even less possible and yet were true and therefore also possible. In this way, they use impossibility in order to show possibility, just as people are sometimes content to say, "This remains possible until someone comes along who proves its impossibility". How, then, does one show impossibility? Pay attention to the thoughts and speech of the people and you will find out. That is to say, they concern themselves with explaining a matter whose possibility is in doubt. If something is now clearly explainable, and conceivable in all its intricacy, then one holds it to be impossible [...]. Thus, something is possible that allows itself to be clearly explained without confusion and without contradiction".²⁵⁷

This passage can be divided in two parts. The first says something interesting, especially about the notion of "presumption of possibility", which Leibniz derives from the juridical practice and that, later on, will have a fundamental role in his attempt to prove the existence of God.²⁵⁸

²⁵⁶Von der Allmacht und Allwissenheit Gottes und der Freiheit des Menschen, 1670-1 (?), #9, A VI 1, 539/CP 11.

²⁵⁷ *Ibid.*, #10, A VI 1, 540/CP 13. For this re-evaluation of ordinary talk against the technical jargon of traditional philosophy, see also the *Preface to Nizolius*, A VI 2,411 (= GP IV, 141): "The greatest clarity is found in commonplace terms with their popular usage retained. There is always a certain obscurity in technical terms" (L 123). ²⁵⁸ See, in particular, A VI 1, 471-2, where, in the context of juridical reasoning, Leibniz distinguishes between

facilis, probabilis, and praesumendum, each of which is characterized by a different degree of intelligibility. Notice that, according to what Leibniz says here, what is probable is what is more possible (*possibilius*), i.e. what is more intelligible (*intelligibilius*) in an absolute sense; what is more feasible (*facilius*), on the other hand, is what is more intelligible in itself, or, which is the same, something which has less requisites than its opposite, i.e. when compared to other similar things. 'Feasibility' seems to be the most basic concept, since, for a concept to be feasible, it is required its intelligibility per se, let us say: in isolation; on the contrary, 'probability' requires something more: in order for something to be probable, it is required not only its facilitas existendi, but also facilitas coexistendi caeteris impraesentiarum, i.e. a sort of compatibility with a certain situation (think of this compatibility as a kind of ancestor of Leibniz's notion of 'compossibility', or, better, with the idea that what exists is a concept which is more compatible with a set of other concepts than all the other alternative ones). Finally, facilis and praesumendum are distinguished as part and whole: what is 'feasible' is what has less requisites than its opposite (and, then, it is the alternative that can be realized more easily), whereas what has to be 'presumed' is something whose requisites are parts of the requisites of its opposite. The latter formulation is quite obscure, but can be understood in terms of a sort of bias in favour of possibility over impossibility, since, according to Leibniz, for something to be impossible it is required something more than it is required for it to be possible, probably because Leibniz takes 'impossibility' as an impediment to the realization of a possibility, and concludes that, for some p to be impossible, one has to count the possibility of p plus the impediment that blocks its realization and, thus, for the impossibility of p, a number of conditions is required that is always greater than that for the possibility of p. Therefore, Leibniz derives the practical rule according to which one must believe

In the last part, however, Leibniz turns to impossibility, to show it is based on confusion and contradiction (the two things are put on the same level here) and, thus, revert to the 'possible' as "something that allows itself to be clearly explained without confusion and without contradiction". These two characterizations are not regarded as in mutual opposition (as representative, respectively, of an epistemic and a logical-ontological account of possibility), as it will happen when Leibniz will discuss Descartes' ontological proof, but, rather, they are regarded as mutually supportive, as two sides of the same account of possibility.

Looking at other passages from the drafts devoted to the project of the *Elementa juris naturalis*, one can understand that this account of possibility has to be taken as a post-existential rather than as a pre-existential one: "We call possible [...] everything which is understood [*intelligitur*] in a clear and distinct way, and there is no other criterion of possibility [...] available to mankind other than existence itself".²⁵⁹

It has been said that, in this passage, Leibniz is moving from a limited notion of possibility (as it has been defended by Thomasius, for instance) toward his mature notion of possibility as intrinsic intelligibility, but that, at the same time, existence should be taken as the criterion of possibility from the (epistemic) point of view of our finite minds, who "can only know [possibility] by extrapolation from what actually exists".²⁶⁰

I agree, but, in my opinion, this does not mean that, at this stage, Leibniz has implicitly in mind his mature notion of possibility as 'intrinsic intelligibility' thought of as opposed to an epistemic criterion of possibility based on actual existence. The two, indeed, can be regarded as opposed only when one assumes that possibility as 'intrinsic intelligibility' in logical sense (non-contradiction) is sufficient to ground a positive account of possibility as an essence, something whose reality, for Leibniz, will coincide with its degree of perfection (or its tendency to exist).

Such an ontological foundation of the notion of possibility (which coincides with its theological foundation, since *possibilia* are nothing but the objects of divine understanding), will be required in order to distinguish genuine possibility from pure mental fictions (exactly the same reason that induced Suárez to distinguish, within the notion of *esse cognitum*, the possible as a real being from the mere *ens rationis*).²⁶¹

that something is possible until someone proves its impossibility. The entire argument, however, is based on a bias in favour of possibility, which makes it highly questionable. On this point, see R. M. Adams, "Presumption and the Necessary Existence of God", *Nous* 22, 1988, 19-32, and Id., *Leibniz. Determinist, Theist, Idealist*, New York-Oxford 1994, 192-213. On the connection between possible and probable, see also I. Hacking, "The Leibniz-Carnap Program for Inductive Logic", *Journal of History of Philosophy*, 68, 1971, pp. 597-610, and M. Wilson, "Possibility, Propensity, and Chance: Some Doubts about the Hacking thesis", in the same issue, pp. 610-17.

²⁵⁹ A VI 1, 472. In the same passage, *intelligi* is said to be "quod in re locum habet, quod in rem cadit, quod possibile est, quod ex hypothesi verum est".

²⁶⁰ Picon, "Actualism and Analyticity", p. 58.

²⁶¹ See, for instance, Leibniz's discussion with Gabriel Wagner which takes place in 1698. Wagner claims that "metaphysical possibility [...] is only a bare fiction, since it can exist only conceptually, not in act or in reality". To him, Leibniz replies: "Metaphysical possibility would be a fiction if it were not grounded in something actually existing, i.e. in the primary substance or monad, namely God" (Grua 392-33). The same point had been already stressed by Leibniz against Arnauld's deflationary account of the possible (see GP II, 44-5 and 54-5, where, however, Leibniz points to soften the difference between Arnauld's views and his own), and fully emphasized in the famous *De rerum originatione radicali*, 1697, GP VII, 305. The turning point concerning Leibniz's views on 'metaphysical possibility' can be located in the middle of 1677, when, in a passage from the *Dialogue*, he claims that "truth pertains to propositions or to thoughts, but to propositions or thoughts that are

On the contrary, when such a ontological foundation is lacking, as in the case of the young Leibniz (who, as showed above, shared Thomasius' deflationary attitude toward potential being), there is no way of providing such a distinction between the possible as designating a 'real' essence and the possible as designating something fictional or imaginary. Then, the logical and the epistemic account of possibility can go hand in hand, so that the status of the barely possible is equated to that of a fictional entity, like that of Barclay's *Argenis*, which "is possible, i.e., is clearly and distinctly imaginable, even if it is quite certain that she never lived, nor I do believe that she will ever live".²⁶²

Notice, however, that such a conception of the possible as a fiction (as well as the "novel argument" employed against those who maintain that there are no unrealized possibilities) will be retained by the mature Leibniz as well. However, it will be included in a wider picture, one which makes place for an ontology of possibles as well (even though only from the point of view of God's eye, so to say).

And, again, also the view that the possible is what can be clearly and distinctly imagined or conceived will be retained, especially when Leibniz wants to point out the difference between the possible and the existent, where the latter is understood as what can be clearly and distinctly perceived.²⁶³

3.7.3 Concluding remarks

After all, what I want to say is just that, in some sense, what we can find in the young Leibniz, as far as his doctrine of possibility and actuality is concerned, is *less* than what we can find in his mature views (which implies that what comes later *includes* the previous view, even though the result of such a synthesis could be regarded as a little bit problematic). Anyway, the answer to the question concerning the ontological grounding for Leibniz's first conception of the possible is quite simple: there is none (all contrary appearances nothwithstanding)²⁶⁴,

possible" (A VI 4, 21/AG 269), which has to be understood in connection with what it is established in the coeval draft *De veritatis realitate*, where, talking of eternal truths, like geometrical propositions, he maintains that since these truths do not depend on our act of thinking, necessarily there is something real in them, and he also stresses the fact that such a reality has to be understood as "*quiddam actu existens*" (even though I think it is not Leibniz's genuine intention to ascribe to those propositions a sort of autonomous existence, but only to emphasize that "truth is always subsisting in act *a parte rei*", i.e. the need for an objective foundation of the inherence of the concept of the predicate in that of the subject, whereas what actually exists is only God as necessary being, whose understanding is the "place" of eternal truths). See A VI 4, 18.

²⁶²Confessio philosophi, A VI 3, 128/CP 57-9.

²⁶³For instance, in a series of definitions written between 1690 and 1694, the distinction between "essence" and "existence" is stated in terms of that between "distinct thinkability" (*cogitabilitas distincta*) and "distinct sensibility" (*sensibilitas distincta*), or, as Leibniz remarks, between *conceptibilitas* and *perceptibilitas* (a text to be published in A VI 5, see VE 2250, or, alternatively, LH IV, 8, Bl. 102). Anyway, such a characterization can be found almost everywhere in the table of definitions Leibniz drafted in the 1680's.

²⁶⁴ One could say that a theological (if not properly ontological) foundation of the possible is to be found in Leibniz's 1671 letter to Magnus Wedderkopf, where Leibniz writes: "God wills those things that he perceives to be the best and, likewise, the most harmonious; and he selects them, so to speak, from the infinite number of all the possibles [*ex numero omnium possibilium infinito*]" (A II 1, 117/CP 3). Note, however, that, few lines below, Leibniz adds: "For essences of things are just like numbers, and they contain the very possibility of entities, which God does not bring about, as he does existence, since *these very same possibilities –or ideas of things – coincide rather with God himself*" (Ivi, italics mine). Possibles are equated with the essences or ideas of things, and, about these, Leibniz says: (a) they are not created by God (since the essences of things do not depend on

and this explains why Leibniz had no need to sharply distinguish between an epistemic account of possibility (in terms of conceivability) and a logical one (in terms of *non-repugnantia* among the elements of a definitions/the notes of a concept).

In this sense, Leibniz's early theory of possibility has to be interpreted as 'reductive' in a twofold sense: it does tribute no ontological status to the possibles and, moreover, it does not envisage the idea that possibles are organized into worlds (or maximally consistent sets of mutually interconnected complete concepts).²⁶⁵

The discussion of modal concepts and the development of a metaphysics of modality in Leibniz will be resumed in Chapter 5 below. In the next Chapter, on the contrary, I will focus on Leibniz's characterization of 'existence' which is preponderant in his early writings (until the end of his Paris period), i.e. the phenomenological account of existence in terms of "distinct perception".

Chapter 4:

"Distinct Perceivability". Leibniz's Epistemic Account of Existence (1667-1676)

"Ordiendum ab ipsius existentiae consideratione credidi ad principia rerum aspiranti: integros dies fatigavi inquirendo in notionem existentiae". (quoted by Foucher De Careil, Mémoire sur la philosophie de Leibniz, I, 10)

In the passage from the *Elementa Juris Naturalis* I used as a sort of leading thread of my discussion in the previous chapter, Leibniz contrasted propositions whose truth derive from sense with those whose truth relies on "ideas", where an idea is defined as a "clear and distinct imagination". Remember that in the passage in question Leibniz's aim was that of

God's will), (b) the independence of possibilities from God's will is explained by the fact that that they coincide with God himself. Point (b) is consistent with the (Ockhamist) account of divine ideas we have ascribed to Leibniz above, and, in particular, that, properly speaking, there is no proper distinction between God and ideas as the objects of his understanding. That is why, from (b), necessitarian consequences follow, as Leibniz himself frankly acknowledges in the final part of the letter. About (a), it has been already noted that, here, possibility is not to be taken in opposition to necessity, but only as referring to the nature of things, or "the idea which makes the thing possible, non-contradictory in itself and clearly conceivable, and [then] apt to be brought to existence (in conformity with the idea itself)", and, consequently, reference to an infinite number of possibles is not intended to put forth the idea of an infinity of possible worlds (see P. Rateau, *La question du mal chez Leibniz. Fondements et elaboration de la Théodicée*, Paris 2008, 131-2). I will discuss again points (a) and (b) in the following chapters.

²⁶⁵ The first point has been defended by M. Lærke, "*Quod non omnia possibilia ad existentiam perveniant*. Leibniz's Ontology of Possibility, 1668-1678", *The Leibniz Review* 17, 2007, 1-30. My disagreement with some points of Laerke's reading will be substantiated in the discussion of the genesis of Leibniz's idea of possible worlds in Chapter 5.1 below.

explaining that the juridical doctrine is one of those sciences that "do not rest on experiment but on definitions, not on sense but on demonstrations".

What is particularly surprising here, then, is the fact that "definitions" and "demonstrations" are associated by Leibniz with "(clear and distinct) imagination" rather than on something like a purely intelligible ground. In a sense, one could say that differences between this account and Leibniz's mature views are more nominal than substantive, especially if one thinks of the contraposition between sensibility and reason, or perceptibility and intelligibility that is already present in these earlier texts.

However, this would not be completely correct, especially if one notes that, if, on one hand, the early Leibniz uses to present sensibility and intelligibility, or *sentire* and *cogitare*, as contraposed, on the other hand, he also employs the term *sensus* to cover both intellectual and (properly) sensible knowledge, and, in particular, to interpret the very same activity of thinking (*cogitatio*).

Of course, Leibniz's terminology in these very earlier texts is not very stable, and, in this sense, one could try to interpret these oscillations as merely terminological ones. I think, however, that this would be a mistake, since it would amount to underestimate the emphasis that the young Leibniz put on the 'psychological' (or 'psychologistic') foundation of knowledge –an emphasis that constitute the distinguishing feature of these texts and that will be strongly weakened (or, at least, reconsidered from a very different perspective) in his mature writings (where, for instance, "ideas" and "images" are explicitly distinguished and the reducibility of the former to the latter is severely criticized).²⁶⁶

In the previous chapter, I have discussed Leibniz's early doctrine of definition(s) and demonstration(s) in connection with his views on possibility and modality in general. Now, I want to focus on Leibniz's early epistemology in order to make sense of his rather unusual account of the faculties of knowledge (imagination, sensibility, understanding, and so on), trying to illuminate his account of existence in terms of (clear and distinct) perceptibility.

In order to do so, I should focus on the preparatory texts Leibniz drafted for his (never to be realized) project concerning the "Elements of a Philosophy of Mind", which could be regarded as the first attempt to ground a metaphysics of non-material, mind-like entities that, more than ten years later, after having passed through a lot of modifications, reconsiderations

²⁶⁶ See, for instance, Leibniz's emphasis on the difference between imagination and thought in his rejection of the objections against the possibility of having any idea of God: "*Some* have believed that there is no idea of God because he is not subject to imagination, assuming that idea and image are the same thing. I am not of their opinion, and I know perfectly well that there are ideas of thought, existence, and similar things, of which there are no images" (Leibniz to Countess Elizabeth, 1678, A II 1, 435/AG 237). The same strategy will be employed many years later to defend monadology from the objection that, given the infinite divisibility of space and matter, it is impossible for us to represent monads as simple unities that ground sensible reality: Leibniz replies that, of course, that is due to the shortcomings of our sensible cognition (imagination), and cannot rule out the possibility of taking monads as the objects of a pure intellectual cognition. See, for instance, Leibniz to Des Bosses, June 16, 1712, especially when he says that "there is no spatial or absolute nearness or distance between monads. And to say they are crowded together in a point or disseminated in space is to use certain fiction of our mind *when we seek to imagine freely what can only be understood*" (GP II, 451/L 604, italics mine; Loemker translates *imaginari* as "visualize", which is correct, but I have preferred to maintain the original in order to stress the contraposition between imagination and understanding).

and changes of mind, will eventually give rise to the account of individual substances we can read in the Discourse of Metaphysics.²⁶⁷

4.1 Between Hobbes and Descartes. Imagination and Understanding in Leibniz's Philosophia de mente

4.1.1 Between Hobbes and Descartes (I): imagination and understanding

As is well known, the question concerning the relationship and the distinction between imagination and genuine conceivability (where the latter is regarded as a reliable path to discover metaphysical possibility) was at the centre of Descartes' thought in the *Meditations*, and, accordingly, had been widely debated in the post-Cartesian culture. Descartes had emphasized the distinction between imagination and understanding in two strategic points of his work, the famous analysis of the piece of wax in the second Meditation and in the introductory remarks to the problem of the existence of material things in the sixth Meditation.

In the first case, Descartes concludes that none of the features of the wax I am aware of through the senses (taste, smell, sight, and so on) could be truly attributed to the nature of the wax; leaving aside everything that pertains to the field of what we call "secondary qualities", we are left with something merely extended, but my knowledge of this wax as something extended is not something I get by means of imagination: "I must therefore admit", says Descartes, "that the nature of this piece of wax is in no way revealed by my imagination, but is perceived by the mind alone", and, few lines below, he takes care of specifying that "the perception I have of it [wax] is a case not of vision or touch or imagination [...] but of purely mental scrutiny; and this can be imperfect and confused [...] or clear and distinct [...] depending on how carefully I concentrate on what the wax consists in".²⁶⁸

Analogously, in the Sixth Meditation, by comparing our possibility to figure out a triangle with the impossibility to imagine a chiliagon, Descartes wants to make clear the difference between "imagination and pure understanding". He concludes that "imagination requires a peculiar effort of mind which is not required for understanding", and it is this additional element that explains the difference between the two.

The additional element required by imagination (that leads our mind to make an effort to try to figure out all the parts of a figure, its sides, the area contained within them, and eventually fail in doing it, as in the case of the chiliagon) is identified by Descartes with the connection with the body, i.e. with the fact that imagination is directed toward corporeal things: "when the mind understands, it in some way turns towards itself and inspects one of the ideas which

²⁶⁷ For a very reliable examination of Leibniz's early "philosophy of mind", one can look at F. Piro, Varietas identitate compensata, pp. 97 and ff., as well as to E. Pasini, Corpo e funzioni cognitive in Leibniz, Milano 1996, pp. 13-50. Mercer, Leibniz's Metaphysics, pp. 300-45, presents the most extensive analysis of Leibniz's draft of this period, even though I find her interpretation of the young Leibniz's philosophy highly questionable on many points. ²⁶⁸ AT VII, 31 (DPW II, 21).

are within it; but when it imagines, it turns towards the body and looks at something in the body which conforms to an idea understood by the mind or perceived by the senses".²⁶⁹

In the third set of objections, Hobbes focuses on the passage from the second Meditation in which Descartes concludes that we cannot imagine what the nature of the wax is, but only perceive it by means of the mind alone. Hobbes remarks that Descartes has not actually succeeded in establishing such a distinction, since, according to him, Descartes has never explained the nature of these two distinct faculties (imagination and understanding). Notice, however, how in the formulation of the question, Hobbes' understanding of the contraposition between imagination and reason is considerably different from that of Descartes. For Hobbes writes that "[t]here is a great difference between imagining, that is, *having an idea*, and conceiving in the mind, that is, *using a process of reasoning* to infer that something is, or exists. [...] Even the Peripatetics of classical times taught clearly enough that a substance is not perceived by the senses but is inferred by reasoning".²⁷⁰

In Hobbes' reformulation of the question, however, the term 'idea' has shifted from being the object of a (more or less distinct) act of understanding, to be the object of an act of imagining, whereas the role he tributes to reason is that of producing inferential processes (which, according to Hobbes, have to be interpreted as simple explanation of names by means of the copula), and it is also by means of such inferential processes that we can postulate that something exists. The emphasis, here, is put on the fact that substance is not known trough some kind of acquaintance (be it sensible or an act of intellectual intuition), but only "inferred by reasoning".

4.1.2 A portrait of Leibniz as a young Hobbesian? The notion of conatus

I have briefly recalled the debate between Hobbes and Descartes only to point out that, if I am not mistaken, whereas the mature Leibniz seems to be closer to Descartes than to Hobbes as far as the relation/contraposition between 'understanding' and 'imagination' is concerned²⁷¹, the view emerging from Leibniz's early texts seems to have been heavily conditioned by some (not all) of Hobbes' positions.

I know that such a conclusion is a little bit paradoxical, if only because of Hobbes' notorious commitment to a materialist and physicalist ontology, one in which there is no place for spiritual substances, whereas, on the contrary, Leibniz has always (since his 1668 *Confessio*

²⁶⁹ AT VII, 73 (DPW II, 51).

²⁷⁰ AT VII, 178 (DPW II, 125, italics mine).

²⁷¹ This claim, of course, needs to be qualified. What I want to say is only that, as it was for Descartes (and not for Hobbes), for the mature Leibniz there is a substantive distinction between ideas (as the products of understanding) and imaginations (as the products of a sensible faculty of imagination), thus making place for the possibility of having ideas of non-sensible (or super-sensible) entities, of which no image at all can be given, like God or monads (see n. 247 above). That does not mean, however, that Leibniz and Descartes are on the same side as far as the method to get these ideas is concerned. On the contrary, on the latter point, as is well known, Leibniz will be an inflexible adversary of the Cartesian "way of ideas", being very suspicious of Descartes' appeal to intellectual intuition, and preferring a strategy based on the logical analysis of our notions. On the contraposition between Leibniz's formalism and Descartes'intuitionism, see Y. Belaval, *Leibniz critique de Descartes*, Paris 1960, pp. 23-83. After many years, Belaval's book is still the only monographic text devoted to Leibniz and Descartes.

naturae contra atheistas) been concerned with a defence of the existence of an immaterial and immortal soul. I will come in a moment to the reason that could have lead Leibniz to underrate Hobbes' materialism.

Meanwhile, one has to remember that Leibniz's original strategy of defence of the immortality of the soul does not move from Cartesian premises, but, paradoxically as it could be, from Hobbesian ones. Leibniz, indeed, reproaches Descartes for not having been able to provide a definition of what *cogitatio* is, and, accordingly, having left the question concerning the immortality of the soul unanswered.

In a text from 1671, he writes:

"I will show, sooner or later, that almost every aspect of minds that makes us amazed depends on these wonders of the indivisibiles [*ex his indivisibilium miraculis*], something that I do not know if someone has already observed until now. Even the very famous Descartes, indeed, has never explained in a very accurate way what 'thinking' in itself is. On the other hand, as corporeal things have to be explained by means of spaces and motions, in the same way I believe that mental things have to be explained by means of points and *conatus*".²⁷²

What is relevant here is not Leibniz's emphasis on the necessity of providing an accurate definition of *cogitatio* itself. On this point, his considered view is not very clear. On one hand, indeed, he pretends to be able to provide an explanation of the nature of 'thinking' which could replace Descartes' rather obscure attempt, and, as one can understand from the passage above, he thinks that the way to obtain a clear and distinct definition of 'thinking' (as the true nature of mind and mental phenomena) passes through his doctrine of points and indivisibles, and the notion of *conatus*.

On the other hand, however, what Leibniz actually seems able to provide is not as much a logically accurate, clear and distinct definition of 'thinking', as a psychological theory, based on introspection as the fundamental path to the inmost nature of our mental activities, a nature that, however, cannot be properly defined ("*Cogitare est indefinibile, item sentire, seu potius agere*", writes Leibniz in a passage from 1671).²⁷³

Generally speaking, one can observe a tendency that will be maintained by Leibniz also in the writings of the following years (Paris notes and after): emphasis on logical analysis and formal procedures based on definitions and demonstrations notwithstanding, one has to acknowledge that his philosophy of mind always follows two parallel paths, a logical-linguistic one and a phenomenological one based on the experience of introspection (and, as we will see in a moment, the first-person point of view).²⁷⁴

Whereas in his later writings these two levels of analysis can be conceived of as concerned with, more or less, two different levels of 'reality' (respectively, the level of true substances as they would appear to something like a God's eye point of view and the level of

²⁷² Leibniz to L. Van Velthuysen, May 5, 1671, A II 1, 97. See also Leibniz's letter/essay to Johann Friedrich of Hannover, *De usu et necessitate demonstrationum immortalitatis animae*, A II 1, 112: "But Descartes himself has never defined what thinking [*cogitare*] is, and, for that reason, since every demonstration moves from a definition, he has never demonstrated the immortality [of the soul] from the act of thinking".

²⁷³ See *De conatu et motu, sensu et cogitatione*, 1671 (?), A VI 2, 283.

²⁷⁴ I owe clarification on this point to S.Di Bella, "Memoria e individualità. L'ontologia della temporalità nelle note parigine di Leibniz (1676)", in G. D'Anna-V. Morfino (eds.), *Ontologia e temporalità. Spinoza e i suoi lettori moderni*, Udine 2012, 81-107, p. 87.

phenomena), in Leibniz's early attempts this distinction is not always clear, also because, as I want to argue, the young Leibniz is still sensitive to the influx of those, like Hobbes and Gassendi, who refused to accept any distinction between purely conceptual intelligibility and imagination.

That said, however, one has to focus on Leibniz's claim above that the true account of mind and mind-related phenomena (like thinking, perceiving, imagining, and so on) has to be grounded on the doctrine of points and *conatus*, i.e. on the Hobbesian physics that Leibniz had already developed at the beginning of the 1670's in his two treatises, the *Hypothesis physica nova* and the *Theoria motus abstracti*.²⁷⁵

Leibniz himself explains that the kind of philosophy of mind he wants to write down (even though he will never manage to do it eventually) should be build upon the basis of the Euclidean elements of geometry and the Hobbesian philosophy of body. The relevant point here is the connection between the mind and the mathematical point on one hand, and the activity of thinking and the notion of *conatus* on the other one.

In his letter to Johann Friedrich, he announces that what he is going to say about the mind "will not be much more difficult than what geometricians say about point and angles".

What geometry says about points and angles, Leibniz's announced doctrine of mind will say about

"the instant and the *conatus*, i.e. the least or minimal motion, which of course takes place instantaneously, within a point; this will be for me the key for explaining the nature of thought [*natura cogitationis*]. I will demonstrate, indeed, that the mind consists in a point, that thought is a *conatus* or a minimal motion, that there can be several *conatus* in the same [point] at the same time, though not motions. Therefore, the mind can think, compare different things, perceive, to be affected by pleasure and pain, whereas bodies cannot. From which it follows that a mind cannot be destroyed, no less than a point can. A point, indeed, is indivisible and, thus, it cannot be destroyed. Thus, even if a body will be burned and scattered all around the world, the mind will eternally persist safe and intact in its own point".²⁷⁶

The doctrine of the indivisibles, which Leibniz defended in his early physical theory, provides a model he thinks can be successfully applied also to the case of the operations of the soul (or mind), without reducing the latter to something corporeal. Nonetheless, this solution works only if one accepts to consider thought (*cogitatio*) as a kind of motion, a consequence Leibniz accepts, reproaching Hobbes for having ascribed motion to bodies only.

To be more precise, thought is equated with *conatus*, i.e. a smallest or minimal motion, a notion that Leibniz has taken from Hobbes' natural philosophy (notably, chapter 15 of *De Corpore*) and he already used to account for infinitesimal motions in his own physical theory (in the TMA).

²⁷⁵ On Leibniz's first physics, see D. Garber, "Motion and Metaphysics in the Young Leibniz", in Hooker (ed.), *Leibniz. Critical Essays*, pp. 160-84. See also Id., *Leibniz: Body, Substance, Monad*, Oxford-New York 2009, pp. 13-29. Cf. also P. Beeley, *Kontinuität und Mechanismus: zur Philosophie des jungen Leibniz in ihren ideengeschichtlichen Kontext*, Stuttgart 1996; and R. T. W. Arhtur's introductive essay to LC, pp. xxiii-lxxxviii (on Leibniz's early account, see in particular pp. xxxii-lxi). The most extensive discussion of the young Leibniz's natural philosophy is to be found in the old (but still valuable) dissertation of A. Hannequin, "La première philosophie de Leibniz", in Id., *Études d'historie des sciences et d'histoire de la philosophie*, Paris 1908, pp. 17-226.

²⁷⁶ A II 1, 113. The same position is held in Leibniz's letter to Arnauld, November 1671, A II 1, 173.

The attention of the interpreters has usually been captured by the famous passage of the TMA in which Leibniz talks of body as a "momentary mind", i.e. one which "lacks recollection [*carens recordatione*], since it does not retain its own *conatus* and the other contrary one together for longer than a moment", and, as a consequence, "body lacks memory; it lacks the perception of its own actions and passions; it lacks thought".²⁷⁷

Scholars have debated if this conception of body as "momentary mind" leads Leibniz to a 'mentalization' of bodies, thus replacing Hobbes' materialism with a kind of idealism which seems to anticipate his later monadology²⁷⁸; or, on the contrary, if this way of understanding thought in terms of *conatus* had led Leibniz to a sort of (involuntary) 'materialization' of minds, thus failing to really overcome Hobbes' physicalism.

Concerning the latter question, it has been pointed out that, if it is enough clear what Leibniz wanted to do, the real motivations that led him to do identify thought and *conatus* are quite puzzling: such a move, indeed, fits very well with a materialistic account of human nature (like that of Hobbes, for whom thoughts are to be identified with motions in the brain), but it is rather obscure when applied to a theory that pretends to provide a (sort of Cartesian) distinction between non-extended minds and extended bodies.²⁷⁹

Concerning the question of the risk of a 'materialization' of the mental, I think that this was one of the main shortcomings of Leibniz's early theory and, moreover, one that Leibniz himself will later recognize. In particular, he will be clearly dissatisfied with his earlier account because of the localization of the soul in a "mathematical point", a claim that he will strongly reject in his mature monadological theory.

As we can read in an autobiographical passage belonging to his late period:

"Many years ago, when my philosophy was not sufficiently mature, I located souls in points, and in this way I thought the multiplication of souls could be explained in terms of traduction, whereby from one point many can be made, just as from the vertex of a triangle, the vertices of so many triangles can be made through division. But after further reflection, I discovered that in this way we are not only led into innumerable difficulties, but that there is also a certain, as it were, category mistake [$\mu \epsilon \tau \alpha \beta \alpha \sigma t \nu \epsilon i \zeta \ \alpha \lambda \lambda \sigma \gamma \epsilon \nu \sigma \zeta$]. Those things that pertain to extension should not be attributed to souls, and their unity and multitude should not be taken from the category of quantity, but rather from the category of substance, that is, not from points, but from a primitive force of operating".²⁸⁰

²⁷⁷ TMA, #17, A VI 2, 266 (=GP IV, 230)/L 141.

²⁷⁸ F. Piro, *Spontaneità e ragion sufficiente*, pp. 62-3, emphasizes Leibniz's ambiguity on this point, pointing out that the *conatus* could be taken either as an "incipient motion" or as a "*petit* perception", and, of course, if one takes it in the second way, one could conclude that the young Leibniz is very close to his later doctrine of individual substances as mind-like entities which perceives each other in a harmonious way. But, he notes, this is not the young Leibniz's conclusion, since for him the minds are equated to mathematical points and, thus, have a situation in space (see n. 261 below). Note that Garber has originally interpreted Leibniz's theory of bodies as momentary minds as an anticipation of monadology (see "Motion and Metaphysics", pp. 175-76), but he changed his mind, as he himself remarks (see *Leibniz*, pp. 33-7), interpreting Leibniz's view as a form of "heterodox Hobbesianism", one which "seeks only to introduce genuine mentality into Hobbes' world without subverting it" (p.37). cf. also Arthur, in LC, xxxi-xxxvii and lxxiii-lxxxviii.

²⁷⁹ On this point see Garber, *Leibniz*, p. 32. For a somewhat different position, see C. Wilson, "Motion, Sensation, and the Infinite: The Lasting Impression of Hobbes on Leibniz", *British Journal for the History of Philosophy*, 5/2 1997, 339-51.

²⁸⁰ GP II, 372/LDB 129 note. This passage was originally conceived by Leibniz as a *post scriptum* to his letter to Des Bosses of April 30, 1709, but it has been cancelled from the letter he actually sent. Probably, it was originally intended as a comment on Leibniz's claim (defended in that letter) that monads have not to be located in points (GP II, 370). Cf. Arthur in LC, li-lxi. 'Traduction' is a reference to 'traducianism', a theological

The confusion between two levels, denounced by the 'old' Leibniz in this passage, could be regarded as a sort of ontological consequence of his unability, from the point of view of his early theory of knowledge, to clearly distinguish between what pertains to the domain of understanding and what pertains to that of sensible imagination.

Note also, that in the continuation of the passage above, Leibniz remarks that "the operation proper to the soul is perception, and the nexus of perceptions, according to which subsequent perceptions are derived from previous one [i.e. what the *Monadology* will call "appetition"], forms the unity of the perceiver".²⁸¹ Emphasis on perception (and appetition) as the constitutive character of the true substance is something which is maintained by Leibniz in his late account, but the point is that, in the latter, 'perception' has been completely detached from its physical counterpart (as clearly explained in the passage above), and the very same nature of the substance is something which can be grasped with the understanding alone, not with imagination.

On the contrary, Leibniz's early account of both physical and mental events in terms of *conatus* is something more ambiguous (because it is open to both reading, the mentalization of the physical and the physicalization of the mental).

4.1.3 Reactio durans. The young Leibniz and the Hobbesian theory of sensation

Coming to the second question, that concerning the motivations that could have induced Leibniz to accept an account that in its original source, Hobbes, had a so pronounced materialist connotation, one has to say, first of all, that the very same notion of *conatus* originally had a psychological signification (it could be translated as "effort" or "endeavour").

Note that its first mention in Hobbes' works does not occur in the *De corpore*, but in chapter VI of the 1651 *Leviathan*, and it is used to point out those insensible, small beginnings of motion which happen in the human body before they become explicitly manifest in the act of walking, speaking, striking and so on (and Hobbes also adds that 'appetite', 'desire', 'aversion', and so on, are all specifications of the notion of "endeavour").²⁸² In this sense, one could say that Leibniz's transfer of *conatus* from the physical to psychological (or psychophysiological) field was not totally unmotivated and, in a sense, could be regarded as a restoration of its original sense.²⁸³

doctrine holding that the immaterial soul of an individual is not created anew by God, but transmitted through natural generation from each individual's parents (with the consequence that only the soul of the first man was directly created by God). The young Leibniz actually believed that 'traducianism' could be explained by his theory of mind, see what he says to Johann Friedrich, A II, 1, 113, and also A VI 2, 285. See also the fragment *De traduce*, 1670-72 (?), A VI 2, 144. The mature Leibniz will replace traducianism with the theory of the direct creation of all souls. On the latter, see for instance A VI 4, 1495, 1496-97.

 ²⁸¹ *Ibid.*, LDB 129 note.
²⁸² Hobbes, Leviathan, VI, 1-2 (EW III, 39).

²⁸³ As Garber, *Leibniz*, p. 32 n., remarks, Leibniz will later distinguishing between "*conatus*" as something belonging to a body, and "*affectus*" as its analogous at the mental level, see the passage from the *Confessio Philosophi*, A VI 3, 141. The notion of *affectus* will become preponderant in Leibniz's psychological analysis at the end of the 1670's, also thanks to his confrontation with both Descartes and Spinoza's theory of affections. Curiously enough, the notion of *conatus* in metaphysics will be retained, although in a clear metaphorical and

If we come back to the passage from the TMA, in which Leibniz calls the body a "momentary mind", what Leibniz understands as the point of access to the true distinction between body and mind is the fact that the body is a mind lacking memory, since, once mental activities (like thought) and bodily motions have been subsumed under the general notion of *conatus*, the only way to distinguish them is by attributing memory to the former and not to the latter. On this point, as it has already been noted, Leibniz just follows Hobbes in believing that memory as recollection and comparison of different *conatus* is essential for any genuine thought²⁸⁴ (and note that, for Hobbes, memory and imagination is just one and the same thing).

Paradoxically as it could be, it is on the basis of such an account of perception and memory that Leibniz formulates for the first time his criticism to the (originally Thomistic) axiom "*nihil est in intellectu quod non fuerit in sensu*". As Leibniz will always hold, indeed, the mind and its properties are to be counted among those things which pertain to the understanding but not to the sense. However, the way in which the young Leibniz interprets this reference to mind and its properties is somewhat different to what will be his standard account in his mature works (like in the *New Essays*).

According to him, indeed, the axiom should be emended in the following way:

"Nothing is in the concept that was not already in perception; that is, there is nothing we think of, of which we did not have some experience, at least in our internal experience [*saltem intra nos*]. It seems, indeed, that perceptions are prior to simple concepts, and that concepts are formed through the recollection of perceptions, except this only thing, that we will also remember to have already perceived then".²⁸⁵

The source on this point is Hobbes' account of sensation in chapter 25 of *De Corpore* (though I would not exclude the discussion of sensation in the first part of the *Elements of Law* as well). Leibniz's reception of Hobbes is, of course, selective, since, for instance, he leaves

non-psychological sense, to describe the possibles' tendency to exist according to what has been called the "striving possibles" doctrine. Also in that case, however, the analogy will be with motion in a mechanical, not psychological sense. However, it also seems that Leibniz thinks of a sort of psychological correlate of his theory of the striving possibles, see for instance the passages from *De affectibus* quoted in the Appendix to this Chapter. ²⁸⁴ See Garber, "Motion and Metaphysics", p. 173. The Hobbesian identification of memory and imagination will be questioned in the Paris period. In a series of remarks dated March 1676, Leibniz asks himself whether memory entirely depends on our sense organs or not (and to what an extent signs and images are necessary for thought), see A VI 3, 394. Less than one month later, he will restore the Cartesian distinction between intellectual and corporeal memory, where the first (which does not depend on a material, cerebral basis) is identified with the perception or sense of itself as opposed to the perception or sense of a particular thing: "Therefore intellectual memory consists in this: not what we have perceived, but that we have perceived -that we are those who have sensed" (A VI 3, 509, April 1676/DSR 59-61). On the problematic aspects of this definition, see Di Bella, "Memoria e individualità", pp. 88-91. On the connection/distinction between memory and imagination, see also A. Ferrarin, "Immaginazione e memoria in Hobbes e Cartesio", in M. M. Sassi (ed), Tracce nella mente. Teorie della memoria da Platone ai moderni, Pisa 2007, pp. 159-89. Note also that, at the end of 1676, Leibniz will explicitly reject the equivalence of 'thought' and 'motion' that was at the basis of his early doctrine of conatus, see the short text called Cogitatio non est motus, December 1676, where the notion of 'motion' is analysed in terms of what involves place and, then, extension.

²⁸⁵ Axioma: Nihil est in intellectu quod non fuerit in sensu, A VI 4, 57. As the editors make clear in their introductory remarks to this text, there are no external objective elements that help us to understand when Leibniz drafted this short piece. They tentatively suggest somewhen in between October 1677 and December 1678, but nothing excludes that it could have been written earlier on. Cf. New Essays, II, i, 2, A VI 6,111.

aside (as far as I can see) the entire machinery of Hobbes' mechanical theory of sensation²⁸⁶, to focus just on what Hobbes says to reject the theory according to which all bodies, animate as well as inanimate, are endowed with sensation.

In paragraph 2 of chapter 25, indeed, Hobbes defines "sensation" as "a phantasm, made by the reaction and the *conatus* outwards in the organ of sense, caused by a *conatus* inwards from the object, remaining for some time more or less".²⁸⁷

Now, to this account of sensation in terms of 'reaction', one could object that, if sensation is to be equated with reaction *simpliciter*, it would follow that all bodies, be they animated or not, will be endowed with sense. To this objection, Hobbes replies that reaction in inanimate bodies produces a phantasm which, however, ceases as soon as the object (the physical cause of perception) is removed. On the contrary, in the case of animate bodies, their organs are capable of retaining such *conatus*, and this is why memory as the capacity of recollection is relevant to the issue of sensation.

By 'sense', Hobbes says, "we commonly understand the judgment we make of objects by their phantasms; namely, by comparing and distinguishing those phantasms, which we could never do if that motion in the organ, by which the phantasm is made, did not remain there for some time"²⁸⁸. Thus, concludes Hobbes, sensation necessarily requires memory, by means of which past and present phantasms can be collected together and compared; which is just what Leibniz says in that famous passage from the TMA, in which he says that, in order to have sensation, indeed, two things are required, action and reaction, that is "comparison" and "harmony" of different *conatus*.

Notice that in the last passage, Hobbes clearly insists on the fact that sensation properly said is a "judgment we make of objects by their phantasms (*aliquam de rebus objectis per phantasmata judicationem*)", a point which needs to be stressed, because it will be relevant to the young Leibniz's reception of Hobbes.

This account of sensation in terms of judgment (thus: a rational activity) we make of objects by means of their phantasm, indeed, will be the key to a correct understanding of Hobbes' notion of reasoning as well as his conditional account of knowledge. Note also that, so far, the threat of materialism has not been dispelled: in other words, it is not entirely clear which reasons could have led Leibniz to believe the Hobbesian account of sensation would have led him to a 'mentalization' of the material world (rather than to the opposite conclusion).

Contrary to what one could expect, indeed, I think that, however selective, Leibniz's reading of Hobbes is not unreasonable, at least if one realize that there are some tensions between what we could call the phenomenalist assumptions of Hobbes' theory of knowledge and his materialist ontology (and that, accordingly, Leibniz thought well to follow the first while rejecting the second).

In order to clarify this point, however, I have to come back to the contraposition between Hobbes and Descartes on which I have insisted at the beginning.

²⁸⁶ Though Leibniz himself will later provide a physiological account of perception, on which one has to see Pasini, *Corpo e funzioni cognitive*, pp. 95-145, and the texts he published in the appendix.

²⁸⁷ Hobbes, *De Corpore*, xxv, 2, OL I, 319 (the original is in italics). The Hobbesian characterization of sensation as *reaction* is clearly endorsed by Leibniz still in the Paris Notes, see A VI 3, 510: "Sensus quaedam reactio est".

²⁸⁸ *Ibid*, xxv, 5, OL I, 320-1.

4.1.5 Between Hobbes and Descartes (II): the genesis of Leibnizian phenomenalism

As is well known, the great divide between Hobbes and Descartes rests on the former's unwillingness to admit any substance-dualism and, in particular, any ontology of non-material substances. In order to undermine Descartes' commitment to the existences of a thinking substance, Hobbes stresses the impossibility of distinguishing 'ideas' from 'sensible intuition', claiming that, contrary to what Descartes says, the former are derived from the latter and, thus, there are no ideas which are not derived from sensible experience. At the same time, however, they are on the same side when coming to stress the difference between what we call the 'manifest' and the 'scientific image of the world', as consequence of their commitment to mechanical philosophy. For both philosophers, indeed, the gap between appearance and reality is the direct consequence of having fully adopted the perspective of the new mathematical science of nature.

Given that Hobbes plainly subscribes to Descartes' hyperbolic doubt (he affirms that "there is no criterion enabling us to distinguish our dreams from the waking state and from veridical sensations")²⁸⁹; given also the fact that he rejects Descartes's solution, i.e. his appeal to both intellectual intuition and divine veracity (the latter grounding the reliability of the former), it follows that imagination ends up with assuming a preponderant role in Hobbes' epistemological theory.

In addition, such a preponderance of imagination has to do also with his rejection of the possibility of having a direct cognition of substances. Remember that, for him, a substance can be known only through the knowledge of its accidents (which are nothing but modes in which a body is conceived by us, or, as Leibniz puts it, "*apparendi facultates*").

At this point, however, a profound tension can be detected (and has been detected, indeed) between Hobbes' insisted materialism and the phenomenalist premise of his theory, i.e. what can be derived from his annihilatory hypothesis (which, roughly speaking, plays the same role as Descartes' hyperbolic doubt). The main claim of the latter, indeed, is the loss of any correspondence between reality and our representations, stressing the fact that scientific knowledge has nothing to do with an alleged external reality, but always and only with our representations (i.e., for Hobbes, with our imaginations).

Let me quote this famous passage from *De Corpore*, in which, as is well known, Hobbes makes the (fictional) hypothesis that the entire world but only one individual is annihilated, asking if there would still be something this man could reason upon or philosophize about:

"I say [...] there would remain to that man ideas of the world, and of all such bodies as he had, before their annihilation, seen with his eyes or perceived by any other sense; that is to say, the memory and imagination of magnitudes, motions, sounds, colours and so on, as also of their order and parts. All these things, even though they are nothing but ideas and phantasms, namely internal accidents of him who imagines, nonetheless they will appear as if they were external and not depending on any power of the mind at all. And these are the things to which he would give names, and subtract them from, and compound them with one another. For, after the destruction of all other things, I suppose that man still remaining, and namely that he thinks, imagines, and remembers, there can be nothing for him to think of but only things which are past. Indeed, if

²⁸⁹ AT VII, 171 (DPW II, 121).

we do observe diligently what we do when we are reasoning, we shall find that, though all things be still remaining in the world, yet we compute nothing but our own phantasms. [...] Now, things can be considered [...] in two ways: either as internal accidents of our mind, as they are considered when we are dealing with the faculties of our mind, or as species of the external things, not as really existing, but only appearing to exist, or to have a being without us".²⁹⁰

What should be stressed in this passage is, first of all, that one can find interesting analogies with the way of proceeding of Descartes himself: reference to the individual, alone in the world, as someone who "thinks, imagines, and remembers" makes us immediately think of Descartes' characterization of the subject of the *cogito* as a "thing which doubts, understands, affirms, denies, is willing, is unwilling, and also imagines and has sensory perceptions".²⁹¹

And the distinction between ideas (imaginations) taken as "internal accidents of our mind" and as "species of the external things" can be compared to the Cartesian distinction between the 'formal' and the 'objective reality' of ideas, where the latter, note, does not mean extramental existence, since the fact of having certain ideas (imaginations, perceptions and so on) it is by no means an evidence of the existence of something corresponding to them 'out there'. Thus, the same phenomenalism that Descartes will overcome by appealing to his theory of

clear and distinct ideas (and the veracity of God), seems to be at the basis of Hobbes' theory of knowledge.

Since, as already said, Hobbes rejects Descartes' solution to the question of the hyperbolic doubt, he can conclude just that the existence (in the so-called 'external world') of objects corresponding to the representations of them which we entertain by means of imagination is not something certain: ideas can be taken as "species of external things, not as really existing, but only appearing to exist, or to have a being without us (*tamquam non existentes, sed existere sive extra stare apparentes*)".

The annihilatory hypothesis is presented by Hobbes himself as a fiction, one intended to show that, in our scientific inquiries or in the activity of reasoning in general, we only deal with the image of the world which is, so to say, 'mirrored' in our mind, so that, properly speaking, we are not able to go beyond the domain of imagination. The connection we have with external reality is not a direct one, but it is always mediated by our 'ideas', so far that, were the world to be annihilated, nothing would change for me, where I am the only one who magically survived to this apocalyptic scenario (formulated in this way, the *per impossibile* structure of Hobbes' argument becomes more evident).

²⁹⁰ Hobbes, *De corpore*, VII, 1, OL I, 81-2.

²⁹¹ AT VII, 28 (DPW II, 19). Hobbes's criticism of the Cartesian *cogito* does not concern the existence of a thinking subject, but only the possibility of moving from the act of thinking to the nature (or essence) of the thinking subject. The activity of thinking (or imagining) can obviously prove the existence of a thinking (or imagining) subject, but this does to allow Descartes to equate the thing/subject with the activity of thought, since that would amount to identifying the concrete subject with one of its attribute (an abstract entity): "all philosophers make a distinction between a subject and its faculties and acts, i.e. between a subject and its properties and essences: an entity is one thing, its essence another" (AT VII, 173/DPW II, 122). See also *De corpore* III, 4. The same distinction between the subject and its attributes (or forms) will be at centre of Leibniz's metaphysical reflections in the Paris Notes, see, for instance, *De formis seu attributis Dei*, April 1676, A VI 3, 514: "It is a wonderful fact that the subject is different from forms or attributes. [...] Thought is not duration, but that which thinks is something that endures. And this is the difference between substance and forms" (DSR 69).

Note that something similar will be later held by Leibniz himself with his *per impossibile* hypothesis of the 'solitary monad', even though, in that case, the hypothesis contemplates the existence of at least two things, myself and God (according to Leibniz's dictum "as if though only God and I existed in the world").

The interesting aspect to stress is that, in both cases, such a phenomenalistically-oriented hypothesis is linked, in an apparently incoherent way, to a 'realistic' account of the mind as the mirror of the universe.²⁹²

In the case of Hobbes, the contrast is that between his phenomenalist premises and his 'realist' conclusions, especially as far as the existence of material bodies is concerned. For instance, by proceeding at the identification of conceivability and imagination (against Descartes), he is led to a conception whereby all the accidents (the properties of an existing subject) are on a par, being nothing else than subjective modes in which a thing (a body) appears to us or is conceived by us (in this way, Hobbes comes to demolish the traditional distinction between essential and accidental properties).

On the other hand, however, he feels the exigency to draw a distinction between accidents on an objective level (think, for example, of the distinction between primary and secondary qualities), as required by his commitment to mechanical philosophy, which leads him to a sort of 'materialistic essentialism', i.e. the claim that, among the accidents, magnitude and extension play a prominent and, thus, identifying extended matter as the substratum of all accidents rather than with something like an indeterminate 'bare substratum').

Although, as far as I can see, he is silent about the disruption of the traditional distinction between essential and accidental predication connected with Hobbes's theory of knowledge²⁹³, the young Leibniz's strategy seems that of retaining the phenomenalist side of Hobbesian philosophy while rejecting its materialistic assumptions.

²⁹² Remember that in the draft usually called *De principiis*, which contains an earlier version of the first chapters of De corpore, the annihilating hypothesis is said to follow from the claim that the human mind is a sort of mirror capable of receiving the representation of the entire world. Also in this case, note, emphasis is put on the role of memory, which is said to be the same as the world, but not in itself but only as through a looking-glass. Cf. A. Pacchi, Convenzione e ipotesi nella formazione della filosofia naturale di Thomas Hobbes, Firenze 1965, pp. 42-60, who correctly observes that these two aspects (the specular character of mind and the phenomenalism of the annihilatio mundi) are not in contrast, since the fact that the human mind is regarded as a "mirror of the universe" is what allows to conclude that, then, scientific knowledge can dwell only with ideas in the mind and not with external reality. See also Zarka, La decision métaphysique de Hobbes, pp. 183-92. Mutatis mutandis, many scholars have pointed out the difficulty of conciliating Leibniz's "mirroring principle" (the idea that each mind-like substance is a mirror of the entire universe) with the principle of universal harmony, which, among the other things, allows him to say that, as far as our knowledge of things is concerned, nothing would change if all that which exists in the universe were God and I, that has been dubbed the "world apart" hypothesis. Of course, Leibniz's final solution to this question will be very different from that of Hobbes, but I want to point out only the fictional character of both hypotheses, and stress the fact that the contraposition between 'idealist' and 'realist' strands, at least as it is commonly debated, is a sort of oversimplification. On the (paradoxical) aspects of Leibniz's account of perception, see F. Mondadori, "Solipsistic Perception in a World of Monads", in Hooker, *Leibniz*, pp. 21-44.

²⁹³ The question of superessentialism will become a problem for Leibniz when it will be discussed from the modal point of view (as it will happen in the correspondence with Arnauld). According to Hobbes, the distinction between essential and accidental properties makes no sense, and, thus, the properties of a determinate individual thing could be regarded, indifferently, as all accidental as well as all essential ("to be a man" is as accidental to Socrates as "to be white" is essential to him). However, Hobbes himself explicitly says that he takes the notion of "accidental" only in the predicamental and not in the modal sense (see *De corpore*, III, 3). On Hobbes' attack to Aristotelian theory of categories, see Pécharman, "Le vocabulaire de l'être", 44-49.

In so doing, however, Leibniz's choice could be regarded as an attempt to provide a coherent reading of Hobbes. In this sense, one could even push it a little bit further, and suppose that, paradoxically as it could be, Leibniz could have been induced to dismantle the threat of materialism by employing some tools he found in Hobbes himself.

Let me point out that the distinction between what appears to us and what really is in the world "without us" (the terminology is the same we encountered in the passage concerning the annihilating hypothesis) is not a transcendental one, like that between phenomena and things in themselves (or phenomena and monads, according to the late Leibniz), rather it is conceived of as entirely internal to sensible knowledge (imagination) alone. As it has been pointed out, indeed, the fact that external reality consists only in bodies in motion is a conclusion we can get to just by means of an analysis and a comparison of the contrasting and disharmonious experiences we receive by the senses.²⁹⁴

It seems that, by just restating the distinction (common to the so-called *philosophi novi*) between the subjectivity of secondary qualities vs. the objectivity of primary ones, Hobbes is just endorsing a form of scientific realism, particularly when saying that, while secondary qualities are to interpreted as accidents or modes of our minds, primary qualities pertains to the external world, the "world without us".

At this point, however, one must be very cautious and remember that, in the exposition of the *annihilatio mundi* in the *De corpore*, the distinction was between ideas as accidents of our minds and these very same ideas as species of external things "not as really existing, but only appearing to exist, or to have a being without us". That means that, also in the case of ideas concerning primary qualities, the disclaimer holds that, even though we consider them as coming from the 'external world' (insofar as they are more objective than ideas concerning secondary qualities), we cannot absolutely conclude that they actually are what they appear to us.

In other words, the distinction is not one between phenomena and things in themselves, but one between phenomena of different levels (and, in this sense, this distinction can be accommodated under the phenomenalistic umbrella provided by the annihilating hypothesis).

4.2 Phenomena and Reality in Leibniz's Specimen demonstrationum de natura rerum corporearum ex phaenomenis

Now, if I have emphasized this aspect of Hobbes' theory of knowledge, is only because it seems to me that an analogous distinction between 'phenomena' and 'reality' can be discovered in the drafts the young Leibniz devoted to the project of his philosophy of mind and body.

²⁹⁴ See Pacchi, *Convenzione e ipotesi*, pp. 62-3, who stresses the importance that the study of optics had on the development of Hobbes' understanding of the distinction between appearance and reality.
I will focus in particular on a text that Leibniz himself entitled "An Essay of Demonstrations concerning the Nature of Bodies, drawn from Phenomena" (*Specimen demonstrationum de natura rerum corporearum ex phaenomenis*), probably written in the second half of 1671.²⁹⁵

4.2.1 Things and phenomena

The text in question opens with some statements concerning the distinction between things (*res*) and phenomena:

"The fact that by the name of thing we refer to that which appears can be understood from this, i.e. that, when we have been deceived and have acknowledged our mistake, we correctly say that some thing appeared to us, though it did not exist. The nature of a thing is the cause of appearances in the thing itself. Hence the nature of a thing differs from its phenomena as a distinct appearance differs from a confused one, and as the appearance of parts differs from the appearance of their positions or relations to the outside; or, again, as the plan of a city, looked down from the top of a great tower placed upright in its midst differs from the almost infinite horizontal perspectives with which it delights the eyes of the travellers who approach it from one direction or another. This analogy has always seemed excellently fitted for understanding the distinction between nature and accidents".²⁹⁶

As the first editor of this text, W. Kabitz, remarked in commenting it, Leibniz is not establishing here a critical (i.e. Kantian) distinction, but, rather, a logical-metaphysical one between phenomena and things, one which is parallel to that between truth and appearance, and substance and accident.²⁹⁷ I think that this observation can be expanded and furtherly clarified.

First of all, let me observe that Leibniz moves from the case in which we are deceived by our sensations in order to explain the meaning of the term *res*. The interesting point is that *res* is referred not only to what actually exists, but also to what only appears to exist. Thus, the distinction between 'things' and 'phenomena' is one between two different kinds of appearances, as Leibniz immediately adds when distinguishing between distinct and confused appearances (in this sense, I think, one should understand Kabitz remarks that such a distinction is only a logical-metaphysical and not a transcendental one).

Furthermore, we find in this text one of the first occurrences of one of Leibniz's most celebrated metaphors, that of the town seen from different points of view. The image, however, is not yet intended to enlighten the claim that each individual substance is a mirror that reflects the same universe from a different point of view (in contrast with God's eye point of view, which is not 'situated').²⁹⁸ On the contrary, as Leibniz himself explicitly stresses, it is intended as a help to understand the difference between "the nature and the accidents".

²⁹⁵ This text has been published for the first time (albeit only partially) in appendix to Kabitz' seminal book on the young Leibniz, see W. Kabitz, *Die Philosophie des jungen Leibniz*, Heidelberg 1909, pp. 141-44 (see also pp. 44-48 for a discussion of it). The critical edition can be found in A VI 2, 303-08.

²⁹⁶ A VI 2, 303-4/L 142 (translation modified).

²⁹⁷ Kabitz, Die Philosophie des jungen Leibniz, p. 45.

²⁹⁸ The first mention of the thesis that minds are the mirrors of the world occurs in a draft for the *Elements of Natural Law*, probably written between 1669 and 1670: "If God did not have rational creatures in the world, he would have the same harmony, but devoid of echo, the same beauty, but devoid of reflection and refraction or multiplication. On this account, the wisdom of God required rational creatures, in which things may multiply

The same point had already been touched by Leibniz in his 1669 letter to Thomasius, in a passage which constitutes the very first occurrence of the town-analogy. The context, again, is that of a defence of the mechanist claim according to which every kind of change (*mutatio*), not only local motion but also generation, corruption, alteration and so on, has to be explained by means of local motion alone. Colours, for instance, arise only from a change of figure and position in a surface, and the same, says Leibniz, could in principle be said of light, heat and all the other qualities.

At this point, Leibniz observes that "if qualities are changed by motion alone, substance will also be changed by that very fact, for a thing ceases to be if all, or even some, of the qualities requisite to it are changed", as, for instance, fire is destroyed if you remove either light or heat:

"This is why a covered fire will die for lack of the air which feeds it, not to speak of the fact that an essence differs from its qualities only in relation to sense. Just so, the same city presents one aspect if you look down upon it from a tower placed in its midst; this is as if you intuit the essence itself. The city appears otherwise if you approach it from without, which is as if you perceive the qualities of a body. And just as the external aspect of a city varies as you approach it differently, from the west or from the east, the qualities of a body vary with the variety of our sense organs".²⁹⁹

Here as well in the passage quoted above, Leibniz is talking of the essence and the qualities of corporeal things. In both cases, Leibniz explains the distinction between the essence/nature of a thing and its accidents/qualities by means of the analogy with the distinction between the view of the town from a tower placed in the middle thereof (described as an intuition of the essence itself) and the various ways in which the same town appears to the eyes of those approaching it from outside. Note, however, that Leibniz stresses the fact that "an essence differs from its qualities only in relation to sense"³⁰⁰, and, at the same time, he observes that the thing itself would be destroyed if some of its qualities were to be replaced or removed ("*mutatis enim omnibus, imo et quibusdam, requisitis, res ipsa tollitur*").

In the next section (see Chapter 5 below) I will have more to say about this idea that, when some 'requisite' of a thing is removed, the thing itself is removed as well. For the moment, let me anticipate that 'requisite' works here as a technical notion, one indicating a necessary condition for the existence of something. And since, as we will see, the notion of requisite is a fundamental ingredient of Leibniz's understanding of causality –in particular, he understands the full cause of a thing as the sum or the aggregate of all its requisites -, one can understand in which sense he says that the nature of a thing is "the cause, in the thing itself, of its appearances".

themselves. In this way one mind might be a kind of world in a mirror, or a diopter, or some kind of point collecting visual rays" (A VI 1, 438, translated by Mercer, *Leibniz's Metaphysics*, p. 218). The parallel with optics (reflexion and refraction) is emphasized in another draft on the same topic, see A VI 1, 464. It seems to me that the claim that the existence of rational creatures is a maximization of the harmony of the world (just because each mind reflecting and refracting the world in itself adds something to it, insofar as it increases the variety-in-the-unity in which harmony consists) was originally independent from the image of the town-analogy, as it was used in the passage above (and in the 1669 letter to Thomasius). The two images will be merged together only after the Paris notes.

²⁹⁹ Leibniz to J. Thomasius, April 20(30) 1669, A II 1,18 /L 97

 $^{^{300}}$ The same claim is repeated in Leibniz's 1671 letter to Arnauld, where he says that "a substantial form differs from it qualities only in relation to sense" (A II 1, 170/GP I, 69).

We find confirmation of this in another passage of the same period, in which he writes. "To be is for all the requisites to be perceived. A requisite is what, when it is not thought, another thing cannot be thought. To be should be said as that of which there is some reason of thinkability [ratio cogitabilitatis]".³⁰¹

4.2.2. The possibility of empty space in the Specimen demonstrationum

If we come back to the Specimen demonstrationum, we can see that Leibniz immediately moves to a characterization of the notion of 'body' and 'space', since, as he himself explains, only a careful definition that provides us with a clear and distinct definition of what a body is can give us the access to the demonstrations we are looking for.

What is particularly interesting here is that Leibniz pays a lot of attention at distinguishing bodies from empty space. All men, according to him, agree that only what is extended can be called a 'body', but, at the same time, they also claim that "wherever they think of empty extension alone, there is no body but only *empty space*".³⁰²

As we have already seen in commenting the *Preface to Nizolius*, as the starting point of his inquiry Leibniz takes the common opinion men have about the nature of bodies, from which he derives two points: (1) that space remains when one body leaves it and another take the place of the former, even though this goes against what we can directly perceive (since we are not able to perceive empty space), (2) that to think of a body one has to thing something more than bare extension, since a body appears to us whereas empty space cannot appear "without being invested with some colour, or conatus, or resistance, or some other quality".³⁰³

In the following paragraphs, then, Leibniz proceeds to test assumptions (1) and (2), trying to argue, in particular, that there are sound reasons to accept the possibility of empty space. His strategy will rely on the impossibility to reduce space to concrete bodies, since, as already said, only the latter are objects of sensible experiences, i.e. appearances.

In order to do so, however, he has to prove, first of all, that all bodies are sensible appearances, against the idea that there can be bodies which cannot be perceived. His answer is that all bodies are in principle perceivable, even though they are not necessarily perceived in act "either because they are not located conveniently to us or because they are too large or too small". Again, there are cases in which we do not actually perceive something only because our sense-organs are not sharp enough or there is some obstacle between them and the object: thus, for example, "we believe we should be able to see fish in the bottom of the sea if we could descend there; hence we also believe that they are there".

In the next paragraph, however, Leibniz seems to contradict himself by claiming that space is something that is always sensed "as long as sentient beings are attending to it (that is, want

³⁰¹De conatu et motu, sensu et cogitatione, 1671 (?), A VI 2, 283, where the theory of requisites is explicitly combined with an account of what exists in terms of perception or perceivability, and the idea that we said that something is of which there is some ratio cogitabilitatis is nothing but a variation on the theme of Hobbes' characterization of accidents(remember what we said above about Hobbes' understanding of esse in terms of accidental predication). ³⁰² A VI 2, 304/L 143.

³⁰³ *Ivi*. Leibniz observes that it is not clear, at first glance, that all these qualities can be reduced to mere specifications of extension, i.e. to local motions (according to the program of the mechanical philosophy), since this is not something that can be assumed but must be demonstrated.

to sense it) and as long as they retain the faculty of sense or are able to sense". The point Leibniz is establishing here is that space has to be taken as a sort of condition of possibility of sensation, or, at least, this is what emerge from Leibniz's characterization of space as "immutable", since, whereas what is sensed in space can start or stop to be sensed by us, space itself has to be presupposed by the very same possibility of sensation itself.

Space, then, "is something extended which we sense that we cannot think of as changing".³⁰⁴ Leibniz's notion of "sense", then, has to be taken in a broad sense, one which covers both perception of bodies (sensible appearances) and our way of conceptualizing space as an invariant condition of every perception.

Such a distinction finds a further clarification in the following paragraph, where Leibniz says:

"A *body* is something in space (that is, something not distant from some portion of space), which we perceive we cannot think of without space, though we perceive that we can think of space without it. But can we think of space without any body? We can, but only in the same way that we think of God, the mind, the infinite. These are known, and hence thought of, but without any image. We think of space in a body, but because we think of space remaining the same when a body changes, we perceive that space and body are distinct".³⁰⁵

The first thing to note is that Leibniz use "to sense" (*sentire* in the original, often translated as "perceive" in English) and "to think" interchangeably, and then proceeds to clarify that thought is a special case of "sense" or "perception", one which does not rely on images. In this sense, we cannot have an image of space without any body in it, but we can think of it in the same sense in which we think of God, the mind, or the infinite.³⁰⁶

From this, he immediately draws the conclusion that space and body are distinctly conceivable. From distinct conceivability, however, Leibniz seems to derive the conclusion that space and body are also really distinct, as argued in the following passage:

"However, *space and body are distinct*. For we perceive that we think of space as identical when bodies change, and what we perceive ourselves to be thinking or not thinking we perceive truly. The perception of thought is immediate to the thought itself in the same subject, and so there is no cause of error. Therefore it is true that we think of space as remaining identical when bodies change and that we can think of space without a body which is in it. Now two things are distinct if one can be thought of without the other. Therefore space and body are distinct".³⁰⁷

First of all, Leibniz's choice to subsume both thought and imagination under the broader notion of sense finds its motivation in the immediacy of these two cognitive processes, in contrast with thought-as-reasoning (as a discursive, inferential process).

Thus, we are in the middle of an exercise in introspection, as Leibniz himself seems to remark when saying that the "perception of thought is immediate to the thought itself in the same subject, and so there is no cause of error". Such an exercise, being based on a notion

³⁰⁴ *Ibid.*, 305/L 143 (translation modified).

³⁰⁵ Ivi.

³⁰⁶Cf. *ivi*. We should remember that, in the Cartesian tradition, 'perception'has to be taken as more or less synonymous with 'cognition', and refers to both the immediate knowledge we get through senses and the immediate consciousness of that which is known; in both cases, it is opposed to mediate form of knowledge such as judgment and reasoning. Cf. Appendix to this Chapter.

like that of conceivability (or, better, perceivability in broad sense), has a sort of Cartesian flavour for us. However, what is strange is that it is intended to prove the distinction between space and body (rather than that between mind and body), and that Leibniz seems to draw a real distinction from a mere conceptual one ("two things are distinct if one can be thought of without the other").

The latter conclusion, however, seems very strange, especially since we have stressed that one of the salient feature of Leibniz's nominalism was just the refusal to accept the possibility of such a passage from conceivability to real possibility (see our discussion of Leibniz's rejection of the real distinction between essence and existence in Chapter 1 above).

4.2.3 Imaginary space and the annihilatio mundi

Both these apparently strange features, however, can be explained if we have clearly in mind that Leibniz's model is (once again) Hobbes' deduction of space in *De corpore*.

As far as the first point is concerned, in our previous discussion of the phenomenalism connected to Hobbes' annihilating hypothesis, I have already stressed the similarity between Hobbes and Descartes as far as the distinction between phenomena as intentional objects and species of external things is concerned. Another point of similarity between the two concerns the strategy of looking for what in Descartes' terminology might be called "simple natures" and in Leibniz's one "primitive concepts". The annihilating hypothesis, indeed, plays also another function in the context of Hobbes' foundation of science: once every 'external' influence has been put between brackets, indeed, it is possible to find the most basic concepts which are offered to our mind and that can be taken as the building-blocks for the entire reconstruction of science, as a sort of two-step process of analysis and synthesis.³⁰⁸

The point on which Hobbes distances himself from Descartes, however, concerns the choice of the primitive, simple notions.

In particular, it is the idea or the notion of space which remains at the centre of the stage after the supposed annihilation of the world:

"If therefore we remember, or have a phantasm of any thing that was in the world before the latter's supposed annihilation, and consider not that the thing was such and such, but simply that it had a being independent of our mind [*extra animum*], we have what we call *space*: an imaginary space, indeed, because a mere phantasm, yet that very thing which all men call so. For no man call it space for being already filled, but because it may be filled; nor does any man think that bodies carry their places away with them, but that the same space contains sometimes one, sometimes another body; which could not be if space should always accompany the body which is once in it. [...] I return to my purpose and define *space* in this way: *space is the phantasm of an existent thing insofar as it exists*, that is, that phantasm in which we consider no other accident but only that it appears as external to us [*extra imaginantem*]".³⁰⁹

³⁰⁸ On this point see Pacchi, *Convenzione e ipotesi*, pp. 71-4, especially for what concerns the comparison with Descartes. Stefano Di Bella has righly pointed out that the model of analytical-synthetic science contained in Leibniz's combinatorics (in the DAC and later projects) has to be regarded as closer to the spirit (if not to the letter) of the modern attempts one can find in Hobbes' *De Corpore* and Descartes' *Regulae*, than to the Lullist tradition. See *The Science of the Individual*, 34-5, and, also, "L'astratto e il concreto", pp. 243-45.

As one can see, this characterization of space presents many analogies with that proposed by the young Leibniz in the passages above. Moreover, one should acknowledge that Hobbes' passage contains seems to contain also the same problems we have already detected in the Leibnizian analysis. The main tension, as usual, is one between a phenomenalist and a realist strand in this definition of space.

On one hand, indeed, Hobbes explicitly talks of an "imaginary space": insofar as it is the only 'thing' which survives after the supposed annihilation of the world, such space is a mere "phantasm", since it has not been derived from the external world (which has been suppressed by hypothesis) but only from the depth of our mind, so to say. On the other hand, however, Hobbes emphasizes the independence of our mind as the salient feature of his notion of space, where existence as such is equated with the existence of something *extra animum* or *extra imaginantem*. At this point, it is not entirely clear how space could be taken as purely 'imaginary' if its notion refers to something 'external' and 'independent of our mind'.

The difficulty is exacerbated by the fact that it is from this notion of imaginary space that he derives all the other basic notion of his foundational project, like that of time, motion, and, in particular, body.

The deduction of body proceeds as follows:

"Having understood what imaginary space is, in which we supposed nothing external to us, but all those things to be destroyed, that, by existing heretofore, left images of themselves in our mind, let us now suppose some one of those things to be placed again in the world, or created anew. It is necessary, therefore, that this new-created or replaced thing do not fill only some part of the space above mentioned, or be coincident and coextended with it, but also that it be independent of our imagination. And this is that which we commonly call *body*, because of its extension, and we say it is a *thing subsisting in itself* because it does not depend upon our thought, an *existent thing*, since it is subsisting external to us; and, lastly, because it seems to be subjected to and placed in the imaginary space, to the effect that it can be understood to be there not by the senses but by reason only, it is called *suppositum* and *subjectum*. The definition of body, therefore, may be this: a *body is that which having no dependence upon our thought, it is coincident or coextended with some part of space*".³¹⁰

First of all, it is clear that, in this passage, Hobbes proceeds to equate 'body' with what is *subsistens per se, existens*, and, finally, *suppositum* and *subjectum*, thus identifying body and substance. At the same time, however, it is also clear that he interprets the distinction between imaginary space and body as one between something subjective and mind-dependent vs. something objective and mind-independent.

To stress the latter point, he also adds that, even though it is subject to the imaginary space (since a body is coincident with some portion of space), nonetheless it can be grasped only by reason and not by sense.

On this point Leibniz's account seems to differ from the Hobbesian model, insofar as the latter attributes space to imagination and body to reason, whereas Leibniz seems to do the opposite, by invoking the fact that one can perceive space only without images.

If one interprets Hobbes in this way, indeed, Leibniz's choice can be easily explained and justified. The passage from space as something imaginary to the existence of something "subsisting in itself", indeed, seems to be highly problematic, especially because it seems to

³¹⁰ *Ibid.*, viii, 1 (OL I, 90-1).

ascribe a substantive role to 'pure' reason (the existence of body is inferred by reason and not accessible to the senses, as Hobbes himself writes). In this sense, as it has been noted, Hobbes' inference seems to follow the path of the ontological proof of the existence of God, moving from the purely conceptual (or imaginative) necessity of conceiving the body as something independent of the mind to its real independence.³¹¹

The same difficulty we have already detected when dealing with Leibniz's deduction of the 'real distinction' between space and body from their conceptual distinction. What is really interesting at this point, however, is that this connection with the ontological proof had not been ignored by Leibniz himself.

4.3 Leibniz's Earlier Rejection of the Ontological Argument in the Specimen demonstrationum

In the *Specimen demonstrationum*, indeed, immediately after having stated the conclusion that space and body are really distinguished, he feels somehow obliged to make explicit that his own proof is not the same as Descartes' ontological proof:

"Let no one think that this demonstration is like Descartes' effort to demonstrate the existence of God from the idea in his mind. It will be worthwhile to show the difference briefly. Descartes' argument reduces to this. I think (clearly and distinctly) of a perfect being. Whatever I think (clearly and distinctly) is possible. Therefore a perfect being is possible. Again, if something is possible, that without which it cannot be thought (that is, that without which it is not possible) is necessary. But a perfect being cannot be thought of without its existence. Therefore the existence of a perfect being is necessary. The perfect being is God. Therefore the existence of God is necessary. He could have condensed it in the following way: An existing being is possible. That without which it is not possible is necessary. An existing being without existence is not possible. Therefore the existence of an existing being is necessary. Who would deny it? But, also, who would conclude from this that God exists, since, namely, we have already assumed that he exists?".³¹²

The first thing to observe is that one of the first, if not the very first Leibnizian discussion of this topic amounts to a harsh rejection of the ontological proof. In his Paris notes, of course, Leibniz will say that Descartes' ontological proof should not be rejected at all, but it only needs a completion (a proof of that the concept "the most perfect being" is consistent). Here, however, things are different, another proof that Leibniz's thought underwent important modification during his staying in Paris.

Note also that, since Leibniz himself confessed that a serious confrontation with Descartes' texts occurred only around 1675, it is probable that his knowledge of Cartesian philosophy at this stage of his development was not a direct one (one can also note that, in the passage above, Leibniz incorrectly refers to the object of the proof as to the *ens perfectum* rather than to the *ens perfectissimum*).³¹³

³¹¹ See Pacchi, *Convenzione e ipotesi*, p. 74 and 77.

³¹² A VI 2, 306/L 143-44.

³¹³ I assume here that Leibniz's (direct or indirect) reference is to the ontological proof as Descartes presented it in the fifth Meditation (AT VII, 66).

4.3.1 Leibniz's reconstruction of the Cartesian proof

Already at this stage, however, Leibniz shows an interest in simplifying the formulation of the argument in order to enlighten its formal structure. He provides two different versions of the argument, claiming that the second is a condensed version of the first.

This second version can be written in the following way:

- (a) An existing being is possible;
- (b) That without which something is not possible, is necessary;
- (c) An existing being without existence is not possible;
- (d) Therefore, the existence of an existing being is necessary.

Premise (a) finds its justification in what Leibniz says in a sort of *lemma* that he mentions only in the non-condensed part (where he reports the Cartesian assumption that 'whatever can be thought clearly and distinctly, is possible', and then applies it to the notion of "perfect being"). Note also, however, that in the condensed version attention is shifted from the notion of a "perfect being" to that of an "existing being" (a telling detail, as I will say in a moment).

Premise (b) relies on the principle according to which 'if something is possible, that without which it is not possible, is necessary', which concerns, so to say, the conditions of possibility of the possible itself.

In (c), then, Leibniz applies (b) to the case of an "existent being", concluding that existence itself is necessary to the possibility of an existing thing. This conclusion, however, is trivially true, since we have just derived existence from the notion of an existing being.

Such a trivialization of the ontological proof is due to the substitution of 'perfect being' with 'existing being' in Leibniz's report above.

Leibniz himself, however, motivates his own choice in the following way:

"But Descartes' entire reason obviously reduces to this. For he asserts that God is perfect only because he thinks that this proposition [God is perfect] contains the proposition that God exists. But he has not yet proved that God is perfect in the sense that he already exists; this in turn rests on the question whether he exists [*an sit*]".³¹⁴

Leibniz's criticism is based on the claim that Descartes wanted to demonstrate the existence of God from an idea of his mind. In this sense, he would allow an illegitimate passage from what exists in the mind to what exists *in rerum natura*. Since there is no way to pass from the former to the latter, the only result such an argument can achieve is to state a tautological claim: assuming that God already exists, we can conclude that it is necessary that he exists, where, however, the necessity at stake is not the absolute necessity of existence (the claim that God is a necessary being), but only a conditional necessity, according to the dictum *omne quod est quando est necesse est esse*.

The main fault of this kind of proof, then, is that it is unable to demonstrate that something actually exists.

³¹⁴ *Ibid*.

As Leibniz notes, indeed, "he [Descartes] has not yet proved that God is perfect in the sense that he already exists", i.e. he has not yet answered to the question "whether he exists [*an sit*]". Two remarks are in order here. The first concerns Leibniz's acceptance of what has been called the 'logical objection' to the ontological argument. The second has to do with his insistence on the trifling and tautological structure of the Cartesian proof.

4.3.2 Leibniz, Descartes, and the logical objection

In its main lines, the 'logical objection' to the ontological argument had been clearly stated by Aquinas against Anselm's version of the ontological proof. In a famous passage from the *Summa contra Gentiles*, indeed, Aquinas rejects Anselm's definition of God (a being than which nothing greater can be conceived), by noting that, even if one assumes that everybody share such a concept of God, it does not necessarily follows that such a being would actually exists, "from the fact that a thing of this kind [a being than which nothing greater can be conceived] can be mentally conceived when we utter the name 'God', it does not follow that God exists but only in the understanding".³¹⁵

At the basis of Aquinas' rejection of the ontological argument there is the belief that we cannot have access to the essence of God and, thus, when talking about him (as in the case of the proposition "God exists"), we are picking out just a name of God, not his genuine essence. Descartes interpreted this objection as if Aquinas would introduce a distinction between nominal and real definitions, and argued that, if we can provide a real definition of God (one which relies on a genuine essence and not on a bare name), then the passage from the concept of God to his existence *in rerum natura* would no longer be an illegitimate one.

As it has been said, Descartes's proof in the fifth Meditation was based on a metaphysics of 'real essences' which he inherited from the late Scholastics (in particular, Suárez). As we have already argued in chapter II, Suárez's doctrine of 'real essences' was based on the claim that non-actualized entities (like possibilia) do properly have a being of their own, one intermediate between the being of actual existing things and the nothingness of beings of reason.

Relying on such a 'Platonic' conception of essences, Descartes could reject the logical objection by stating that, since essences belong to the domain of 'real being' (in the Suárezian sense), then the deduction of existence from the essence of God can no longer be regarded as an illegitimate passage from thought to being (or from mental existence to real existence), but, rather, it has to be conceived of as wholly internal to the domain of real being.³¹⁶

³¹⁵ Aquinas, *Summa contra Gentiles*, I, xi, n. 2. Note that this section of Aquinas' text will be explicitly quoted by Leibniz in one of his Paris notes, see *De veritatibus, de mente, de Deo, de universe*, April 15, 1676, A VI 3, 510-11, where Leibniz explicitly states that the argument has not to be rejected (as Aquinas believes), but it only needs a completion (the proof of possibility of a most perfect being). The expression 'logical objection' has been introduced by D. Henrich in his seminal book, *Der Ontologische Gottesbeweis. Sein Problem und seine Geschichte in der Neuzeit*, Tübingen 1967². The logical objection will be used against Descartes' proof by Caterus in the first set of Objections, whereas what Henrich called the 'empiricist objection' (based on the claim that existence is not a perfection) will be employed by Gassendi in the fifth Objections.

³¹⁶ On this point, see M. E. Scribano, L'esistenza di Dio. Storia della prova ontologica da Descartes a Kant, Roma-Bari 1994, pp. 45-48.

On the contrary, if one rejects the doctrine of 'real being' (in the Suárezian sense), then he has to reject the ontological argument as well, on the ground that, since essences are nothing but concepts (having, at most, a kind of existence in the mind), the passage from the concept of God to his existence has to be rejected as an illegitimate one.

Since the latter is exactly what happens in the passage from the *Specimen Demonstrationum*, I take this as a (further) evidence of the fact that the young Leibniz was not committed at all to a metaphysics of 'real essences' (in the Suárezian sense), but, on the contrary, was closer to a full-fledged nominalist view.

Incidentally, one could note that it will not be by chance that, at the end of the 1670's, in the middle of his most intense attempt at reformulating the ontological argument, Leibniz will show his maximum commitment to a 'Platonic' doctrine of the real essences of the kind of that which underpins Descartes' argumentation in the fifth Meditation.³¹⁷

4.3.3 The priority of the an sit over the quid sit

Coming to my second remark, one has to take note of the fact that Descartes' answer to the logical objection is successful only if he is able to prove that his definition of God is a real and not a nominal one, or, which is the same, only if the concept of God as *ens perfectissimum* succeeds in picking out a genuine essence and not just a name. In Descartes' own terminology, this amounts to show that the idea of God as a most perfect being (something whose essence includes its own existence) is an 'innate idea' and not a 'factitious one' (an arbitrary one, we would say).

In his reply to Caterus (who opposed Aquinas' logical objection to the proof of the fifth Meditation), Descartes wrote:

Descartes stresses that we may assert the existence of God only "once we have made a careful investigation of what God is [*quid sit Deus*]", and this is a necessary condition that Descartes himself imposes to his own way of proceeding in demonstrating, since, as he himself writes, "according to the laws of true logic, we must never ask about the existence [*an sit*] of anything until we first understand his essence [*quid sit*]"³¹⁹. Reversing the order of priority

[&]quot;My argument however was as follows: 'That which we clearly and distinctly understand to belong to the true and immutable nature, or essence, or form of something, can truly be asserted of that thing. But once we have made a sufficiently careful investigation of what God is, we clearly and distinctly understand that existence belongs to his true and immutable nature. Hence we can now truly assert of God that he does exist".³¹⁸

³¹⁷ In particular, I am thinking of the defence of the ontological argument that Leibniz puts forth in the *Probatio existential Dei ex ejus essentia*, a text dated Januar 1678. Leibniz's commitment to a Platonist ontology is particularly clear here and, especially, in the *Annotationes* he added to the text, esp. nn. 3-5, see A II 1, 391-92. This text will be discussed in Chapter 9 below. The parallel between Descartes' theory of essences in the fifth Meditation and Meinong's theory of objects has been discussed by A. Kenny, *Descartes. A Study of His Philosophy*, New York 1968, p. 155 and ff., and by E. Curley, *Descartes against the Skeptics*, Oxford 1978, pp. 149 and ff.

³¹⁸ AT VII, 115-16/DPW II, 83.

³¹⁹ AT VII, 107-8/DPW II, 78. Cf. Aristotle, *Posterior Analytics*, II, i, 89b 31-35. Aristotle clearly claims that the knowledge of the existence of x has to precede the knowledge of essence of x. Cf. also Aquinas, *Summa Theologiae*, I, q. 3. However, Descartes' reversal of the priority order finds its roots in the Scotist tradition, cf.

established by the Aristotelian tradition, Descartes says that according to his new logic, the possibility of knowing the essence of something has to precede the possibility of knowing the existence of that very same thing.

Now, one should remember that in dismissing Descartes' proof as inconclusive, Leibniz pointed out that the question of the *an sit* had been left unanswered by Descartes, since he just presupposed the existence of the most perfect being instead of proving it. In so doing, Leibniz comes closer to the main objection that Gassendi moved to Descartes and that, later, will be repeated by Kant in his criticism of the ontological argument.

Among the criteria that Descartes himself established in order to prove that the idea of God as the most perfect being is an innate one, the one relevant to our discussion is that according to which an innate idea has to be 'conceptually fecund', so to say, which means: from *I*, the innate idea of *x*, it is possible to derive many properties of *x* that were not already contained in *I*. In other words, the propositions that can be analytically derived from (the content of) an innate idea must constitute a class of non-trivial or non-tautological propositions. And this is what does not happen in the case of arbitrarily fashioned ideas, wherefrom one can derive only what has been already posited in it.³²⁰

In a sense, then, Descartes already anticipated the objection that reduces the inference to the existence of God to a "mere tautology" (as Kant will call it), by claiming that he does not fashion the idea of God as already containing the notion of existence in itself, otherwise the derivation of it from the notion of God would be a trivial one (and the idea of God would not be an innate one). Descartes clearly see that, by saying that "an existent x exists" (where the x can be substituted by whatever being one could imagine), one does not prove anything substantial about existence; but, on the other hand, he thinks that the derivation of the perfection of existence from the notion of a most perfect being would not be a tautological one.

On this point, however, Gassendi correctly objects that such a substitution would be pointless, since, otherwise, one "could say that the idea of a perfect winged horse contains not just the perfection of his having wings but also the perfection of existence. For just as God is thought of as perfect in every kind of perfection, so the winged horse is thought of as perfect in its own kind".³²¹ Gassendi's claim that Descartes' alleged proof is only a *petitio principii* assumes (only for the sake of the hypothesis) that existence is a perfection or a property of a being.

However, as is well known, the main objection Gassendi moves to Descartes concerns exactly this point: the analogy between God's existence and the property of the triangle fails just because, whereas in the case of the triangle it is only an essence-essence comparison, in the case of God Descartes is comparing essence with existence, but this is a categorial mistake, given that "existence is not a perfection either in God or in anything else; it is that

Scotus, Ordinatio, I, d. 3, pars 1, q. 1-2 ("Nunquam enim agnosco de aliquo, si est, nisi habeam aliquem conceptus illius extremi, de quo cognosco esse"). As far as the existence of God is concerned, Suárez follows Scotus in claiming that it is necessary to know the nature of God before one can prove his existence, cf. DM XXIX, ii and iii. See E. Scribano, Angeli e beati. Modelli di conoscenza da Tommaso a Spinoza, Roma-Bari 2006, p. 126 note.

³²⁰ Cf. AT VII, 67-68/DP W II, 46-47.

³²¹ AT VII, 325/DPW II, 226 (translation modified).

without which no perfection can be present [...] and if a thing lacks existence, we do not say it is imperfect, or deprived of a perfection, but say instead that it is nothing at all".³²²

Note that, in the passage from the *Specimen Demonstrationum*, Leibniz never mentions the fact that existence is not a perfection or a property of things. Although he is silent on this point, I think that one can attribute this view to him, also because it follows from the account of predication that he borrows from Hobbes (see Chapter 3 above).

Another reason is the fact that he clearly endorses Gassendi's other two main objections to Descartes' argument, i.e. the illegitimacy of the passage from the existence in the mind to real existence as well and the claim that his proof is question-begging.

4.3.4 The background of Leibniz's rejection of the proof. Gassendi's Disquisitio

This is particularly clear if one compares Leibniz's text not with the fifth Objections but with Gassendi's further reply in his *Disquisitio Metaphysica* (1644), which I believe is the true proximate source of Leibniz's earlier rejection of the ontological argument.

In this work, indeed, Gassendi proposes a three-step analysis which lead to the rejection of the Cartesian proof, one which contains one of the most sharp and penetrating criticism of the ontological argument. First of all, (1) Gassendi attacks the assumption that existence is a perfection by showing that it cannot be conceived of as a propriety of a thing or being (*res*, *ens*).

It is important to stress that Gassendi's rejection of existence as a property moves from that full-fledged nominalist point of view which he have already seen at work in Hobbes as well as in the young Leibniz. In particular, the argument according to which existence cannot be regarded as a property of an existing thing, because, otherwise, one could subtract existence therefrom and still have something 'real', is clearly connected to Gassendi's acceptance of the principle that reality and actual existence amounts to the same thing (and, thus, to the rejection of a metaphysics of real essences).

³²² AT VII, 323/DPW II, 224-25. The idea that existence is what without which no perfection can be present in a thing will be repeated by the Cartesian Arnold Eckhard in his letter to Leibniz, 9(19) April 1677, where, however, the claim is not intended to deny that existence can be said to be a perfection. As Eckhard writes: "existence is not only a perfection, rather it is the basis and the foundation of every perfection, to the effect that if one existence has been denied, perfection will be denied as well" (A II 1, 321= GP I, 220). The analogy with Gassendi has been noted by W. Janke, "Das ontologische Argument in der frühzeit des Leibnizischen Denken (1676-78)", Kant-Studien 54, 1963, 259-87, see p. 273 and note. However, I suspect that such analogy is more apparent than real, since Eckhard's claim that existence is the "basis and foundation of every perfection" seems to me an echo of the Thomist formula "esse est actualitas omnium actuum, et propter hoc est perfectio omnium perfectionum" (Aquinas, De potentia, q. 7, a. 2, ad 9). Eckhard's claim (as well as Aquinas' original formulation of it) seems to be an ambivalent one. On one hand, indeed, it wants to hold that existence can be regarded as a perfection (or a property). On the other one, however, it seems to deny it, by stating that existence is the condition for a thing's having its perfections (properties). Whereas all the other perfections (properties) of a thing seem to presuppose the existence of that very same thing, existence is not just what actualizes the subject of inherence of all the other perfections, but is also regarded as that whithout which a subject could not have all the perfections (properties) it actually has (in other words, existence is not only to be conceived as the condition which makes possible that Socrates is, but also as the condition which makes possible that Socrates is what he is, i.e. all his first-order properties). Of course, this amounts to a complete subordination of essence to existence (to the effect that it would be impossible to ascribe any property to Socrates unless he actually exists), a conclusion that is diametrically opposed to the metaphysics of the mature Leibniz (at least if we restrict 'existence' to 'actual existence').

Secondly, (2)he employs the 'logical objection' to reject Descartes' implication from the clear and distinct conceivability of existence as a property of the most perfect being to the conclusion that the most perfect being exists *a parte rei*. What is particularly interesting here is the fact that the inference from existence in the mind (or *in idea* or *in intellectu*) to real existence is criticized since it easily leads to a proliferation of ontological arguments.

Anticipating in some sense Russell's criticism of Meinong's theory of object, indeed, Gassendi observes that, if one does not take the passage in question as an illegitimate one, he could ascribe to the golden mountain whatever property we clearly and distinctly understand to pertain to its "true and immutable nature".

From this, in the third step of his argumentation (3) Gassendi draws the conclusion that, since Descartes has not proved that existence (conceived of as belonging to the idea of God) could be actually be attributed to God, that is that a most perfect being can be really given *a parte rei* and not only in the mind, his entire argument reduces to the question-begging claim that the most perfect being exists because existence has been (surreptitiously) assumed as already included in the idea of God. Exactly as in the case of the concept of an 'existing golden mountain', one derives the trivial conclusion that a golden mountain exists.³²³

Thus, we have seen that in the *Specimen demonstrationum* Leibniz explicitly endorses points (2) and (3) of Gassendi's rejection of the Cartesian proof, which seems enough to me to conclude that he would accept also point (1), i.e. the rejection of existence as a property of objects. Something more in support of Leibniz's acceptance of (1) will be added in the next paragraph.

Curiously enough, even when Leibniz will assume a more sympathetic attitude toward the ontological argument, one which will lead him very close to the assumption that existence is a perfection (at least in the case of God), he will always be reluctant to fully accept the idea that existence has to be regarded as a fist order property of individuals.

On the contrary, his opinion concerning (2) and (3) will radically change.

In particular, as far as point (3) is concerned, he will try to bypass Aquinas' objection to the knowability for us (*quoad nos*) of the divine essence, by changing the very same meaning of

³²³ See Gassendi, *Disquisitio Metaphysica*, 251-56, in particular p. 256, where he summarizes his three lines of criticism (the proof is a paralogism because (1) assumes existence as a perfection, (2) confuses existence in the mind with real existence, and (3) assumes existence in order to prove existence itself). For the example of the golden mountain, see p. 254. The analogy between Gassendi's criticism of Descartes and Russell's criticism of Meinong is motivated by the fact that the latter's 'theory of the object' assumes both existence as a property of individuals and what has been called the Unrestricted Comprehension Principle for objects (UCP). Since UCP poses no restriction on the condition of properties, and existence is taken as a property of individuals, by assuming $\alpha[x] = x$ is a mountain and x is golden and x is existent", one can draw the conclusion that a golden mountains exists, which allows us to demonstrate the existence of everything which we can think of (at least of everything we can conceived of without contradiction). On this point, see Berto, Existence as a Real Property, 106-7, and 86-88 for the characterization of UCP). As far as the ontological argument is concerned, this leads to its trivialization (as Gassendi correctly remarked), unless one is able to put some restrictions on the conditions which can satisfy the principle of comprehension and, in this way, prove that there is only one concept to which the ontological argument can be applied. Descartes' criteria for innate ideas can be regarded as an answer to the latter problem, cf. Scribano, L'esistenza di Dio, pp. 49-57. Moreover, Descartes assumes that he has proved that it is impossible to conceive of a plurality of God (AT VII, 68), but, as Gassendi notes, it is only a statement without proof. As Russell correctly remarked, the ontological argument fails for want of a proof of the premise: "There is one and only entity x which is the most perfect". See B. Russell, "On Denoting", Mind, 14, 1905, 479-93, p. 491.

it and, thus, ascribing to Aquinas the very same objection that Leibniz himself will move to Descartes:

"Whatever can be demonstrated from the definition of a thing can be predicated of that thing. Now from the definition of God –that he is the most perfect being [...] –there follows his existence, for existence is a perfection, and whatever possesses existence will therefore be greater or more perfect than it would be without it. Therefore existence can be predicated of God, or God exists. This argument, revived by Descartes, was defended by one of the old Scholastics [Anselm] [...]. But following some others, Thomas replied to it that this presupposes that God is [Deum esse], or, as I interpret this, that he has an essence, at least in the sense that the rose has an essence in the winter, or that such concept is possible".³²⁴

The comparison between this passage (written around 1684-5) and that from the *Specimen Demonstrationum* is a very informative one.

The mature Leibniz, indeed, clearly (and, perhaps, voluntarily) misinterprets the sense of Aquinas' objection, as it is evident from the fact that the expression *esse in rerum natura*, which the latter employs, undoubtedly, as referring to actual existence only, is interpreted essentially, not existentalliay. In other words, Leibniz interprets Aquinas as if the claim that the supporter of the ontological argument "presupposes that God is" amounts to the claim that "he [God] has an essence", and he explicits that by adding "at least in the sense that the rose has an essence in the winter, or that such concept is possible [*qualis est rosa in hyeme, seu talem conceptum esse possibilem*]".³²⁵ Remember that the example of the "rose in the winter" was traditionally taken as referred to a non-actualized possibility, i.e. a real essence or *ens nominaliter sumptum*, as we have seen in the text of Stahl which was criticized by the young Leibniz (see Chapter 2 above).

At this point, indeed, Leibniz has already started to regard the possible in itself as having a sort of ontological status, and, thus, he can conclude that, provided that a real definition of a concept can be given, that concept designates an essence *a parte rei* and then the passage from possibility/essence to actuality/existence ceases to be an illegitimate one.

4.3.5 Concluding remarks

Though Leibniz radically disagrees with Descartes as far as the criteria for providing a real definition are concerned³²⁶, nonetheless he is on his side in embracing a sort of Platonic

³²⁴De synthesi et analysi universali seu arte inveniendi et judicandi, 1683-85 (?), A VI 4, 541-42 /L 231.

³²⁵ On this passage, see K. Cramer, "Leibniz als Interpret des Einwandes des Thomas von Aquinas gegen den ontologischen Gottesbeweis", in Marchlewitz-Heinekamp (hrsg), *Leibniz' Auseinandersetzung mit Vorgängern und Zeitgenossen*, pp. 72-79. Cramer dubs "semantic objection" Leibniz's interpretation of Aquinas' claim and considers it as a charitable reading of the traditional logical objection. However, see Scribano, *L'esistenza di Dio*, 159-60, for some clarification on this point.

³²⁶ Contrary to Descartes and the Cartesians, for Leibniz, provided that one is able to guarantee that the concept at stake is a non-contradictory one, the problem of its arbitrariness disappear and, thus, Descartes' effort to distinguish between innate and arbitrary ideas becomes meaningless. In his review of Samuel Werenfels' critical account of the Cartesian ontological argument, Leibniz explicitly notes: "Je ne sçay pas ce qu'il [Werenfels] entend [...] par une idée arbitraire de l'esprit humain, lorsqu'il veut prouver que celle de l'Estre tout parfait n'est point arbitraire. Car toutes les idées possibles sont independentes de l'esprit humain, et celles qui sont impossibles, ne sont pas même arbitraries, puisqu'il n'est pas en nostre pouvoir de les concevoir" (around 1700, GP IV, 404). By grounding the possibility of an essence on logical consistency thereof, Leibniz provides a more rigorous criterion than that provided by Descartes' way of ideas, but, then, in order to block the proliferation of

theory of essences (which is nothing but the Scholastic theory of *essentia realis*, after all) as the fundamental premise for the renewal of the ontological argument (notice that, if possibility would not be interpreted as ontologically loaded, although in a weak sense if compared to actuality, an *a priori* proof of God's existence would be impossible, as the young Leibniz's text clearly remarks).

In 1671, on the contrary, Leibniz was very explicit in pointing out that Descartes "has not yet proved that God is perfect in the sense that he already exists [*ut scilicet jam sit*]; this in turn rests on the question whether he exists [*an sit*]". Where the reference to the "*an sit*" makes clear that the presupposition at stake here is that of God's existence, not of his essence.³²⁷

Thus, the young Leibniz was more faithful to the letter and the spirit of Aquinas' criticism of the ontological proof. This is not strange if one bears in mind the kind of Platonic metaphysics behind the ontological proof, one which could not have been accepted by an Aristotelian philosopher like Aquinas (for whom grounding existence in possibility would have amounted to put the cart in front of the horse).

Moreover, there is a feature of Aquinas' objection that should not have disliked to nominalist authors like Hobbes and Gassendi (and the young Leibniz as well): the emphasis on the fact that we always deal with a nominal definition of God rather than a real one (or, which is the same, that we know only a name of God and not his real essence, whose vision is reserved to the blessed only). In this sense, nominalism about essences (like in the case of Hobbes, see above) could be regarded as a sort of generalization of Aquinas' original 'nominalism' concerning the specific case of God's essence.

If existence is not a property or a perfection, but that without which the subject itself (i.e. the bearer of all perfections) is nothing at all, then the passage from God's *being* absolutely perfect to his *being* tout court can be regarded alternatively as the product of a confusion between two senses of 'being' (predicative vs. existential) or just as a question-begging argument (one presupposing the very same conclusion it has to prove).³²⁸

the ontological arguments, Leibniz can only resort to the claim that all the other definitions from which one pretend to derive existence, necessarily lead to a contradiction. With the exception of some selected cases (as Leibniz's favourite examples, "the greatest number", "the fastest motion"), however, this task seems impossible to accomplish. On this point, I am indebted to Scribano, *L'esistenza di Dio*, 163-4. See also S. Di Bella, "L'argomento ontologico moderno e l'ascesa dell'*ens necessarium*: il caso Leibniz", in *Annali della Scuola Normale Superiore di Pisa*, serie III, 25/4, 1995, 1531-78, esp. pp. 1564-67. I suspect that this was one of the reasons that make Leibniz very reluctant to accept the idea that existence, in the case of non-divine beings, could be regarded as a perfection. On the proliferation of necessary beings, see what I say in Chapter 9.

³²⁷ In a passage from the *Demonstrationum Catholicarum Conspectus*, 1668-69 (?), A VI 1, 494, Leibniz explicitly refers to Descartes' proof of the existence of God as to a "paralogism". In the same page one can found a list of five proofs of the existence of God that the young Leibniz regarded as adequate. Notice that they are all *a posteriori* proofs, namely moving from the effect to the cause.

³²⁸ Note that Hobbes was eager to stress the fact that we only know that God exists but do not have any idea concerning his nature, or, as he says, "we understand nothing of what He is, but only that He is" (*Leviathan*, XXXIV, EW III, 383). And see Zarka, *La decision métaphysique de Hobbes*, 146-48. Cf. also G. Paganini, « How did Hobbes think of the Existence and the Nature of God ? *De motu, loco et tempore* as a turning point in Hobbes' philosophical career », in S. A. Lloyd (ed.), *The Bloomsbury Companion to Hobbes*, London/New Delhi/New York/Sidney 2013, pp. 286-325.

4.4 Distinct Perceivability as the 'Mark' of Existence. Leibniz and the 'Dream Argument'

4.4.1 'Thinking' and 'Perceiving'. A strange polarity?

After this *detour* on the ontological argument, we have to come back to the text of the *Specimen demonstrationum*, where, after having discussed the shortcomings of the Cartesian proof, Leibniz focuses on the difference between the latter and his own demonstration that space and body are really distinct:

"Our reasoning is entirely different, although it does proceed from an idea in our mind to the truth of things. For it rests on these two propositions: 'whatever is perceived clearly and distinctly is possible', and 'whatever is immediately sensed is true', that is whatever the mind perceive within itself, it perceives truly. Hence, if the mind dreams that it is thinking, it will be truly thinking; however, it will not be truly seeing if it dreams it is seeing. Therefore, when I sense that I am thinking clearly and distinctly of space remaining the same when a body changes, I am sensing truly. What I sense clearly and distinctly is possible; therefore it is possible for space to remain the same when body changes. Therefore space and body are different".³²⁹

The first scholar who commented this passage, W. Kabitz, was particularly perplexed about the conclusion of such an argument, since he observed that the only conclusion that Leibniz can guarantee is the possibility of space as distinguished from body, and, from the assumption that 'whatever is immediately sensed is true', he can conclude that to be real is my thought about space (*mein Raumgedanke*) and not space itself, even though Leibniz's intention was that of proving the reality of space.

I think that Kabitz was right about the conclusion Leibniz actually reached, but he is quite wrong about Leibniz's true intentions in the passage above. Perhaps, this is due to the fact that he missed the point that Leibniz's notion of space is modelled on the Hobbesian idea of *imaginary space*, which, of course, is a possibility, not a reality.³³⁰ To be very clear, I think that if Leibniz gives the impression of being interested in concluding at the reality of space, one has to take it as referring to reality in a phenomenal sense, not an absolute one.

As usual, Leibniz puts emphasis on the formal structure of his argument. He assumes two fundamental premises:

(1) "Quicquid clare et distincte percipitur id possibile est",

³²⁹ A VI 2, 306/L 144.

³³⁰ See Kabitz, *Die Philosophie des jungen Leibniz*, p. 47. F. Piro correctly connects this passage with the distinction between abstract hypotheses and empirical theories in Leibniz's early physics, and I think he rightly points out that, in the first case (abstract hypothesis), a sort of counterfactual reasoning is involved. However, I cannot agree with him when he says that what Leibniz says about the possibility of an empty space in the *Specimen demonstrationum* has to do with what will be the Leibnizian theory of non-actualized possibilities. See Piro, *Spontaneità e ragion sufficiente*, p. 67 and note. He thinks that empty space could be regarded as one the first examples of non-actualized possibilities, even though the mature Leibniz will later change his mind and relegate it to the status of an "imaginary notion". Quite the contrary, I think that for Leibniz empty space has always been an imaginary and abstract notion, and that the true change in his mind has to be looked for in his understanding of possibility (and the ontology thereof). Moreover, Piro seems to regard the young Leibniz did not have a relational account of space, but was closed to regard it as absolute.

and

(2) "Quicquid immediate sentitur verum est".

Premise (1) corresponds, more or less, to the Cartesian passage from conceivability to possibility; whereas (2) is concerned with truth (and, thus, existence). Leibniz also formulates the latter as *"quicquid mens sentit in se, vere sentit"*, which has a clear phenomenalist flavour, as one can also understand from what follows: when I dream that I am thinking of a tree, for instance, this amounts to say that I am really thinking of a tree, whereas, on the contrary, when I a dream that I am seeing a tree, I am not really seeing a tree.³³¹

From these two premises, Leibniz derives his conclusion in the following way. Let be p the statement "space remains the same when a body change". Then, since (a) 'I sense that I clearly and distinctly perceive that p', it follows (by means of (2)) that (b) 'it is true that I clearly and distinctly perceive that p', and since (1) tells that what I clearly and distinctly perceive is possible, I can derive (c) 'it is true that p is possible'.

As Kabitz clearly remarked Leibniz has proved a possibility, but that is enough for him, because, contrary to the appearances, he never wanted to hold the claim that space and body are distinguished as 'thing from thing' (think that also for Hobbes imaginary space is an abstract notion).

The key to understand Leibniz's reasoning is contained in the two premises (1) and (2). Premise (2) had been already introduced by Leibniz when he noted that the "perception of thought is immediate to the thought itself in the same subject, and so there is no cause of error".

Here, as well as elsewhere in these early texts, the contraposition between 'thinking' and 'perceiving' is not immediately to be thought of as a contraposition between the possible and the actual, nor, I think, between the objects of pure understanding and that of sensibility. Leibniz's use of perception, indeed, is quite broad and cannot be restricted to what is perceived by external senses only, but includes also the perception of the self (which Leibniz ascribes to the internal sense). Rather, 'perception' (or 'sense') has to be taken as a kind of umbrella-term which covers all the different forms of conscious experience.

4.4.2 The connection between perception and existence

³³¹Cf. the version proposed in the first draft of the Accessio ad Arithmeticam Infinitorum, cf. A II 1, 227, where he lists a series of truths which cannot be regarded as arbitrary. The first class is that of truths which are proposed to the sense, like "me a me sentiri sentientem"; the second is constituted by those truths which can be demonstrated from those of the first class with the help of definitions: like the fact that from me sentire (or me cogitare), one can conclude me esse. The proof is sketched as follows: "For it is certain to the sense that I am perceived by myself when I perceive [something]. Therefore the fact that 'I am perceiving' is perceived immediately, or without a medium, for there is nothing in between me and myself, i.e. in the mind. Whatever is immediately perceivable is without error, i.e., it follows from that that 'I am perceiving', or, which is the same, the proposition I am perceiving [ego sum sentiens] is true. But, consequently, I can invert it: Perceiving that I am [sentiens ego sum]".

This point needs to be stressed because in these years Leibniz's favourite account of existence is in terms of 'distinct perception'. According to many interpreters, Leibniz's early phenomenalism amounts, more or less, to Berkeley's thesis that "to be is to be perceived" (*esse est percipi*), since he seems very eager to identify 'existence' with 'being perceived', or, to be more precise, 'being perceivable'.³³²

However, I do not think this is the best way to approach the question. In these texts, indeed, Leibniz's terminology is not always accurate and, sometimes, even misleading. In other places, for instance, he does not say that 'existence' is identical to distinct perceivability, as if 'distinct perceivability' had to be considered as the proper definition of existence; rather, he says, more accurately, that 'distinct perceivability' has to be understood as the *mark* of existence, that is as an epistemological criterion rather than a definition.

For example, in a passage taken from the Paris notes, he clearly writes that "consistent sensations are the mark of existence [*notam existentiae esse sensus conformes*]".³³³

This point is made even clearer in another passage from the Paris period in which the topic of existence is introduced through a reference to the (un)reality of dreams:

"When we dream of palaces, we rightly deny that they exist. Therefore it is not the case that to exist is to be sensed. The distinction between our true and false sensation is simply that true sensations are consistent [*consentientes*], such as our predictions about eclipses. Sensation is not the existence of things, because we declare that there exist things which are not sensed. Further, the coherence of sensations must itself spring from some cause. Existence, therefore, is the quality of the subject which brings it about that we have coherent sensations. From this it can be understood that there also exist things which are not sensed, since that quality can exist even if (because of our own deficiency) the thing is not sensed. That sensations themselves exist is something that we do not doubt –and therefore we also do not doubt that there is a sentient being, and a cause of sensation".³³⁴

This passage, even if written few years after the period I am considering now, is very useful to dispel some misunderstandings concerning Leibniz's early phenomenalism. Notice, in particular, the distinction between having coherent perceptions as a criterion that allows us to distinguish between true and false (that is, deceitful) sensations, on one hand, and existence as "the quality of the subject which brings it about that we have coherent sensations", on the other. About the latter, objective side (so to say), Leibniz also adds that we are allowed to conclude at the existence of a cause of sensation, even though, as it clear, the cause of the sensations is to be identified in a sentient being.

For the moment, the best thing to do, in order to correctly approach Leibniz's characterization of existence in terms of 'distinct perceptions' (or 'coherent perceptions'), is to put it in its right place: the discussion concerning the 'reality' of external world (especially, of bodies outside us), which Leibniz inherits from the Cartesian tradition.³³⁵

³³² For the parallel with Berkeley, see Adams, *Leibniz*, 235-40, and M. Wilson, "The Phenomenalisms of Leibniz and Berkeley", in E. Sosa (ed.), *Essays on the Philosophy of George Berkeley*, Dordrecht 1987, pp. 3-22. ³³³De arcanis sublimium vel de summa rerum, 11 February 1676, A VI 3, 474/DSR 25.

³³⁴De mente, de universo, de Deo, December 1675, A VI 3, 464/DSR 7-9.

³³⁵ Many authors have claimed that Leibniz's interest in this kind of problem had been raised by his acquaintance with the post-Cartesian debate (think, for instance, of the Foucher-Malebranche debate), which took place during Leibniz's staying in Paris. In this sense, Leibniz's 1675 letter to Foucher has been regarded as a confirmation of this hypothesis. See in particular, Garber, *Leibniz*, pp. 268-79, where the letter is extensively commented. Of course, the direct acquaintance with the Cartesian world should have increased and sharpened Leibniz's

Leibniz's program, as far as I understand it, is to leave aside (at least, provisionally) all the problems related to the definition of existence, or, at least, with an *a priori* definition of it, where *a priori* has to be understood in the traditional, scholastic sense of an explanation that moves from the cause to the effect. In a sense, I think that the very need to distinguish between an *a priori* and *a posteriori* characterization of existence (the first formulated in logical-metaphysical terms, the second in phenomenological-epistemic ones) is something that came to Leibniz's mind (at least explicitly) only when he was already in possess of his metaphysics of real essences and his enlarged ontology (made up of real as well as ideal entities).

Evidence in this sense can be found in a passage from the late Leibniz: "I once defined an Entity as whatever is distinctly thinkable, and Existent as what is distinctly sensible or perceivable. Explaining the matter *a priori*, an entity is whatever is possible, but there actually exists whatever is in the best series of possible things".³³⁶ The first solution (the a posteriori one, according to the late Leibniz), however, seems to be particularly attractive for him as far as the existence of physical reality is concerned. Instead of explaining the existence of bodies, indeed, we are only supposed to provide a criterion whereby we can recognize that something 'really' exist, where, however, 'reality' here means just something that is sufficiently distinguished or distinguishable from what is merely imaginary (like in the case of dreaming).

As the passage quoted above clearly explains (reference to our ability to do scientific previsions, like in the case of eclipses), Leibniz's idea is that scientific explanation plays a prominent role in his account of the 'reality' of phenomena. I think Adams is right when summarizing Leibniz's position as follows: "Real phenomena are those that form part of a coherent, scientifically adequate story [...]. That is the story that would be told, or approximated, by a perfect physical science. Imaginary phenomena are those that do not fit in this story".³³⁷

4.4.3 Existence as Perceivability (I): The Leibnizian Cogito

sensibility on this point. However, I think that the texts of the Mainz period (1671-72) prove that Leibniz had already engaged his confrontation with this kind of phenomenalism, as a direct consequence of his direct confrontation with the philosophy of Hobbes.

³³⁶Notationes quaedam ad Aloysii Temmik Philosophiam, 1715-6 (?), published in appendix to M. Mugnai, Leibniz's Theory of Relations, p. 158 (the text had been already published in VE 1082-1088). The same contraposition between a priori and a posteriori account of existence can be found in an earlier text: "Coherent perception, which is one which does not involve a contradiction, is the notion of existence. When something does not harmonize with other perceived things, it is at least entirely false. A priori, however, the principle of existence is another one, namely what harmonizes [consentit] with what is the most perfect, that is with something which, had not been [posited], the series of thing would not be the most perfect one" (De illatione et veritate atque de terminis, Summer 1687-End of 1696 (?), A VI 4, 865). From the latter passage, it clearly emerges that the *a posteriori* account of existence is one in terms of coherence with the set of all the other perceptions, to the effect that, when Leibniz talks of a perception which does not involve a contradiction, he means something more than simple logical compatibility (something closer to the idea of a well-connected and systematic experience).

Adams, Leibniz, p. 257 (italics in the original).

Now, what I want to show is that this very same epistemological perspective was already present even before the Paris period, as it is clear from a series of texts from the period 1671-72.

Among a series of notes written at that time, indeed, we can find the following 'definitions':

"(Existence) is the distinct sensibility of anything. (Essence) is the distinct thinkability of anything.

Real is whatever is not only apparent.

Apparent is that whose sensibility is not distinct".³³⁸

And in a series of marginal annotations successively added to the main text, Leibniz explains the notion of existence in this way: "that is, an Existent thing is what is can be sensed or perceived distinctly[,] where 'distinctly' means by using distinct concepts, just as Being [*Ens*] is what can be distinctly conceived".³³⁹

This text is taken from a series of notes on John Wilkins' *Essay towards a Real Character* and a Philosophical Language, in which Leibniz, as will become customary for him in the following years, drafts an extensive list of definitions of the fundamental philosophical notions, starting from the more general ones, 'something' and 'nothing', then passing to 'existence' and 'essence' and 'real' and 'apparent'.

As I mentioned above, on Leibniz's view, the distinction between conceivability (or imaginability) and perceivability, as well as that between confused and distinct perceivability, is meant to provide a framework for discussing the question of how to discriminate reality from imagination (or fiction), or, to use Leibniz's later terminology, real phenomena from imaginary ones. A confirmation of what I am saying comes from the following text, which sounds like a programmatic one for the young Leibniz:

"Whatever is sensed exists. Indemostrable.

Better said: not whatever is sensed exists, but whatever is clearly and distinctly sensed".³⁴⁰

In this passage Leibniz proposes a sort of equivalence, one that could be rendered as 'something exists if and only it can be clearly and distinctly perceived'. Now, what Leibniz says is that the first part of the equivalence, the one proceeding from 'perception' to 'existence', needs no proof because it is immediately evident (it is the same as premise (2) in the argument above, since I assume that in this period 'to be true' and 'to exist' can be taken interchangeably).³⁴¹

According to Leibniz, indeed, all that an immediate perception can offer us is the fact that we can be certain of what we are perceiving at the very same moment when perceiving it; nothing more, nothing less.

Whatever exists is sensed. To be demonstrated.

³³⁸Vorarbeiten zur characteristica universalis, 1671-72(?), A VI 2, 487-88.

³³⁹ Ibid., p. 487 note.

³⁴⁰De conatu et moto, sensu et cogitatione, A VI 2, 282.

³⁴¹ "*True* is whatever is clearly and distinctly sensible [*later addition*: what can be perceived" (A VI 2, 493). Assuming that truth is correspondence with what exists, and what exists is what can be (distinctly) perceived, this way of explaining truth seems to be the most natural. Cf. also Leibniz's definition of truth in the *Preface* to Nizolius, A VI 2, 409/L 121. See also the Appendix to this Chapter.

It means that, at level of immediate perception, there are only two claims I can never call into question: (a) my own existence as a thinking or perceiving being, and (b) the existence of what I perceive, i.e. the *phenomena* of my perception, but only *qua* phenomena, that is qua objective (intentional) contents of my representation.

In a famous text from the 1680's Leibniz will express his thought on this point in the clearest manner:

"In the first place, I judge without proof, from a simple perception or experience, that those things exist of which I am conscious within me. These are, first, *myself* who am thinking of a variety of things and, then, the varied *phenomena* or appearances which exists in my mind. Since both of these namely are perceived immediately by the mind without the intervention of anything else, they can be accepted without question, and it is exactly as certain that there exists in my mind the appearance of the golden mountain or of a centaur when I dream of these, as it is that I who am dreaming exist, for both are included in the one fact that it is certain that a centaur appears to me.³⁴²

In the texts from 1671-72 the same idea is expressed, albeit in a inchoative way and with many terminological oscillations, even though it is enough clear that, in discussing the polarity between *cogitare* and *sentire*, Leibniz thinks of *cogitatio* as something which shows the unity of the mind, and of *sensio* as that which stands for the plurality of states that the mind represents to itself.³⁴³

In his criticism of Descartes, Leibniz will often repeat that the *cogito ergo sum* is not the only first principle of perception (or the first truth of fact), since it is actually composed of two distinct but interrelated principles, which say "I, who perceive, exist", and "There are various things which are perceived by me", explaining that "two things above all occur to someone experiencing, that the perceptions are various, and that it is one and the same person who is perceiving".³⁴⁴ The passage above speaks in favour of those who maintain that Leibniz's phenomena are nothing else than *intentional objects* of our perceiving mind.³⁴⁵

As I have already said when discussing the similarities between Descartes and Hobbes, this is just Cartesian certainty, as Descartes himself presented it in the second Meditation: "[...] I am now seeing light, hearing a noise, feeling heat. But I am asleep, so all this is false. Yet it certainly *seems* to me to hear and to be warmed. This cannot be false; what is called 'having a sensory perception' is strictly just this, and in this restricted sense of the term is simply thinking".³⁴⁶ What cannot be questioned at all, then, is the fact that we perceive (and, also,

³⁴²De modo distinguendi phenomena realia ab imaginariis, 1683-5 (?), A VI 4, 1500/L 153.

³⁴³ Cf. A VI 2, 282-83, especially p. 283: "*Cum cogito statim me et aliud cogito. Vel: cum cogito statim sentio. Imo cum cogito statim multa cogito, et unum in multis. Quicquid sit illud cogito, quicquid illud sentio: certum est me sentire me et aliud, seu diversitatem*". And the commentary of Piro, *Varietas identitate compensate*, 127-28, who correctly remarks the complementarity of these two moments in every representative act, since sensibility requires *cogitatio* in order to be retained by the mind, while, on the other hand, every conscious act of thinking presupposes the perception of something else, which makes the distinction between myself as percipient being and the perceived thing possible.

³⁴⁴Definitiones cogitationesque metaphysicae, 1678-1680/81 (?), A VI 4, 1395/LC 239. The same criticism occurred in Leibniz's letter to Foucher, 1675, A II 1, 248 (=GP I, 372), and will be repeated in Leibniz's later notes to Descartes' *Principia philosophiae*, ad art. 7, GP IV, 357.

³⁴⁵ Cf. Adams, *Leibniz*, 219; Mercer, *Leibniz's Metaphysics*, 321.

³⁴⁶ AT VII, 29/DPW II, 19. On intentionality as the distinguishing feature of Descartes' notion of thought, see the acute remarks in M. Messeri, *L'epistemologia di Spinoza. Saggio sui corpi e le menti*, Milano 1990, 3-30.

perceive to perceive, and so on³⁴⁷) and, that, *eo ipso*, a series of perceptions is present to our minds.

Thus, despite of what Leibniz explicitly says in the many passages in which he reproaches the shortcomings of the Cartesian *cogito*, this part of his theory is nothing but a faithful translation of what Descartes said into the language of Leibnizian phenomenalism.

4.4.4. Perception and Existence (II): varia a me percipiuntur

On the contrary, the other side of the equivalence, the one stating that 'if something exists, it can be (clearly and distinctly) perceived', requires a demonstration. In the passage in which it occurs, however, Leibniz does not give us any clue about how it could be demonstrated.

This side of the equivalence is much more difficult to defend, at least *prima facie*, because it seems to challenge the strength of Leibniz's commitment to phenomenalism. How can we be entitled to say that the limits of what exists are the same things as the limits of our distinct perceivability? Moreover, in which way could we make sense of this claim? Interestingly enough, Leibniz's first step toward the idea of a plurality of worlds will move exactly from a discussion of this topic in his Paris notes (more on this in Chapter 7).

His strategy in the long run will be the following. Instead of providing a direct proof of the claim that 'if something exists, it can be (clearly and distinctly) perceived', he will resort to prove the truth of its contrapositive, that is 'if something cannot be (clearly and distinctly) perceived, it does not exist'. As I will show in what follows, indeed, the thesis that all existing things are reciprocally connected will play a fundamental role in Leibniz's attempt to demonstrate such a claim.

On the other hand, the hypothesis of other worlds, temporally and spatially disconnected from ours, will constitute the major obstacle to the achievement of Leibniz's task.

This problem, however, as far as I can see, does not directly emerge during the period 1671-72, when Leibniz seems to be content to stick at the claim that the existence of something which is not perceived (or, better, perceivable in principle) has not to be presumed, and to the pragmatic maxim that what is not presumed, can be practically regarded as nothing at all, at least until the contrary will be proved ("*Quicquid non praesumitur, in praxi habendum est pro nullo, antequam probetur*").³⁴⁸

Let me stress Leibniz's remark that one side of the stated equivalence (that from perception to intra-mental existence) is immediate and, therefore, unquestionable, whereas the other one (that from extra-mental existence to perception) is not immediate, but requires an inference and, thus, has to be regarded at least as problematic.

Put in this way, this is nothing else than Leibniz's way of rephrasing the tension we have already met in the passages from Hobbes I have quoted above. Remember Hobbes' remark to Descartes that, contrary to the immediate perception of sensible appearances (accidents), the existence of the underlying substance is a matter of inference (and this holds also in the case

³⁴⁷ In some of his 1676 notes Leibniz emphasizes the reflexivity of thought, see for instance *De reminiscentia et reflexione mentis in se ipsum*, A VI 3, 516/DSR 73: "The following operation of the mind seems to me to be the most wonderful: namely, when I think that I am thinking, and in the middle of my thinking I note that I am thinking, and a little later I wonder at this tripling of reflection".

 $^{^{348}}$ *Preface to Nizolius*, A VI 2, 451 (= GP IV; 161). This is what Leibniz calls the principle of moral certainty.

of extended matter, which, according to Hobbes is the only genuine substance). Again, in the passage from *De corpore* dealing with the 'deduction' of the body, he remarked that, though body has to be subjected to the imaginary space (insofar as coincident with a part of it), nonetheless its existence is proved not by means of sense but by means of reason. Also in this case, we noted, the strength of phenomenalism seems to be at pain in justifying this passage to extra-mental reality, which should be properly regarded as a jump more than a legitimate inference.

In his formulation of the annihilating hypothesis, however, Hobbes was quite accurate in pointing out that things can be regarded in two ways, either as internal accidents of the perceiving mind or as species of external things, "*tamquam non existentes, sed existere sed extra stare apparentes*". In other words, what Hobbes suggests in passages like this is not the conclusion that bodies do categorically exist in the world 'outside us', but only that, given the existence of images or representations in us, one has to suppose that they have been produced by bodies external to us.

In this sense, the idea of body (or substance) as *suppositum* undergoes a double resignification, passing from being what is the support of accidents to being what is subject to imaginary space, and, also, what is only supposed to exist, something whose existence is only postulated in order to explain the existence of images in our mind (as a sort of inference to the best explanation).

This is the definition of 'supposition' that Hobbes gives in the first part of the *Elements of Law*:

"A proposition is said to be *supposed*, when being *not evident*, it is nevertheless *admitted for a time*, to the end, that, joining to it other propositions, we may *conclude* something; and to *proceed* from conclusion to conclusion, for a *trial* whether the same will lead us into any *absurd* or impossible conclusion; which if it *do*, then we know such supposition to have been false".³⁴⁹

Hobbes' definition of 'supposition' seems to have much in common with Leibniz's notion of *praesumptio*, that is the idea that some concept (proposition) has to be assumed as being possible (possibly true) even without proof, at least until one will not prove it to be impossible (contradictory).

As I already said, it is a pragmatic maxim, even though it gains its strength by relying on something close to the *principle of verification*: the basic idea, roughly speaking, is that our belief that p cannot be directly proved (so that we could never be able to ascribe to p an absolute certainty), but the probability of p's being true increases as much as it appears not to be in contrast or in contradiction with an always increasing set of other assumptions or beliefs. In this way, even if we cannot consider it as absolutely certain, we can consider it as morally certain, which, from the practical point of view, amounts to the same.

Notice that this idea is at work in those texts where Leibniz is testing the view that the regularity of sensations makes them truthful (or, at least, highly probable), in contrast with the disordered way in which the sensations occur when we are dreaming.

Let me quote a text that should have been written between 1669 and 1670:

³⁴⁹ Hobbes, *Elements of Law*, I, vi, 5 (EW IV, 29).

"We have this criterion for distinguishing the experience of dreaming from that of being awake –we are certain of being awake only when we remember why [*qua ratione*] we have to come to our present position and condition and see the fitting connection of the things which are appearing to us, to each other, and to those that preceded. In dreams we do not grasp this connection when it is present; nor are we surprised when it is absent".³⁵⁰

As Mercer comments, "according to Leibniz, the more we attend to the connections among waking experiences, the more we are able to discern the *ratio* behind them".³⁵¹

4.4.5 Regularity, Existence, and the 'Dream argument'

To summarize, we have said that the starting point of Leibniz's analysis is just the fact that we have such and such perceptions. Since we are not able to go beyond the phenomena to discover if they are deceptive or not, or if there is something 'out there' or not, the only thing we can do is to look for an internal feature that can allow us to say if and when our perceptions must be taken as trustworthy (at least in a moral sense).

'Regularity', then, seems to be a good candidate for this work, and for several reasons.³⁵² It meets our subjective exigencies of intelligibility, allowing us to find reasons (or, better, explanations) that connect our present perceptions with the past ones and to make reliable predictions about the future ones. In addition, regularity of a series of sensations or perceptions seems to be connected also with the intersubjective character we would like to ascribe to what we are really experiencing, in sharp contrast with the typically private character of what we experience when dreaming.

This, I think, is the genuine sense of what Leibniz means when claiming that existence has to be explained in terms of 'distinct perceivability'. Later on, we will see how the reliability of this criterion will be somewhat shaken by the observation that a dream could be as coherent and well-connected as reality is supposed to be.

In a sense, one could say that Leibniz approach to Hobbes is similar to that of those neo-Kantian interpreters who regarded the latter's materialism as only 'hypothetical' rather than 'dogmatic', especially for what concerns the existence of bodies in motion as the ultimate

³⁵⁰De vi persuadendi. De somnio et vigilia, 1669-Summer 1670 (?), A VI 2, 276/L 114. The 'regularity' of dreams, however, is mentioned by Leibniz as one of the basis for a demonstration of the immortality of the soul in the *Demonstrationum Catholicarum Conspectus*, A VI 1, 495. Leibniz's insistence here, however, is on the fact that some harmonizing activity of the mind can be detected also when the mind itself is not conscious of its own action (typically, when we are asleep.

³⁵¹ Mercer, *Leibniz's Metaphysics*, p. 311.

³⁵² In a Paris text, Leibniz writes: "On a due consideration, only this is certain: that we sense, and that we sense in a consistent way, and that some rule is observed by us in our sensing" (A VI 3, 511/DSR 63). The notion of 'rule' is not a generical one, however, since Leibniz himself had already provided the following definition: "A *rule* is an instrument of action, determining the form of the action and the perpetual and successive application of the agent to the parts of the instrument. A pair of compasses is an instrument of action that determines the form of the action, but without the required successive application to the parts of the compasses. So a thread in a labyrinth, a footpath on a plain is a rule of action" (A VI 3, 483/DSR 39). For other passages concerning the notion of 'rule', see A VI 2, 498, and A. Blank, *Leibniz Metaphilosophy and Metaphysics, 1666-1686*, Munich 2005, pp. 159-74. Reference to action is taken into account in the Appendix to this chapter, see below.

grounding of reality.³⁵³ This allowed him to make space to the idea that primary qualities as well as secondary ones could be regarded as both phenomenal. At the same time, the emphasis on the conditional and hypothetical character of scientific propositions (as emerged from the analysis of eternal truths) makes clear that existence as such, i.e. as something extramental, is always something that has to be presupposed as already given 'outside' the scope of conceptual analysis itself.

The failure of the ontological argument, which, when opportunely rephrased, amounts to nothing but to presuppose the very same existence one is supposed to prove, is an indirect proof of the fact that existence lays on another level with respect of that of the rational discourse. Reason can establish only that if something is a 'man', it has to be 'animal', but the fact that something which is a man is actually given is something that can be established only at another level, i.e. at that of sensible perception.

At this point, the 'dream argument' discussed in the passages analysed above provides us with another argument (an epistemological one, this time) to reject the idea that existence can be regarded as a property of individuals.

In order to clarify this point, let me quote from a contemporary source:

"There is a further reason someone might have for doubting the predicate view [the view that existence is a property of individuals], which is epistemological in character: namely, that existence is not a *perceptible* property of objects. If we hold to the empiricist principle that the only properties of objects are perceptible properties, at least in principle, then we get the result that existence isn't a property [...]. Why is existence not a perceptible feature of objects? Because regardless of whether or not an object exists it will still be present the same sensory appearance: hallucinated pink rats look an awful lot like existent pink rats. [...] Being blue, say, makes a difference to how something looks, so that blue rats look quite unlike pink ones: but existing makes no qualitative difference –there is no *impression* of existence (as Hume in effect said). That is really why scepticism about the external world is possible: you can never build existence into the appearances, so it must always be inferred or assumed. If existence were like a colour, you could know that the external world exists just by inspecting your sense-data: but that is exactly what existence does not allow".³⁵⁴

Of course, as McGinn clearly acknowledges, the argument can be rejected, stating that its premises are true but the conclusion does not follow, unless one does accept the "empiricist principles" that the only properties of objects are the perceptible ones.

The rejection of such a principle, notice, will be clearly stated by Leibniz in his late texts, such as the following:

"Being itself and the *truth* are not known wholly through the senses. For it would not be impossible for a creature to have a long and orderly dreams resembling our *life*, such that everything it believed it perceived by the senses was nothing but mere *appearances*. There must therefore be something beyond the senses which distinguishes the true from the apparent. But the truth of demonstrative sciences is exempt from these doubts, and must even serve to judge the truth of sensible things".³⁵⁵

³⁵³ This reading , originally advanced by Natorp and Cassirer, has been later defended, with a close scrutiny of Hobbes' works in their chronological development, by Pacchi, *Convenzione e ipotesi*. In particular, for what concerns the interpretation of *suppositum* in terms of 'supposition', see especially pp. 92-96.

³⁵⁴ C. Mc Ginn, Logical Properties. Identity, Existence, Predication, Necessity, Truth, Oxford 2000, pp. 44-45.

³⁵⁵ « On What is Independent of Sense and Matter »(Sur ce qui passe les sense et la matiere), 1702, GP VI, 489/AG 188.

I think that something similar occurred in Leibniz's mind during his reflections on dreams in the Paris period, where he acknowledged that the radicalization of the dream argument would have led him to a relativization of actual existence; a conclusion he eventually resisted (since it would have been at pain with other tenets of his philosophy). I will discuss it in details in the next section.

4.4.6 Addendum: Phenomenalism and/or Scientific Realism? The case of unobservable entities

How to conciliate this conclusion with the view that existence of things is inferred by reason and not perceived by senses? Well, the point is that the existence of something, which perhaps is imperceptible to us because of the deficiency of our sense organs can and should be inferred by us, but only moving from something which has been already given to our sensibility (to the effect that the conditional and hypothetical structure of reasoning is maintained, and no existence can be demonstrated moving by 'pure reason' itself). As Leibniz remarks in his Paris Notes:

"We appear to prove the existence of things in so far as they follow from our sensations as either a necessary or a probable consequence. We assume, then, both that our sensations exist and that what follows from them exists. Thus it is that existence follows from sensation. We can say that those things which are sensed as a consequence are also sensed. But it is better to say that what is sensed by us is the palace which we dream or see".³⁵⁶

As the last line of the quotation makes clear, Leibniz is aware of the ambiguity of the term "sensation", which could be taken in a 'thick' sense, covering also what is not directly perceived by us but whose existence is only inferred by us moving from something originally given to the senses (and, in this way, one could say that we sense also what follows from what we have sensed), or in a 'thin' sense, whereby sensation refers only to what is immediate perceived by us, be it something existing in the real world or something merely imagined (the palace that we see in front of us vs. the palace that we imagine to see when dreaming).

Ultimately, Leibniz concludes that only the latter should called 'sensation' in a proper sense (even though, as I have said many times, Leibniz's terminology is not always constant).

In this passage, Leibniz does not specify the way in which one could trace back the existence of what is not directly perceived to what is actually given to us, or, alternatively, how one could infer from the latter the existence of the former, but it seems enough clear that some concept of causality is required here, namely the possibility of establishing that what appears to us is the effect of something that do not appear to us but works as the cause of the former, and so on (a sort of 'causal chain' based on perceptions).

In this sense, Leibniz says something analogous to what, in Kant's terms, is the second postulate of the empirical thought, that which concerns our knowledge of the actuality (*Wirklichkeit*) of something: it requires "perception, thus sensation of which one is conscious –not immediate perception of the object itself the existence of which is to be cognized, but

³⁵⁶De mente, de universo, de Deo, A VI 3, 464/DSR 9.

still its connection with some actual perception in accordance with the analogies of experience [i.e. substance, cause, and reciprocal interaction]".³⁵⁷

A somewhat similar view, after all, had been presented by Leibniz himself in the final part of his *Preface to Nizolius*, when he notes that certain general propositions, whose necessity cannot be either proved *a priori*, or rest on induction, like "every fire burns", can be 'proved' only with the addition of some universal propositions "which do not depend on induction but on an universal idea or definition of terms", like the principle that if the cause is similar, the effect will be similar as well.³⁵⁸

Other evidence in this direction can be recollected from what Leibniz observes in some drafts related to the TMA and the HPN. In a passage from the *Specimen demonstrationum* I have already mentioned above, indeed, Leibniz explained the difference between the nature of a thing and its phenomenon in purely relative terms (as that between the distinct and the confused appearance of the same thing).

And in a text Leibniz himself entitled *De rationibus motus*, he observes that motion (the subject of his physics) can be treated in a twofold way, according to reason and according to sense, with the disclaimer that sense can never be in contradiction with reason, but, on the contrary, is the reason that can contradict and correct the sense.

Not because Leibniz thinks that reason has a sort of privileged access to the reality of things (bodies in motion, in this case), but only because when it appears that our direct perceptions are contradicting what reason says, it is only due to the existence of something that we do not actually perceive (because our sense organs are not sharp enough) and which can be used to explain the deviation of what we actually sense from what should happen according to reason.

The hypothesis of invisible but omni-permeating ether in the HPN, indeed, will just play this role, since it enables Leibniz to explain how phenomena according to the sense deviate from the abstract account of the laws of motion he rationally and *a priori* derived in the TMA. (In more up-to-date terms, one could think of the story of the discovery of Neptun by Leverrier, who took the step from the observation of the irregularities of the orbit of Uranus, which appeared to contradict Newton' laws of gravitation).

Once again, as far as the relationship between sensibility and reason is concerned, the young Leibniz's view seems to be closer to Hobbes' than to Descartes', or, perhaps, to his own reinterpretation of Hobbes' phenomenalism. This is particularly clear from his observation that *"sensus nostros numquam mendaces, plerumque tamen dissimulatores esse"*.³⁵⁹

³⁵⁷ Kant, *Critique of pure reason*, A 225/B 272 /GW 325. The connection between 'existence' and 'causality' has always been regarded as somehow fundamental, to the effect that, given the difficulties concerned with the explanation of existence (especially when 'explanation' is conceived in terms of 'explaining away'), the last resort seems to be that of providing a characterization of existence (or a gloss thereof) by saying that 'to be' is the same as 'to have causal powers'. Cf. F. Berto, ""To Be is to Have Causal Powers". Existence and Nature in Analytic Metaphysics", in M. Favaretti Camposampiero-M. Plebani (eds.), *Existence and Nature. New Perspectives*, Heusenstamm 2012, pp. 33-63.

³⁵⁸ See Preface to Nizolius, A VI 2, 431 (=GP IV, 161)/L 129.

³⁵⁹ This sentence occurs in a passage from Leibniz's letter to H. Oldenburg, dated September 28, 1670, A II 1, 63, where the young philosopher observes that "many things that seem to be at rest are in motion, albeit imperceptibly, as well as many things that seem to form one body are actually a heap of many bodies; our senses are never deceitful, even though most of the time they are just dissimulating". In a preceding letter to Oldenburg, Leibniz clearly resumes the difference between the TMA and the HPN, explaining in particular as the laws of motion discovered by Huygens and Wren were note primary nor absolutely necessary, but "follow from a certain state of the terrestrial globe, not demonstrable by any axiom or theorem, but from experience, phenomena, and

I think that, even when Leibniz will have definitively abandoned his early physical theory, this perspective will continue to have some influence on him, as in the case of his attempt to weaken the relevance of Descartes' hyperbolic doubt concerning the existence of the external world.

4.5 The Existence of Bodies. Leibniz's Provisional Phenomenalism

Moving from something like the Cartesian *cogito* and its immediate internal contents, one is immediately led to face two relevant problems concerning the 'reality' of the external world: how to prove the existence of material bodies and that of other minds.

4.5.1 Existence as an equivocal term?

The first problem, in particular, is at the centre of Leibniz's attention in many passages from the Paris notes as well as from the drafts connected to the project of the "The Elements of Mind".³⁶⁰ In a sense, it seems correct to say that, in these texts, Leibniz provides us with something like a 'reductionist' analysis of bodies in terms of perceptions (or phenomena) of our minds.

Such a program is explicitly stated in the following passage:

"Existence is stated equivocally of bodies and of our mind. We sense or perceive that we exist; when we say that bodies exist, we mean that there exist certain consistent sensations, having a particular constant cause".³⁶¹

Interestingly, this passage openly speaks in favour of an equivocal reading of 'existence'. A contemporary reader would find relevant analogies with Ryle's notorious diagnosis of the 'category mistake' occurring in propositions like "there exist bodies and minds", as a way of dissipating the contrast between mind and matter (the Cartesian dualism). However, the analogy stops here, because Leibniz would never subscribe to anything like Ryle's behaviouristic approach to the problem of mind.

observation" (A II 1, 59, transl. by Garber, *Motion and Metaphysics*, p. 170). On the role of sensibility in Leibniz's first philosophy, many acute observations can be found in P. Beeley, "Les sens dissimulants. Phénomènes et réalité dans l'Hypothesis Physica Nova", in M. De Gaudemar (ed.), *La notion de nature chez Leibniz*, Stuttgart 1995, pp. 17-30.

³⁶⁰ On the contrary, only rarely does Leibniz explicitly deals with the problem of our knowledge of other minds. Most of the time, indeed, Leibniz indiscriminately uses both the first person singular and the first person plural (shifting from one to another) when talking of minds. Sometimes, he seems to realize that there is a gap in his generalization from the private perspective of a single mind to the existence of a plurality of minds, but the answer he provides is somewhat obscure. I am thinking of the argument he produces at the end of *De modo distinguendi phenomena realia ab imaginariis*, A VI 4, 1503/L 365. The same argument had been already proposed at A VI 4, 1396/LC 241, and is clearly based on the application of the principle of sufficient reason (or, better, on a variant of it, the so-called 'no reason argument'). On this very obscure argument, see J. Westphal, "Leibniz and the Problem of Other Minds", *Studia Leibnitiana*, 33, 2001, pp. 206-15.

³⁶¹De veritatibus, de mente, de Deo, de universo, 15 April 1676, A VI 3, 512/DSR 67.

On the contrary, in the writings of the Mainz period, we find at least one attempt to rephrase talking about bodies into talking about the perceptions that a mind can ascribe to itself (from a first person point of view):

"Non-analysable words like: *that which is, I,* and, in sum, all the names in the nominative case or the verbs in the indicative mode, present tense and first person singular. In this way, instead of this proposition *a body is sensed*, this other proposition can be substituted: *a body is that which I sense*. It could be even furtherly analysed, in this way: *I sense, I am sensing*. However, in this way it would not work, since *that which [id quod*] in this place is in the accusative case, and *I am [sum]* cannot be taken with the accusative case, nor the participle can do it. Therefore, the resolution should proceed in this way: *A body is something of which I am sentient*. I think that the all other oblique cases can ultimately be resolved with the genitive case, i.e. with a conjunction of attribute and subject. Action, indeed, is an attribute which is common to two subjects, while change consists in different attributes of the common subject".³⁶²

In this passage, especially in the last lines, many issues that will become important in Leibniz's logical-ontological analysis are already adumbrated (for instance, the reduction of oblique terms to the non-oblique ones, or the idea of using linguistic analysis to treat ontological questions like the analysis of change or the question of the reality of accidents).³⁶³However, what comes to the fore is especially the attempt to employ linguistic analysis to provide a reduction of talking about bodies to talking about perceptions of our minds (or, better, of 'my' mind, since Leibniz puts emphasis on the role of the first person point of view).

On the other hand, however, this is the only passage I know in which Leibniz attempts to practically provide a reduction of (talking of) bodies to something more fundamental (perceptions, in this case), and it is not clear at all that an ontological reduction of bodies should follow from this exercise in linguistic analysis, nor how this supposed reduction should work.³⁶⁴ Generally speaking, indeed, I agree with R. Adams when he warns that all that Leibniz's reductionism amounts to, is to explain the distinction between real and imaginary phenomena, and that, in what Leibniz explicitly writes, we find no serious attempt to reduce the physical properties of bodies to psychological properties of perceptions.³⁶⁵

³⁶²De conatu et moto, sensu et cogitatione, A VI 2, 283.

³⁶³ From the very beginning, Leibniz seems to be interested in what the tradition called inferences *ab obliquo ad rectum* and vice versa. Cf. *Demonstratio propositionum primarum*, A VI 2, 486, where the principle is that "Every oblique term [i.e. every term which is note in the nominative case] must be resolved into a rect one [in the nominative case] plus a relative". The example chosen by Leibniz is the analysis of "Qui recipit Christum, recipit Deum" in terms of "Qui recipit eum qui est Christus, recipit eum qui est Deus". This strategy seems to be connected with the topic of the abstract/concrete distinction and the style of paraphrasis modelled on Raue's analysis of the copula, which Leibniz had already developed in his Defensio Trinitatis, cf. A VI 1, 520 and ff. On the other side of the question, i.e. the inferences *a rectis ad obliqua* see Chapter 9.6.4 below. On oblique terms in general, see M. Mugnai, "Ontology and Logic: The Case of Scholastic and Late-Scholastic Theory of Relations", *British Journal for the History of Philosophy*, 24, 2016, pp. 532-53.

³⁶⁴ In a passage from a short draft whose datation is unclear, Leibniz observes: "A perception becomes distinct as long as we ascribe to thing something similar to what is proper of ourselves, because we know to be the subject of different attributes and, therefore, we consider objects as if they were substances or things" (*De distincta perceptione*, A VI 4, 58). Of course, a passage like this could be suggestive of Leibniz's mature monadological view that ultimately genuine substances are minds whose attributes are perceptions. However, I think this suggestion should not be pushed too far, at least as far as the young Leibniz is concerned. ³⁶⁵ Cf. Adams, *Leibniz*, p. 223.

4.5.2 'Nostra mens phaenomenon facit, divina rem'

A worry has been raised concerning the compatibility of these texts with others in which Leibniz seems to be convincingly committed to a conception of bodies as really extended and impenetrable, one perfectly in keeping with the views of the mechanical philosophy.

Concerning the passage in which Leibniz attempts to paraphrase "A body is sensed" in terms of "A body is something of which I am sentient", D. Garber has written that Leibniz was flirting here with a sort of Berkeleyan phenomenalism, according to which "bodies exist insofar as they are sensed by minds, but the kinds of minds at issue here are the conscious minds or rational creatures".³⁶⁶ At other times, however, Leibniz seems to suggest that the perceptions required for the existence of bodies should be those of the divine rather than the human mind.

As evidence of this view, he quotes the following passage:

"Since to be a body is to move, it must be asked what it is to move. If it is to change place, then what is place? Isn't this determined by reference to bodies [...] So what in the end are body and motion really, if we are to avoid this circle? What else but being sensed by some mind? [...] *For the existence of bodies, it is certain that some mind immune from body is required, different from all the others we sense*. For it is clear that these minds we sense, such as anyone experiences in himself, confer nothing towards the existence of things. For it is known from experience that everything is not sensed any the less by others because I am absent, and the same is true of every individual. [...] On the other hand, it is clear that mind that is free from body, i.e. does not need a body in order to exist, must exist per se".³⁶⁷

The same view had been already presented by Leibniz in his letter-essay to Johann Friedrich, in a passage I have quoted at the beginning of this section ("neither will it be possible to explain what existence is nor will it be possible to explain how it can be attributed to anything unless a mind is presupposed"). I think that Leibniz's reference to a "mind free from body" as the fundamental requirement for the existence of bodies could be sufficient to dispel the proto-monadological interpretation of these passages (according to which something exists only if it is either a mind-like substance or a state of such a substance).

In a sense, in the passages above Leibniz does not say much more than what he will repeat many years later, when he will write writes that our mind produces phenomena, while the divine mind produces things.³⁶⁸ The role of the divine mind, indeed, is central to understand the sense in which Leibniz could write, as in a passage quoted above, that "when we say that bodies exist, we mean that there exist certain consistent sensations, having a particular constant cause", as well as the fact that "the coherence of sensations must itself spring from some cause".

Thus, what Leibniz is arguing here is that the existence of God (as the only mind "immune from body") is the ultimate guarantee of the existence of bodies, but –and this is the peculiarity of Leibniz's account with respect to the Cartesian solution –not of the existence of

³⁶⁶ Garber, *Leibniz*, p. 26.

³⁶⁷De minimo et maximo. De corporibus et mentibus, A VI 3, 100-01/LC 17.

³⁶⁸ "Nostra Mens phaenomenon facit, divina Rem", around 1710, C 528. For a new edition of this text, see S. Jenschke, ""Nostra Mens phaenomenon facit, divina Rem"-Bemerkungen zu einem bislang wenig beachteten Leibniztext (LH IV, VIII, Bl. 56-57), in W. Li (ed.), Komma und Kathedrale. Tradition, Bedeutung und Herausforderung der Leibniz-Edition, Berlin 2015, pp. 237-52.

bodies at their 'face value', so to say, but only of the coherence or regularity of our sensations. In other terms, what the existence of God is the cause of is only the coherence among the sensations of my mind (the agreement between my past, present, and future sensations) as well as the coherence between the sensations of my mind and those of all the other (finite) minds.

This point has been clearly enlightened in Leibniz's 1675 letter to Foucher:

"I return to those truths, from among those asserting that there is something outside us, which are first with respect to ourselves, namely, that we think and that there is a great variety in our thoughts. Now, this variety cannot come from that which thinks, since a single thing by itself cannot be the cause of the changes in itself. For everything would remain in the state in which it is, if there is nothing that changes it; and since it did not determine itself to have these changes rather than others, one cannot begin to attribute any variety to it without saying something which, we must admit, has no reason –which is absurd. [...] Therefore there is some cause outside of us for the variety of our thoughts. And since we conceive that there are subordinate causes for this variety, causes which themselves still need causes, we have established particular beings or substances certain of whose actions we recognize, that is, things from whose changes we conceive certain changes in us to follow. And we quickly proceed to construct what we call matter and body".³⁶⁹

Here, as one can easily see, the existence of "some cause outside of us for the variety of our thoughts" is inferred by relying on the principle of sufficient reason (PSR). However, Leibniz's particular way of explaining why it would be without reason (and, thus, absurd) that a variety of thoughts (appearances) occur in our minds without some 'external' cause producing it is a very curious one: the application of something like the law of inertia to the particular case of the series of thoughts of a certain mind ("For everything would remain in the state in which it is, if there is nothing that changes it").

At this stage, apparently, the analogy between thought and motion which was at the basis of Leibniz's early philosophy of mind is still regarded by Leibniz as a fruitful one. Of course, the argument seems to be not a very compelling one, especially because it is blatantly in contrast with the spontaneity of the life of mind which will be emphasized in Leibniz's mature thought (in particular, think of the idea of the each substance following an autonomous law of the series, which makes every representative state of a substance spontaneously follow from the previous ones).³⁷⁰

Nevertheless, he will continue to hold that the variety of our thoughts (or of the appearances in our minds) require an external cause as its reason. The same train of thought, after all, will lead to the idea, clearly explained in the *Discourse on Metaphysics*, according to which, properly speaking, "God alone [...] is the cause of this correspondence of their [our minds'] phenomena and makes that which is particular to one of them public to all of them", from which also follows that, always properly speaking (or, as Leibniz uses to say, 'in a

³⁶⁹ Leibniz to Foucher, A II 1, 390/AG 3.

³⁷⁰ This objection has been correctly raised by Garber, *Leibniz*, 274-75. Already in 1671-72 Leibniz tried to prove this point (the existence of the divine mind in order to explain the plurality and variety of our mental phenomena), even though the argument he developed was terribly obscure. See A VI 2, p. 283. The argument presented in the letter to Foucher, however, will be repeated also in A VI 4, 1395 and 2262. The most accomplished formulation, however, is to be found in *De modo distinguendi phenomena realia ab imaginariis*, A VI 4, 1503.

metaphysically rigorous way'), God alone is "our immediate external object and that we see all things by him".³⁷¹

4.5.3 Between pragmatism and phenomenalism: the problem of the external world

However, what is particularly interesting in the account Leibniz provides in his letter to Foucher as well as in many later texts is a sort of 'pragmatical twist', which makes Leibniz conclude that the sceptical doubt about the external world is at the same time theoretically insoluble and practically harmless.

As he writes to Foucher, indeed, "all our experiences assure us only of two things, namely, that there is a connection among our appearances which provides us the means to predict future appearances with success, and that this connection must have a constant cause". From this, however, "it does not strictly follow [...] that matter or bodies exist, but only that there is something that presents well-sequenced appearances to us".³⁷²

This means that, even though it is true that "the more we see some connection in what happens to us, the more we are confirmed in the opinion we have about the reality of our appearances", what we can conclude, from the theoretical point of view, is only that the existence of bodies is highly probable, something which gives us "moral certainty", but does not serve to dispel the possibility that we are constantly deceived in our everyday experience. In a sense, indeed, one could say that the extreme coherence of our series of appearances could be taken as a proxy for the existence of the external world, but we should remember that what we can get is always the fact that our perceptions (appearance) fit in always larger systematic and mutually interconnected whole as far as our scientific knowledge advances.

One could imagine this process as one of approximation to the limit, where the limit in this case is something like the idea of 'world' in Kant's *Transcendental Dialectic* (the total sum of all appearances). At this point, one could think that the maximum of coherence between our appearances will automatically coincide with the existence of external objects themselves (or, better, the maximum of coherence will automatically turn into a perfect correspondence with the objects themselves).

But this would be a mistake: first, indeed, the process is clearly an infinite one, and, thus, the limit is something imaginary, a *focus imaginarius* or an "idea of reason" in Kantian sense. Moreover, and this seems to be Leibniz's more interesting suggestion on this point, we can also formulate the hypothesis that a system of appearance that we use to call 'dream' be even superior to the system of appearances that constitutes our waking experiences as far as order, regularity, and internal connection are concerned.

As Leibniz himself puts it, indeed:

"By means of this principle [Phenomena with agree with rest are held to be *true*] we distinguish dreams from the things that happen when we are awake. For if some dream is perfectly coherent with the state of life preceding and following it, or if it lasts for a long time without the usual incongruity of dreams, no one could suspect himself of dreaming. And if some Platonist were to say that the whole of his present life is a well-

³⁷¹ Cf. *Discourse on Metaphysics*, ## 14 and 28, A VI 4, 1550-51 and 1573/AG 47 and 59.

³⁷² Leibniz to Foucher, A II 1, 390/AG 3-4.

cohering dream, and that his soul will awaken at death; perhaps he could not be refuted a priori without knowing the reason for a universe which underwent no interlude of this sort".³⁷³

The last line is particularly interesting: the only way to attain certainty that our phenomena are real (that there is something corresponding to them 'out there') would involve a perfect knowledge of the reason of the universe; or, as Leibniz writes to Foucher, the agreement among our perception will engender only moral certainty in us "until somebody discovers the *a priori* origin of the world we see and pursues the question as to why things are the way they appear back to the ground of essence".³⁷⁴

In both cases the emphasis is put on the distinction between the *a priori* and the *a posteriori* approach to the problem of the existence of the world, and the fact that we, at least in our present state, cannot understand how the way in which the world actually is (or appears to us) follows from *"le fonds de l'essence"* will play a prominent role in explaining Leibniz's ultimate scepticism about the possibility of providing a real definition of existence.

For the moment, however, let me just point out that, if from the theoretical point of view the question concerning the existence of the external world turns out be an ultimately insoluble one, however, for that very same reason, it become absolutely harmless from the practical point of view: "by no argument can it be demonstrated absolutely that bodies exist, nor is there anything to prevent certain well-ordered dreams from being the objects of our mind", but, says Leibniz, this point is no importance "so far as practice is concerned [*quoad usum*]", since we will still judge these phenomena as true, or equivalent to truth, as far as their agreement with each other will continue to hold.³⁷⁵

A strong 'pragmatist' strand permeates Leibniz's argument, here as well as elsewhere.³⁷⁶ From the practical point of view, indeed, we can consider the distinction between regular phenomena and reality as null, or, conversely, we can take regular phenomena as true or equivalent to truth. Thus, against Descartes' sceptical challenge (*le malin genie*), Leibniz can reply that a pragmatic solution is more than enough to dispel the Cartesian doubt about our knowledge of the external world.

³⁷³Definitiones cogitationesque metaphysicae, A VI 4, 1396/LC 241.

³⁷⁴ Leibniz to Foucher, A II 1, 249 /AG 4.

³⁷⁵ See *De modo distinguendi*, A VI 4, 1502 /L 364.

³⁷⁶ Cf. A VI 4, 1398: "And so the objections the Sceptics make against observations are inane. Certainly, they may doubt the truth of things, and if it pleases them to call the things that occur to us dreams, it suffices for these dreams to be in agreement with each other, and to obey certain laws, and accordingly to leave room for human prudence and predictions. And granting this, it is only a question of names. For apparitions of this kind we call *true*, and I do not see how they could be either rendered or chosen truer"(LC 243-45). Wherefrom it clearly follows that, if from the theoretical point of view, coherence among perceptions is only a proxy for correspondence with things in themselves, from the practical or pragmatic point of view the two things can be taken as equivalent. On Leibniz's meditations on dreams and reality, the most insightful analysis has been provided by H. N. Castañeda, "Leibniz's Meditation on April 15, 1676 about Existence, Dreams, and Space", in K. Müller-H. Schepers-W. Totok (ed.), *Leibniz à Paris*, vol. II, Wiesbaden 1978, pp. 91-129. On Leibniz's pragmatic strand, see also R. M. Adams, "Pragmatism and Idealism in Leibniz's Ways of Distinguishing Real from Imaginary Phenomena", in W. Li (hrsg.), "*Für unser Glück oder das Glück anderer". Vorträge des X. Internationalen Leibniz-Kongresses*, Hildesheim/Zürich/New York 2017, pp. 83-92. On the issue of reality, see also E. Hochstetter, "Von der Wahren Wirklichkeit bei Leibniz", *Zeitschrift für philosophische Forschung*, 20, 1966, pp. 421-46.

4.5.4 Internal and external Harmony. The ground of Leibniz's account of space and time

In the next section, I will have to come back to those texts in discussing questions related to the genesis of Leibniz's idea of a plurality of possible worlds. For the moment, however, I want just to point out that the kind of agreement among perceptions that Leibniz regards as the only reliable criterion for distinguishing reality from fiction, holds in the same way in the case of the perceptions internal to each individual mind as well as in the case of the perceptions belonging to two (or more) different minds.

In both cases, this kind of agreement among perceptions is nothing but a system of relations, or, better, a system of many systems of relations (in the case of a plurality of minds, of course), something that Leibniz sometimes calls "harmony".³⁷⁷However, whereas in the case of the perceptions internal to each single mind the order of perceptions is spelled out mostly in temporal terms (the connections that my present perceptions have with the past ones, and the anticipations of the future ones), in the case of the agreement among the perceptions of two (or more) minds finds it more natural interpretation in a system of spatial connections.

As it has been remarked, this views leads to identify physical space with a system of correlation of the spatial relationships of perceptual contents.³⁷⁸This is exactly what Leibniz aims to show in a passage from April 1676, in which, once again, the starting point is the distinction between dreams and reality:

"It is not necessary that a dream differs from waking experience by some intrinsic reality, but only that they differ in form or in the order of the sensations. Therefore there is no reason why we should ask whether there exist certain bodies outside me, or whether space exists, and other things of this sort; for we do not explain adequately the terms that are involved here. Unless, that is, we say that we call a "body" whatever is perceived in a consistent way, and say that "space" is that which brings it about that several perceptions cohere with each other at the same time [...]".³⁷⁹

Leibniz's proposal in this passage is to define 'body' as the object of coherent perceptions, and 'space' as the condition which makes it possible for us to have consistent perceptions (and, hence, perceive bodies). The further implications of this claim will have to wait for the next section to be made explicit. Now, I want just to point out that the point of view adumbrated in this passage is in keeping with Leibniz's analysis of space and body we found in the *Specimen demonstrationum*. Moreover, I think this passage could be very useful to delineate the nature and the limits of Leibniz's early phenomenalism, in order to dispel also the suggestion that something like Berkeleyan phenomenalism is the view Leibniz was entertaining in these texts.

The point to be highlighted here is where Leibniz says that there is no reason to ask questions concerning the existence of bodies and space outside us "for we do not explain adequately the terms that are involved here". The switch from what, roughly speaking, we could call a 'realistic' account to a phenomenalist characterization of body as the object of

³⁷⁷Cf. Mondadori, "A Harmony of One's Own and Universal Harmony". On the notion of 'harmony' in Leibniz's early writings, see also Piro, *Varietas identitate compensata*, esp. pp. 97-106 (and also p- 189 and ff. as far as the transformation of the original theory of 'harmony' into the mature theory of 'substance', which will be established in the *Discourse*, is concerned).

³⁷⁸ See Castañeda, "Leibniz's Meditation about Existence, Dreams, and Space", pp. 115-17.

³⁷⁹De veritatibus, de mente, de universo, de Deo, A VI 3, 511/DSR 63-65.

coherent perceptions, then, seems to be just a consequence of the fact that for us it is impossible to distinguish reality from dreams "by some intrinsic reality" (which I take to refer to some qualitative feature) and, therefore, our knowledge of bodies is not a perfectly adequate one.

All this makes clear that the phenomenalist turn has to be regarded as a sort of 'second best option', whereas, as I have remarked above, it is a perfectly reliable one from the practical point of view. I would say that the best thing to do is to think of the young Leibniz as a 'provisional phenomenalist' (by analogy with what the mature Leibniz will say about his commitment to nominalism), leaving aside the question if such a commitment to phenomenalism must necessarily lead him to embrace an idealistic metaphysics or not.³⁸⁰

As the text we are analysing clearly shows, indeed, the reality of bodies outside us is something we have to explain by recurring to a phenomenalist approach only because "we do not explain adequately the terms that are involved here [*horum enim terminus non satis explicamus*]", which means (if I am reading Leibniz correctly) that our notions of body and space have to be characterized in epistemological more than ontological terms.³⁸¹

This point seems to find further evidence from what Leibniz says in another passage from the same text:

"Since what we can judge about the existence of material things is no more than the consistency of our senses, one has a sufficient basis for judging that we can ascribe nothing to matter apart from being sensed in accordance with some certain laws, whose reason (I admit) remains to be sought".³⁸²

And few lines above, at the very beginning of this text, Leibniz explicitly states that, for him, there are two kinds of primary (i.e. not demonstrable) truths, propositions of experience (or

³⁸⁰ Again, a parallel with Hobbes could be useful here. At the beginning of Part Four of *De corpore*, in introducing his account of physics properly said, Hobbes discusses the distinction between two methods in philosophy, one proceeding from the generation of things to their possible effects, the other moving from the effects or phenomena to their possible causes. The first method corresponds to that based on definitions, in which nothing can be posited but what is already contained in the definition itself (and it is the method Hobbes adopted in his First Philosophy), whereas the second, the one to applied in Physics, is described as "the finding out by the phenomena or effects of nature, which we know by sense, some ways and means by which they may be, I do not say they are, generated". Hobbes' emphasis, thus, is on the hypothetical character of this a posteriori method, which is justified by the observation that, whereas knowledge by definitions is entirely up to us (given Hobbes' conventionalist account definitions), the principles of physics are, on the contrary, "placed in the things themselves by the Author of Nature", and, for that reason, "we make use of them in single and particular, not universal propositions. Nor do they impose upon us any necessity of constituting theorems; their use being only, though not without such general propositions as have been already demonstrated, to show us the possibility of some production in general" (De corpore, xxv, 1, OL I, 316). Two things are to be noted: Hobbes' epistemological phenomenalism (motivated by the hypothetical character of physics) is not incompatible with a form of ontological realism. Second, his account of hypothetical truths of physics to be demonstrated with the aid of general propositions that have been already demonstrated will be clearly echoed by Leibniz in his Preface to Nizolius.

³⁸¹ My preference goes to the reading Castañeda labels 'Epistemological interpretation', whereby "the criterion we have for claiming or postulating the existence of a certain object is the compliance of the object's appearances to minds with definite laws"; such a reading has to be distinguished from both the 'reductive phenomenalistic interpretations' (according to which Leibniz would actually reduce bodies to set of consistent perceptions) and the 'ontological dependence interpretation' (according to which the laws of perceptual appearances are also constitutive laws of objects existing outside the mind). See Castañeda, "Leibniz's Meditation about Existence, Dreams, and Space", p. 100. A somewhat similar view is what Garber dubs 'humanmind phenomenalism', cf. Garber, *Leibniz*, pp. 278-79.

³⁸² A VI 3, 508/DSR 59.

fact) like 'I have such and such appearances' and propositions of reason like identities ('A is A) and definitions. He also admits that "the proposition 'I think' must occur first in the order of philosophising [...]. For it is simpler to start from the one subject of a primary proposition of experience than from its various predicates".

At the same time, however, in these very same lines another line of thought begins to emerge, as Leibniz says: "Descartes did not take his analysis to what is most profound, i.e., to primary forms; that is, he did not start from God".³⁸³A line of thought that, in the Paris Notes, will be represented by Leibniz's effort to delineate a metaphysics *de origine rerum ex formis*, i.e. which shows the origin of things from forms, where forms are also conceived as attributes forming the essence of God (a fundamental step in Leibniz's recovery of the ontological argument).

4.5.5 Concluding remarks

Concluding this discussion of Leibniz's early phenomenalism, some clarifications are in order concerning the relationship that this kind of phenomenalism has with Leibniz's mature thesis about the phenomenal nature of bodies. Two remarks are in order here, which, however distinct, go in the same direction.

The first consists in the observation that Leibniz's earlier and his mature phenomenalism provide answers to two different questions. What I have called 'provisional phenomenalism', indeed, is essentially meant to provide an answer to the question of the 'existence' of bodies (scepticism about the external world), whereas Leibniz's later thesis that bodies are phenomena insofar as they are aggregates and not true substance, is essentially meant as a theory to explain the 'essence' or the 'nature' of bodies (it presupposes the radical mereological thesis that the only genuine substances are those without physical or extended parts).³⁸⁴

The difficulty to keep these two questions distinct can be explained, perhaps, by Leibniz's ambiguous usage of the notion of 'reality' of bodies, where 'reality' can be alternatively interpreted as a synonym of 'existence' or 'essence'. Also in this case, I think is interesting to note that the first problem that comes to Leibniz's mind is that of the existence of bodies

³⁸³ Ibid./DSR 57. This second line of thought reflects the influence of Spinoza's thought on the young Leibniz, or, at least, from what he could get of Spinoza's thought from his conversations and exchanges with Tschirnaus. The passage above, indeed, finds an almost literal correspondence in Leibniz's report of his conversation with Tschirnaus on the content of Spinoza's *Ethics*: "[Spinoza says] that philosophers commonly start from the creatures, Descartes started from the mind, whereas he [Spinoza] starts from God" (February 1676, A VI 3, 385). Cf. G. H. R. Parkinson, "Leibniz's Paris Writings in Relation to Spinoza", in *Leibniz à Paris*, vol. II, pp. 73-89, and Id., "Leibniz's *De summa rerum*: A Systematic Approach", *Studia Leibnitiana*, XVIII/2, 1986, pp. 132-51.

³⁸⁴ I owe clarification of this point to S. Di Bella, "*Phenomenon*, Action and Coherence. Leibniz's Way from the Mind's Experience to a Real World", in A. Pellettier (ed.), *Leibniz and the aspects of reality*, Stuttgart 2016, pp. 23-40, esp. p. 24 and note. That Leibniz's analysis of bodies as aggregates is intended as an answer to the question concerning the *essence* or *nature* of bodies has been clearly pointed out by D. Rutherford, "Leibniz's "Analysis of Multitude and Phenomena into Unities and Reality", *Journal of the History of Philosophy*, 28, 4, 1990, pp. 525-52. See in particular what he says at the pp. 526-27: "What has been insufficiently recognized by previous authors is that Leibniz's interest in the issue of the reality of body pertains in the first place to the *essence* of body. What is *real* about bodies on this view is that their essence is analysable in terms of the essence of substantial or *per se* real beings".
'outside us', whereas it will be only later (i.e. only after that he will have recovered a metaphysics of real essences) that the problem of the reality (essence/nature) of body will come to the fore.

The second remark focuses on the relationship between substance and phenomena. On this point, I think that Adams' analysis should be followed. He has shown how in Leibniz's earlier phenomenalism, substances are "the subjects *to* which the phenomena appear[s]". At this stage, indeed, the idea that phenomena are "phenomena *of* substances" can be accepted only by taking the genitive as a *subjective* one, i.e. as the claim that phenomena are ultimately grounded in the perceptions of mind-like substances.

On the other hand, in Leibniz's mature phenomenalism, this first way of understanding the relationship between phenomena and substances will be placed side by side with another one, according to which phenomena are "phenomena *of* substances" in the *objective* sense of the genitive, i.e as the claim that bodies are aggregates of substances.³⁸⁵

Of course, this later conception is richer but also more complicate than the previous one, especially as far as the question is concerned whether phenomena-as-aggregates have to be regarded as phenomena in the first sense, i.e. appearances, or not.

What is interesting, however, is that the original view will never be rejected by Leibniz; rather, it will be employed by him as a kind of 'last resort' solution to the problem of the existence of a world of material objects.

4.6 Essence, Existence and the Distinction between Relations of Comparison and Relations of Connection

In 1667 Leibniz wrote and published a short treatise called *A New Method for Learning and Teaching Jurisprudence*. Whereas the second part of it is specifically concerned with the topic of the teaching of jurisprudence (and other questions related to Leibniz's interest in the philosophy of right), the first part is mainly focused on the question of the psychology of learning and the organization of human knowledge (the old question of the *ratio studiorum* is discussed moving from the concept of 'habit', and the causes and methods by virtue of which the habits of learning can be acquired).

³⁸⁵ Cf. Adams, *Leibniz*, p. 240. For the persistence of Leibniz's model of the coherence of perceptions in order to explain the existence of bodies, see, for instance, this passage from a 1704 letter to De Volder: "it may be said that there is nothing in the world except simple substances and, in them, perception and appetite. Matter and motion, however, are not so much substances or things as they are *phenomena of perceivers, whose reality is located in the harmony of perceivers with themselves (at different times) and with the other perceivers*" (GP II, 270/L 537, italics mine). Cf. also Leibniz's letter to Des Bosses, February 15, 1712, GP II, 435-36. Of the late Leibniz's oscillations between a phenomenalist and a realist solution to the problem of the existence of material bodies many interpretations have been attempted. For two different but very intriguing readings, see A. Robinet, *Architectonique disjointive, automates systémiques et idéalité trasncendentale dans l'oeuvre de G. W. Leibniz*, Paris 1986, and G. A. Hartz, *Leibniz's Final System. Monads, Matter, and Animals*, London-New York 2006.

4.6.1 Essence and existence in the Nova Methodus (1667)

Leibniz's psychologic/epistemic approach to the question of 'essence' and 'existence' is clearly detectable from what he says in ## 31-36. By introducing the topic of the "habits of mind", Leibniz briefly says that "every action of the soul is thought [*cogitatio*]", and that every thought has a propositional content ("all thinking is of some propositions"). The mere apprehension of simple terms, indeed, seems to be proper of non-rational animals, whereas thought (intended as having a propositional content) is proper to human beings only.

The interesting thing is that the term Leibniz uses to designate the activity of thought is "imagination": "mere simple terms are found only among beasts; the imagination of man is never without some reflection".³⁸⁶

Even though in the next paragraph Leibniz expressly says that the propositions have been introduced on the basis of copula and signs, this is only implicitly presupposed in what he says, whereas what explicitly comes to the fore is the epistemic (and psychological) grounding of the distinction between propositions and terms based on the distinction between two faculties (sensible apprehension vs. imagination).

The distinction between simple and composite terms is introduced in the following way:

"Terms are either simple or composite. Simple terms are those which cannot be made clear by more familiar terms, because they are given immediately to sense, that is, they are themselves sensible qualities. That which has sensible qualities, or is sensible, is called a *being* [*Ens*]. And this is the most perfect definition of being: for whenever we wish to prove that something is, we do so by the fact that we or others sense it either in itself, by immediate sensation, or mediated by the sensation of something else which cannot be without it. Qualities taken together at the same time (or imaginability) constitute *essence*, sensibility constitutes *existence*. From the thought of many beings at the same time there arise *relations* or the *affections* of being. From co-imaginability or co-essence relations of comparison arise, like: the same, different, similar, dissimilar, contrary, genus, species, universal, singular. From co-sensibility or co-existence there arise relations of connection, like: whole, part, order, one, many, necessary, contingent, connected, cause, and so on. The entire *metaphysics* flows from this". ³⁸⁷

The first part of this long passage should be enough clear from what we have said in the preceding paragraphs of this chapter.

I need only to stress Leibniz's remark that simple, i.e. not furtherly analysable terms are simply equated with sensible qualities, from which the definition of *ens* follows as something that can be perceived. At the same time, the distinction between imaginability and sensibility seems to be required in order to distinguish between essence and existence.

4.6.2 Leibniz's 1697 corrections

³⁸⁶Nova methodus discendae docendaeque jurisprudentia, 1667, # 31, A VI 1, 284/L 88. In the next paragraph, Leibniz presents the classification of propositions in contingent (both singular and general ones) and necessary (theorems that can be demonstrated by means of terms themselves and which are the proper object of science) we have already discussed in a preceding chapters.

³⁸⁷ *Ibid.*, # 33, Å VI 1, 285/L 88 (translation modified).

In view of a re-publication of the text (which never took place) in 1697, Leibniz wrote a series of additions to his youthful text, which helps clarifying many obscure points but, at the same time, have to be carefully handled, since they reflect the point of view of his mature philosophy. On the distinction between essence and existence as grounded on that between imaginability and sensibility, the 1697 Leibniz corrected the text above in the following way.

The passage from "Qualities taken together at the same time...*existence*", is substituted with a more accurate explanation:

"So, in relation to us, it can be said that the *essence* of a thing for us is its distinct conceivability (or imaginability), the *existence* is its distinct perceivability (or sensibility). For the composite of the qualities taken together, or, which is the same, conceivability, constitutes the essence of a thing; whereas perceivability (which, of course, does not coincide with a thing's being actually perceived) proves its existence. Here 'sensation' and 'imagination' are taken in a broad sense, as referring, respectively, to every perception and concept".³⁸⁸

In another note written for the revision of the text, and later cancelled, Leibniz had written: "Indeed, with 'sense' I understand here the internal as well as the external one, and both of them are what some call 'perception'. As with the term 'imagination' I understand here every idea or concept, not only the phantasm".³⁸⁹ In this later remarks, however, one can see the attempt to re-ordinate the taxonomy of human cognitive faculties, in order to show that phantasy (or imagination in a strict sense) sides with sensibility, whereas conceivability (or imagination in broad sense) has to do with a domain of objects ('ideas' and 'concepts') which are proper of the intellectual cognition only.

In the original text, indeed, sensibility has a more ambiguous status in Leibniz's hand, as one can see that 'sensible qualities' are the basic building blocks of all human knowledge.

At the same time, however, Leibniz clearly distinguishes between two kinds of 'sensible qualities', those which can be perceived by the mind only and those which can by perceived also by means of 'phantasy', that is "by means of bodily organs".

Those that can be perceived by the mind alone are only two: (1) thought (*cogitatio*) and (2) causality. Causality is generally conceived here as the 'quality' we can detect with the mind alone when it can be demonstratively proved of an effect that it has some determinate cause (and Leibniz is particularly interested here in our mind's being the cause of bodily motion; a point that the revised text will heavily modify by preferring an explanation of it in terms of pre-established harmony). Thought, on the other hand, is regarded as a "sensible quality of human understanding or of something 'I know not what' within us which we observe to be thinking", where the expression "*nescio cujus rei*" means that the notion of *cogitatio* cannot be furtherly analysed ("we cannot explain what it is to think any more than what white is or what extension is"), where it is still unclear whether the impossibility of provide an explanation of what thought is has to be taken as something holding only for us or in itself.³⁹⁰

³⁸⁸ A VI 1, 285 note.

³⁸⁹ A VI 2, 555.

³⁹⁰Nova Methodus, # 34, A VI 1, 286/L 89. This point will be expanded in the *Confessio naturae contra atheistas* (1669), where Leibniz characterizes *cogitatio* as a *res immediate sensibilis sine imagine partium*. He explains this characterization by pointing out that (1) thought is something immediate, "mind being immediate to itself when it perceives itself thinking", and (2) it is without imagination of parts, a feature that is clear to whom

4.6.3 Leibniz's taxonomy of relations. From the first to the second version of the Nova Methodus

An important element that emerges from Leibniz's distinction between essence and existence in the original version of the *Nova Methodus* concerns the classification of relations. Relations, Leibniz says, arise from thinking together of a plurality of things ("*ex cogitatione autem plurium Entium simul, oriuntur Relationes*").

However, depending on the cognitive faculty involved in this process of grasping together a plurality of things, two kinds of relations are to be distinguished: from 'co-immaginability' or 'co-essence' we get "relations of comparison [*comparatio*]", from 'co-sensibility' or 'co-existence', we get "relations of connection [*connexio*]".

The distinction had been already introduced in the DAC, even though in that place Leibniz talked of relation of "union" (instead of "connection) and relations of "agreement" (instead of "comparison"), and focused almost exclusively on the first horn of the distinction:

"Furthermore, every relation is either one of *union* or one of *agreement* [*convenientia*]. In union the things between which there is this relation are called *parts*, and taken together with their union, a *whole*. This happens whenever we take many things at the same time [*simul*] as *one*".³⁹¹

makes experience of it: "For thought is that 'something, I know not what' which we perceive when we perceive that we think. But when, for example, we perceive that we thought of Titius, we not only perceive that we had the image of Titius in our mind, for this has parts, of course, because this is not enough in order to have thought. For we have images in the mind even when we do not think of them, but we perceive, besides, that we have been aware of this image of Titius, and in this awareness of our images itself we find no parts" (A VI 1, 493 = GP IV, 109/L 113). From the impossibility of analysing thought (to be understood in terms of 'self-awareness'), Leibniz derives its simplicity and, from that, he concludes at the non-perishability and immortality of the soul. However, what is important here is that, according to Leibniz's later classification, that of 'thought' should be taken as a clear-but-confused notion. A notion is clear "when I have the means for recognizing the thing represented", and is confused "when I cannot enumerate one by one marks sufficient for differentiating a thing from others, even though that thing does indeed have such marks and requisites into which its notion can be resolved" (Meditationes de cognitione, veritate et ideis, 1684, A VI 4, 586/AG 24, and see also the reference to the nescio quid in the passage immediately following). At the same time, however, it seems to me that the young Leibniz is not clearly distinguishing between a clear-but-confused notion and what he will later call a "distinct knowledge of an indefinable notion, since it is *primitive* [...] that is since it is irresolvable and is understood only through itself and therefore lacks requisites" (Ivi). The latter is truly irresolvable in itself, whereas a clear-but-confused notion (like that of a colour) is irresolvable only for us. This distinction will be clearly recognized by Leibniz only at the beginning of 1676, and it is initially expressed by means of a distinction between what can be conceived vs. what can be understood through itself: "It seems that we conceive through themselves those things whose terms or expressions are undefinable, i.e. whose ideas are irresolvable, such as existence, the ego, perception, the same, change; as well as sensible qualities, such as heat, cold, light, etc. But something is understood through itself only if we conceive all its requisites without having conceived another thing [...]. Thus in my opinion it is possible that certain properties concerning existence, concerning us ourselves -the ego itself, and so forth -are also observed or sensed, but cannot be demonstrated" (Leibniz' annotations on Spinoza, February 1676, A VI 3, 275/LC 101-03). Notions that are only conceived through themselves, then, are primary only according to the order of knowledge, not of being or nature. Note that Leibniz is clearly assuming here that 'existence' is a property that can be sensed but not analysed.

³⁹¹ DAC, *Cum Deo!*, # 4, A VI 1, 170(= GP IV, 35)/L 76 (translation modified). The distinction seems to be already at work in Leibniz's early juridical writings, in particular his 1664 *Specimen quaestionum philosophicarum ex jure collectarum*, in one of the questions devoted to the nature of relations, i.e. n. XVII, # 4: "Notandum igitur aliam esse *Relationem Convenientiae*, aliam *Conjunctionis*" (A VI 1, 95). In question XV, dedicated to the whole and the part, on the other hand, distinguishes between union and connection (A VI 1, 93), where the context seems to be similar to that discussed in DAC.

The only case of a relation of connection that Leibniz makes here is the 'part-whole' relation. The same example is mentioned in the *Nova Methodus*, together with the notion of 'union', 'plurality', and 'order' (Leibniz also mentions 'necessary', 'contingent' and 'cause'). On the contrary, among the relations of comparison, Leibniz includes 'identity/difference', 'similarity/dissimilarity', 'contrariety', and also 'genus', 'species', 'universal' and 'singular'.

It is not very easy to understand the criterion Leibniz employed here to consider some particular relation under the head of 'comparison' or 'connexion' (especially because it is not clear in which sense 'necessary' and 'contingent' can be regarded as relations of connexion, and 'species', 'universal' and 'singular' as relations of comparison).

In a previous paragraph of the same work, however, Leibniz says something more about this topic. Speaking of what he calls *mnemonics* (i.e. the art of memory), Leibniz claims that it is based on "some perceptible thing called a *sign* [*Nota*], which is joined by a definite relation to the thing to be remembered". This relation between a sensible sign (a character) and thing its stands for can be of two kinds: it is "either one of comparison -namely, similarity or dissimilarity –or one of connection –such as that of whole and part, part and part, cause and effect, and signs to thing signified".³⁹²

In his 1697 revision of the text, however, Leibniz shows some dissatisfaction with this earlier way of distinguishing between the two kinds of relations.

In particular, he thinks that his conception of the relations of connexion was too simplistic (and that some sub-distinctions between kinds of connection can be furtherly introduced):

"There is also a multiform variety of relations, which, however, when I was young I tried to briefly summarize in this way, namely by saying that a relation is either of comparison or of connection. Comparison occurs in identical and different, similar and dissimilar, equal and unequal. Conjunction, on the other hand, is either simple (as in whole and part, part and con-part, place, time and other things of the same kind) or connection in which some influx and consequence [*consecutio*] take place, as in the case of cause and effect, sign and represented thing".³⁹³

In between the original text of the *Nova Methodus* and Leibniz's 1697 revision, we can find an attempt at clarifying this distinction that occurs in a draft composed in a period between 1688 and 1690:

"Relations are either of comparison or of connection. A relation of comparison arises from the fact that, between *A* and *B*, *A* occurs in some proposition, and *B* in another one; a relation of connexion arises from the fact that both *A* and *B* occur in the same proposition (which cannot be resolved into a relation of comparison). Otherwise, indeed, also a relation of comparison will turn out to be a relation of connexion, since it could be formed a proposition comprehending both *A* and *B*, like '*A* is similar to *B*'. But such a proposition can be resolved in two, one of which singularly deals with *B*, while the other separately deals with *A*, for instance '*A* is red' and '*B* is red', and for that very same reason *A* is similar to *B* (as far as this feature is concerned). With *A* and *B* exists today, or *A* and *B* exist at the same time? Should we take it as a relation of comparison or connection? The same will hold in the case of two things coexisting in the same place".³⁹⁴

³⁹²Nova Methodus, # 23, A VI 1, 277/L 88.

³⁹³ A VI 1, 277-78.

³⁹⁴De termino, praedicato, relatione, August 1688-October 1690 (?), A VI 4, 944.

The entire passage is a very tentative one, and is clearly connected with Leibniz's project of providing a reductionist account of relational sentences. This could explain why Leibniz here is lead to introduce the distinction between the two kinds of relations on the basis of the logical structure of the propositions which express them.³⁹⁵

In the case of relations of comparison, the two terms of the relations are to occur in separate propositions, whereas in that of relations of connexion, the two terms are to take place in the very same proposition. Note also that Leibniz explicitly specifies that *A* and *B* do not stand for general terms, but for individuals only (in this sense, one might think of something like 'singular propositions' in the Russellian sense; even though it would strange to regard Leibniz as committed to the view that propositions dealing with a particular individual have that individual as a direct constituent thereof).

What Leibniz seems to be particularly concerned about here is to establish whether a proposition expressing a relation of connection can be resolved by finding a couple of propositions which involve only relations of comparison and whose conjunction is equivalent to the former, or not.

In other words, if all the propositions expressing a relation of connection could in principle be resolved into a conjunction of propositions each one involving only one of the terms of the original relation (as in the case of the proposition "A is similar to B", which can be taken to be equivalent to "A is red" & "B is red"), then, the distinction between these two kinds of relations would cease to be a meaningful one. The problem is whether relations like 'coexistence in the same place' or 'coexistence in the same time' could be paraphrased as in the case of 'similarity'.

The distinction between relations of comparison and relations of connection, indeed, could intuitively be reduced to that between symmetrical and non-symmetrical relations. However, this reduction immediately shows up to be a problematic one, as Leibniz himself acknowledges when dealing with the case of simultaneous existence (or existence in the same place), which is obviously a symmetrical relation, but is not clear at all whether it could be reduced to a relation of comparison or not (note also that this is just the counterpart, at the level of the analysis of relational sentences, of the problem whether quantitative and positional differences could be reduced to merely qualitative, i.e. conceptual, differences).³⁹⁶

³⁹⁵ According to M. Mugnai, "A Systematical Approach to Leibniz's Theory of Relations and Relational Sentences", *Topoi*, 9,1990, pp. 61-81, especially p. 65, this is the only text in which Leibniz explicitly adopts this strategy. Mugnai's paper contains a very accurate analysis of this passage.

³⁹⁶ Mugnai rightly observes that in the passage from *De termino, praedicato, relatione* quoted above, the distinction between symmetrical and non-symmetrical relations is somewhat superimposed on that between relations of comparison and connection. Cf. M. Mugnai, "On Leibniz's Theory of Relations", *Studia Leibnitiana Sonderheft* 15, 1988, 145-61, p. 159. Leibniz's strategy of paraphrase in the case of symmetric relations is not an original one, since it could be traced back to Ockham. On the contrary, Leibniz's attempt to paraphrasing non-symmetrical relations is much more complicated, and will be substantially based on the employment of reduplicative terms, expressions like 'insofar as' (*quatenus*) or 'for that reason' (*eo ipso*). This machinery is intended to explain away relations interpreted as sort of 'bridge' between two individuals, by decomposing the original sentence (like "Paris loves Helen"), into a couple of sentences which contain only relational accidents (like "Paris is lover", "Helen is loved"). As Mugnai clearly explains, "Leibniz attempts to reduce the relations expressed as a direct link between two subjects to a logical connection between two sentences in subject-predicate form. This seems to fit quite well with his reiterate statement that relations *are truths*" ("Leibniz's Theory of Relations, p.

In the following paragraph, Leibniz tries maintain the distinction by taking it back to that between essence and existence:

"It seems that relations holding between two things are either rational only or real, which means to be either of essence or of existence. Real relations are those of position (like that of time and situation) or influx, as when because of one thing some change happens or is impeded in the other one. For, when I say "man is mortal", and "animal is mortal", this is a relation of reason, and this provides us with what has been commonly called an extrinsic relation, which, however, can be said of relations of position as well. Therefore, if I say "Peter is distant from me 100 meters", this is an extrinsic denomination, and, moreover, if I moves towards him while Peter is at rest, the distance between Peter and me will change, but without any change occurring in Peter, with the only exception of that occurring because of the universal connection of things. However, it seems that the relation of influx be an intrinsic denomination, even though when directed toward the past it also works as an extrinsic one. Thus, if my father brings me into the world, it is true that there is a relation of influx between me and my father; but now, when the influx stops, "privation of father" [*amissio patris*] is an extrinsic denomination in itself".³⁹⁷

Again, the passage is a very tentative one, as one can understand from the fact that Leibniz started writing another paragraph, in which he seems to repeat what he has already said in the preceding one ("Relations are grounded either in essence or in existence. Those which are grounded in existence are either of position or of influx"), but the paragraphs immediately stops and will never be continued.

4.6.4 Connection and order. Toward Leibniz's theory of the series rerum

However, it is useful to explain why, in the revised text of the *Nova Methodus*, Leibniz was so concerned with distinguishing those relations of connection in which some 'influx' or 'consequence' take place from what he calls simple relations of connection (like that of whole-part and relations of time and place).

Both of them, however, are regarded as relations grounded in existence, whereas relations of comparison are grounded in essence. At the same time, relations of comparison (which are typically the symmetrical ones) concern a domain of abstract entities, whereas relations of connection (typically a-symmetrical) concern the domain of concrete, existing individuals. This point seems to have been passed unaltered from the young to the mature Leibniz.

Actually, however, I think there are some differences in the way in which the mature and the young Leibniz conceive of the issue of existence as the ground of relations of connection.

As the last quotation makes clear, indeed, Leibniz's treatment of the relations of connection has something to do with his doctrine of the "universal connection of things". If at time t_1 Peter is at 100 meters from me, whereas at time t_2 he is at 90 meters from me, since I am moving toward him, a change occurs in me, but apparently no change is occurring in Peter himself (and, thus, his being at a certain distance from me has to be regarded as an extrinsic denomination).

^{156).} Cf. A VI 6, 265 and 277, GP II 438, where Leibniz explicitly says that the reality of relations is the same as that of (eternal) truths. 397 + 111 + 0.44

However, a premise only implicitly working in the passage above is that, properly speaking (at a deeper level of metaphysical analysis), there are no purely extrinsic denominations, exactly because of the "universal connection of things". To be fully substantiated, the latter claim would need an explanation of Leibniz's theory of individual substances as endowed with representative states which mirror the entire universe (so that, roughly speaking, even a small change in a very distant part of the world would imply a modification of the representative states of every substance).

What will be stressed in much more details in the following chapters, however, is that for a plurality of substances be compatible or compossible in the same world, it is required that all these substances share the same common spatiotemporal and causal framework, which means just that substances are reciprocally connected only if every state of every substance in this world is spatiotemporally and causally ordered with respect to every state of every other substance in the same world (even though space and time are not real, nor causation has to be interpreted as physical interaction, of course).³⁹⁸

In a nutshell, it is the concept of *order* (in both sense of *temporal* and *natural* order) that becomes central to understand the mature Leibniz's notion of 'connection', and that also allows him to properly distinguish relations of connection from those of comparison. In other words, relations of connection are grounded on existence because they deal with the mutual coexistence of different substances (or different individuals) in the same world, and some rules of ordering are imposed on the possibility of such an existing-together of these substances (individuals).³⁹⁹

Of course, the notion of 'order' is included among the relations of connection already in the original version of the *Nova Methodus*, but, if I am not mistaken, Leibniz does not put too much emphasis on it (as he will do in his later writings), because he has not yet explicitly envisaged the idea of looking at the actual world as a compact and interconnected series of things (*series rerum*), as he will systematically do from the Paris notes onwards.⁴⁰⁰

³⁹⁸ The best explanation of Leibniz's thesis of universal connection from the point of view of his theory of relations is to be found in Mugnai, *Leibniz's Theory of Relations*, 50-55 and 126-131. On the genesis of Leibniz's theory of *connexio rerum universalis* see Chapter 6 below.

³⁹⁹ For this way of understanding relations of connection, see the *New Essays*, II, xi, 4, and, especially, IV, i, 3: "I have already pointed out that all relation involves either comparison or concurrence [concours]. Relations of comparison yield identity and diversity, in all respects (making things the same or different) or only in some respects (making things alike or unalike). Concurrence includes what you [Locke] call coexistence, i.e. connectedness of existence. But when it is said that something exists or possesses real existence, this existence itself is the predicate; i.e. the notion of existence is linked with the idea in question, and there is a connection between these two notions. Or the existence of the object of an idea may be conceived as the concurrence of the object with myself" (A VI 6, 358). Notice how in this passage Leibniz seems to assume without problems that real existence can be treated as a predicate, also specifying that "elle a une notion liéè avec l'idée dont il s'agit, et il y a connexion entre ces deux notions". At the same time, however, he seems to consider the latter claim to be equivalent to this other one: the existence of an object could be conceived as the concurrence or the connection of this object with me. As Remnant and Bennett explain in a note, Leibniz "seems to mean that 'There are elephants' means 'Elefants concur with myself, i.e. exist at the same possible world that I exist at'". If this explanation is correct, then what Leibniz is referring to in this passage is a relative concept of existence (say, 'existing at w', where w is some possible world), and not actuality, which, being connected to the idea of the best possible world, cannot but be an absolute notion. More on this in Chapter 9 (and in the Introduction above). ⁴⁰⁰ To be very precise, relations of ordering are taken into account by Leibniz in his juridical text *Disputatio de*

⁴⁰⁰ To be very precise, relations of ordering are taken into account by Leibniz in his juridical text *Disputatio de casibus perplexis in jure* (1666), where, in particular, he emphasizes the relevance of the prior-posterior relation, cf. ## 20 and 21 (in the latter, he states transitivity in the following two ways: "That which is posterior to the prior" and "That which is prior to the prior is prior to the posterior" (A VI 1, 245).

4.6.5 Existence and quantity. Leibnizian Haecceitism?

On the contrary, what comes to the fore in the *Nova Methodus* and the writings of the Mainz period is the contraposition between essence and existence (and, thus, relations of co-essence and of co-existence) in terms of *qualitative* vs. *quantitative* properties of a thing.

The idea of associating essence with quality, and existence with quantity, is clearly adumbrated in a series of texts of the 1670's, and it is what explains the fact that, among the relations of connection, the young Leibniz chose to privilege that between parts and whole.⁴⁰¹

For instance, in the 1671-72 tables of definitions (I have already referred to in previous paragraphs above), Leibniz tries to provide a definition of the traditional categories, first of all that of substance ("A substance is the subject of some action or passion. Or, better: whatever can be thought of in an absolute or complete way") and of accident ("Accident is a mode of substance by means of which the latter can be thought").

Then, coming to accidental categories, he writes:

"Quantity is a mode, by means of which a thing is thought as determinate, or better a mode by means of which it can be thought in its entirety [*tota*]. A figure contains its boundaries, but, even if the figure changes, nonetheless quantity remains and the thing itself can be taken in its entirety. That is, quantity is the very same thing as haecceity, namely that by means of which a thing is thought as 'this'.

Quality is a mode, by means of which a thing is thought as changeable, or it can act or be acted upon. By means of that a thing is thought with a relation not to sense, but to the understanding [*Leibniz will write* 'imagination' *upon* 'understanding']. The concept of quantity, indeed, is that of the relation of a thing to the sense. From this it clearly appears the reason why, among the other accidents, only quantity cannot be subtracted from a thing, since it contains the very same haecceity of a thing."⁴⁰²

Later on (even though it is difficult to say when), Leibniz will add two explanatory remarks, one to the paragraph concerning quantity, the other to that concerning quality.

The first says: "The principle of those things which concern existence or quantity is: Whatever is, is, or is not absolutely not being [Quod est id esse; seu non utique non esse], from which this other principle: the whole is greater than its parts, follows a simple corollary". The part in Latin I have posited between brackets is difficult to understand

⁴⁰²Vorarbeiten zur characteristica universalis, A VI 2, 488-89.

This principle, however, is employed by Leibniz only to solve certain kinds of juridical antinomies; even though he shows an interest for relations of order in their general and abstract nature, however, there is still no application of the latter to the case of the structure of the world as a series of things. For a commentary (and an English translation) to Leibniz's early juridical texts, see A. Artosi and alii (eds.), *Leibniz: Logico-Philosophical Puzzles in the Law. Philosophical Questions and Perplexing Cases in the Law*, Dordrecht 2013.

⁴⁰¹ Cf. a Paris text *De magnitudine*, 1676 (?) : «Magnitude has a certain relation to the whole, and it seems that magnitude is that by which it is known whether some thing is a whole. Thus, if someone brings me money, the quantity of which is known to me, I can easily judge whether he brings the whole amount". Leibniz, however, shows to be dissatisfied with this early definition since it is circular: "I once used to define magnitude as the number of parts, but later I considered that to be worthless, unless it is established that the parts are equal to each other, or of a given ratio. But magnitude enters into the definition of equality or ratio [...]". Finally, Leibniz formulates a first version of what will be his standard account of magnitude (or quantity): "After many attempts I seem to have found the most suitable concept of magnitude, which is this: *quantity* or *magnitude* is that according to which some thing (which is called "so big") is said to be capable of being *congruent* with some other thing" (A VI 3, 482/DSR 37).

(especially the expression: *non utique non esse*, which I have tentatively translated as "is not absolutely non being").

However, it seems to be similar to something Leibniz will note in his drafts *De affectibus*, written in April 1679. There, indeed, he lists a series of principles, among which there is: *Quod quid est id est*. Ergo quod quid est, non-non est".⁴⁰³ As formulated in *De affectibus*, the principle means that one can infer from the fact that *A is B* that *A is (something) or exists*.⁴⁰⁴ Of course, this principle is different from the one formulated by Leibniz in the note quoted above, which seems to sound rather as *Quod est, id est*. Taken literally, it just means that 'whatever exists, exists' (which would be just a vacuous statement concerning existence).

Otherwise one might suggest that the text of the note is incomplete (be it a mistake of Leibniz or of the transcription), and that what Leibniz had originally in mind was something like 'whatever is something, is (exists)'. The latter, however, has not to be interpreted as the mature Leibniz will interpret it (i.e. as stating that if *A* is *B* then *A* is possible or is an essence), but in a restricted, existential sense, i.e. as stating that if *A* is *B* then *A* exists. Remember that in the Nova Methodus, Leibniz's definition of 'being' or 'entity' (ens) was stated in terms of whatever has sensible qualities or is perceptible, which implies that what is not perceivable or has no sensible qualities is a non-being or a non-entity. This seems to me just an empiricist version of the the idea that what has no properties is not a being, where 'property' is restricted to sensible properties only.⁴⁰⁵

This, perhaps, may explain the connection with Leibniz's reference to 'haecceity' in the main text (the table of definitions), where 'haecceity' is defined as "that by means of which a thing is thought of as 'this'". I have no idea of how to understand Leibniz's further claim that the principle 'the whole is greater than the part' may be understood as a subsumption, or a particular case, that 'whatever is (something), exists'. Of course, it has to do something with the definition of 'quantity' as "the way in which a thing is thought of as a whole", and with the fact that Leibniz takes 'quantity' and 'haecceity' as being equivalent. The details of this equivalence, however, are not entirely clear to me (cf. also note 401 above, which shows that the very same definition of 'quantity' given by Leibniz changed in the Paris notes).

About quality, he adds the following: "The principle of those things which concern change or quality is: nothing is without reason [*nihil esse sine ratione*]".⁴⁰⁶ And in other texts of the same period, he uses to repeat that the principle 'the whole is greater than its part' is the foundation of the whole science of quantity, as well as the principle 'there is nothing without

 $^{^{403}}$ *De affectibus*, April 12, 1679, A VI 4, 1439 = Grua 535. Notice that the text edited in A VI 4 just says: "Quod quid est id est. Ergo est non-E (ns)", which seems to be wrong to me (cf. also apparatus at l. 8). Grua 535 reads it as "Ergo quod quid est, non-non est", which has the same meaning of another sentence Leibniz has originally written (and cancelled): "Possibile est quod si est non-non est" (cf. apparatus at ll. 6-8).

⁴⁰⁴ As pointed out by Mates, this is just the contraposed of the well-known principle that "what does not exists, has not attributes" (i.e. if *A* is not something or does not exists, than *A* is not *B*). Cf. B. Mates, "Individuals and Modality in the Philosophy of Leibniz", *Studia Leibnitiana* 4, 2, 1972, 81-118, pp. 93-4. In his formalization of Leibniz's *De affectibus*, Schepers reads it as a substitution of inclusion into the law of identity ($(A \rightarrow B) \rightarrow (A \rightarrow B)$). Cf. H. Schepers, "De affectibus. Leibniz and der Schwelle der Monadologie", *Studia Leibnitiana*, 35, 2, 2003, 133-61, p. 158 (Axiom 4).

⁴⁰⁵ Cf. also the discussion of Leibniz's Herculean Argument in Chapter 7 below.

⁴⁰⁶ Vorarbeiten zur characteristica universalis, A VI 2, 488-89.

a reason' is the foundation of the whole science of quality (and since 'quality' is just the capacity of acting or being acted upon, of action, that is of thought and motion).⁴⁰⁷

What should be remarked here, however, is Leibniz's close association of quality with change, and that of quantity with existence and haecceity. Here 'haecceity' is no longer taken as a form or a qualitative feature of an object (as in Leibniz's early rejection of Scotus' thesis on individuation), but, on the contrary on what is irreducible to any qualitative description, the only, among the accidents, that cannot be subtracted from a thing without destroying it. In this sense, this use of 'haecceity' by means of Leibniz seems closer to the contemporary way of understanding 'thisness' as contraposed to 'suchness'.

The main idea seems to be that a thing, even though passing through many changes in time (Leibniz is thinking of a concrete object whose figure undergoes a modification), cannot lose its quantity and still remain the same (whereas it can alter its figure and still be that very same thing). At the same time, Leibniz seems to connect this account of haecceity with a sort of mereological interpretation, by defining quantity as the mode by means of which a thing can be regarded as *tota* (and then making explicit reference to the principle that 'the whole is greater than its part').

I have not particularly clear in my mind in which way Leibniz could develop this intuition, but I suspect that it has in some way to be connected with his understanding of substance as "whatever can be thought in an absolute or complete way [*quicquid cogitatur absolute sive complete*]", which, however, has not to be taken as anticipation of his later, well-known idea of a substance as a complete being (or, at least, has not to be confused with the account of substance in terms of complete concepts that will dominate Leibniz's reflection between the end of the 1670's and that of the 1680's).⁴⁰⁸

4.6.6 Haecceitism and individuation. From the DPI to the Confessio philosophi

Finally, one has also to point out at the epistemic characterization of quantity and quality in terms of reference of a thing, respectively, to sense and understanding (or imagination). From the claim that the notion of quantity can be represented only by means of a reference to sensibility, some relevant consequences seem to follow.

Qualitative discernibility (indiscernibility) does not automatically lead us to conclude at the numerical difference (identity) of two things. In particular, against what will be his later commitment to the principle of the identity of indiscernibles, the young Leibniz explicitly refers to the possibility of two qualitatively indiscernible but still numerically different things, as emerges from a famous passage of the *Confessio Philosophi*:

⁴⁰⁷ Cf. Demonstratio propositionum primarium, A VI 2, 480; Confessio Philosophi, 1672-73, A VI 3, 118.

⁴⁰⁸ Di Bella, "Il fantasma dell'ecceità", pp. 552-54, shows the distance between this new Leibnizan understanding of haecceity and Scotus' original account, and, at the same time, notice that, when equated to 'quantity', haecceity comes closer to the Thomist view of *materia signata quantitate*, even though, contrary to the latter, Leibniz's characterization of haecceity seems to be pretty epistemically connoted (rather than ontologically). The most extensive discussion of haecceitistic vs. anti-haecceitistic strands in the philosophy of Leibniz, is to be found in Cover and Hawthorne, *Substance and Individuation in Leibniz*, pp. 143-83, even though the question is exclusively discussed from the modal point of view.

"Let there be two eggs so similar to each other that not even an angel (on the hypothesis of the greatest possible similarity) can observe a difference, yet who can deny that they differ? At least they differ in this: that one is this one, the other, that one, that is, they differ in *haecceity*, or because they are one thing and another thing, i.e., because they differ *numerically* [*numero*]. But what do we mean when we count, that is, when we say *this* (for to *count* is to repeat *this*)? What is *this*? What is to determine something? What is it except the perception of time and place, i.e. of motion either, on the one hand, of a given thing in relation to us or to a thing already determined, or, on the other hand, of our own movement (e.g. the motion of our hand or the finger by which we point), or the motion of some already determined thing, like a stick, in order to point to a given thing? There you have it, what may amaze you, the principle of individuation, outside the thing itself. For between these eggs no difference can be assigned either by an angel or, I have the audacity to say, by God (given the hypothesis of the greatest similarity possible) other than that at the present time one is at place *B*".⁴⁰⁹

This passage has been often been regarded as puzzling, since it appears to be in contrast with both Leibniz's account of individuation in the *DPI* and his later commitment to a descriptivist theory of individuation.

In this passage, indeed, the distinction between the metaphysical topic of the principle of individuation and the epistemic criteria we practically use to individuate things, which was still maintained in the DPI, seems to have been completely blurred: the epistemic solution to the problem of how to distinguish the two indiscernible eggs (which relies on indexical devices, the ostensive practice of 'pointing out' a thing and follow its trajectory in space and time, and, ultimately, on positional differences between the two things themselves or between them and our position in space) has now invaded the field of the old ontological question of individuation, to the effect that Leibniz can conclude that, paradoxically as it might be, the principle of individuation is external to the thing itself and that a different way of individuating things is not available "either by an angel or [...] by God". The latter, however, amounts to the dissolution of the old Scholastic problem of individuation, a solution that, even though pursued with other means, had been already at the core of the *DPI* itself.

In the context of the *DPI* Leibniz was still following Suárez and the Scholastic tradition in claiming that individuality and distinguishability (or discernibility) had to be carefully distinguished: individuality was ontologically fundamental, among the other reasons, because distinguishability requires the existence of other individuals in order to subsist (whereas a thing should be regarded as individual even if it were alone in the world).

On the contrary, in the *Confessio* passage, this order of priority is clearly reversed, and, consequently, the principle of individuation is explicitly said to be external to the thing itself.

Note that the same approach to the problem of individuation presented in the *Confessio* will be resumed (almost *verbatim*) in a passage from the end of the 1670's:

"Now with the aid of time and place we can also distinguish *individuals*, and decide which are the same and which are different; for example, if I have two eggs in front of me that are similar and equal throughout, and I want to distinguish them, we must either make some mark on them by which they will be rendered dissimilar, or collect them together in some fixed place, for example, with one above and other below; or finally, if they are to be left free, or even if motion is allowed them, for example, if they are floating in water, then this one thing suffices, that their motions be followed by the eyes. By this means it may appear, that is to say, how

⁴⁰⁹Confessio Philosophi, A VI 3, 147/CP 103-05.

they change situation by a succession of time, for the same body is not found in different places at the same time, nor can it pass from one place to another except through intermediary ones".⁴¹⁰

The main difference between this passage and that from the *Confessio*, however, is that, whereas the latter was concerned with an epistemic criterion of discernibility that pretended to be metaphysically valid as well, in this case Leibniz explicitly restricts the applicability of such a criterion to the case of phenomenal individuals (appearances in space and time), leaving open the possibility that an altogether different criterion might hold in the case of non-phenomenal substances, and this is, perhaps, the reason why the term 'haecceity' is no longer mentioned in this context. It will reappear, indeed, in a very famous passage from paragraph 8 of the *Discourse of Metaphysics*, the one in which Leibniz somewhat 'officially' introduces the complete notion of an individual substances: "God, seeing Alexander's individual notion or haecceity, sees in it at the same time the basis and reason for all the predicates which can be said truly of him".⁴¹¹

Note that in this passage haecceity is now simply equated with the complete individual notion of an individual, that is the tool that allows God to have an *a priori* knowledge of everything that happens to Alexander, and, thus, restating the gap between a descriptive theory of individuation (accessible to God's only, because of the infinity of predicates involved in the notion of any individual whatsoever) and the epistemic devices that allow our finite minds to individuate things by resorting at their spatiotemporal position.

Let me point out, however, that also in this case (as in that of the *Confessio*) discernibility seems to occupy a primary position with respect to individuality, but the main difference is that now, thanks to the theory of complete concepts, Leibniz can find a place for a purely descriptive theory of individuation (even though at the level of divine knowledge only) and, consequently, has to reject the metaphysical possibility of two indiscernible individuals.⁴¹²

⁴¹⁰Definitiones cogitationesque metaphysicae, A VI 4, 1397/LC 243

⁴¹¹Discourse on Metaphysics, #8, A VI 4,1540-41/AG 41. Note, however, that in one of the categorial tables Leibniz drafted in the 1680's, the term haecceity is employed to refer to spatial and temporal determinations of an individual: "The differences between substances can be understood: qualities; or can be perceived: quantities. Individual difference or haecceities, where space and time" (*De divisione praedicati*, 1688-89 (?), A VI 4, 927). ⁴¹² Cf. *Notationes generales*, 1683-85 (?), A VI 4, 553-54: "It also follows that singular beings are really infima species, and that it can never be the case that two singular beings are given which are similar in all respects, and for this reason the principle of individuation is always some specific difference [...]. It will be sufficient what I have said, i.e. that it can never be the case that two singular beings are completely similar, for example two

eggs. It is necessary, indeed, that some properties can be said of one of them which cannot be said of the other one, otherwise they could be mutually substituted, and there would be no reason why one could not say they are just one and the same thing. If they have different predicates at some point, also the concepts to which those predicate inhere will be different at all". On the example of the two eggs, see Piro, "Les vicissitudes de deux oeufs", passim. In the latter passage, the idea of substitution is directly applied to objects (not to propositions), cf. Di Bella, *The Science of the Individual*, p. 163, who suggests that the idea of substitution has originally an ante-predicative ancestor in the operation of replacement of some object (or some perceptual content). On Leibniz's theory of individuation up to the *Discourse of Metaphysics*, see M. Mugnai, "Leibniz on Individuation. From the Early Years to the "Discourse" and Beyond", *Studia Leibnitiana* 33, 2001, pp. 36-54.

Appendix to Chapter 4:

A Pragmatical Account of Existence (and Truth)

In the paragraph of the *Nova Methodus* I have analysed above, the distinction between essence and existence was explained by Leibniz in frankly epistemic terms, i.e. by explaining it in terms of the polarity between 'imagination', taken in a very broad sense, and 'sense'. This polarity, however, is what remained implicit in that passage, and is worth to be explored now.

For instance, it has been suggested that, when Leibniz claims that the definition of being (*ens*) has to be stated in terms of that which has sensible qualities or is perceptible, this definition should be taken as a "rephrasing of the view reducing the possible to non-being". Accordingly, the polarity between imagination and sensibility should be taken as a way of rephrasing (from the point of view of Leibniz's psychological account in the *Nova Methodus*) the idea that "whatever is, i.e. can be perceived by the senses, is also imaginable", whereas the converse does not hold ("what can only be imagined or conceived, and not perceived by sense, is no being").⁴¹³ I think this analysis is correct and helps explaining the connection of the young Leibniz's deflationist account of modality and essences with his epistemological views.

Thinking and Acting. The role of conatus

At the same time, however, I think there is something more in the way in which Leibniz understands the contraposition between reality and imagination, i.e. the idea that the contraposition between reality and fiction has to be stated in pragmatic terms. Of course, such a pragmatic strand in Leibniz's philosophy has partially emerged from what I have already said about his analysis of the 'dream argument' in the preceding paragraph; what I want to show here, however, is that also the relationship between 'imagination' (or 'thought') and 'sensibility' is stated in terms of what we can call a 'theory of activity'.

The contraposition between 'imagination' (or 'thought') and 'sensibility' is now conceived in terms of that between a way of thinking (or entertaining a thought) from which nothing follows on the level of action, and a way of thinking (or entertaining a thought) which is followed by an action or, better, a tendency or an effort to act. See, for instance, this series of definitions listed in a letter from May 1671: "*To sense* or to assert [*statuere*] is to think practically, that is to think in association with will [*cogitare cum voluntate*]. *To imagine*, on the contrary, is to think without will [*cogitare sine voluntate*]. *Will* is the effort of he who is thinking [*conatus cogitantis*]. *Effort* is the beginning of motion".⁴¹⁴

The doctrine of *conatus* as the initial moment of motion is here connected with the role played by the will, since it is the presence (or the absence) of a motion of the will to distinguish between mere imagining (or mere thinking) and sensing (or perceiving). The connection with

⁴¹³ Picon, "Actualism and Analyticity", pp. 56-57. She also points out that Leibniz's definition of being in terms of perceptibility "is just another way of saying [...] that there are no such things as separate essences, that would be really or formally distinct from singular and temporal essences", i.e. the view defended by Leibniz in the *DPI*. ⁴¹⁴ Leibniz to L. Van Velthuysen, May 5, 1671, A II 1, 98.

action is explicitly stated in Leibniz's 1671 letter to Arnauld, in which he declares that "Sense is thought in association with will or effort to act [Sensum cogitationem cum voluntate seu conatu agendi]".⁴¹⁵

A first account of this intuition has been already proposed in one of the drafts concerning the *Elements of Natural Law*, in which, as usual, Leibniz writes down a list of definitions:

"Conatus is the beginning of action.

Thought is acting upon oneself.

Whatever thing acts upon itself, it is somewhat endowed with memory (since we *recollect* when we sense to have sensed); and, accordingly, it also has a perception of harmony and lack of harmony, or pleasure and pain, and, having compared the old sensation with the new one, has also an opinion, that is an expectation of the future sensation, collected from the past and the present ones, and, finally, also a *conatus* to act, i.e. will. [...] *To sense* is to assert [*statuere*], or thinking in association with will, or, which is the same, thinking practically. And this is in what the difference from imagination or bare fiction consists in. For instance, if I am imagining to be surrounded by flames, no motion will follow from that; on the contrary, if I am sensing, or asserting, or I am persuaded to be in that situation, or I am just believing that (even if it is actually false), I will strive to escape".⁴¹⁶

In the first part of the quotation, that concerned with the definition of *cogitatio*, we can once again take note of the influence of the Hobbesian model. Leibniz's reference to *memory* as the capacity of recollecting our past sensations, in order to compare them with the present ones, and to what he calls *opinion* or *expectation* of future sensations, correspond to Hobbes' characterization of *memory* and *prudence* at the beginning of *De corpore*; where, in particular, he equates experiences with memory, and adds that "prudence or the prospect into the future time [is] nothing else than expectation of things similar to those we have already had experience of".

The emphasis on the temporal dimension is crucial here, since it is impossible to act on what is already happened and the definition of sensibility changes depending on whether we are concerned with the past (where sensibility is characterized in terms of memory, which allows us to compare the past sensations with the present ones) or with the future, which discloses us the possibility of acting in proper sense.

At the same time, *conatus* to act seems to be closely connected with expectation of future sensations, which, however, has been informed by our past experiences.

Action and Existence

In the second part of the quotation, we can see how Leibniz explicitly employs his pragmatic conception of 'sense' to explain the difference between what is real and what is merely

⁴¹⁵ Leibniz to A. Arnauld, November 1671, A II 1, 174.

⁴¹⁶*Elementa Juris Naturalis*, 1671, A VI 1, 483-84. Also this pragmatical strand of Leibniz's thought can be traced back to the influence of Hobbes. Few lines below the text I have quoted, indeed, Leibniz writes: "*To have a perfect knowledge [pernoscere*] means to know what things can act or be acted upon. [...] This is the true practical cognition [*notitia practica*]. The theorem, indeed, is in view of the problem, while knowledge is in view of the operation" (Ibid., p. 484). "*Theorema enim est propter problema. Scientia propter operationem*" is just an echo of the Hobbesian: "*Scientia propter potentiam*; *Theorema* [...] *propter problemata* [...]; *omnis denique speculatio, actionis vel operis alicujus gratia instituta est*" (Hobbes, *De corpore*, I, vi, OL I, 6).

⁴¹⁷ Hobbes, *De corpore*, I, ii, OL I, 3.

imaginary. The interesting point is that the distinction in question is captured by focusing on the different ways in which we react (in terms of physical stimuli, I would say) when facing something which we know to be merely imaginary (as when we are only entertaining the thought of being surrounded by flames) or something we know to be real (as when we actually happen to be surrounded by flames). In the first case, no stimulus follows from our entertaining such a thought, whereas in the second one, the thought in question works as a sort of premise for a practical consequence, one in which will and motion are involved, and which, in our case, ends up with the physical action of escaping from the room.

Two things are to be remarked concerning this passage.

First, whereas 'imagination' is employed by Leibniz in the general sense of an act of thinking (entertaining some mental contents) from which an action does not follow, 'sensation' implies an act of thinking from which an action does actually follows. In addition, one has to notes that Leibniz distinguishes between two kinds of actions, an internal and an external one. Second, as Leibniz explicitly acknowledges, the fact that I am sensing or believing that I am surrounded by flames is still open to the kind of illusion described in the 'dream argument' (my reaction can be caused by the real presence of the object, fire in this case, as well as by a hallucination).

As far as the first point is concerned, one could perhaps think of the following sequence: we have (a) bare imagination (no action follows from our entertaining some mental contents); then, we have (b) sensation, an act of imagination (or thought in general) from which action follows. Sensation, however, can be directed (b1) towards oneself, and we have thought in proper sense (what Leibniz calls *cogitatio*) or (b2) towards an external object, where a voluntary action is involved (and also a physical motion, as the terminology of *conatus* makes clear). About the difference between (b1) and (b2), Leibniz only observes that "Thought [*cogitare*] is to be the reason of a change, or to change oneself. The same as to be reason of oneself [*esse rationem sui*", whereas "Sense [*Sensus*] is someone's thought in association with the will of something else [*cogitatio alicuius cum voluntate alterius*]".⁴¹⁸ I think that Leibniz's emphasis on the role of will as far as (b2) is concerned, has not to be interpreted as if the kind of reflection (or action upon oneself) in which (b1) consists be a totally involuntary process; rather, what Leibniz wants to stress in (b2) is the causal efficacy of the will, something which is not required in the case of self-reflection, where no external object is involved.⁴¹⁹

Statuere/Sententia. Leibniz's account of activity in the 1670's

This point will be furtherly clarified in a series of notes drafted in April 1679, *De affectibus*, which constitute a sort of ideal continuation of his earlier philosophy of mind (and also a

⁴¹⁸De conatu et motu, sensu et cogitatione, A VI 2, 282-83.

⁴¹⁹ Reflection has to be taken as voluntary, at least in the sense that we have to pay attention to our mental operation if we want to be aware of them, to the effect that it is reflection which allows some representation to become a conscious one: "The minds are not aware of all their actions, because, otherwise, they would reflect on whatever reflection and, thus, could not be able to go further. Therefore, the mind is aware of its own action only when it wants to" (A VI 1, 495, note).

direct confrontation with the account of passions and affections he could find in the works of Descartes and Spinoza).

As usual, Leibniz starts from the attempt to provide a list of definitions of the fundamental faculties and activities of the mind:

"Concept or Imagination is a thought from which no action ad extra follows.

Assertion [Sententia] is a thought from which an effort to act on external things follows.

Will is an effort to act on external things which arise from thought.

Will is an action of mind. *Action* is the cause of change.

Understanding is a passion of mind. Passion is that in which a change occurs.

Imagination is a simple understanding.

Statement[Sententia] is understanding followed by will.

Statement is the aggregate made up of the simple act of understanding and the understanding of its cause. Thus, it is not strange that, in turn, a reaction of mind directed toward that cause follows, and such a reaction is will, since whatever acts, is also acted upon".⁴²⁰

Again, the main focus here is on the polarity between 'concept'/'imagination' and 'statement', where the Latin term *sententia* is just the same thing that the texts of 1671-72 referred to with the verb *statuere*.

In this passage, however, it is clearly pointed out that the kind of action which follows from 'assertion' is an action *ad extra*. In order to better explain this point, Leibniz re-organizes his own system of definitions around the basic concept of 'understanding' (*intellectio*). *Imagination*, then, is just an act of simple understanding, which is just what the tradition labelled as *simplex apprehensio*, i.e. the operation by which the intellect understands something (in the Aristotelian tradition: a quiddity) without affirming anything about it (since affirmation/negation requires composition/division, which are the object of the second operation of the understanding, i.e. judgment).⁴²¹

In this case, however, the kind of affirmation that follows from an act of understanding is not directly connected with a judgment. *Statement*, indeed, is defined as "the aggregate made up of the simple act of understanding [imagination] and the understanding of its cause". In this reference to a cause which act upon us from the outside and, in so doing, raises a reaction of our mind, one can read Leibniz's reception of the Hobbesian thesis that sensation is a *reactio durans*, a thesis that he accepted even though with one proviso: if sensation is correctly described as a permanent reaction, however "there is no truly permanent reaction in the nature of mere corporeal things".⁴²²

⁴²⁰De affectibus, 20/22 April 1679, A VI 4, 1411-12. On this text, see H. Schepers, "De affectibus. Leibniz an der Schwelle der Monadologie. Seine Vorarbeiten zum logischen Aufbau der möglichen Welten", *Studia Leibnitiana*, XXXV, 2003, pp. 133-61. On the notion of activity and passivity, see M. Kneale, "Leibniz and Spinoza on Activity", in H. G. Frankfurt (ed.), *Leibniz. A Collection of Critical Essays*, Notre Dame, Indiana 1976, pp. 215-37.

⁴²¹Cf. E. Gilson, *Index*, n. 84, n.88, and n. 312. In the Cartesian tradition simple apprehension is equated to the "perception of the soul", which, as far as it is concerned in itself, cannot be false, since the error is introduced only by the judgment. Cf. Arnauld and Nicole, *La Logique ou l'art de penser*, Part I, Chapter 11, translated by J.V. Buroker, Cambridge 1996, p. 59.

⁴²² Leibniz's letter to Hobbes, 13/22 July 1670, A II 1, 58/ L 107. Cf. also *Demonstrationes catholicarum conspectus*, A VI 1, 495. For an accurate explanation of how the mechanism of perception should work according to the young Leibniz, see H. Busche, "Mind and Body in the Young Leibniz", in M. Carrara-A. M. Nunziante, *Individuals, Minds and Bodies: Themes from Leibniz*, Stuttgart 2004, pp. 141-58.

The most accurate explanation of Leibniz's notion of 'statement' (*sententia*) occurs in a text written in the same years of *De affectibus*, in which Leibniz defines will as "statement concerning good and evil [*sententia de bono et de malo*]".

Then, he proceeds to explain his definition in the following way:

"Statement [*Sententia*] is practical thought, or the thought together with the endeavour to act. This is evidently the distinction between simple thought, or consideration, imagination, representation, and statement, because he who states something is ready to act in some manner which conforms to this statement. Whoever is persuaded that there is a fire in the furnace will certainly not insert his hand, as long as he is in control of his mind and his own actions".⁴²³

We can see how Leibniz employs again the example of fire in order to show that the link with action plays a fundamental role for the possibility of distinguishing between imagination and reality. Few lines below the text I have quoted, Leibniz inserts this characterization of *sententia* in his definition of will, by obtaining that "the will is the thinking about good and evil together with the endeavour to act", which, as Leibniz notes, "agrees with the expression of those who say that the will is the very last act of deliberation".⁴²⁴

In a very traditional way, then, Leibniz seems to understand this kind of *cogitatio practica* as something which follows from and is determined by an act of apprehension. However, this is not in contrast with the fact that for Leibniz, as S. Di Bella has remarked, "the relationship with will and action plays, in its turn, a *constitutive* role with respect to our acknowledgment of reality", since "we hold for existing what provokes our action, *or better our will to act*".⁴²⁵

By considering it as a 'pragmatic' account of existence, one wants to point out at the fact that the distinction between what is only imaginary and what is real does not rely on some qualitative feature of the objects (something that can be captured at the level of a definition), but, rather, has to be explained by paying attention to the practical consequences that follow from assuming a determinate object as a really existing or as a merely imaginary one (in particular, those consequences are to be spelled out in terms of the way in which we would act, or would will to act, once that we have assumed that something has to be taken as real).

A pragmatic account of existential propositions?

The most detailed elaboration of this pragmatic account of existence can be found in a text written sometimes in between 1680 and 1684/85, and pertaining to the series of the drafts concerning the tables of categories, where it is explicitly remarked that this kind of analysis holds at the level of phenomena:

"Whenever because of some phenomenon we strive to act in some way, and, if another phenomenon will follow from that if we will not impede it, together with some benefit or damage to ourselves, then we assert [*statuimus*] that the former phenomenon does exist; and, *if* we are in that state of mind in which we think of some phenomenon (which we do not hold to exist, but we are just imagining or conceiving of it), being aware

⁴²³Elementa verae pietatis, sive de amore Dei super omnia, 1677-78 (?), A VI 4, 1361/LST 192-93 (translation modified).

⁴²⁴ *Ivi/LST* 193.

⁴²⁵ Di Bella, "Phenomenon, Action and Coherence", p. 37.

that, were we actually to perceive it now (or to imagine it with a *conatus* to act as it existed), then we would at the same time act as if something else where to exist as well, *then* we assert a certain consequence [*consequentiam*], or, which is the same, we believe some proposition $[\dots]^{",426}$

In this passage Leibniz's analysis moves from the case of recognizing the existence of something which is given through an act of simple apprehension (we hold that a given phenomenon is actually existing if another phenomenon follows from it "together with some benefit or damage to ourselves", think of the example of the fire above), to the case in which we are only supposing or imagining the existence of something, from which something else is supposed to follow; in the latter case, the thought we entertain has a conditional structure, what we state is not the direct existence of something, but only a consequence, and the object of our belief has a clear propositional structure.

Few lines below, Leibniz comes back again on this point, explaining it in the following way: to assert or to believe that 'A is B' is to imagine at the same time A and B, so that if you were to perceive A now, you would strive to act in order to to promote or impede those very same things which you would strive to promote or impede were you to perceive B. Therefore, if you are actually perceiving A, and for this very same reason you are going to act to promote or impede the same things you would promote or impede if you were to perceive B, then you are asserting 'A is B'. Therefore, even if you are *not* actually perceiving A and, however, you are asserting 'A is B', some *conatus* should be involved, because A itself has to be connected with what is actually perceived now by means of another proposition or a plurality of propositions.⁴²⁷

The latter claim should be taken as meaning that you can state a proposition like 'A is B' even though the subject of the proposition is not an object you can directly perceive; however, in some sense, its existence can be inferred by connecting it to something directly perceived by means of a perceptual causal chain.

On the other hand, what Leibniz points out in the first part is that a categorical proposition like 'A is B' (existentially interpreted, i.e. ranging over a domain of actually existing objects) has to be interpreted in the following way: the practical consequences that would follow from the assumption of A (the action you would strive to promote or impede something) are the same practical consequences which would follow from the assumption of B. Better said: this is the kind of (complex, propositional) content one entertains when he asserts or believe that A is B.

This analysis of the structure of a categorical proposition seems to be very distant from Leibniz's well-known account thereof in terms of containment (of the concept of the predicate

⁴²⁶Enumeratio terminorum simpliciorum, Summer 1680-Winter 1684/85 (?), A VI 4, 394, italics mine. The importance of this text has been originally stressed by Di Bella, *The Science of Individual*, 146-47, and "*Phenomenon*, Action and Coherence", pp. 37-40.

⁴²⁷ See Ibid., A VI 4, 395. The original text says: "Quin et revera, etiam si sentias A, tamen si statuas A esse B, solet aliquis conatus esse conjunctus, quia solet A per aliam propositionem vel plures propositiones cum eo conjungi, quod nunc revera sentimus". I think a 'non' should be added in the first sentence (etiam si non sentias A), otherwise the entire period makes no sense at all. Actually, a 'non' had been initially written by Leibniz, who, however, cancelled it later on (cf. textual note at 1. 19). I think it should be reinstated in the main text between square brackets.

in that of the subject).⁴²⁸ As is in the latter case, however, the concept at stake is that of the identity: not the (partial or complete) identity between the subject and predicate concept, however, but the identity of the things which follow from the assumption of A and B (something like: the set of operations or actions which follow from the assumption of A is the same as those which follow from the assumption of B). In this case, then, identity is to be interpreted in an operational rather than strictly conceptual way.

The early Leibniz on existence and truth. A verificationist approach

Even though Leibniz never explicitly mentions it, something like a verification principle of meaning seems to be involved here. The pragmatic approach to truth, after all, is intended to explain the idea that those beings exist which can be distinctly perceived. In the first draft of *De modo distinguendi*, Leibniz writes: "That being exists which can be immediately perceived, or which follows from what is immediately perceived. [...] Perception is a thought from which a *conatus* to act follows".⁴²⁹

Now, at the beginning of the 1670's, this characterization is implied by Leibniz to explain the notion of truth as well (by implicitly assuming, that truth is correspondence with what actually exists). In a list of definitions of that period, indeed, he writes: "*True* is whatever is clearly and distinctly sensible [*later addition*: what can be perceived]".⁴³⁰

The same definition of truth occurs in the *Preface to Nizolius*, in a passage I have partially quoted in a previous chapter: "An *utterance* is true whose meaning can be perceived through a right disposition of both the percipient and the medium; for clarity is measured by the understanding, truth by sense".

This, which Leibniz dubs "the unique and truest definition of truth", is not explained in detail, however, but only by means of a couple of examples:

"The sentence, 'Rome is situated on the Tiber', is true for the reason that nothing more is needed to understand what it says than that the sentient being and the medium be in the right relation. The sentient should certainly not be blind or deaf, and the medium or interval should not be too large. If this be granted, and I be in Rome or near it, it will follow that I shall *hear* the city called Rome and the river called Tiber. Something similar is true in abstract matters; the sentence, 'The number 2 is even', is true because if I see (or hear, or touch, think of) the number 2, I see one and one (by the definition of number 2 perceived through hearing or reading) and nothing more".⁴³¹

In commenting the first example, Dascal has remarked that the 'sensation' mentioned by Leibniz in this passage relates not only to external senses alone, but also to internal one (since, for instance, we have to understand the meaning of certain words in a determinate language, and so on).

 $^{^{428}}$ Notice, also, that the pragmatist reading can account for affermative propositions only; in the case of negative ones, indeed, there is nothing which is said to follow from our entertaining a determinate mental content (or, better, what would follow is immediately prevented by the intervention of an opposed *conatus*). This might be another reason why Leibniz favoured the logical account based on conceptual containment.

⁴²⁹De modo distinguendi phaenomena realia ab imaginariis, A VI 4, 1499.

⁴³⁰*Vorarbeiten zur characteristica universalis*, A VI 2, 493.

⁴³¹*Preface to Nizolius*, A VI 2, 409 (= GP IV, 138)/L 121.

Moreover, what is particularly relevant here is the fact that the "possibility of determining the truth value of a sentence requires the ability to perform [a certain series of] operations".⁴³² The same holds also in the case of the example concerning the abstract truths of mathematics, even though, of course, the kind of procedures or operations required ascertaining truth are different (in the first case we are dealing with a factual truth, in the second one we relies on the 'perception' of definitions and signs).

Conclusion

Confronting the passage from the *Preface to Nizolius* with the passage from the 1680's category draft, one can see in the latter the pragmatic account of existence and reality has been maintained by Leibniz, but it has also been explicitly circumscribed to the domain of phenomena, where a distinction between our way of knowing things and metaphysical reality is clearly presupposed.

On the other hand, the epistemic account of existence is no longer connected with the concept of *truth* (also because Leibniz has already embraced his logical account of truth), but, rather, with that of *belief*, i.e., again, with something related to the theory of knowledge.

Finally, at this level of the epistemic or phenomenological account of existence, Leibniz still holds that categorical propositions (like 'A is B') have to be interpreted in a conditional way, as if they presupposed the existence of something from which something else should follow (according to the style of paraphrase he found in Raue and Hobbes).

At the same time, however, in writings of the same period, like the *Generales Inquisitiones*, he will maintain an apparently opposite position, showing that hypothetical propositions might be reduced to categorical ones; which is the most natural reading of them from the point of view of his mature theory of conceptual containment, but which also presupposes an essential (not existential) reading of them, that is one in which their terms does not range over a domain of existent beings only, but on a domain of possible entities as well.

There is a sense, however, in which one might say that the old *conatus* approach has been retained also from the metaphysical point of view. The young Leibniz, indeed, simply stated that, whereas sensation has to be taken as a kind of thought from which an action or a *conatus* to act follows, imagination is a kind of thought from which no action follows. From the end of 1670's, however, Leibniz states that from every imagination we are determined to believe that what we imagine exists, but that such a determination can be prevented from being realized (i.e. transformed into action) if there are other images, which are stronger and incompatible with the first one.⁴³³ This view seems to have been stated for the first time in *De affectibus*, where Leibniz writes:

⁴³² Dascal, *Leibniz*, 100-101 (quotation is taken from p. 101). See also Di Bella, *The Science of Individual*, p. 136, who rightly emphasizes that this definition of truth refers to our verification procedures. Both the authors stress the 'empiricist' tones of such a definition and the difference between this account and the mature one, in which truth is defined in terms of conceptual containment.

⁴³³ See, once again, A VI 4, 395. Stefano Di Bella has convincingly shown that this change of mind is mostly a consequence of Leibniz's reading of Spinoza's *Ethics*. See Di Bella, "*Phenomenon*, Action, and Coherence". On Spinoza's theory of power and conatus, see D. Garrett, "Spinoza's Conatus Argument", in O. Koistinen-J. I. Biro (eds.), *Spinoza. Metaphysical Themes*, Oxford 2002, pp. 127-58.

"From every possibility existence follows, if nothing prevents it.

From every imagination, we are determined to believe that what we imagine exists, if something does not prevent the latter, i.e. if we do not simultaneously imagine something else which is incompatible with the first one".⁴³⁴

The first line is nothing but one of the many formulations of Leibniz's well-known theory that the possibles have a tendency (or a *conatus*) to exist which is directly proportional to their degree of reality or perfection, to the effect that all the possibles would have been actualized if they were not mutually incompatible with each other. It appears that the pragmatic account of existence in terms of *conatus* to act is regarded by Leibniz as a sort of epistemic or psychological counterpart of his metaphysical theory concerning the reality of the possibles (cf. Chapter 8 below). On the other hand, however, the latter (the theory of the 'striving possibles') makes sense only from the point of view of the psychology of the divine understanding, for the conatus to exist is not something the possibles have on their own, but they receive it from God's act of 'asserting' them after having decided to create the world. In other words, the theory of the striving possibles might also be regarded as the application of the pragmatic theory of existence to the case of divine mind.⁴³⁵

⁴³⁴ *De affectibus*, A VI 4, 1434.

⁴³⁵ On this point, see also A. Blank, "Striving Possibles and Leibniz's Cognitivist Theory of Volition", *Journal of Early Modern Studies*, 5, 2016, 29-51.

Section II:

Series rerum. The Actual World and the Genesis of Leibniz's Theory of Possible Worlds

The main ambition of this section is to provide a comprehensive reconstruction of the genesis of Leibniz's account of possible worlds. In this sense, it represents the bridge between Leibniz's early views, discussed in Section 1, and his metaphysics of 'real essences' on which I will focus in the last Section below. The main focus of this section is represented by Leibniz's texts of the Paris period and his first years in Hannover (especially 1677-79). The turning point of Leibniz's metaphysics, indeed, at least for what concerns his theory of possible worlds and his views on the essence/existence distinction, can be definitively placed in the period between the end of his Paris year and his arrival in Hannover (1677-78).

Those things notwithstanding, the reader shall see that in my reconstruction 'possible worlds' are introduced twice: the first time in the middle of Chapter 5 (see especially 5.3 below) and the second one in Chapter 7. Even though I believe that the evolution of Leibniz's thought on this topic follows a rather unambiguous and systematic path (which I have briefly sketched in 5.1 and also recalled at the end of 5. 6), my decision of splitting the topic of this section into two distinct chapters is not without a solid motivation (at least from the explanatory point of view)

In particular, it has been required by the need to keep well distinct two different (even though not incompatible) trains of thoughts which, in the same period, have led Leibniz to embrace a first, inchoative version of his ontology of possible worlds (to be interpreted as ideas in the mind of God). Very roughly, I would say that Leibniz's mature ontology of possible worlds is the combination and the mutual integration of a *teleological* (and also *theological*) and of a *cosmological* account of possible worlds.¹

Even though these two aspects will find a (more or less) coherent integration in Leibniz's mature views, from a genetic point of view (as the one adopted in these pages), it was relevant to isolate them and to analyse them separately, in order to understand their respective contribution to the final picture. This is why I have reserved the discussion of the theological/teleological aspect to Chapter 5, whereas Chapter 7 is entirely devoted to the cosmological aspect (or, better, to the passage from a *cosmological* to a *counterfactual* interpretation of possible worlds). Between the two, Chapter 6 sketches Leibniz's theory of the *universal connection of all things*, which is fundamental in order to understand the

¹ The distinction between the 'cosmological' and the 'teleological' version of possible worlds is taken from Griffin, *Leibniz, God and Necessity*, pp. 163-64 (the cosmological version is based on Rutherford's cosmological interpretation of compossibility, which will be briefly addressed in Chapter 7 below). I agree with Griffin that both the teleological and the cosmological interpretation can be integrated into a more comprehensive picture.

distinction Leibniz envisages between the domain of abstract entities and that of existing individuals, and that, therefore, constitutes the principal frame for the question about 'existence'. Furthermore, it requires to be taken into account since the Leibnizian argument discussed in Chapter 7 (concerning the plurality of worlds) is mostly based on the theory of universal connection.

In Chapter 5, I introduce Leibniz's views on the actual world, interpreted as a "series of things" (*series rerum*), as exposed in the *Confessio philosophi* and the Paris texts *De summa rerum*, showing that originally there is only one singular series of things (the actual one), whereas, on the contrary, unrealized possibilities are not yet conceived of as gathered together in series (possible worlds). The relevant point here is the contrast between the 'compactness' of the actual series of things (especially for what concerns its spatiotemporal and causal unification) and the isolated and scattered nature of merely possible things, which are explicitly equated with mere imaginary entities. Then, I move to analyse the *Confessio philosophi* by pointing out that Leibniz's conception of the 'series of things' is closely connected to his strong determinism and his theological vindication of God from the charge of having introduced the evil in the world (i.e. the "theodicy" project).

I stress the fact that, in the *Confessio*, the relation of dependence between God and the whole series of things is interpreted in a way which comes very close to a necessitarian view (this is why I refer to it as to a 'quasi-necessitarian' view).² In order to understand this point, I dwell on Leibniz's understanding of causal dependence (and his first formulation of PSR), which has been basically derived from Hobbes' theory of causation (the *causa plena* or *causa integra* as the sum of the singularly necessary and jointly sufficient requisites for the existence of a thing).

The main problem with this view is that, exactly as in Hobbes, the young Leibniz does not clearly distinguish between 'essential' and 'existential' (or, alternatively, between 'logical' and 'causal') dependence. Therefore, being applied to the case of the relation between God and the world, this account of causal dependence ends up with the conclusion that not only this (and just this) world could have been produced by God, but also that, if God had produced another world, he himself would have been different from the way he actually is (i.e., his nature would have been different), which is an absurd conclusion. The other paragraphs of this chapter are devoted to show how Leibniz modified his views in order to distance himself from this fall into the "necessitarian precipice" (the confrontation with Spinoza plays a fundamental role here, of course).

From the theological point of view, Leibniz's move can be describe as a passage from a Hobbesian understanding of causation to a restauration of finalism and final causes, especially for what concerns the way in which he interprets the relation between God and the world. Leibniz's emphasis on the role of *divine wisdom* (theologically interpreted) in the choice of the world to create (i.e. the choice of the best), goes hand in hand with emphasis on the contingency of the actual world. And the contingency of the actual world is grounded on the

 $^{^{2}}$ The 'quasi-' in 'quasi-necessitarian' is due to the fact that, even though Leibniz explicitly endorses the view that the world necessarily depends on the essence or nature of God, he still maintains that there are non-actualized possibilities (even though, concerning their ontological status, he is far from attributing them some ontological reality).

possibility for God to choose between different alternative series of things. In this way, we can see how reference to possible alternative series of things explicitly emerges for the very first time in Leibniz's discussion with Niels Stensen (Steno) at the end of 1677.

From the ontological point of view, the counterpart of the distinction between God's understanding and his will is the distinction between the domain of *essences* (which are the internal object of God's understanding) and the domain of *existing things* (which are the product of the causal action of God's will). Along these lines, Leibniz modifies his early account of requisites, by sharply distinguishing (*contra* Hobbes) a relation of essential/logical dependence, on one hand, and a relation of existential/causal dependence on the other hand. The distinction between "immediate" and "mediate requisites" is the way in which Leibniz finds a way to find a place for a (minimal) sense of contingency in the framework of his determinist interpretation of dependence.³

Notice that the distinction between immediate and mediate requisites pairs with Leibniz's emphasis on the fact that, while possible series (merely possible worlds) are the immediate object of divine understanding, the production of the actual world does not immediately follow from God's nature (as it was in the *Confessio* and in his first remarks on Spinoza), but it requires an intermediate (and mediate) step, i.e. divine will (which is causally efficacious).⁴ In this way, he can correct his old, necessitarian account in the *Confessio* and, at the same time, distinguish himself from Spinoza's necessitarianism.

Chapter 7 dwells with a cosmological account of possible worlds in the sense in which the label 'cosmological' can be equally attached to a realist account of possible worlds, as the one put forth by David Lewis in the contemporary metaphysical debate. According to this view, indeed, possible worlds are not to be interpreted counterfactually (they are not just other ways the world could be/have been), but are other worlds, other universes, which exist in the very same sense in which our world exist, even though they are mutually disconnected from each other (there are no cross-world spatiotemporal and causal relations).

³ As I shall say in what follows, however, this distinction is paired with Leibniz's emphasis on the necessity of stressing the relevance of merely possible causes (merely possible requisites) in order to distinguish merely possible individuals (i.e. individual entities) from the possibility of abstract entities. In this sense, it seems that the very same contrast between essential and existential dependence is reproduced within the domain of what is merely possible. This element will be one of the main topic of my discussion in Section III (especially Chapter 8 below).

Another fundamental element is Leibniz's re-interpretation of Hobbes' theory of causality in terms of hypothetical necessity rather than absolute one. From the theoretical point of view, one must acknowledge that Leibniz is right. In this sense, the correction of his necessitarian account in the Confessio will constitute also the correction of a misunderstanding he shared with Hobbes. However, it is a little bit surprising the different attitude showed by Leibniz toward Hobbes' necessitarianism and Spinoza's one. A rather conciliatory attitude toward the first makes the pair with a harsh rejection of the latter (at least after his reading of *Ethics* in 1678). These different approaches can be justified by what Leibniz says in the *Theodicy*, # 168, where, concerning the thesis that only what will be actualized is possible (the principle of plenitude), and, thus, that "everything is necessary unconditionally", he distinguishes between two kinds of philosophers: (a) those who "admitted a brute and blind necessity in the cause of the existence of things: and it is these I have most reason for opposing", and (b) those "who are mistaken only because they misuse the terms [...]. With these writers my dispute is only one of words, provided they admit in very deed that God chooses and does the best" (GP VI,210-11 /H 232). Case (a) is a clear reference to Spinoza, whereas (b) might be referred to Abelard (discussed in # 171), but also Hobbes, who, in section 172, is accused to have confused hypothetical and absolute necessity. Of course, this is a very charitable reading of Hobbes, since we know that the real Hobbes explicitly rejected the view that God creates the best (as it emerges from his polemics with White).

The interesting thing is that Leibniz seems to have reached a very similar conclusion in his metaphysical reflections of April 1676, claiming that it is really possible that other worlds exist which are completely disconnected from our own world.⁵ However, at the end of the same year, December 1676, immediately after having visited Spinoza in Holland, Leibniz writes down a couple of texts in which he harshly rejects the idea of a plurality of worlds. The main idea is that it one is not allowed to extend the notion of 'existence' to what does not count as part of this "series of things" (in other worlds: the actual world is the most comprehensive and all-embracing group of existing things).

In order to understand this point, however, another feature of Leibniz's account of the 'series of things' has to be taken into consideration: the interconnection among all things, i.e. the holding of spatiotemporal and causal relations of 'connection' among all the members of this world. This is the task of Chapter 6, where I come back to the notion of a *series rerum* as a possible creation scenario (a possibly existing world), in order to stress not just its compactness (which was fundamental for the theological argument in Chapter 5), but, rather, its internal (conceptual) structure, and, in particular, the fact that for a thing to belong to a *series rerum* principally means to be part of an *ordered* set of individuals and/or individual concepts.

The notion of *order* is an essential ingredient of that of the 'series of things', not only in the case of spatiotemporal order (space and time are defined as the order of, respectively, simultaneous and successive things), but also in that of the natural order, which is supposed to ground both the temporal and causal order of things. In particular, Leibniz develops a sort of causal theory of time, where, however, temporal order is ultimately grounded on the metaphysical notion of natural order. This is the reason why the first part of Chapter 6 is entirely devoted to an explanation of Leibniz's theory of the *connexio rerum universalis* and focuses on both the early and the late Leibnizian texts (stressing the differences between different periods when necessary). On the contrary, the second part of the chapter is exclusively devoted to investigate the genesis of this idea in the writings of the Paris period (an almost unexplored field, as far as I can see).

The general interconnection of all (existing) things has to be discussed because it will be the core of Leibniz's rejection of the plurality of worlds at the end of 1676. Whereas in April 1676 the lack of connection between our world and other individuals (hypothetically existing in other worlds) was one of the main argument for Leibniz to embrace the *real possibility* of many worlds, at the end of the same year, this lack of connection, especially as far as temporal connection is concerned, will be regarded by Leibniz as the dividing line between what truly exists and what is merely possible.

In other worlds, whatever exists is connected with every other existing thing in one and the same world; therefore, if we assume that something exists and is not temporally connected with us (with anything in the actual world), then it would be impossible for everyone to decide whether that things exist at the present instant of time or at an instant prior/posterior to the present one.

⁵ However, Leibniz arrives to this conclusion from an altogether different starting point: not the analysis of modal language (as in Lewis) but his phenomenalist theory of existence, and, especially, his argument concerning the distinction between dreams and reality.

Leibniz's argument has a twofold nature: one based on something like the principle of verification, the other on his reliance on the universal validity of the principle of bivalence. The possibility of finding conciliation between these two different approaches will be discussed in paragraph 7.5 below. Anyway, it cannot be doubted that Leibniz's conclusion is based on a sort of (actualist) restriction of 'existence' to what is part of our world only, thus shifting the position of a plurality of universes from the plan of reality (i.e. actual existence) to that of the ideas in God's understanding (which is also a shift from a cosmological to a counterfactual account of possible worlds).⁶

This restriction is not in contrast with Leibniz's claim that compossibility and connection hold in every possible world. In particular, the claim that connection holds in other worlds can be accommodated by saying that possible individuals in a possible world would be/have been mutually connected, had that world been actualized by God. However, some tensions seem to be detectable between Leibniz's restriction of existence to actual things only and his commitment to the reality of possibilia (this topic will be discussed again in the next Section). According to my conclusion in Chapter 7, Leibniz's argument against the plurality of worlds can be fully appreciated only if it is placed into a larger framework concerning the relevance of God's wisdom I have already introduced in Chapter 5. A plurality of actual worlds, indeed, is not impossible for what concerns God's *absolute power* but only from the point of view of his ordained power. This means, however, that the impossibility of many worlds (and, also, the incompossibility thesis) must be ultimately grounded on God's wisdom. This point can help explaining Leibniz's oscillations concerning the necessary or contingent character of compossibility, and the sense in which he can say that the case of extravagant worlds (like the world apart hypothesis, which has been very debated in the scholarship) is a "metaphysical possibility" as well as a "fiction" (in particular, what God can do de potentia absoluta is what he could have done when making abstraction from his wisdom).⁷

⁶ The only extant exception is Leibniz's rejection of trans-world identity, which, if I am not mistaken, is just a byproduct of his commitment to a strong form of causal determinism. When talking of a 'counterfactual' account of worlds, however, my primary reference goes to worlds as possible alternative creation scenarios; in this sense, the emphasis is on possible worlds as the object of God's understanding (a plurality of alternatives he envisages when deciding to creating a world), not to possible worlds as the object of human thought. After all, the connection between modal concepts in God and in the human minds is one of the most obscure point in Leibniz's modal metaphysics (in the last part of Chapter 6 below, I emphasize a passage in which Leibniz seems to assume there is a sense in which an individual substances mirrors not only what is actual, but also what is merely possible, although through the mediation of God, which, however, is just a misleading notion of 'mirroring').

⁷ See the recent essay by. J. Jorati, "Divine Faculties and the Puzzle of Incompossibility", in G. Brown-Y. Chiek (eds.), *Leibniz on Compossibility and Possible Worlds*, Dordrecht 2016, pp. 175-98. The main claim of this article is to show that wisdom constitutes for Leibniz a sort of intermediate faculty between divine understanding and will, and that, as such, it is the source of incompossibility. What I find particularly interesting is that she shows that Leibniz's ideas on wisdom are not very clear, for sometimes he seems to consider it as part of God's understanding, other times he associates it with divine will (see the texts she quotes at pp. 186-92). A similar oscillation occurs in Leibniz's attempt to reduce "middle knowledge" to either Gods' knowledge of simple understanding and the essences of things on the one hand, and God's will and the existence of things on the other. The place in between, if there is any, is that of conditional existences or contingent possibles which are the traditional objects of middle knowledge. The knowledge of these contingent possibles (possible individuals) has to be both contingent and independent from God (thus, something in between Gods' necessary knowledge of abstract possibles and his contingent knowledge of actual beings). Both these oscillations are also connected with Leibniz's problem of finding a third way between necessitarianism and voluntarism. See also my summary in the last paragraph of Chapter 9 (and the table attached to it).

In this way, Leibniz's position seems to be in keeping with the Scholastic tradition, according to which the plurality of worlds has to be rejected only from the point of view of God's ordained power. On this point, however, one must be very cautious, since I really do believe that Leibniz's considered views look more favourably to the party of the *philosophi novi* than to the Schoolmen's tradition. His views, indeed, are substantially different from the traditional ones as far as the scope of God's ordained power is concerned: no one in the theological tradition, indeed, was committed to the idea that there is something like the best possible world (BPW) and that God is (morally) necessitated to create it.⁸ The idea that God is committed to create the best and, moreover, that there is something like the BPW is a view shared by other early modern authors (like Thomas White and, to a certain extent, Malebranche). This is a peculiar feature which descends from Leibniz's commitment to PSR, and helps explaining why his account of the contingency of the world is, after all, a very weak one.⁹

That said, however, it should be noted that both questions discussed in Chapters 5 and 7 have their (remote) origins in the Schoolmen's debates concerning the nature and the extent of God's power (i.e. the pre-history of possible worlds). My reference goes especially to the Schoolmen's discussion on the Distinctions 43 and 44 of the first book of Peter Lombard's *Sentences*, dedicated, respectively, to the question whether God could do other things than those he has actually done or not (which corresponds to the question of necessitarism vs. contingentism), and to the question whether God could do something better than what he has actually done or not (which will be connected, in the tradition, with the problem of the plurality of worlds).

Peter Lombard's main aim was that of answering to the challenge of Abelard's necessitarianism (the view that God could do nothing different and nothing better than what he has actually done). More than the text of Peter Lombard, however, it is interesting to look at the discussion of these two questions in Ockham's commentary to the *Sentences*.

In his commentary to distinction 43, indeed, Ockham frames the question by asking if God has to be understood as a natural or as a free cause; where a natural cause, when it is not impeded, necessarily produces its effect. Thus, if God is to be compared to a natural cause, it will not be possible for him to produce different things from those he has actually produced. Notice that the same argument will be later employed by Spinoza in his *Theological-Political Treatise* (see Chapter 5.4 below): if God is a natural, i.e. necessary cause, there could be no difference between the object of his understanding and that of his will, and, thus, there could

⁸ For the modern Schoolmen's rejection of the possibility of the best possible world, see the following passage from D. Ruiz de Montoya, *Commentaria ac disputations in primam partem S. Thomae*, 1630, 75 a: "Certum est, in quibusdam generibus perfectionis Deum non velle id quod optimum est, quoniam in eis nihil est optimum, sed potius, quaecumque perfectione data, possibilis est perfectio maior et maior in infinitum" (quoted in S. Knebel, "Necessitas Moralis ad Optimum. Zum Historischen Hintergrund der Wahl der besten aller möglichen Welten", *Studia Leibnitiana*, XXIII, 1991, 3-24, p. 13).

⁹ Aquinas' argument (based on the seriality of the relation of 'perfection') will be repeated by Hobbes against Thomas White. White, indeed, explicitly defends the existence of the BPW, cf. T. White, *De mundo dialogi tres*, Paris 1642, Third Dialogue, pp. 315-21. For Hobbes's criticism of the latter, see *Anti-White*, Ch. 31, pp. 367-72. It would be interesting to more closely inspect the similarities between Whites'approach and Leibniz's (and, in general, to investigate the genesis of the idea of the BPW). The question, however, should be deferred to another occasion. For the idea that Malebranche substantially accepts the idea that God cannot but create the best, see E. Scribano, "False Enemies. Malebranche, Leibniz, and the Best of All Possible Worlds", *Oxford Studies in Early Modern Philosophy*, 1, 2003, pp. 165-82.

not be things that God understands but he does not will to produce. It is also interesting to observe that, concerning this argument (but this one only), Ockham concludes that it is impossible to prove by means of natural reason alone that God is a free and not a natural cause.¹⁰

Coming back to Leibniz one can see that his main problem consists exactly in the fact that his theory of requisites is clearly a reformulation of the old theory of natural (necessary) cause, especially since he (together with Hobbes) rejects the idea of a free cause in terms of *arbitrium indifferentiae*. The main task of Leibniz's mature reformulation could be described as that of making room for teleology (i.e. the idea of God's acting *sub ratione boni*, against Spinoza) into a framework originally thought for making sense of necessary causes only.

Coming to Distinction 44, one can see how the discussion of the question whether God could create something better or not covers not only the case of the (im)possibility of a best possible world (the possibility of a BPW is rejected by Ockham as well as from all traditional theologians) but also that of a plurality of worlds (which was commonly discussed in the commentary to Aristotle's *De caelo*).¹¹

It is interesting to establish a brief comparison between Aquinas' and Ockham's position on the plurality of worlds, because it will be very helpful in order to evaluate Leibniz's own view on the topic.¹² First of all, one should stress that Aquinas sharply rejected the possibility of something like a BPW (given the infinite difference between God and every finite thing –and the world is a collection of finite things -, it is always possible to pick out a finite thing more perfect than any given one, and, thus, there is no maximum in perfection among finite things).¹³

Coming to the question of the unity of the actual world, however, Aquinas maintains that the unity of the world consists in its order, that is in the order holding among the parts of the universe and the order of the universe (taken as a whole) with his goal (i.e. with God). Since God has created this world according to a project, i.e. with a goal in his mind, this order

¹⁰ Cf. Ockham, *Scriptum in librum primum sententiarum ordinatio*, distinctio 43, q. 1, *Opera theologica*, IV, pp. 623-37, see in particular the discussion of article 1.

¹¹ *Ibid.*, distinctio 44, q. unica, pp. 665-60. Ockham clearly rejects the validity of Aristotle's physical argument agains the plurality of worlds. On this point he has been preceded by Richard of Middleton, see J. Biard, "L'unité du monde selon Guillame d'Ockham", *Vivarium* 22, 1984, pp. 63-83.

¹² The comparison between Aquinas and Ockham has been proposed by A. Maurer, "Ockham on the Possibility of a Better World", *Mediaeval Studies* 38, 1976, pp. 291-312. I am just reporting the results of Maurer's investigation.

¹³ This is what Aquinas says concerning the essential goodness of creatures, which is equivalent to being (*ens*) itself (the contrast between essential and accidental goodness is, in the case of a man, that between living and having reason vs. health and knowledge). Concerning essential goodness, then, Aquinas says that for any created being, there can be another one which is better than the first (and can be created by God), but it is important to remark that these two things are numerically distinguished (because "the essences of things are like numbers"). On the contrary, in the case of accidental goodness, it is possible for a thing to be made more perfect while remaining numerically the same. Cf. Aquinas, Super sententiarum, I, d. 44, q. 1, a. 1. When coming to the possibility of making the world more perfect, Aquinas says that, whereas it is impossible to improve the essential goodness of 'this' world, since it would be no longer 'this' (but another one), there is a sense in which it can be said that God can improve the accidental goodness of this world (for instance, adding new species to the existing world). However, notice that Aquinas held that God could not just improve the accidental goodness of some existing species without improving that of all the other ones (to maintain the proportionality or the harmony of the world). One could regard Leibniz's position concerning BPW as the collapse of this distinction (coherently with the collapsing of the distinction between essential and accidental properties according to the so-called superessentialism). Concerning the medieval debate on the perfection of the world, see E. Grant, *Planets, Stars*, and Orbs. The Mediaeval Cosmos 1200-1687, Cambridge 1994, pp. 136-49.

implies the mutual harmony among the elements of the world, so that any local modification that would occur therein, would have as its effect not a general improvement of the whole universe but, rather, a disruption of its harmony.¹⁴

Notice, however, that Aquinas is implicitly distinguishing between God's absolute and ordained power. From the point of view of the first, indeed, God could create (or, perhaps, could have created) another, better world. Once he has established that *this* world is the actual one (where 'actual' is taken as a *rigid designator*), however, it would be impossible for him to make it better without producing another (essentially different) world (from the point of view of God's omnipotence, another world could have been actual, with 'actual' taken as non-rigid this time).¹⁵

On the contrary, Ockham's position is different. In his case, indeed, the question of the harmony of the world makes no sense, given his nominalist ontology, whereby the world is made only of individual substances (*res individuae*), whereas relations (and harmony is a relation of relations, after all) have a mental reality, i.e. they are ways of considering things. From this, it follows that, even though Ockham himself believes that the actual world is the only existing one, he finds no rational argument to prevent the conclusion that God could create a plurality of worlds.

What makes the difference is that for Ockham the world is an aggregate of individuals, whereas relations are only supervenient on them. Thus, Ockham can reject not only the Aristotelian argument against the plurality of worlds (based on the theory of natural motion), but also Aquinas' defence of the unity of the world based on the primacy of general order (harmony) over the individuals. Contrary to Aquinas, Ockham maintains that it is possible for God to create a more perfect world both in the essential and the accidental sense of goodness (i.e. either a specifically different better world or, also, a better world which is numerically identical to the actual one).

Now, given the young Leibniz's sympathies for nominalist ontology, one would think that his position is closer to Ockham's. Also Leibniz, indeed, maintains that the only actually existing things are individual substances, while relations have only a mental nature. However, as I will show in Chapter 6, his intense work on the notion of *series rerum* is focused on the notion of order among the members of the series, especially for what concerns the relations of connection.

This is a main acquisition of the Paris years, where the consideration of the order of the world will come to the fore. At the same time, Leibniz maintains that the order among substances, like spatiotemporal and causal connection, hold only at the *ideal* level, i.e. at the level of possible things in the mind of God. This does *not* mean anymore, however, that this order is a merely *imaginary* one, since it is also the model on the basis of which God, the wisest architect, chooses the world to actualize.

In this case we are in the middle of the passage from the early Leibniz's commitment to a full-fledged nominalist view to a qualified version of his nominalism, or, if you prefer, to a

¹⁴ Cf. Aquinas, *Super sententiarum*, I, dist. 44, q.1, a. 2, where he employs the traditional example of the cithara and the analogy with dissonances in music. The analogy will be repeated by Leibniz as well. Aquinas' argument will be discussed again in Chapter 7.

¹⁵ The distinction between the rigidified and the non-rigidified reading of 'actual' will be fundamental also in the case of Leibniz's argument against the plurality of worlds. See Chapter 7.4 below. Concerning Aquinas , cf. A. Funkenstein, *Theology and the Scientific Imagination*, pp. 136-37.

conceptualist ontology; one which makes room for an ontology of ideal entities (in the mind of God), which, however, play a fundamental role in explaining both the internal structure of the world and the sense according to which the existing world is the best possible one.

In this way, we can see the possibility of integrating the cosmological account of the plurality of worlds with the teleological one, by means of the idea of a reality of ideas (relations, possibilities) in the mind of God. This explains also why, though maintaining a nominalist ontology as far as the actual world is concerned, he can employ arguments from the harmony of the world (like the one employed by Aquinas and others) in order to preserve both the claims that there is only one world and that it is the best possible one.

Chapter 5: Series rerum and its Theological Ground. Essential vs. Existential Dependence

"Les idées ou essences sont toutes fondées sur une necessité independante de la sagesse, de la convenance et du choix ; mais les existences en dependent » (Leibniz to Bourguet, April 3, 1716, GP III, 592)

"Hinc omnes propositiones quas ingreditur existentia et tempus, eas ingredi eo ipso tota series rerum" (De natura veritatis, contingentiae et indifferentiae, A VI 4, 1517)

5.1 Possibilities without Possible Worlds in the Paris Notes

In the previous section I have claimed, among other things, that Leibniz's early theory of possibility, when compared to his later views on the same topic, has to be regarded as reductive in a twofold sense: (1) it does not ascribe any ontological status to what is merely possible, and (2) it does not envisage the idea that possibles are organized into worlds (or series) alternative to the actual one. On the contrary, at the end of the 1670's, Leibniz will explicitly reject both (1) and (2). What is particularly interesting, however, is not as much the result as the very same process that led Leibniz to elaborate his ontology of possible worlds, a process whose main steps are to be found in the writings of the Paris period as well as those of his first years in Hannover (1677-78).

5.1.1 Possibles as imaginary beings

As far as I can see, this process of elaboration can be articulated in three steps, which can also be regarded as (more or less) chronologically distinct phases of Leibniz's philosophical development. In this paragraph, I will focus on the first step only, while mentioning the other

two only at the end of it. I will come back to discuss them extensively at the end of this chapter and, once again, in the next one.

According to my reconstruction of the genesis of Leibniz's theory of possible worlds, the first step is one in which Leibniz contraposes the idea of the world explicitly conceived of in terms of a "series of things" (*series rerum*) –which contains all and only the actual entities taken together in order to constitute a whole –with that of mere or non-actualized possibilities, which, on the contrary, are typically understood as disjoint entities which do not compose any totality at all. A similar account can be found, more or less explicitly formulated, in a series of passages from the Paris notes.

For instance, at the end of 1675, Leibniz proposes the following contraposition between two different notions of '(im)possibility':

" 'Impossible' is a two-fold concept: that which does not have essence, and that which does not have existence, i.e., that which neither was, is, nor will be because it is incompatible with God, or, with the existence or reason which brings about that things exist rather than do not exist. One must see if it can be proved that there are essences which lack existence, so that it cannot be said that nothing can be conceived which will not exist at some time in the whole of eternity. All things which are, will be, and have been, constitute a whole. [...] The origin of impossibility is two-fold: one from essence, the other from existence or, positing as actual [*ab existentia seu positione*]. In the same way, there is a two-fold reason for impossible problems: one, when they are analysed into a contradictory equation, and the other, when there is an analysis into an imaginary quantity, for which no place can be understood. This is an excellent image of those things which neither have been, nor are, nor will be".¹⁶

Leibniz is trying to draw a distinction between those things which are absolutely impossible, like a contradictory notion "which does not have an essence" (understand: no essence can correspond to a contradictory concept), and those things that are impossible not from an essential but only from an existential point of view, i.e., as Leibniz himself says, those things which do not find a 'place' in the series of things that constitute the actual world (or, do not have a position within the series). He also makes explicit that the latter is the case of non-actualized possibles, i.e. those things which, even though they are not absolutely impossible (their notions are not contradictory), are not included among the things which are, will be or have been.¹⁷

Incidentally, Leibniz adds a remark concerning the ontological status of those non-actualized possibilities, asking himself whether a demonstration can be produced in order to show "that there are essences which lack existence", which means that there are genuinely non-actualized possibilities, or, alternatively, one has to endorse a strong version of the 'principle of plenitude', that is the claim that "nothing can be conceived which will not exist at some time

¹⁶ De mente, de universo, de Deo, December 1675, A VI 3, 463-64/DSR 7.

¹⁷ A concrete case can be taken from a paper of this very same period, in which Leibniz wants to defend the principle that the same quantity of motion is conserved. As an objection against the principle, he makes the example of the impact between two perfectly homogeneous rectilinear bodies, from which "it will follow that motion is lost, and that as a consequence the entire harmony of things is disturbed". At this point Leibniz notes: "It can be replied that such bodies neither have existed, do exist, or will exist; but this is not intellectually satisfying. For such a body certainly remains possible". Few lines below, Leibniz explicitly remarks that it is important to stress "the way in which impossible things differ from those which neither are nor will be nor have been" (*De materia, de motu, de minimis, de continuo,* A VI 3, 468/DSR 17). Notice that, at this stage, following Hobbes, Leibniz is still inclined to believe that physical laws must be absolutely necessary (for details on this point, see Garber, *Leibniz*, pp. 235-50).

in the whole of eternity". In other words, Leibniz is asking if one has to accept the ancient conception (typical of the Aristotelian tradition) that interpreted modalities in a temporal sense, from which the principle of plenitude does follows as a sort of corollary (the possible being defined as something which will eventually be realized at some time, from which it follows that what will not be realized at a certain instant of time is impossible). On the contrary, if one endorses a logical or diachronic account of modalities, one can draw the conclusion that there are such things as essences which lack an actual realization in time.

The question, however, is left unanswered here and Leibniz proceeds to compare his twofold account of (im)possibility (essential vs. existential) with the distinction between two ways in which algebraic problems can be said to be 'impossible': "one, when they are analysed into a contradictory equation, and the other, when there is an analysis into an imaginary quantity, for which no place can be understood [*cujus nullus intelligi potest situs*]".

Reference to "imaginary quantities" has to be traced back to Leibniz's interest in the problem of attaching a meaning to the square root of a negative number. In particular, we know that in this very same period (1675), Leibniz was seriously concerned with the question of providing some meaning to imaginary quantities, especially as far as the so-called "irreducible case" in Cardano's formula for the roots of cubic equation was concerned (a case in which Cardano's algebraic formula delivers a complex expression, i.e. one having an imaginary part, although the solution is real, as can be proved by resorting to a geometrical method). In his correspondence with Huygens, Leibniz is very proud of having introduced a new operation that allows him to reduce complex expressions to real ones.¹⁸

The same simile between non-actualized possibilities and imaginary roots will be repeated and expanded in a text from the 1680's, where Leibniz provides also a very clear example in order to show that an imaginary root (like $\sqrt{-1}$) "involves some notion, though it cannot be exhibited":

"But there is a great difference between problems that are insoluble because of their absurdity, as for example, if someone were to look for a number which multiplied by itself is 9 and also added to 5 makes 9. Such a number implies a contradiction, for it must, at the same time, be both 3 and 4, that is, 3 and 4 must be equal, a part equal to the whole. But if anyone were to look for a number such that its square added to nine equals that number times three [that is, the equation: $x^2 + 9 = 3x$], he could certainly never show, by admitting such a number that the whole is equal to its part, but nevertheless, he could show that such a number cannot be designated".¹⁹

Whereas in the first case we get into a contradiction (by claiming that '3 is equal to 4'), in the second one both the roots of the equation are imaginary ones and Leibniz says that they cannot be designated, which means that they cannot be represented by means of a geometrical method (in the lines immediately preceding the quoted passage, indeed, Leibniz refers to his method of determining the imaginary roots of an equation by means of a straight line intersecting a circle, a solution he developed in his essays on the *mathesis universalis*).

Leaving the mathematical questions aside, what is interesting here is the fact that Leibniz was eager to emphasize the role of these imaginary expressions, which, as he will later write,

¹⁸ For the mathematical details, see R. B. Mc Clenon, "A Contribution of Leibniz to the History of Complex Numbers", *The American Mathematical Monthly*, 30, 7, 1923, pp. 369-74.

¹⁹ De libertate et necessitate, 1680-84 (?), A VI 4, 1448/AG 21.

"have the wonderful characteristic that they do not involve nothing absurd or contradictory in the calculation, and yet they cannot be exhibited in the nature of things or in concrete matters".²⁰

As far as the ontological status of those imaginary roots is concerned, the mature Leibniz will add that the nature of things, or, better, the divine mind, has "found an elegant and amazing way out in that wonder of analysis, that is a monster of the ideal world, a sort of amphibian between being and not-being, which we call the imaginary root".²¹ Here, the 'amphibian' nature of these mathematical entities, something in between *ens* and *non-ens*, has to be explained in terms of the mature Leibniz's commitment to a (Platonic) ontology of ideal entities.²²

On the other hand, as far as the young Leibniz is concerned, his position is not so clear-cut. As H. Breger has clearly pointed out, indeed, "[i]n his earlier years, Leibniz considered mathematics to be the science of imagination. But later, he explicitly rejected this".²³ Notice that in the very same 1675 essay from which the passage above is taken, Leibniz for the first time explicitly distinguishes between a procedure of analysis by means of "definitions" and a procedure of analysis by means of "imaginations" (or "ideas"). In the latter case, when we proceed by means of imaginations, we are not only deceived by memory, but also "we often seem to ourselves to have achieved what we have not done". This happens because, Leibniz says, we proceed by analogies, as when "I say that $\sqrt{-1}$ is a possible quantity, I proceed by certain analogies".²⁴

²⁰ Mathesis Universalis, GM VII, 73.

²¹ Specimen novum analyseos pro scientia infiniti circa summas et quadraturas, 1702, GM V, 357.

²² There are also passages, especially from his late period, in which Leibniz shows a sort of dissatisfaction with the expression 'imaginary being', which he takes to be redundant with respect to the couple possible/impossible. See for instance his critical remarks on Stegmann's metaphysics: "The degree of non-beings nearest to being [...] is the past or the future which is not, but was or will be. Hence follows the possible which neither was, nor is, nor will be; however, it could have been or could be. That is followed by the impossible, which implies a contradiction. To this he [Stegmann] adds the imaginary [*commentitium*]. But this will either be possible or impossible, and to these it adds only relation to the opinion of men. So Pseudo-Nero, the Emperor Pseudo-Frederick II was imaginary because he was indeed possible, but false. But the squaring of the circle [...] is imaginary in a quite different sense because it is not only fictitious but [...] impossible" (Jolley 189). Same position held in one of the appendixes to the *Theodicy*, GP VI 432, where Leibniz remarks that fictional impossible objects (among which he counts 'free will' in the libertarian sense of *arbitrium indifferentiae*) should be properly called *Êtres de raison non raisonnante* (rather than *Êtres de raison raisonnante* "comme quelques Scholastiques appellant les Fictions").

²³ H. Breger, "Problems of Mathematical Existence in Leibniz", in Pelletier (ed.), *Leibniz and the Aspects of Reality*, pp. 123-138, esp. p. 131. Cf. also Leibniz's letter to Varignon, February 2, 1702, in which he explicitly recalls his Paris discussion with Huygens about imaginary numbers and makes clear the infinitesimals of his calculus have to be regarded as ideal entities: even if they do not exist "in the metaphysically rigorous sense" (i.e. they are not actual beings), they can be taken "as a means to shorten calculation, just as the imaginary roots in ordinary analysis [...]. Regardless of whether one calls these 'imaginary', they are nonetheless useful and sometimes even indispensable, in order to express real magnitudes analytically [...]. Also the imaginary numbers have their foundation in reality [*fundamentum in re*]", GM IV, 92-93. Here Leibniz is oscillating between the view that infinitesimals and imaginary roots are just useful fictions that must be employed for the sake of calculation, and the view that they have a *fundamentum in re*, where the latter has to be interpreted as referred to a domain of ideal entities, not of actual ones.

²⁴ De mente, de universo, de Deo, A VI 3, 462/DSR 3. On the imaginary nature of mathematical, and, especially, geometrical objects, see also *Numeri infiniti*, April 1676, A VI 3, 499/LC 89-91.

5.1.2 Leibniz's rejection of the collective account of possibilities

The comparison with the imaginary quantities of algebra is regarded by Leibniz as an excellent image of "those things which neither have been, nor are, nor will be". They are regarded as impossible only in a relative sense, i.e. insofar they do not have a *position* in the series of things which constitute the actual world. The latter, on the contrary, contains "[a]ll things which are, will be, and have been", taken as a "whole" [*totum*]. This point needs to be stressed, since it shows us how at this stage Leibniz does not conceive non-actualized possibles as gathered together in series or worlds.

This point has been emphasized in other passages of the same period. See for example the following remark from March 1676:

"Now I finally see that there is no number or multiplicity of non-existent possibles, that is, things which neither are, nor were, nor will be, because by their very position, that is accidentally, they are impossible".²⁵

Again, the same point is repeated in a text from the end of the same year:

"It is not surprising that the number of all numbers, all possibilities, all relations or reflections are not distinctly understood; for they are imaginary and have nothing that corresponds to them in reality [*a parte rei*]. For example, suppose that there is a relation between *a* and *b*, and that that relation is called *c*; and let a new relation be considered between *a* and *c*, and let that relation be called *d*, and so on to infinity. It does not seem that any one may say that all those relations are true and real ideas. Perhaps only those things are purely intelligible which can be produced; that is, which have been or will be produced".²⁶

The first of these two passages can be regarded as an anomalous one, since it seems to imply a strong rejection of the subsisting of something like non-actualized possibilities. This would be anomalous because already in his 1672-73 *Confessio Philosophi* Leibniz defended the opposite view, by claiming that there are, in fact, possible things which do not belong to the actual world (or the actual series of things), namely possibles that do not exist, did not exist and will never exist.

In the *Confessio*, indeed, Leibniz clearly criticizes the view of those who think that those things which are not realized some-when (in past, present or future), by noting that:

"[...] if the essence of a thing can be conceived, provided that is conceived clearly and distinctly (e.g., *a species of animal with an uneven number of feet, also a species of immortal beast*), then it must already be hold to be possible, and its contrary will not be necessary, even if its existence may be contrary to the harmony of things and the existence of God, and consequently it never will actually exist, but it will remain *per accidens* impossible. Hence, all those who call impossible whatever neither was nor is nor will be are mistaken".²⁷

Contrary to what appears at first sight, however, there is no tension between this text and Leibniz's two remarks from 1676 I have quoted above. Some interpreters have suggested to

²⁵ Notizen zur Wissenschaft und Metaphysik, 18 March 1676, A VI 3, 391/LC 53.

²⁶ Aufzeichnungen zur Metaphysik, December 1676, A VI 3, 399-400/DSR 115.

²⁷ *Confessio Philosophi*, 1672-73, A VI 3, 128/CP 57 (I have omitted "absolutely, i.e. per se" after "impossible" in the last line of the quoted text, since it has been added to the original text by Leibniz only at the end of the 1670's).

read the latter as if Leibniz had been momentarily influenced by Spinoza's necessitarian view according to which whatever happens, happened or will happen is absolutely necessary and, therefore, whatever is not actual in this sense is also impossible in absolute sense.²⁸ However, this is not what Leibniz does properly say in the two passages above.

What Leibniz says in the passage from the *Confessio*, when he points out that the never-tobe-actualized possible can be said to be 'impossible' only *per accidens*, will be literally repeated in the passage from March 1676, where he notes that non-actualized possibilities are impossible only accidentally, i.e. by their very same position (which is what Leibniz already meant to say in the 1675 passage when equated them with imaginary quantities, which have no *situs*).

Here, then, Leibniz is not denying that there are non-actualized possibilities (in logical, not temporal sense), but only that those possibles that do not belong to the actual series of things (the actual world) can be counted or enumerated, since they do not form a totality, as it is in the case of those which are actually instantiated. As he says in the passage from 1675, indeed, actual things (be they past, present or future) constitute a totality (*totum*), whereas, on the contrary this does not hold in the case of mere possible ones.

I take this as an evidence of the fact that, at this stage, Leibniz is not yet entertaining the idea of a plurality of possible worlds, because, as we know from the writings of his mature period, each possible world does in fact constitute a kind of whole or totality of reciprocally connected individuals (or, better, individual concepts).²⁹ At this stage, indeed, to speak properly, there is only one series of things which is unified and closed under spatial and temporal relations, that is the actual world; and this is also the reason why every mere possible entity which does not find a place in such a totality (which cannot be placed anywhere among the series of things which do actually exist) has to be immediately exiled in the field of merely imaginary things.

Again, this amounts to say that mere possibles are just scattered items; they can be accounted only in a *disjunctive* and not a *collective* sense, since they are not members of a 'compact' series of things like the one which constitutes the actual world. In considering the actual world as a 'series of things', Leibniz is employing another mathematical simile, one intended to highlight the ordered structure which holds among the members of the series itself (i.e. among the individuals that belong the actual world as well as the events occurring in it).³⁰

As we will say in details in what follows, indeed, Leibniz's idea is that a world should be regarded (at least from the 'conceptual' point of view, like, for instance, the point of view of

²⁸ Cf. E. Pasini, "Leibniz alla caccia di Spinoza", in S. Gensini (ed.), *Linguaggio, mente e conoscenza. Intorno a Leibniz*, Roma 2005, pp. 59-86, especially pp. 82-3 n. 17.

²⁹ This point needs to be qualified, however, for there is a sense in which, for Leibniz, the actual world itself does not constitute a totality, but only an aggregate of substances. See the texts discussed below (Chapter 7, note 291 below), which, in general, show a sort of oscillation between the idea that (at level of pure possibility) a world can be holistically understood as a *series of things*, and, on the other hand, the idea that what is actual is not a collective whole but an aggregate of substances.

³⁰ Mondadori, "A Harmony of One's Own and Universal Harmony", p. 165 writes: "to maintain that Harmony (in the sense of "tout se tient") holds is to maintain [...] that everything is "well-ordered" (not only in an intuitive, aesthetic, and metaphysical sense, but also in the mathematical sense of "well-ordered" that is captured by the notion of a series)". As this and the next chapter will show in details, I think that, from Leibniz's writings, it clearly emerges the idea that a(ny) world is a "series of things" insofar as it is well-ordered in the sense that, among the members of the series, a relation holds which is antisymmetric, transitive, and total.
God before the creation) as an ordered succession, in which every member has a well-defined relation (in the sense of the relations of connection) with every other members of the series and with them only; exactly as in the case of a mathematical series, each number has its proper position that characterizes it and distinguishes it from all those which precede and follows it.³¹ The very same idea that non-actualized possibles are to be regarded as accidentally impossible since they lack of a 'position' in the series of things can be easily traced back to this model.

This also explains why, in the second of the passages from 1676 quoted above, Leibniz claims that one cannot distinctly understand "the number of all possibilities", as well as the number of all numbers or the number of all relations. Remember that in the *Confessio* he has clearly said that the notion of a possible entity (like the concept of "a species of animal with an uneven number of feet") is clearly and distinctly conceived or, rather, conceivable (provided that it does not entail a contradiction). On the contrary, the "number of all possibilities" cannot be clearly and distinctly conceived because it entails a contradiction, exactly as Leibniz's favourite example of the "number of all numbers".

One should also remark that Leibniz is putting on an equal footing entities like possibilia, numbers and relations, and, concerning all these kinds of notions, he is eager to stress that they do not have, properly speaking, any reality: they are just imaginary notions and nothing corresponds to them *a parte rei*. (The opposite view, on the contrary, will be emphasized by him in the writings of the period 1677-78, cf. Chapter 9 below).³²

At this point, one should remember what we have already said in the previous section about Leibniz's understanding of abstract notions, since it is clear that in this passage he is equating possibilia, number, and relations insofar as they all share the same ontological status. All of them are abstract entities and, as in the case of other abstract notions, if one inclines to conceive them as something real (thus, as 'entities' in a proper ontological sense), he has to face the problem of an infinite regress, like the kind of third-man argument that Leibniz shows in the case of relations.³³

At this stage, then, even though Leibniz does not deny the plausibility (and the necessity) of talking of non-actual possibilities, as far as their ontological status is concerned, he is still

³¹ Cf. Piro, *Varietas identitate compensata*, p. 57, who rightly emphasizes the link between Leibniz's idea of a series of things and the role of 'relations of connection'. For the idea that a series is a 'compact' totality, cf. also Di Bella, *The Science of the Individual*, pp. 274-85, even though he principally refers to the compactness of the complete concept (which is the same, since for the mature Leibniz there is a one-to-one relation between each individual concept and the world to which it belongs). The serial order of Leibniz's notion of 'world' will be further discussed in the next chapter below.

 $^{^{32}}$ H. Ishiguro, *Leibniz's Philosophy of Logic and Language*, Cambridge 1990², p. 135, stresses the fact that Leibniz is not saying here that all relations are imaginary: "It seems clear that what makes the idea of all relations imaginary, and not have anything corresponding to it in reality, is the infinite totality involved, not its being of relations". (The same remark holds in the case of possibilia and numbers as well). Ishiguro, however, says nothing about the last part of the passage, where Leibniz says that intelligible things (to be contrasted with imaginary ones) are only those which can be produced, i.e. those which are, have been or will be produced (cf. also the passage quoted in the following note).

³³On relations, compare A VI 3, 399, quoted above, with the conclusion of *De motu et materia*, 10 April 1676, A VI 3, 495: "Therefore it seems that what should be said is this: there is no number of relations, which are true entities only when they are thought about by us; for example, numbers, lines, or distances, and other things of that kind; for they can always be multiplied by perpetually reflecting on them, and so they are not real entities, or possible, except when they are thought about" (LC 83). Cf. Leibniz's denunciation of the same kind of infinite regress in the general case of abstract notions in the *Preface to Nizolius*, quoted in Chapter 3.5 above.

rejecting they are something real. He also adds that these notions cannot be taken as referring to "true and real ideas", and concludes, even though in a tentative way, that perhaps one should count among intelligible things only those which are actual (i.e. those which are producible insofar as they have been produced or will be produced).³⁴ All this, I think, is in keeping with the young Leibniz's commitment to a form of full-fledged nominalism (see what I said in Chapters 2 and 3 above).

5.1. 3 Distributive vs. Collective knwoledge of the possibles. Leibniz and Fabri

Finally, there is another passage that provides us with a confirmation of what we have said so far. In a text dated February 1676, Leibniz notes:

"All possibles cannot be understood distinctly by anyone, for they imply a contradiction. A most perfect being is that which contains the most. Such a being is capable of ideas and thoughts, for this multiplies the variety of things, like a mirror. *Therefore God, who is necessarily a thinking being, even if he is not a being which thinks everything, will be more perfect by that very fact*. A being which is omniscient and omnipotent is the most perfect. A thinking being is necessary so that certain things which do not exist are at any rate thought –namely those which deserve to be thought rather than others. Therefore, though everything possible is thinkable, there will be chosen some things which will really be thought".³⁵

This passage is focused on the theological foundation of possibles in the mind of God more than with the question of their ontological status (even though the two questions will eventually coincide in Leibniz's mature theory, where the reality of possibilia is the result of their being the object of divine thought). The first line is in keeping with what we have said so far: something like a totality of all possible things is a notion that cannot be distinctly conceived by anyone, since it would imply a contradiction. Notice that such a conclusion would be easily avoided if, at this stage, Leibniz would have in mind something like a plurality of possible worlds, since the contradiction in question would not occur any longer where the existence of mutually incompatible possibilities is distributed in two or more

³⁴ By contrast, in his late remarks on Stegmann, Leibniz will provide the following division of the concept of non-being: "Non-being can be divided into the meaningful and the meaningless, the meaningful in turn into the possible and the impossible; the possible into that which exists at some time and that which never exists; that which exists at some time into the past and the future: the impossible into the hypothetically impossible and the absolutely impossible; the meaningless into the explicitly so (e.g. Blitiri) and the implicitly so -for example that which we do not even discuss -or what is not an object" (Jolley 180). Notice that, according to such a division, the absolutely impossible (a contradictory notion like "the fastest motion") is to not be considered as completely meaningless (as a meaningless expression like "Blitiri"). The same distinction had been already proposed in Introductio ad encyclopediam arcanam, 1683-85 (?), A VI 4, where cogitabile in general is said to be everything that can be an object of knowledge, with the only exception of "a name without notion, i.e. what can be nominated but not understandable, like Blittiri, which the Schoolmen give as an example". Here, I think that what Leibniz calls *cogitabile* refers to the same thing that in the remarks to Stegmann he called *significans*. Notice, also, that the *significans* might cover both possible and impossible notions, and, thus, has to be taken as a *term*, i.e. as a linguistic expression. The same view has been stated in Divisio terminorum, 1683-85 (?), A VI 4, 558: "A term is either possible or impossible. Possible is what is distinctly thinkable without contradiction, such as being, God, heat, nonbeing. Impossible is what is indeed thinkable in a confused way, but if you attempt to think it distinctly, you will find that the notions from which it is composed disagree with one another or involve a contradiction, like fastest motion, largest circle or corporeal mind" (translated in Rutherford, Leibniz and the Rational Order of Nature, p. 106).

³⁵ De arcanis sublimium vel de summa rerum, 11 February 1676, A VI 3, 475/DSR 29 (italics mine).

different worlds. However, since Leibniz is not entertaining this thought, he has to conclude that no one, God included, could entertain the idea of a totality of possibles.

The following lines of the passage are far more problematic, especially the line (italicized in the text above) that Parkinson translates as: "Therefore God, who is necessarily a thinking being, even if he is not a being which thinks everything, will be more perfect by that very fact". The original says: "Unde Deus necessario Ens cogitans, etsi non est Ens cogitans omnia, erit perfectius ipso". I think that Parkinson's translation of this passage is incorrect, but his mistake has been originated by what I suspect to be an error of transcription (or, perhaps, a lapsus calami of Leibniz himself) Under the hypothesis that Leibniz has originally written "et si" instead of "etsi", indeed, one could provide the following translation: "Therefore God is necessarily a thinking being, and if he is not a being which thinks everything, there will be another being more perfect than him".

In this way, Leibniz would put forth a condensed version of the ontological argument, in order to show that God is the most perfect being; under the hypothesis that God is a thinking being but one that does not thinks "everything", one could always imagine another being which would be able to think everything and, in so doing, would be more perfect than God. This conclusion, however, has to be rejected, and, thus, one has to conclude that God is omniscient, as Leibniz himself expressly says in the line that immediately follows this one: "A being which is omniscient and omnipotent is the most perfect".

In a note to his translation, Parkinson writes that in this passage "Leibniz seems to imply that no one can think of all possibles", by referring to the first line of the passage above.³⁶ This idea has found a supporter in M. Lærke, who has recently argued that the young Leibniz has implicitly introduced a distinction between what God *could* conceive and what he *actually* conceives. According to him, indeed, "Leibniz seems to defend the idea that, from a purely epistemological or logical point of view, God *could conceive* all possible worlds. But from the ontological point of view, which concerns what God's mind actually contains, Leibniz never affirms that God *does conceive* all possible worlds". And he also adds: "Quite on the contrary, the identification of God's mind with the harmony of the world not only suggests that God conceives only the best world, but that this conception *coincides* with the actual existence of the world".³⁷

What Lærke suggests here might have been inspired by what Leibniz says in the last lines of the passage in question: "Therefore, though everything possible is thinkable, there will be chosen some things which will be really thought [*itaque cum possibile omne sit cogitabile, eligentur tamen aliqua quae cogitabuntur reapse*]". I think that Lærke is right when he points out that the young Leibniz's conception of the relation between God, the harmony of the world and the choice of the best is somewhat different from that of his mature philosophy. I will say something more on this point below. However, I cannot agree with the way in which he explains it by introducing the distinction between what God *could* conceive and what God *does actually* conceive.

What is wrong with this explanation is the fact that it plainly introduces a certain form of *potentiality* in God's understanding, as if we were to say that there are certain things (like

³⁶ Cf. DSR 129, n. 19.

³⁷ Lærke, "Leibniz's Ontology of Possibility, 1668-78", p. 6.

other possible worlds) which God *could have* (potentially) thought, but he has never actually thought. But this point is theologically unacceptable, since no Christian theologian would ever accept the claim that God's understanding represents a modally non-vacuous faculty (i.e. a faculty which might or could have been exercised at some time with respect to some mental content, even though it has in fact failed to be exercised at that very same time).³⁸ The young Leibniz himself plainly subscribed to this traditional theological view, when he wrote that "in eternal and divine things, to be and to be able to be are the same [*in aeternis atque divinis idem sit esse et posse*]".³⁹

I think that Lærke's misunderstanding can be explained in the following terms. He assumes that the young Leibniz was already thinking of non-actualized possibilities in terms of possible worlds; thus, in order to explain why he refused to ascribe a certain realities to non-actualized possible worlds, he is forced to introduce this (spurious) distinction between what God *could* and what God *does actually* conceive. However, as I have showed above, the real point is that the young Leibniz had not yet in mind the idea that possibilities alternative to what has been actualized are organized in series (as in the case of what belongs to the actual world). That is why he could assume that non-actual possibilities are just imaginary, i.e. fictional entities, as well as that they could not constitute a totality (which would be contradictory as the number of all numbers).

In addition to what I have said so far, I would like to add that Leibniz's conception of possibles in the Paris notes seems to have much in common with the view defended by Honoré Fabri in his *Summula Theologica* (published in 1669), where the French Jesuit theologian and mathematician poses the question of the way in which God knows the possibles. His answer is that "all the possibles are known by God, but they are not known all together [*collective*], for, in this sense, they are not a totality, for the potential infinity excludes a collection or a totality". Furthermore, he adds that, if God were to know the possibles *collectively*, he himself would be wrong, or, better, he would contemplate just an *ens rationis*: "all the possible taken collectively, indeed, form the concept of the non-being, or the impossible". On the contrary, he affirms that, from the point of view of divine knowledge, there is only one act of cognition, through which God attains all the possible in a distributive way [*distributive*], i.e. this possible thing, and this, and this, and so on, but never a totality, for there is none, or a last one, since there is none".⁴⁰

Actually, I do not know whether Fabri's views were completely original or, on the contrary, they have been shared by other theologians before him. What seems to be clear, however, is that both his claim that God understands possible things only *distributive* and the fact that the rejection of the totality of the possibles is derived from the rejection of actual, i.e.

 ³⁸ See for instance Aquinas, *Compendium Theologiae*, I, c. 29: "*Quod in Deo non est intellectio nec in potentia nec in habitu, sed in actu*". For the distinction between modally vacuous and modally non-vacuous faculties, see Mondadori, "Nominalism", 182-3, as well as Id., "Modalities, Representations, and Exemplars".
 ³⁹ Defensio trinitatis contra Wissowatium, 1669 (?), A VI 1, 526. The formula "*in aeternis idem esse et posse*"

³⁹ Defensio trinitatis contra Wissowatium, 1669 (?), A VI 1, 526. The formula "in aeternis idem esse et posse" was a traditional one in the Aristotelian tradition, being modelled on a passage from Aristotle's *Physics*, III, 203b 30. Cf. Scribano, *L'esistenza di Dio*, pp. 3-20.

⁴⁰ H. Fabri, *Summula Theologica*, Lugduni 1669, Tractatus I,Cap. 3, xii, p. 26 a-b. Cf. Grua, *Jurisprudence universelle*, p. 265. Cf. Leibniz's long letter to Fabri, probably written at the beginning of 1677, A II 1, 286-301 (=GP IV, 244-61), where, however, he discusses only the physical theory of the HPN and adds some critical remarks on Descartes (there is one of the first occurrences of this criticism of the creation of eternal truths).

categorematic infinity, are elements shared by Leibniz in his Paris notes (and, as far as the rejection of categorematic infinite is concerned, also later on).⁴¹

5.1. 4 The evolution of Leibniz's views: a summary

So far I have discussed at length the first step of Leibniz's path of discovery of his ontology of possible worlds. I have shown that a non-actualized possible (a possible in itself) is just what does not find a place (has no position) into our "series of things", and, for this reason, is to be equated with something merely 'imaginary'. This explains why Leibniz's first and favourite example of a non-existent possible has always been a fictional character, as in the case of Barclay's *Argenis*, which he quotes in the *Confessio Philosophi*.

I have also remarked that, at this stage of his philosophical development, there is only one "series of things", i.e. the actual world, which is spatially and temporally unified (in the sense that each member of the actual world is connected with any other member of it by means of spatiotemporal relations; this does not hold in the case of non-existent possibles). On the other hands, things possible-in-themselves are not (yet) organized in series, and, for this reason, they are said to be only accidentally impossible.

More or less in the same period (April 1676), Leibniz introduces for the first time the idea of a plurality of worlds. Moving from the criteria for distinguishing reality from imagination, or, better, the real world from the worlds of dreams, he suggests that the unity of space, time, and, then, the unity of the world, has to be explained in terms of our minds' having coherent perceptions. Thus, if we make the hypothesis that there can be 'alien minds' (minds whose perceptions are not in agreement with ours), then, at the same time, there can be also a plurality of actually existing worlds (each one closed under space and time, and having its own natural laws). This constitutes what I call the second step of Leibniz's development of his theory of possible worlds.

Such a line of reasoning, however, has, among its undesired consequences, the effect of weakening the primacy of the actual world, from which Leibniz moved. Since it also commits him to endorse a strong form of the principle of plenitude (all the worlds are ontologically on a par and, thus, there are no non-realized possibilities), he will eventually reject it. Accordingly, he has to reject the very same premise from which that conclusion was drawn, i.e. the possibility that there are innumerable other 'alien minds' which exist and which are in no way connected with those which inhabit our world.

Then, the principle that everything which exists must be interrelated with any other existing being will be employed by Leibniz in order to reject the possibility of a plurality of actual worlds. Accordingly, there can be no existing things which are not members of the actual

⁴¹ Cf. for instance Leibniz to Des Bosses, September 1, 1706, GP II, 314-5, where actual infinity is accepted only in a distributive and not collective sense: "*Datur etiam infinitum actuale per modum totius distributivi, non collective. Ita de omnibus numeris aliquid enuntiari potest, sed non collective*". Leibniz accepts the syncategorematic infinite, while rejecting the categorematic one; at the same time he maintains that reality is infinitely divided actually, not potentially. Whereas the tradition clearly identified potential infinite with the syncategorematic one, Leibniz seems to introduce a distinction between the two. (Monica Ugaglia has kindly pointed out to me, however, that Leibniz's view on actual infinite are very closer to what Aristotle would call potential infinite; the problem, however, is not to be discussed here. On this point see also T. Crockett, "Continuity in Leibniz's Mature Metaphysics" Philosophical Studies 94, 1999, pp. 119-38).

world. It seems that, at this point, we are just skipping back to the scenario delineated in the first step. However, the situation is now much more complicate, because, for metaphysical and theological reasons connected with his contraposition to Spinoza's necessitarianism, he is forced to introduce a plurality of merely possible worlds in order to save the contingency of the actual world (i.e. in order to reject the conclusion that the creation of the best world is absolutely necessary).

This is the third and final step of Leibniz's philosophical development. Moreover, working on the idea that the notion of substance can be captured by every individual's having a complete concept, Leibniz will claim that each individual concept (be it existent or not) mirrors or expresses the world to which it belongs. In other words, the theory of complete concepts is tightly connected with metaphysics of real essences, from which it follows that there are complete concepts of merely possible as well as of existing individuals.

Therefore, there is a plurality of merely possible series or merely possible worlds, each of which is a maximal and consistent set of mutually compossible complete concepts (which means that a sort of conceptual connection holds not only in the actual world, as it was according to Leibniz's original view, but also in every possible world).

So far I have employed the expressions "world(s)" and "series of things" as interchangeable ones; although one should remark that the early Leibniz usually employs only the first one (if I am not mistaken, the term "world" is employed only in connection with his discussion of a plurality of actual worlds in April 1676).⁴² The expression "possible world(s)" does not appear in texts earlier than 1686, having probably been borrowed from Malebranche, who plainly talks of possible worlds in his 1680 *Treatise on Nature and Grace*.⁴³

This is just a rough and sketchy presentation of the second and third step of my genetic reconstruction of Leibniz's conception of possible worlds. I have presented it in advance just in order to provide the reader with the 'big picture', whose details will be filled in the following chapters of this Section.

Before doing that, however, I need to say something more about Leibniz's understanding of the actual world as a *series rerum*, as it was presented in the writings of the Paris period, starting from the theological account provided in his *Confessio Philosophi*.

⁴² Of course, the term "world" also occurs in the expression 'worlds within worlds' which is connected with the claim that matter is actually divided to the infinite, cf. A VI 3, 474 and 581.

⁴³ According to Schepers, "Zum Problem der Kontingenz bei Leibniz", p. 215, the first occurrence of "possible worlds" is to be traced back to Leibniz's correspondence with Arnauld. Cf. in particular Leibniz's letter from May 13, 1686, GP II 40: "Car comme il y a une infinité de mondes possibles, il y a aussi une infinité de loix [...] ». See also *De libertate, fato, gratia Dei*, 1686/87 (?), A VI 4, 1612 (where the expression "possible worlds" is explicitly employed to explain the meaning of different choirs in Leibniz's revisited version of the myth of Deucalion and Pyrrha). In writings of the end of the 1670's, Leibniz explicitly talks of different ways in which the world could have been created by God (without explicitly employing the expression "possible world"), see for instance A VI 4, 1362 ("Ex omnis modis possibilibus quibus existere posset Universum seu series rerum, unus modus perfectissimus est") and 2231 ("Je demeure d'accord que le monde pouvoit estre fait de mille autres façons [...]"). Cf. Malebranche, *Treatise on Nature and Grace* (1680), # 13: "From this we must conclude that God, discovering in the infinite treasures of His wisdom an infinity of possible worlds [...], was determined to the creation of the one which might be produced and preserved by the simplest laws or which must be the most perfect [...]" (N. Malebranche, *Philosophical Selections*, edited by S. Nadler, Indianapolis/Cambridge 1992, p. 260). Leibniz annotated the 1684's edition of Malebranche's *Treatise*, see A VI 4, 2639-40. Cf. also A. Robinet, *Malebranche et Leibniz*. *Relations personnelles*, Paris 1965, pp. 225-28.

5.2 Superessentialism without Complete Concepts?

The Conflation of Essences and Existences in the Confessio philosophi

5.2.1 The notion of series rerum in the Confessio philosophi

The *Confessio Philosophi*, originally written between 1672 and 1673, is perhaps the most important work in the field of philosophical theology of Leibniz's earlier production, and represents also the connecting link between the writings of the Mainz period and Leibniz's further metaphysical elaborations in the Paris notes.⁴⁴ Its main topic is the question of 'theodicy', to use a term coined by Leibniz himself many years later, i.e. the vindication of God's justice from the charge of having voluntarily created the evil in the world. As we will see in a moment, the notion of a 'series of things' plays a fundamental role in Leibniz's strategy for defending God's justice, a strategy which, in its main lines, will be retained in his mature works as well.

In the *Confessio*, indeed, Leibniz holds that the existence of sins is inevitably due to the arrangement of this 'series of things', and the existence and arrangement of this (and *just this*) 'series of things' does not depend on God's will but, rather, on the harmony of things or the existence of God.

Answering the doubts of the Theologian, the Philosopher (Leibniz's spokesman in the dialogue) introduces his point of view in the following way:

"[...] I cannot deny –because it is certain –that if God is taken away, so is the entire series of things, and if God is posited, so is the entire series of things, included those created things that were and those that will be, the good and the evil actions of creatures, and, accordingly, their sins. Nevertheless, I deny that sins arise from the divine will. [...] Namely, even if God is the ground [*rationem*] of sins, he is nevertheless not the author of sins, and if I may be permitted to speak in the manner of the scholastics, the ultimate physical cause of sins style="text-align: classe">style="text-align: classe is in God; the moral cause is in the sinner. [...] I think, therefore, that sins are not due to the divine *will* but rather to the divine *understanding*, or, what is the same, to the eternal ideas or the nature of things [...]".⁴⁵

The Philosopher's point, then, is that the arrangement of things which constitutes our world cannot be modified, since it is entirely contained, in all its details, in God's understanding, or in the nature of things or eternal ideas (which in this text are simply equated with the existence of God). This means that, in creating this world, God cannot but create, so to say, the 'full package', i.e. he is not allowed to remove something (like sinful actions) at his own discretion, because in so doing he would just destroy or remove the entire series of things.

⁴⁴ It should be remarked that the notion of the actual world as a unified and well-ordered series of things clearly emerges only in the text of the *Confessio*, whereas, as far as I could see, it is completely absent from the writings of the Mainz period (as I have already pointed out in my discussion of relations of connection in Chapter 4.6 above).

⁴⁵*Confessio Philosophi*, A VI 3, 121/CP 41 (the text between angle brackets has been added by Leibniz in his revision of the text at the end of the 1670's).

In order to make his point more understandable, the Philosopher proposes an example based on mathematical truths, like 'three times three is nine' and 'the diagonal of a square is incommensurable with a side', which cannot be ascribed to God's will but to the nature or essence of things:

"Therefore these theorems must be ascribed to the nature of things, namely to the idea of the number nine or the idea of square, and to the divine intellect in which those ideas of things subsist from eternity. That is, God brought these things about not by willing them, but by understanding them, and he understood them because he exists. [...] Therefore, you see that there is something of which God is the cause not by his *will* but by his *existence*. [...] For just as the fact that 'three times three is nine' is due to the existence of God and not to the will of God, similarly, the fact that the ratio of three to nine is the ratio of four to twelve can be ascribed to the same thing. For every ratio, proportion, analogy arises from God's nature, or, what is the same, from the idea of things, and not from the will of God".⁴⁶

As numerical proportions and mathematical theorems must not be ascribed to someone's will (not even God's), in the same way also the ratio and proportionality which constitute the "universal harmony" must be ascribed to the divine understanding only, i.e. the nature of things. In this way, Leibniz thinks to enlighten the claim that the existence of this world depends only on the harmony of things (and since the existence of sins is a part of this series of things that cannot be detached from the whole without destroying it, it cannot be ascribed to God's will as well). Note also how in this text Leibniz does not clearly distinguish between the existence of God and his understanding, and, more importantly, between God's understanding and the ideas contained in it.⁴⁷

The parallel with eternal (i.e. necessary) truths, however, seems not to be a completely adequate one. The arrangement of our series of things, indeed, contains also contingent facts, likes Judas' sin (to stick at Leibniz's own example), as well as contingent truths about them. Now, one could think that denying a necessary truth is impossible because its opposite implies a contradiction, whereas, on the contrary, denying a contingent truth implies only a violation of the principle of sufficient reason, or, perhaps, the principle of the best. At least, this is what emerges from the standard Leibnzian account of necessary and contingent truths.

Moreover, that was also the core of the distinction between necessary and contingent truths according to the very early Leibniz, as we have already seen in the previous section. According to the DAC, for instance, a proposition like 'Augustus was the first Roman emperor' is contingent, since its truth is grounded on actual existence, and the same holds in the case of empirical generalizations like 'Every adult man in Europe have cognition of God' (all these propositions, said Leibniz, are true "quasi casu, id est Dei arbitrio"). In that case, the exigency of distinguishing between contingent and necessary truths was motivated by the impossibility of extending the theorems of the ars complicatoria (which deal with eternal truths only) to the case of singular propositions.

⁴⁶ *Ibid.*, 121-22/CP 43.

⁴⁷ See also Leibniz's 1671 letter to Wedderkopf, where he explicitly says that "possibilities or ideas of things coincide rather with God himself" (A II 1, 117/L 146). It has also to be stressed the fact that the young Leibniz does not seem to clearly distinguish between God and the harmony of things. Cf. K. Moll, "*Deus sive harmonia universalis est ultima ratio rerum*. The conception of God in Leibniz's early philosophy", in Brown (ed.), *The Young Leibniz and His Philosophy*, pp. 65-78.

When approaching the same topic from the point of view of his theodicy, however, Leibniz is somehow led to put necessary and contingent truths on the same footing, in order to safeguard their independence from divine will, i.e. in order to safeguard them from any form of theological arbitrarism (by theological arbitrarism, I am thinking here of something like Scotus' or Ockham's theological voluntarism rather than Descartes' theory of the creation of eternal truths).⁴⁸

5.2.2 Sufficient reason and causa plena: Leibniz's theory of requisites

According to Leibniz's mature account, a world deprived of Judas' sin (and its consequences) would have been less perfect (taken as a whole) than our world, in which Judas' sin does occur, and that is the reason why God abstained from creating it. In the *Confessio*, on the contrary, these two kinds of truths (necessary and contingent) are treated on a pair, both of them being brought back to the same principle, namely to a generalized version of the principle of sufficient reason (one in which, as we will see in a moment, Leibniz conflates logical and causal relations).

About the impossibility that the actual series of things could be changed or even slightly modified (for instance, by removing Judas' sin), Leibniz writes:

"It is no more possible that from the same ground –and a ground sufficient and entire, as God is with respect to the universe -there should result opposed consequences, that is that different things should follow from the same thing [i.e., that there could be a violation of universal harmony], than it is possible that the same thing should be different from itself [i.e., something absolutely, logically impossible]".⁴⁹

The point to be emphasized here is the expression "a ground sufficient and entire" (ratio sufficiens et integra). God is understood as the sufficient and entire reason of the existence of the universe, and this is connected, of course, with Leibniz's formulation of the principle of sufficient reason (PSR) at the very beginning of the dialogue.

There, indeed, the philosopher expresses his commitment to the claim that 'nothing is without reason', justifying it in the following terms:

"I grant this to the extent that I believe it can be demonstrated that nothing ever exists unless it is possible (at least for one who is omniscient) to assign a sufficient reason why it exists rather than not, and why it is thus and not otherwise. Whoever denies it, destroys the distinction between being itself and nonbeing. Whatever exists, at any rate, will have all the requisites for existing; however, all the requisites for existing taken together at the same time are a sufficient reason for existing. Therefore, whatever exists has a sufficient reason for existing".⁵⁰

Such a proof of the PSR is nothing but a rephrase of the formal proof that Leibniz provided few years before in a text we have already examined in the previous section, "On the Demonstration of Primary Propositions":

 ⁴⁸ Again, this point had been already made clear by Leibniz in his letter to Wedderkopf, A II, 1, 117-8/CP 3-5.
 ⁴⁹ Confessio Philosophi, A VI, 3, 123/CP 45 (italics mine).

⁵⁰ *Ibid.*, A VI 3, 118/CP 33.

"Proposition: Nothing is without a reason, or whatever is has a sufficient reason.

Definition 1: A *sufficient reason* for something is something which, once given, that thing occurs. *Definition 2:* A *requisite* is something which, when not given, the thing does not occur.

Demonstration:

[a] If something occurs, then all its requisites are given, for if one of them were not given, the thing would not occur (by *def. 2*).

[b] Given all the requisites, the thing occurs, for if it did not occur, there would be lacking something for its occurrence, i.e., a requisite.

[c] Therefore, all the requisites constitute a sufficient reason (by def. 1).

It follows that, whatever is has a sufficient reason.

Q.E.D."51

In these passages, Leibniz's proof of the PSR is clearly modelled on Hobbes' definition of *causa integra* as the aggregate of all the requisites for the existence of something. Both Hobbes and the young Leibniz, indeed, conceive the sufficient ground (*ratio sufficiens*) in terms of 'requisites' for existing.⁵²

Roughly speaking, a 'requisite' is a necessary condition for the existence of something, but, at the same time, is also understood as a necessary condition of the essence of a thing. For instance, the elements of a definition (the conceptual notes that makes up the definition of something, like 'rational' and 'animal' in the case of 'man') constitute the requisites of the defined thing, i.e., that without which that particular thing could not be conceived.⁵³

This is nothing but a consequence of Hobbes' rejection of non-actualized essences, which we have already discussed in the previous section (see Chapter 3). That of *Requisite*, thus, is a flexible notion which serves to explain the relationship between the properties of a thing and its essence (since the definition provides us with the essence of a thing) as well as the relationship between an effect and its entire cause (*causa plena*).

Such a conflation between logical and causal dependence directly derives from Hobbes's notion of cause. According to Hobbes, indeed, whilst any single requisite constitutes in itself a necessary or *sine qua non* condition of the required thing, all the requisites taken together (the aggregate of all the necessary conditions) constitutes the *ratio sufficiens* of the required thing. In a word, requisites are singularly necessary and jointly sufficient conditions for the possibility/existence of a thing (given that, according to Hobbes, there are no unrealized possibilities).

⁵¹ Demonstratio propositionum primarum, 1671-72, A VI 2, 483 (translated in Dascal, *Leibniz*, p. 151). Letters have been added to the original text.

⁵² For Leibniz, see *De existentia*, December 1676 (?), A VI 3, 587: "For existence, it is necessary that the aggregate of all requisite is present. A requisite is that without which a thing cannot exist. The aggregate of all requisites is the full cause [*causa plena*] of a thing. There is nothing without a reason; for there is nothing without the aggregate of all requisites" (DSR 111-13).

⁵³ See *Confessio Philosophi*, A VI 3, 133: "If something does not exist, certainly some requisite must be lacking because a definition is nothing but an enumeration of requisites" (CP 69). See also A VI 3, 462-63/DSR 5. For similar statements in later texts, cf. A VI 4, 153 ("Requisitum est quod definitionem ingredi potest [...]. Est itaque requisitum ad definitionem, ut pars ad totum, seu ut numerus factor ad productum"), as well as the famous *Meditationes de cognitione, veritate et ideis*, A VI 4, 587. The notion of *requisitum* has been already employed by Leibniz in his early writings on conditional statements (*De conditionibus*).

Another relevant consequences of Hobbes' definition, is that a full cause is at the same time a necessary and sufficient condition for the production of its effect.⁵⁴In commenting Leibniz's formal proof above, it has been observed that premise [b] seems to be question begging, "for it assumes that there must always be a reason for the non-occurrence of a thing, a statement which is obviously a particular case of the principle which the proof is intended to prove".⁵⁵ I think this remark is correct as far as the logical strength of the argument is concerned. It must be added, however, that both Hobbes and Leibniz had strong extra-logical reasons to accept such a fundamental passage of their argument, which is deeply connected with their rejection of the free-will doctrine. As Leibniz noted, indeed, PSR, i.e. the claim that "nothing is without reason", "is denied by anyone who holds that the will is not subordinated to that rule, like all those who defend the '*Scientia media*' against the predeterminists".⁵⁶

Both Leibniz and Hobbes, indeed, defended compatibilism between determinism and freedoms against the theories of those Jesuits (like Molina and Suárez), who were supporters of a strong form of libertarianism. According to the latter, indeed, an action is called free only if, even when all its requisites have been posited, the action does not necessarily follows, since the agent is still free, in the sense that he can indifferently act or not act.⁵⁷ Thus, Leibniz's acceptance of PSR and his rejection of 'middle knowledge' were two sides of the same coin, i.e. of his anti-voluntarist theodicy.

5.2.3 Adamantina demonstratio. The necessitarian argument of the Confessio

Coming back to the text of the *Confessio*, we can see how Leibniz applies the Hobbesian logic of requisites to the particular case of the relation between God and the actual world (the *series rerum*). Since God is the ultimate and sufficient ground of all things, it follows that, when the sufficient cause is posited, the effect cannot but follow, nor other effects could follow which are different from the one actually following. In other words, the existence of this *series rerum* is a sort of 'automatic consequence' of God's existence. Accordingly, the world could not have been different from the way it actually is: "Take away or change the

⁵⁴ Leibniz's equating the full cause with the aggregate of all requisites derives from Hobbes' definition of *causa integra* in *De corpore*, IX, iii (OL I, 108). In the fifth paragraph of this chapter, Hobbes equates the full cause with the sufficient cause for the production of an event (OL I, 109). Cf. also *Ibid.*, VI, x (OL I, 68-70). The same view had been expressed by him in *Of Liberty and Necessity*: "I hold that to be a *sufficient cause*, to which nothing is wanting is needful for the production of the *effect*. The same is also a *necessary* cause" (EW, IV, 274). On Hobbes' notion of sufficient cause, see C. Leijenhorst, "Hobbes' Theory of Causality and Its Aristotelian Background", *The Monist* 79, 3, 1996, pp. 426-47, and Zarka, *La decision métaphysique de Hobbes*, pp. 193-214. On the young Leibniz's reception of Hobbes' theory, see Piro, *Spontaneità e ragion sufficiente*, pp. 38-72. For Leibniz's twofold reading, essential and existential, of the 'requisite', see Di Bella, "Il *requisitum* leibniziano come *pars* e *ratio*: tra inerenza e causalità", in *Lexicon philosophicum* 5, 1991, pp. 129-52.

⁵⁵ Dascal, *Leibniz*, p. 158, n. 28, who also adds: "Significantly enough, Leibniz does not indicate from what proposition this one follows, whereas it does so in all other cases". Cf. also Adams, *Leibniz*, p. 68.

⁵⁶ A VI 2, p. 480 (Dascal, *Leibniz*, p. 148).

⁵⁷ Suárez, DM XIX, iv, 1, defines a free cause in the following terms: "Causa libera est, quae, positis omnibus requisitis ad agendum, potest agere et non agere". The same definition had been given by Molina in his *Concordia liberi arbitrii cum gratiae donis*, q. 14, art. 13, disp. 2. Hobbes explicitly rejected Suárez's account of free will. Cf. L. Foisneau, *Hobbes et la tout-puissance de Dieu*, Paris 2000, p. 99 and n.

series of things, and the ultimate ground of things, that is, God, will be done away or changed".⁵⁸

Leibniz's faithfulness to the Hobbesian logic of requisites clearly emerges from the following passage:

"For let God be *A*, and let this series of things be *B*. Now, if God is the sufficient ground of things, that is, the self-sufficient being, and the first cause, it follows that, God having being posited, this series of things exists; otherwise, God is not the sufficient ground, but rather some other requisite, independent of God, should be added in order to bring about that just *this* series of things exists. [...] Therefore, it must be held that God having been posited, this series of things follows, and, accordingly, this proposition is true: *if A exists, then B will also exist*. Moreover, it is well known from the logical rules of the hypothetical syllogism that conversion by contraposition holds, from which it can be inferred that *if B does not exist, then A will not exist*. Therefore, it follows that were this series of things, sins included, taken away or changed –which is what was to be demonstrated".⁵⁹

Given that God is to the world as the sufficient ground is to its effect, i.e. given that $A \rightarrow B'$, it follows, by the logical rule of contraposition, that *non-B* \rightarrow *non-A'*, i.e. the mutual logical implication of the existence of God and the existence of this (and just this) series of things.

Such a demonstration "hard as steel" (*adamantina demonstratio*), however, seems to force us to a necessitarian conclusion. God, indeed, does not dispose of the possibility of not creating another series of things, neither in the sense of (a) creating another one nor in that of (b) creating nothing at all. Divine will, then, plays only a 'notary role', and a very passive one: it is just a sort of acquiescence in front of the necessary arrangement of things that is perceived by God as the most perfect one.⁶⁰

As Leibniz remarked in his 1671 letter to Wedderkopf, indeed: "Since God is the most perfect mind, however, it is impossible for him not to be affected by the most perfect harmony, and thus to be necessitated to do the best by the very ideality of things".⁶¹ In my opinion, this idea according to which God is somehow 'affected' by universal harmony is different from Leibniz's later view that God contemplates in himself (in his own understanding) the most harmonious group of possible things together with all the other, less harmonious ones. Again, the lack of something like a possible-worlds ontology might help us explaining the reason for this difference.

⁵⁸ Confessio Philosophi, A VI 3, 123/CP 45.

⁵⁹ *Ibid*, A VI 3, 123-24/CP 45-47.

⁶⁰ Cf. Rateau, *La question du mal chez Leibniz*, p. 154, and Mormino, *Determinismo e utilitarismo*, p. 77, who correctly speaks of a "minimization of divine will". However, I cannot agree with him when he says (p. 69) that, in the *Confessio*, Leibniz presents for the first time his thesis that God chooses between different possible worlds. Of course, this was what Leibniz himself says in the preface to his *Theodicy* (1710), where he says he passed to Arnauld a dialogue (presumably the *Confessio*), in which he had already claimed that God chooses the most perfect among all possible worlds and is led by his wisdom to allow the evil contained in it. See GP VI, 43. Again, one has to remark that this is *not* what Leibniz originally said in the original version of the dialogue, even thouh it should not be surprising that on such a public occasion, the old Leibniz did not want to stress the distance between his mature philosophy and the earlier views of him.

⁶¹ A II, 1, 117/L 146. He also adds: "Hence it follows that whatever has happened, is happening, or will happen is best, and also necessary, but as I have said, with a necessity which takes nothing away from freedom" (Ibid./L 147). In a note posteriorly added to the text, Leibniz weakened the harsh necessitarianism of this passage: "I later corrected this, for it is one thing for sins to happen infallibly, another for them to happen necessarirly". Which is not to be taken as a sort of weakening of his commitment to determinism, but only as the claim that determinism does not (necessarily) imply necessitarianism. Cf. Adams, *Leibniz*, pp. 10-12.

If one reads Leibniz's texts in their chronological order, indeed, he has to acknowledge that the idea of a plurality of possible worlds goes hand in hand with a picture in which God's choice of the best is the consequence of an act of deliberation, which is exclusively determined by his infinite wisdom (*sapientia*).⁶² What I want to claim here is that these two interrelated points (God's wisdom and possible worlds) were not at the centre of Leibniz's interest when he wrote a text like the *Confessio*. On the contrary, they will be strongly emphasized later on, the connection between these two elements having been clearly acknowledged by Leibniz in the period between 1676 and the beginning of 1678.

If I am not mistaken, and both the finalistic meaning of Leibniz's appeal to God's wisdom and the possible-worlds ontology are nothing but two sides of the same coin, then one can suppose that, when the latter is missing, also the former is absent as well, and vice versa. In particular, I wish to suggest that the absence of possible worlds brings with itself an inescapable ambiguity about the right way of understanding the relationship between God and the actual world, due to the impossibility of clearly distinguishing between the sense in which God is the *reason* of himself (and of all the possibles, or essences or natures as well, insofar as these are contained in his understanding), on one hand, and the sense in which God is the *cause* of existing things, on the other hand.

As far as *divine wisdom* is concerned, D. Garber has rightly observed that in the original text of the *Confessio* Leibniz seems not to be interested in finding a place to God's wisdom in his account of the creation of the world. Accordingly, both finalism and final causes play no fundamental role in it.⁶³ As far as *possible worlds* are concerned, on the other hand, one can see how from Leibniz's argument in the *Confessio* the conclusion seems to follow that there is no place for a plurality of possible worlds (among which God can exercise his choice). Paradoxically as it might be, indeed, in order to defend God's from the charge of having voluntarily introduced the evil in the world, Leibniz employs an argument which turns out to exclude the possibility that our world could have been different from the way it actually is.

Even though, as far as I can see, it has passed quite unobserved in the literature on Leibniz, one should not overlook the similarity between Leibniz's argument in the *Confessio* and the argument Spinoza displayed in the proof of prop. xxxiii of the first part of *Ethics*. That proposition expresses Spinoza's necessitarian thesis according to which: "Things could not have been produced in any other way or in any other order than they have been produced". Spinoza shows that both the actual world and the natural laws governing it (the "order")

⁶² The same connection between God's infinite wisdom and a plurality of possible worlds (interpreted as possible ways in which an absolutely wise artisan could have produced the world) had been clearly pointed out by Malebranche, cf. again his *Treatise on Nature and Grace*, ## 12-13 (*Philosophical Selections*, p. 260). The comparison between God and an excellent craftsman, who can balance the simplicity of means with the richness of the effects, will be repeated by Leibniz in section 5 of the *Discourse*.

⁶³ See Garber, *Leibniz*, pp. 228-29. As Garber himself acknowledges, divine wisdom is not absent from Leibniz's natural philosophy in his HPN, but he notes that "this appeal to God seems like an afterthought in his text", whereas "it is God's power, his role as an efficient cause, the creator of the world which that is most in preminence, not his wisdom" (*Ibid.*, p. 22). A brief reference to the relevance of divine wisdom in the account of the creation of the world can be found in Leibniz's 1664 *Specimen quaestionum philosophicarum ex jure collectarum*, A VI 1, 86, where he reports the opinion of those jurists who claimed that God could not have created the world in way different he actually created it not because it would have been logically impossible, but only because it would have been in contrast with his wisdom. I agree with Garber when he explains that he does not want to deny that the young Leibniz had a conception of divine wisdom and final causes, but only to point out that "they are in the background, and not very visible" (*Leibniz*, p. 229).

follow with absolute necessity from the necessary being, i.e. God. In other words, he points out that the actual world is the only possible one.

The interesting aspect, however, is that it attempts to show it by means of an argument based on the reciprocal implication between God's existence and the existence of this 'series of things' (to use Leibniz's jargon): "[...] if things could have been of a different nature or been determined to act in a different way so that the order of Nature would have been different, then God's nature, too, could have been different from what it now is [...]".⁶⁴

Spinoza's demonstration moves from the assumption that all things (essences as well as existences) necessarily follow from the nature of God, whose demonstration he had already offered in prop. xvi (whereas in prop. xxv he claimed that God is the efficient cause not only of the existence, but also of the essence of things). In the second scholium to prop. xxxiii, however, he reproduces his argument, assuming the position of those who maintain that God has an absolute will, i.e. consider God as a free cause in the traditional sense (which he had already rejected, in prop. xvii, scholium).

Nevertheless, even accepting such a traditional account of God, Spinoza manages to show that the necessity of the world follows as well:

"For if God's decrees had been different from what in fact he has decreed regarding Nature and its order –that is, if he had willed and conceived differently concerning Nature –he would necessarily have had a different intellect and a different will from that which he now has. [...] Now since all [philosophers] also grant that his intellect and his will are not distinct from his essence, it therefore follows from this that, too, that if God had had a different intellect in act and a different will, his essence too would necessarily have been different Therefore [...] if things had been brought into being by God so as to be different from what they now are, God's intellect and will - that is (as is granted), God's Essence –must have been different, which is absurd".⁶⁵

In its main lines, Spinoza's argument runs as follows: (1) it is absolutely impossible for God to exist but this world not to exist; (2) God's existence is absolutely necessary; therefore (3) our world is the only possible one. Now, as we have seen, both premises (1) and (2) are shared by Leibniz in the *Confessio*. Conclusion (3), however, seems to be at odds with the claim, defend by Leibniz himself right in the *Confessio*, that there are possible things which do not belong to the actual series of things, i.e. possibles that do not exist, did not exist and will never exist.

As showed in the previous paragraph, however, in both the *Confessio* and the Paris notes Leibniz was also eager to stress the fact that the status of those non-existent possibilities is to be totally equated to that of fictional or imaginary entities, something which no real essence should be ascribed to.

Paradoxically as it might be, it is in the *Confessio* that, stressing the fictional or imaginary character of non-actualized possibilities' –like the fictional character of Barclay's *Argenis* -,

⁶⁴ Spinoza, *Ethics*, I, xxxiii (G II, 73/CW 236, translation modified).

⁶⁵ *Ibid.*, I, xxxiii, scholium 2 (G II, 73/CW 237). The only authors who have stressed the relevance of this passage to Leibniz's superessentialism are F. Mondadori, "Understanding Superessentialism", *Studia Leibnitiana*, 17, 1985, 162-90, p. 164 n., and M. Wilson, "Possible Gods", *The Review of Metaphysics*, 32, 4, 1979, pp. 717-33, esp. p. 733 n., where she stresses (wrongly, I think) that "Leibniz too would have to accept the consequence that a different creation of "things" would entail a difference in God's nature". None of them, however, connect this view with what Leibniz explicitly says in the *Confessio*.

Leibniz proposes for the first time his 'novel argument' in order to contrast the claim that all possibilities must be realized in time:

"The *Argenis* of Barclay is possible, i.e., is clearly and distinctly imaginable, even if it is quite certain that she never lived, nor do I believe that she will ever live, unless one professes the heresy that believes that in the infinite course of time to come all possibles will be produced at some time or other, and that there is no story that can be imagined that will not come about in the world at some time or other, at least in some slight measure".⁶⁶

I think that, limited to this (and only to this) stage of his thought, one can share the view according to which Leibniz regarded non-actualized possibilia as being intrinsically possible (i.e., non- contradictory in themselves) even though this does not mean that they are to be automatically regarded as metaphysically possible as well, since the actual world is metaphysically necessary.⁶⁷

5.3 The Emergence of Other Possible Series:

Leibniz's Discussion with Steno (1677)

One might think that Leibniz had fully realized the dangerous consequences of his "adamantine reasoning" only after having finally read Spinoza's *Ethics* at the beginning of 1678. However, even before he had the occasion to read Spinoza's book, he was criticized on this very same point by another famous interlocutor of him, the Danish scientist and anatomist (and former friend of Spinoza) Niels Stensen, or, in Latin, Nicolaus Steno. Steno had converted to Catholicism in Italy, where he also became bishop, and then was sent to Hannover as apostolic vicar at the end of 1677 (Leibniz came to Hannover one year before, at the end of 1676). ⁶⁸In that period, Leibniz discussed with him about divine and human freedom, and passed him a copy of the *Confessio*.

⁶⁶ Confessio Philosophi, A VI 3, 128-29/CP 57-59.

⁶⁷ This thesis has been defended by M. Griffin, *Leibniz, God and Necessity*, Cambridge 2013, p. 5, where he writes that "Leibniz must reject the general inference from *intrinsically* possible to *metaphysically* possible. That is, contrary to the appearance of some texts, Leibniz does not take freedom from contradiction, or conceptual consistency, to be equivalent to metaphysical possibility". I do not agree with Griffin's claim insofar as it is applied to the writings of the mature Leibniz, for I think that what the texts show is that, from the Paris period onwards, he assumed that conceptual consistency is a reliable guide to metaphysical possibility, and this had been made possible by his acceptance of a metaphysics of real essences.

⁶⁸ See Steno's letter to Leibniz, November 1677, A II 1, 576. Leibniz passed to Steno a copy of the *Confessio philosophi*, on which Steno drafted a series of objections and remarks, which Leibniz replied to (both Steno's objections and Leibniz's replies were written on the margin of the manuscript). Leibniz's dialogue constituted also the basis for a discussion which took place on 7 December 1677, as we know from Leibniz's own report, A VI, 4, 1375-83. For details, see Antognazza: *Leibniz*, pp. 202-3. Some months before their meeting, Leibniz commented a couple of texts by Steno, including his famous letter to Spinoza (see A VI 4, 2179-2202). On Leibniz's confrontation with Steno, see M. Lærke: "Leibniz and Steno 1675-80", forthcoming. The relevance of Steno's remarks to the development of Leibniz's view on possible worlds has been already stressed by H. Schepers: "Zum Problem der Kontingenz bei Leibniz ". Cf. also F. Piro's remarkable edition and translation of both the *Confessio* and the conversation with Steno, in Leibniz, *Confessio Philosophi e altri scritti*, a cura di F. Piro, Napoli 2003² (see, in particular, Piro's afterword, "Nel laboratorio della teodicea leibniziana", pp. 123-57), as well as R. C. Sleigh's introduction to *CP*, pp. xix-xli.

5.3.1 Steno's remarks on Leibniz: possible worlds and God's freedom

In his remarks on the dialogue, Steno envisages a relationship between God and the world quite different from that originally advanced by Leibniz, and, instead of an automatic derivation of the world from the nature of God, he proposes what we would call a 'possible-worlds view':

"If there are infinitely many other series of these same things, and series of other things, in the idea of God, then [Leibniz's argument in the *Confessio*] is not valid. Hence, it does not follow that God having been posited, this series of things is posited, because others can be posited. Therefore, it is denied that this series is posited necessarily, but not as if some other thing independent of God is required, but because had he not posited this series he could have posited another. So it is not true that if *A* exists, so does *B*; rather *C* or *D*, etc., could exist. Much less is true that if *B* does not exist, *A* will not exist. On the contrary, if we distinguish between the ideas of things and things existing in reality outside these ideas, it follows certainly that if *A* is posited all possible series of things are posited in the idea of God, but it does not follow necessarily that this series rather than that series is posited in reality outside the ideas, or even that any is posited".⁶⁹

Once a plurality of possible series has been inserted as a sort of intermediate step between God and the (position of the) actual series, Steno is able to deprive Leibniz's argument of its original force. It does not follow any longer that, once God is posited, this series of things is necessarily posited in actual existence ("in the reality outside of the ideas"), since many other series could have been posited in its place. Again, it does not follow that, were this world changed or removed, God's nature would be changed or removed as well, the connection between God and this world having been deprived of its originally necessity (especially as far as the direction of the dependence relation going from the actual world to God is concerned).

In positive terms, according to Steno, once God is posited, what automatically follows is only the totality of possible series of things contained in God's understanding ("in the idea of God"):

"God having been posited it is certain that the entire series of things, etc., is posited, insofar as these things are among God's ideas, i.e., insofar as they are possibles. But it is not certain insofar as they are actually existing things since the author has not yet demonstrated that series of other things are not possible".⁷⁰

Notice that, against Steno's objections, Leibniz only apparently defended the position originally held in the (first version of) the *Confessio*. Surprisingly enough, indeed, it seems to

⁶⁹ A VI 3, 123, n. 11/CP 47.

⁷⁰ A VI 3, 121, n. 7/CP 41. Let me add that, at the time when he was discussing with Leibniz, Steno was well aware of the contents of Spinoza's *Ethics*, since, when he was in Italy, he received the manuscript of the book from a friend of Spinoza (maybe Tschirnaus). Having read it and found that it was a book full of dangerous opinions for pious Christian believers, Steno decided to consign it to the Roman Inquisition. On this story, see P. Totaro, "Documenti su Spinoza nell'Archivio del S. Uffizio dell'Inquisizione", in: *Nouvelles de la Républiques des Lettres*, I, 2000, pp. 95-128. We are not able to say whether Steno and Leibniz discussed Spinoza's philosophy or not. However, it is interesting to notice that similarities can be found between Steno's own criticism of Spinoza and what will be the standard Leibnizian objections against Spinozism. See the passages of Steno quoted by Totaro, "Documenti su Spinoza", p. 102, and compare them to what Leibniz says, for instance, at A VI 4, 1385/AG 282.

me that he substantially adopts the core of Steno's own remarks. To Steno's objection that, when God is posited, it does not follow that just this series of thing is posited, but, rather, a plurality of possible series *in mente Dei*, Leibniz replies:

"It is just as if he were to say that God is not the sufficient cause of things. Series of other things are possible in themselves, but they are not compossible with divine wisdom".⁷¹

"This series is not posited because God is posited, except that for the fact that God, who is the most wise being, wills nothing but the best. All possible series are in the idea of God, but only one under the aspect of the best [*sub ratione optimae*]".⁷²

A couple of remarks are in order here. First, let me point out that the presence of a plurality of possible series, which are "possible in themselves", even if not possible with respect to divine wisdom, constitute the way out of what, some years later, Leibniz will call the "necessitarian precipice", namely, the apparently inescapable conclusion that whatever does not exist in the actual world is absolutely impossible. To avoid such a conclusion, Leibniz notoriously developed his theory of things which are possible-in-themselves, which he will always consider as the most efficacious antidote against Spinozism. It is not a coincidence, however, that such a theory will be mentioned for the first time just in the revised text of the *Confessio*, which is immediately posterior to the discussion with Steno.⁷³

Second, one should beware that such a solution works only if one has already presupposed a plurality of possible worlds contained in (and conceived by) God's understanding.

It is not by chance that, in the same period in which he discussed with Steno, Leibniz drafted a short paper in which he boldy annunciates: "It can be shown in the following rather remarkable manner that God understands not only everything that is and everything that will be, but even all possibles". More than the proof itself –based on the analogy with a restrained liquid that tries to flow out from its container –, what is interesting here is the idea that grounds it. Once assumed that the liquid will flow out through the easiest route, indeed, it is necessary to probe all the possible ones: "[...] *nec vero eligere posset commodissimam nisi eodem momento omnes tentaretur, neque enim determinatur commodissima nisi comparatione omnium*".⁷⁴

The example of the liquid stands for an *omniscient* and *wise* God who considers and compares every possible alternative (every possible world) and, eventually, chooses the best

⁷¹ A VI 3, 121, n. 7/CP 41 (translation modified).

⁷² A VI 3, 123, n. 11/CP 46.

⁷³ Cf. *Confessio Philosophi*, A VI 3, 128/CP 55-57 (where the passages added in the revised text are put between angle brackets). In the *Theodicy*, # 173, after having briefly exposed Spinoza's necessitarian view, Leibniz says that, on the contrary, "our [opinion] is established on the nature of the possibles, that is to say thing which do not imply any contradiction" (GP VI, 217). I cannot dwell here on the details of Leibniz's solution, also because they have been widely discussed in the scholarship. For two excellent sources, see Adams, *Leibniz*, 9-22, and D. Blumenfeld, "Freedom, Contingency, and Things Possible in Themselves", in *Philosophy and Phaenomenological Research*, 49/1, 1988, pp. 81-101. Leibniz's famous passage on the "necessitarian precipice" is placed at the beginning of a paper probably written during the Summer of 1689, see A VI 4, 1653/L 263 (quoted in Chapter 7.1 below).

⁷⁴" [...] however, it could not choose the most suitable route unless all routes were probed at the same moment because the most suitable route is not determined except by comparison with all routes" (*Demonstratio quod Deus omnia possibilia intelligit*, 1677 (?), A VI 4, 1353/CP 141). On the idea of a preliminary comparison of all possible worlds, see also Chapter 8 below.

one. The choice of the best, however, would not be possible unless one does not (logically, not temporally) presupposes the preliminary evaluation of all possible options. Thus, the presupposition of a plurality of possible worlds is a necessary condition of Leibniz's solution to the problem of contingency based on the distinction between the possible-in-itself and the hypothetically necessary, and, therefore, for the idea that the choice of the best is the task of the divine wisdom.⁷⁵

Needless to say, this is *not* what Leibniz originally said in the first version of the *Confessio*. Now, indeed, Leibniz does emphasize that other series of things (that God did not actualize, even though he could have actualized)⁷⁶ are possible in themselves, even though not compossible with divine wisdom.

5.3.2 Leibniz's additions to the Confessio

This does not mean, however, that Leibniz is ready to accept all the aspects of Steno's solution. Steno, indeed, claimed that, instead of the actual series of things, God could have chosen not only "series of other things" (other possible worlds) but also "other series of these same things", i.e. different arrangements of the elements of the same world (a sort of 'combinatorial account' of possible worlds). Whilst Leibniz accepts the first option, he cannot but reject the second one, because for him both the possibility of things and the order that subsists among them (i.e. among things taken as possibles) are completely independent from God's will (and power), exactly as numerical proportions are independent of the will of everyone. On the latter point, indeed, he retains the position already adopted in the *Confessio*: a different solution, indeed, would have damaged Leibniz's solution to the problem of the presence of evil in the world, and, thus, the very same core of his theodicy.

Note, however, that in both the *Confessio* and the Paris notes Leibniz used to say that nonexisting things were incompossible or incompatible with divine existence *tout court*; now, on the contrary, he is very careful in specifying they are incompossible or incompatible with divine wisdom, and not with divine understanding as well.⁷⁷

In a certain sense, one could say that Leibniz assumes an intermediate position between Steno and Spinoza. With Steno (and against Spinoza) he maintains that there is a sense in which there are other series (other worlds) insofar as they are (merely) possible. Against Steno (and with Spinoza), however, he maintains that, nonetheless, there could not be

⁷⁵ This point has been rightly emphasized by Mondadori, "Necessity ex Hypothesi", pp. 208-09. Leibniz himself has often remarked that the reality of choice depends on a plurality of alternatives among which it could be (or could have been) exercised. See for instance *Theodicy*, # 235, GP VI 258: "For God chooses between the possibles, and this is the reason why he chooses freely, and he is not necessitated at all; there would be no choice nor freedom if there were nothing but only one possible path to follow". Notice that in this very same paragraph Leibniz is eager to stress the difference between logical and causal possibility, claiming that what is possible in itself has to be taken in the former but not in the latter sense, cf. *Ibid.*, GP VI, 257.

⁷⁶ On the very weak sense in which this 'can' or 'could' should be read (and, accordingly, the very weak notion of contingency that follows from it), see Mondadori, "Necessity ex Hypothesi", pp. 219-22. See also Blumenfeld, "Freedom, Contingency, and Things Possible in Themselves", *passim*.

⁷⁷ At first, in his reply to Steno, Leibniz proposed again his old view, saying that the unactualized possibles are those whose existence is incompatible with the existence of God. Then, however, he crossed out the entire passage, see A VI, 3, p. 128/CP 57.

different arrangements within the same *series rerum*, namely no possible world conceived of as a recombination of the same individuals or individual concepts.

The choice of the best world –in the sense of *determining which series is the best one*, not in the sense of this world passing from possibility to actuality –does not depend on divine will, because, even if a thing "exists because God wills it", however, "God will this [thing] because he sees it is the best, i.e., the most harmonious".⁷⁸ On the other hand, the choice of the best world –this time to be interpreted in the sense of *this world passing from possibility to actuality* –is no longer regarded as a consequence of the nature (or the existence) of God; rather, it follows from the fact that God, being the most wise being, *cannot* but will the best (where this *cannot* must be exclusively read in terms of moral obligation, or 'moral necessity', not in terms of absolute or logical necessity).

On Leibniz's 1677 perspective, the conflation between the order of essences and that of existences which was the main outcome of his argument in the *Confessio*, has been completely overcome. According to the *Confessio* approach, indeed, once God has been posited, essences (or natures of things) as well as existences are posited at the same time (and with the same kind of necessity). On the contrary, according to Leibniz post-1677 approach, God being posited, only the essences of things (the objects of his understanding, and, so to say, the stuff possible worlds are made of) are necessarily posited, whereas the existence of things does not follow without any intervention of divine will.

This new perspective is explicitly introduced in the revised version of the Confessio:

"For in this place we call *necessary* only what is necessary *per se*, namely that which has the reason for its existence and truth in itself. The truths of geometry are of this sort. But among existent things, only God is of this sort; all the rest, which follows from this series of things presupposed [...] are *contingent per se* and only hypothetically necessary, even if nothing is fortuitous [...]".⁷⁹

The distinction between 'essence' and 'existence' is now explained by reference to the distinction between 'reason' and 'cause'. Since the latter is now clearly acknowledged, also the former can be grounded on a solid basis. From the theological viewpoint, indeed, God can be said to be the cause of whatever exists, but only the reason of his ideas (essences, natures, possibilia, truths and so on).

This point is clearly stated in a passage written more or less in the same period, in which Leibniz comments his 'great axiom', i.e. *PSR*:

"We must answer that, indeed, there is nothing without a reason, but that does not mean that there is nothing without a cause. For a cause is the reason for a thing outside of the thing, or its reason of production, but it is possible that the reason for a thing is inside the thing itself. And this is the case in all those things which are necessary, like the truths of mathematics which contain their reason in themselves; likewise God, who alone is the actual reason for the existence of actual things".⁸⁰

⁷⁸ A VI, 3, 122, n. 8/ CP 43.

⁷⁹ Confessio Philosophi, A VI 3, 128/CP 57 (the entire passage is absent from the first version of the dialogue).

⁸⁰ Elementa verae pietatis, 1677-78 (?), A VI 4, 1360/LST 192. On this passage, see in particular S. Di Bella, "Nihil esse sine ratione, sed non ideo nihil esse sine causa. Conceptual involvement and Causal Dependence in Leibniz", in H. Poser (hrsg.), Nihil sine ratione. Mensch, Natur und Technik im Wirken von G. W. Leibniz. Akten des VI. Internationalen Leibniz-Kongresses, Berlin 2001, pp. 297-304.

In the very same paragraph from which the last quotation is taken, Leibniz repeats that holding PSR amounts to claim that "nothing exists without there being some reason that can be given (at least by the omniscient) why it exists rather than not, and why it is thus and not otherwise".⁸¹ This amounts to say, as Leibniz says in what immediately follows, that there is no such a thing like indifference or chance in both the domain of things and human actions.

That is why he cannot agree with Steno's claim that "it is not true that if A exists, so does it B; rather C or D, etc., could exist", where, remember, A stands for God, whereas B, C, D stand for different series of things. Against this, Leibniz remarks: "It is just as if he were to say that God is not the sufficient cause of things". What Leibniz means is that, if Steno means that God is indifferent with respect to creating this series of things B with respect to any other series C, D, etc., i.e. if he understands that "could exist" in the sense of God's arbitrary will, then his conclusion has to be rejected insofar as it violates PSR.

5.3.3 The theodicean root of Leibniz's superessentialism

Thus, Leibniz's determinism as well as his commitment to a 'compact' view of the structure of our series of things (and of each alternative possible series as well), - from which it follows that nothing can be changed in the arrangement of each series of things at essential level (at level of ideas, natures or possibilia), without destroying that series itself, or, which is the same, without producing a completely different series of things - will be at the basis of Leibniz's (in)famous superessentialistic view and of his rejection of trans-world identity (which is nothing but a corollary of superessentialism).

A point that deserves to be stressed is that this view is essentially connected with Leibniz's solution to the problem of 'theodicy' and, in this sense, clearly precedes the metaphysics of complete concepts (as it will be formulated in the *Discourse*) rather than following it. Leibniz's emphasis on the connection of all things within a(ny) series of things and the holistic intuition that grounds it, indeed, is clearly functional to his solution to the problem of evil (and the question why God could not have created a more perfect world).⁸²

The only difference is that what Leibniz originally thought in terms of a 'series of things' taken as whole, will be transferred to the complete concept of an individual (which is nothing but a mirror of the world to which it belongs). The continuity between the two approaches on this point can be shown through a quick comparison of what Leibniz says in the *Confessio* concerning the sin of Adam and Eve with his later discussion of the case of Judas' sin in the *Discourse on Metaphysics*.

In the Confessio Leibniz claims:

⁸¹ Elementa, A VI 4, 1360/LST 192.

⁸² This point clearly emerges from a draft concerning divine justice, probably written around 1695-97, *Guillelmi Pacidii Theodicaæe*, see Grua 371: "On the connection of things, in which it is showed that God, because of his most perfect wisdom, could not have established something with one singular act without establishing it concerning the whole series of the universe; from which it follows that God does not decree whether a man should sin or be punished, but rather if a [possible] man who will sin and will be punished (and the possible series of things in which he is contained) should be admitted into existence instead of another possible way the universe could have been".

"In the same way [...] I parried the arguments of those who were indignant that God did not eliminate Adam and Eve from the world at once when they first sinned (so that their stain would not be propagated to their posterity) and that God did not substitute others better than they were. For I have drawn attention to the fact that if God had done that, sin having been taken away, an entirely different series of things, entirely different combinations of circumstances, persons, and marriages, and entirely different persons would have been produced and, consequently, sin having been taken away or extinguished, they themselves would not have existed. They therefore have no reason to be indignant that Adam and Eve sinned and, much less, that God permitted sin to occur, since they must rather credit their own existence to God's tolerance of those very sins".⁸³

Now, compare that with what Leibniz will say in his 1686 *Discourse of Metaphysics* concerning the case of Judas' sin, where the point, as he himself remarks, one should not ask why Judas sinned, but only why Judas-the-sinner had been admitted to existence by God. The former question is pointless, since Judas' sin is already part of his complete individual concept:

"But someone else will say why is it that this man will assuredly commit this sin? The reply is easy: otherwise it would not be this man. For God sees from all the time that there will be a certain Judas whose notion or idea (which God has) contains this free and future action. Therefore only this question remains, why does such a Judas, the traitor, who is merely possible in God's idea, actually exist? But no reply to this question is to be expected on earth, excepted that, in general, one must say that, since God found it good that he should exist, despite the sin God foresaw, it must be that this sin is paid back with interest in the universe, [...] in sum, [that] the sequence of things in which the existence of that sinner is included is the most perfect among all the possible sequences."⁸⁴

Finally, the same *Leitmotiv* will be echoed in many passages of the *Theodicy*, as for example the following one, in which, among the other things, Leibniz repeats his old claims that the essences of things are like numbers:

"[...] the universe, whatever it may be, is all of one piece, like an ocean: the least movement extends its effects there to any distance whatsoever, even though this effect become less perceptible in proportion to the distance. Therein God has ordered all things beforehand once for all, having foreseen prayers, good and bad actions, all the rest; and each thing *as an idea* has contributed, before its existence, to the resolution that has been made upon the existence of all things; so that nothing can be changed in the universe (any more than in a number) save its essence or, if you will, its *numerical individuality*".⁸⁵

⁸³ *Confessio philosophi*, A VI 3, 148/CP 107. Ironically, the posterity of Adam will be the example chosen by Arnauld to criticize the necessitarian consequence following from Leibniz's theory of complete concepts, see GP II, 27 and ff.

⁸⁴ Discourse on Metaphysics, A VI 4, 1576-77/AG 61.

⁸⁵ *Theodicy*, #9, GP VI, 107/H 131. Cf. *ibid*, # 52: "Since [...] God's decree consists solely in the resolution he forms, after having compared all possible worlds, to choose that one which is the best, and bring it into existence together with all that this world contains [...], it is plain to see that this decree changes nothing in the constitution of things: God leaves them just as they were in the state of mere possibility, that is, changing nothing either in their essence or nature, nor even in their accidents, which are represented perfectly already in the idea of this possible world" (GP VI, 131/H 154-55). Paradoxically as it could be, this approach is meant by Leibniz as a defence of the existence of contingent facts and events, because, if the God's actual decree does not change anything in the constitution of things as they are at level of mere possibilities, what is contingent and free (understand: only hypothetically necessary) at the level of possibility, will be contingent and free at the level of actuality as well. This approach is harshly rejected by Cover and Hawthorne, *Substance and Individuation*, pp. 140-41, since it is strongly in contrast with their 'haecceitistic' reading of Leibniz.

It is clear, of course, that the main problem with this approach (which, as we have shown, finds its original basis in Leibniz's original theodicy and will be included only later in his theory of complete individual concepts) is that, if it ascribes contingency to what actually exists, it does so by making existence the only contingent features things can have. Therefore, it seems natural to draw the conclusion that all the qualitative determinations a thing can have (be they general or individual properties) turn out to be essential to it (at least if one takes a modal characterization of essential property: '*F* is an essential property of *x* iff it is impossible for *x* to exist without having *F*'). Another conclusion that should be drawn, however, is that, according to this approach, there is no contingency in the realm of mere possible things, or, alternatively, that what is possible is necessarily so.⁸⁶

5.3.4 Excursus: two views on existence and contingency

On this point, one must acknowledge that Leibniz's position is not very clear. On one hand, indeed, this approach seems to be his favourite way of looking at the question from the point of view of his theodicy (since it explains that the origin of evil has to be placed into the natures of things which are the object of God's understanding but are independent of his will).⁸⁷ Moreover, at some point he seems inclined to maintain that what is possible has to be regarded as necessarily possible.⁸⁸

On the other hand, another account will be placed side by side to the first, one apparently irreducible to the first one, according to which there is a sense in which a distinction between what is necessary and what is contingent can be traced at the level of what is purely possible

⁸⁶ Cf. Russell, *Philosophy of Leibniz*, # 13, p. 30. As evidence of Leibniz's commitment to this view, Russell quotes a passage from #21 of the *Theodicy*, GP VI, 115, where he says that the region of eternal truths (i.e. necessary ones) contains "all possibilities" and, for this reason, "it is necessary that there be an infinitude of possible worlds"(H 139). See also #20, where the origin of evil is located in the "ideal nature of the creature, insofar as it is contained in the region of eternal truths which are in the in the understanding of God" (GP VI 114/H 139). Cf. also # 149, 231, 335, and, especially, Leibniz's 1704 letter to Jacquelot, GP VI, 559, where he points out that the whole series of things is determined neither by God's foreknowledge nor by his decree but from the simple understanding (*scientia simplicis intelligentiae*) of the possibles in God's understanding.

⁸⁷ This is particularly evident in those passages in which he contrasts the Cartesian theory concerning the creation of eternal truths; see for instance his letter to Burnett, December 29, 1707: "l'idee de ce monde comme possible ne laisse pas d'estre eternelle et necessaire".

As is well known, the claim that whatever is possible is necessarily possible is the characteristic axiom of the strongest system of modal logic, S_5 , which is commonly regarded as the correct way of expressing metaphysical necessity and possibility. Sometimes Leibniz maintains that "all truths that concern possibles or essences and the impossibility of a thing or its necessity (that is, the impossibility of its contrary) rest on the principle of contradiction; all truths concerning contingent things or the existence of things, rest on the principle of perfection" (De libertate et necessitate, 1680-84 (?), A VI 4, 1445/AG 19). However, it is not clear that in this passage (as well as elsewhere), when talking of 'truths concerning possibles or essences', Leibniz truly means individual essences (or possible individuals) and not just general essences. It is not difficult to find passages in which Leibniz considers the couple 'essential'/'existential' as synonym of 'necessary'/'contingent', where, however, the context makes clear that the essential (necessary) properties are only the general ones (those that can be derived from incomplete notions) and the existential (contingent) properties are the accidental ones. See for instance A VI 4, 1517, 1600, Grua 354-55. As Adams, Leibniz, p. 45, has pointed out, these texts clearly employ a broad sense of 'existential' together with a narrow sense of 'essential', especially if compared with the sense in which all properties contained in the complete concept of an individual are essential to him. Conversely, the superessentialist reading stresses a narrow sense of existence (which amounts to actuality as the instantiation of complete concepts) together with a broad sense of essence. On the distinction between two senses of 'essential', see also Mondadori, "Understanding Superessentialism".

(or, alternatively, there are truths which are analytic but not necessary). Pressed by Arnauld's objections on this point, indeed, Leibniz will make clear that the connection between, e.g., Adam and his posterity (and, indirectly, all the other events in the human history) has to be taken as 'intrinsic' but not 'necessary': the connection between Adam (taken as possible) and his posterity is independent from God's will (= his actual decree) but not from God's free decrees taken as possible.

In a very famous passage, indeed, Leibniz replies to Arnauld that "the concepts of individual substances, which are complete and suffice to distinguish their subjects completely [...], must also enclose in their concept *taken as possible*, the free decrees of God, *also viewed as possible*". It has to be so because, contrary to general species or essences in the traditional sense, complete concepts of individuals "enclose contingent truths or truths of fact, and individual circumstances of time, place, etc."⁸⁹, that are existential properties (or, better, individual ones, see n. 87 above). In other words, the possibility of individuals (when contrasted with the possibility of general essences) presuppose the possibility of their causes, which, in turn, presuppose the free decrees of God taken as possible.

Therefore, according to Leibniz, there is a way of conciliating the view that the possibles are possible independently of God's (actual) will and the view that, nonetheless, the concepts of individuals taken as possible involve a reference to God's free (and not necessitating) decree taken as possible:

"I believe that [...] the connection which I conceive between Adam and human events is intrinsic, indeed, but not necessary independently of the free decrees of God, because the free decrees of God taken as possible, enter into the concept of a possible Adam, while it is these same decrees of God that become actual that are the cause of the actual Adam. I agree with you [...] that the possibilities are possible before all of God's actual decrees, but sometimes not without assuming these same decrees considered as possibilities. For the possibilities of individuals or of contingent truths include within their concepts the possibility of their causes, namely, the free decrees of God".⁹⁰

It is not entirely clear if such an explanation is in keeping with what Leibniz says elsewhere, i.e. that the entire series of things taken as possible is the object of God's understanding, in the sense of his *scientia simplicis intelligentiae*, which, according to the theological tradition, was taken as necessary and pre-volitional (i.e. completely independent from God's will). After all, different interpretations have been provided of Leibniz's reply to Arnauld quoted above.⁹¹

⁸⁹ Leibniz to Arnauld, July 14, 1686, GP II, 49/L 332, emphasis mine.

⁹⁰ Ibid., GP II, 51/L 333. Cf. also *ibid.*, 49: "[...] parceque ces decrets libres sont les principals sources des existences ou faits; au lieu que les essences sont dans l'entendement divin avant la consideration de la volonté". In this case, again, Leibniz is employing a narrow conception of 'essence' (to be contrasted with the one defended, for instance, in section 16 of the *Discourse*).

⁹¹ For instance, according to Mondadori, ("On Some Disputed Questions in Leibniz's Metaphysics", *Studia Leibnitiana*, 25, 1993, 153-73, p. 169), Leibniz is not saying that the possibility of the connection in the realm of the possible between an individual and a property partly depends on God's will: "His view, rather, is that [...] what depends on God's (possible) "free decrees", or on the divine will, is (the possibility of) the actual holding of the connexion between *i* [=the individual] and *F* [=the property] [...]; he means to say, in fact, that, supposing God created a world *w* wherein *i* is *F*, if God had chosen different decrees, or willed to create a world *w*' wherein *i* does not exist, there would have been no possibility of that connexion's holding at *w*' [...], hence it would have failed to hold at *w*', hence that, at *w* at least, it is a purely contingent connexion". For a rather different interpretation, see Adams, *Leibniz*, pp. 30-34 (For Adams, Leibniz locates contingency not in the possible non-

What I want to point out here, however, is just that, depending on which of these two horns of the dilemma you prefer to emphasize, different conclusions concerning the notion of existence follow.

For instance, if you decide to stress Leibniz's tendency to affirm the absolute independence of possibilia from God's decree (be it actual or merely possible), then you will incline to accept the idea that 'existence' must be considered as a very special predicate (if a predicate at all), since it must be excluded from the predicates contained in (and derivable from) the complete notion of an individual. Since existence (or possible non-existence) is the only contingent feature an individual (or a world) has, it must be excluded from the number of those properties which are contained in the complete notion or the essence of an individual (or in what Leibniz, rather awkwardly, calls the "numerical essence" of a world in the passage quoted above). Otherwise, indeed, given the necessitating connection between an individual and its properties, it would follow that also the existence of the group of complete concepts that constitute the actual world (or the actual world itself) is necessary. A conclusion Leibniz cannot but reject.⁹²

On the other hand, if you decide to follow the second horn of the dilemma, privileging Leibniz's claim that possible individuals (or, better, complete individual concepts taken as possible) involve possible decrees, you will probably looking for a place for contingency within the complete concept, or in the connection between the subject and its predicates, and, thus, the inclusion of existence (or something which works as a proxy of existence at the level of essences) in the complete concept will not make trouble any longer. A virtue of this second account is that it allows you to safeguard the integrity of Leibniz's commitment to conceptual containment as a definition of truth, i.e. as a condition both necessary and sufficient for any proposition to be true. Moreover, it seems to be in keeping with those passages in which Leibniz explicitly talks of 'contingent possibles'.⁹³

existence of an individual *i* but in the connection between the predicate and the subject, i.e. *within* the complete concept). Along this second line, see also M. Gueroult, "Substance and the Primitive Simple Notion in the Philosophy of Leibniz", *Philosophy and Phenomenological Research*, 7/2, 1946, 293-315, then in Id., *Etudes sur Descartes, Spinoza, Malebranche et Leibniz*, Hildesheim-New York 1970, pp. 229-51, who sees a solution of the tension between the independence of possibilities from divine will and their involving possible decrees by means of reference to the idea of "possible creation" which presides over the passage into existence: "But this totality of predicates [of a complete individual concept] nevertheless remains attributable to the notion only under the condition of a possible creation" (p. 243). Notice that, also in this case, however, a complete notion's involving possible decrees is ultimately to be understood in terms of the complete notion's involving possible existence.

⁹² "The possibility or the notion of a created mind, indeed, does not involve existence" (*De natura veritatis, contingentiae et indifferentiae*, 1685-86 (?), A VI 4, 1522). Of course, this would go against the claim (stated by Leibniz in this very same paper, see p. 1515) that the conceptual containment theory of truth holds in the case of all propositions (necessary as well as contingent, universal as well as singular). According to Mates, *The Philosophy of Leibniz*, pp. 89-94 one should conclude that conceptual containment is only a necessary (but not sufficient) condition of truth in the case of existential propositions. Cf. also *De libertate et gratia*, 1680-84 (?), 1457-58, where Leibniz repeats that propositions having eternal truths have no existential import ("non agitur de existentia") since they are only hypothetical. From which it follows that "no absolute [i.e. non-hypothetical] proposition, with the only exception of that which follows the nature of God, is necessary, and there is no being which exists necessarily or by its own essence, with the only exception of God". See also my discussion in Chapter 9 below.

⁹³ See for example the long remark on Bayle's theological views, GP III, 50: "The knowledge of the possibles is called knowledge of simple intelligence [*simplicis intelligentiae*], and embraces also the reciprocal connections between them and, thus, all necessary truths. It embraces also the contingent possibles and their reciprocal connections, and, thus, also the conditional futures, namely what would have followed from a given contingent

I will discuss this question again in the following Section (Chapter 8 and, especially, the last part of Chapter 9), where I will point out some ambiguities concerning Leibniz's notion of 'existence' (and his emphasis on an existential kind of possibility)

For the moment, let me just say that much of discrepancy between these two accounts can be traced back to certain presuppositions which are not always explicitly stated in the scholarship. In particular, for what concerns the sharp division between those scholars who accept and those who reject Russell's seminal view on Leibniz on existence, I think that it can be explained and partially weakened by remarking that those who maintain that existence should be regarded as the one and only contingent feature an individual can have (call it the 'existential reading' of contingency), they usually do presuppose an account of necessary and contingent truths in terms of what is true at, respectively, all and some possible worlds.⁹⁴ An account which can certainly be inferred from what Leibniz says, but, as it has been remarked several times, has never been proposed by him explicitly.

Moreover, as I will show, there are other texts of the late 1670's (before Leibniz invented his theory of contingency based on infinite analysis) in which he clearly endorses an explanation (or grounding) of what is for something (proposition or being) to be necessary in terms of what immediately follows from essence.⁹⁵

5.4 The Derivation of All Things from God: Logical or Causal Dependence?

A Puzzle concerning Leibniz's Reading(s) of Spinoza

thing, and also if in this kind of connection there is no necessity but contingency, so much that some call it middle knowledge, it should be properly included under the knowledge of simple intelligence". A similar passage occurs in *Causa Dei*, ## 14-5, GP VI, 440. Notice, however, that in both cases the expression "contingent possibles" is employed to capture the object of what the Jesuits called "middle knowledge" (*scientia media*), which, according to Leibniz, has not to be considered as an autonomous kind of knowledge (event though its object is not necessary). In other passages, however, the object of middle knowledge is clearly indicated as "conditioned existences" (see A VI 4, 1515). If, as I suspect, "contingent possibles" are the same as "conditioned existences", then what Leibniz has in mind here is just an existential characterization of possibility which has to be carefully distinguished from the essential one (cf. a similar distinction in my discussion of Suárez, Chapter 2.6 above).

⁹⁴ Cf. for example Mondadori, "Nominalism", p. 187, n. 38, who notes that "God's *scientia simplicis intelligentiae* could not have included more (or less), or different, *possibilia* [...] than the ones included *ab aeterno*", which, according to him, "provides the reason why all truths about *possibilia (qua possibilia)* must qualify as necessary". See also Mates, *The Philosophy of Leibniz*, pp. 105-07. Of course, Mates and Mondadori based their conclusion on the idea that Leibniz's account of necessity and contingency has to be interpreted in terms of relativization of truth at possible worlds. This was not the case with Russell's original reading, for Russell's interpretation was rather grounded on the Kantian interpretation of existential propositions as synthetic judgments vs. essential propositions as analytic judgments. Cf. my Introduction above.

⁹⁵ For a good account of Leibniz's view on 'necessity', see M. Wilson, "Leibniz's Doctrine of Necessary Truth", in Frankfurt, *Leibniz*, pp. 401-19. See also my discussion in the General Introduction above.

5.4.1 An objection and a textual puzzle

Against the reconstruction I have provided in the previous paragraph, the objection can be raised that Leibniz's new approach to the distinction between (the ground of) essences and (the ground of) existence should not wait until the end of 1677, since it is already at work in his remarks to Spinoza's letters to Henry Oldenburg, which Leibniz commented in October 1676.

There, indeed, one can find evidence of Leibniz' first important rejection of Spinoza's necessitarianism. Commenting the latter's claim: "I conceive that all things follow with inevitable necessity from God's nature in the same way that everyone conceives that it follows from God's nature that God understands himself"⁹⁶, Leibniz observes:

"This should be explained as follows: the world could not have been produced otherwise, because God could only operate in the most perfect way. <Since he is the most wise, he chooses the best. But it must not be thought in any way that all things follow from God's nature without any intervention of the will. The example of the act of God by which he understands himself does not seem adequate, because it happens without the intervention of the will>".⁹⁷

The internal structure of this passage seems to be a little anomalous. The main body of the text seems to be conceived as a harsh criticism of Spinoza's necessitarian thesis, and wants to provide an alternative view to it, according to which God chooses those things which are more perfect because of his infinite wisdom. Remember that, as shown in the previous paragraphs, Spinoza's strategy consisted in holding that the traditional distinction between God's will and his understanding is untenable; accordingly, the same necessity that theologians traditionally ascribed to the way in which God understands himself, has to be ascribed to the way in which things are produced by God (and, of course, this makes sense from Spinoza's point of view, since he wants to reject the traditional creationist view).

On the contrary, against Spinoza, Leibniz insists here on the fact that Spinoza's parallel with the way God understands himself is not adequate, "because it happens without the intervention of the will". In other words, Leibniz wants to re-instate the traditional distinction (of reason) between God's understanding and his will.⁹⁸ In its main lines, it is the same strategy he will follow in his 1678 commentary to the first part of *Ethics*.⁹⁹

⁹⁶ Spinoza's letter to H. Oldenburg, Ep. LXXV (G IV, 311/CW 945).

⁹⁷ Epistolae tres de B. Spinoza ad D. Oldenburgium, second hald of October 1676 (?), A VI 3, 364, n. 1 (angle brackets added).

⁹⁸ "Nam semper formaliter differunt intelligere et velle; aut ego nescio quid sit intelligere, quid sit velle" (Leibniz's remark on Eckhard's letter, May 1677, A II 1, 355, n. 91). Here the term *distinctio formalis* has to be interpreted not in Scotus' original sense, but, rather, as a synonym of the Suárezian re-interpretation thereof, i.e. in terms of a rational distinction with a *fundamentum in re*. On the distinction between understanding and will, see the classical works of G. Grua, *Jurisprudence universelle et Théodicée selon Leibniz*, Paris 1953, p. 33, and A. Heinekamp, *Die Idee des Guten bei Leibniz*, Bonn 1969, pp. 54-61.

⁹⁹ See especially Leibniz's commentary to *Ethics* I, xxxiii, A VI 4, 1776: "*Things could not have been produced by God in any other way nor in any other order than it has been produced*. For they follow from the immutable nature of God. This proposition may be true or false, depending on how it is explained. On the hypothesis of the divine will choosing the best or working in the most perfect way, certainly only these things could have been produced; but according to their true nature considered in itself, other things could have been produced" (L 204, translation modified).

However, in the first line of his note, Leibniz writes: "*Hoc ita explicari debet* [...]", an expression that, being referred to Spinoza's thesis, seems to prelude to an explanation rather than to a complete rejection thereof. The sort of explanation, for instance, Leibniz provided in another marginal note to these Spinozian texts.

Commenting Spinoza's claims that "all things are in God" and "all things are one", indeed, Leibniz writes: "It is certain, indeed, that the existence of things is just a consequence of God's nature, which has brought it about that only the most perfect things could be chosen". Notice, also, that in order to explain in which sense the existence of things (i.e., the actual world) is a "consequence" [*consequentia*] of the nature of God, Leibniz employs the two following examples: "[...] it can be said that all things are one, and all things are in God, in the same way the effect is contained in its full cause [*causa sua plena*], and the property of a subject [is contained] in the essence of that very same subject".¹⁰⁰

It has been already pointed out that the same pair of examples –the cause-effect and the essence-property relation –, had been already employed by Spinoza in the scholium to prop. xvii of the first part of *Ethics*, where he rejects the account of God as 'free cause' in a traditional sense, i.e., as a cause that "can bring about that those things which we have said to follow from his [God's] nature should not come about" (namely, that there are possible things God conceives of but he does not want to create).¹⁰¹ According to Spinoza, these two examples are nothing but two instances of the same kind of necessary connection, since, on his view, causal necessity turns out to be identical with logical necessity (or, better, the former is re-interpreted in terms of the latter).

Thus, from one hand Leibniz seems to reject Spinoza's necessitarianism; from the other hand, however, he seems to embrace it.

To solve this puzzle, D. Garber argued that these notes represent a sort of intermediate and transitory stage of Leibniz's philosophy, one in which finalistic explanations begin to play a fundamental role in Leibniz's account of God's creation of the world (for some reasons connected with his natural philosophy too)¹⁰². According to the passage quoted above, indeed, God's choice to create what is best has to be brought back to his infinite wisdom ("*cum* [Deus] *sapientissimus sit, optimum eligit*"). At this stage, however, Leibniz still believed that such a finalistic instance could be reconciled with the fact that the choice of the best is *necessary* (in a strong sense).

In other words, according to Garber, Leibniz would agree with Spinoza in claiming that everything is necessary, but he would also maintain that, even if the choice of the best is

¹⁰⁰ A VI 3, 370, n. 25. Leibniz is commenting here Spinoza's letter to Oldenburg, Ep. LXXIII (G IV, 307/CW 942).

¹⁰¹ Cf. Spinoza, *Ethics*, I, xvii, scholium (G II, 61-62/CW 228). Cf. E. Curley, "*Homo Audax*. Leibniz, Oldenburg and the *Theological-Political Treatise*", in Marchewitz-Heinekamp (hrsg.), *Leibniz's Auseinandersetzung mit Vorgängern und Zeitgenossen*, pp. 277-312.

¹⁰² One has to take into consideration also Leibniz's early reflections on the nature and the justification of the principle of equipollence between cause and effect. As Garber has brilliantly shown, indeed, Leibniz's views on physics changed when he discovered the principle of equality (or equipollence) between cause and effect in the mid-1676. But, as he carefully remarks, "at its first appearance, Leibniz held that the equality principle [...] follows directly from the very definition of the terms involved, and is thus in its way also of geometrical necessity [i.e., absolute, logical necessity]" (Garber: *Leibniz*, p. 237). As Garber shows, however, Leibniz failed in his attempts to find a geometrical demonstration of the principle of equality, and, according to his reconstruction, this difficulty could have influenced Leibniz's decision to re-introduce final causes in the field of natural philosophy at the end of the 1670's.

metaphysically necessary, it is still determined by finalistic purposes, in particular by God's infinite wisdom. Whereas for Spinoza necessitarianism and the rejection of final causes are two sides of the same coin, Leibniz seems to struggle for keeping them separate, claiming that *"even though everything is necessary, there are still final causes in the world*".¹⁰³

Garber's hypothesis, however, is an unnecessary one, for the very simple reason that the passage I have put between angle brackets in the quotation above has not been written by Leibniz in October 1676, but he added it only later on.¹⁰⁴ Thus, one can easily notice that the part concerning God's wisdom and the insistence on the relevance of divine will has been added only subsequently.

In his original 1676 remarks, commenting Spinoza's necessitarian thesis, Leibniz limited himself to observe: "This should be explained as follows: the world could not have been produced otherwise, because God could only operate in the most perfect way". This is perfectly in keeping with the other remark in which Leibniz suggests that the existence of the world is just a "consequence" of God's nature. After all, the idea that the existence of the world (and of just *this* world) is a sort of logical consequence derivable from the nature God was the core of Leibniz's argument in the *Confessio*.

Instead of being influenced by Spinoza's necessitarianism, then, the young Leibniz read Spinoza's thesis through the lens of the necessitarian argument he himself developed in his dialogue.¹⁰⁵

Also the reference to the examples of the full cause/effect and essence/property relation can be traced back to Leibniz's remarks in his Paris notes, where the derivation of all things from God is understood (in a sort of Platonic- or Neoplatonic-fashioned way) as a derivation of the Many from the One, and this relation of dependence/derivation is explicitly characterized in those terms: the derivation of the effects from the full cause and/or the derivation of properties from a common essence.¹⁰⁶ The Platonic or Neoplatonic framework of Leibniz's

¹⁰³ Garber, p. 232, italics in the original. M. Lærke, *Leibniz lecteur de Spinoza. La genese d'une opposition complexe*, Paris 2008, relies on Garber's interpretation in his reading of these notes, see pp. 546, 549, and 551, where he coins the expression "finalistic Spinozism" to describe Leibniz's position therein. The view that Leibniz has always defended the compatibility of metaphysical necessitarianism and theological finalism has been recently defended by M. Griffin, *Leibniz, God and Necessity*, Cambridge 2013, pp. 58-82.

¹⁰⁴ This fact, however, has gone unnoticed because it has not been mentioned in the critical edition of the text in A VI 3, but emerges only from a comparison with the manuscript. For textual details of this question, see my "Divine Wisdom and Possible Worlds", *Studia Leibnitiana*, 48, 1, 2016, pp. 15-41. Notice that my solution is keeping with Garber's overall reconstruction of the evolution of Leibniz's thought concerning final causes and God's wisdom.

¹⁰⁵ One must add that Spinoza himself was influenced by the Hobbesian logic of requisites, as it emerges from what he says in *Ethics*, II, def. 2: "I say that there pertains to the essence of a thing that which, when is given, the thing is necessarily posited, and by the removal of which the thing is necessarily annulled; or that without which the thing can neither be nor be conceived, and, vice versa, that which cannot be or be conceived without the thing" (G II, 84/ CW 244). Notice that, from that definition, Spinoza does not draw the conclusion that the essence of finite things cannot be or be conceived without God; a conclusion that he actually rejects, cf. *Ethics II*, prop. 8, GP II, 90, for he does not accept the idea that God cannot be conceived without conceiving the essence of finite things as well (see def. 2 above). On the contrary, in his text from November 1676, Leibniz seems to entertain the idea that substance monism (the idea that finite things are just modes and not substances) follows from the thesis that the essence of all things is the same, i.e. the divine essence, cf. *Quod ens perfectissimum sit possibile*, A VI 3, 574. On this topic, cf. F. Piro, "Essenza, causa e *ratio* in Spinoza e Leibniz", in A. Sangiacomo-F. Toto, "Essentia Actuosa. *Riletture dell*'Etica *di Spinoza*", Milano 2016, pp. 47-74.

¹⁰⁶ In this period Leibniz defines a 'property' as "a reciprocal affection, or, an affection which contains all the attributes of a subject, or, from which all its other predicates can be demonstrated", where 'affection' is a

metaphysical reflections in the Paris notes might be the ground for his charitable reading of Spinoza's thesis that "all things are one, all things are in God", as suggested by his own remark on the similarity between Spinoza's views and those expressed by Plato in his *Parmenides*.¹⁰⁷

On the other hand, if we look at what Leibniz writes in the portion of the text added successively, we can find an almost literal resemblance with the position he assumes in his remarks to Steno. Confronting the texts of Leibniz's replies to Steno and the addition to his note to Spinoza, indeed, one can see that these two say the same things with (almost) the same words. To Steno Leibniz replied: "*Non ponitur series ob Deum positum nisi quia Deus sapientissimus non nisi optimum vult*"; and in the note to Spinoza he wrote: "*Cum enim* [Deus] *sapientissimus sit, optimum eligit. Minime vero putandum est omnia ex Dei natura sine ullo voluntatis interventu sequi*".

This makes me think that Leibniz's addition to his notes to Spinoza could be postponed to a period contemporary or immediately following his discussion with Steno.

5.4.2 Divine will and PSR. A reassessment?

Leibniz's new emphasis on the role of divine wisdom goes hand in hand with a revaluation of divine will. Of course, in the theological tradition divine will has always been endowed with a 'causal' role, connected with the idea that the creation of things follows from an act of divine will (the productive/causal character of divine will has to be contraposed to the non-causal and non-productive character of divine understanding).

The young Leibniz, however, seems to have conceived of divine will in a purely physical (rather than moral) way. On this point, again, he was influenced by Hobbes' view. According to Hobbes, indeed, the aspect of moral obligation (moral necessity) can be entirely reduced to that of causal necessity, and, in particular, to the notion of efficient cause.¹⁰⁸On the other hand, this revaluation of divine will has not to be exaggerated in another direction. Leibniz, indeed, has always remarked the fact that divine will is subordinated to God's understanding or, better, to God's wisdom, and, in this sense, it cannot be considered as a completely

necessary predicate that can be analysed into its attributes, i.e. into simple, non-analysable necessary predicates which are conceived *per se* (A VI 3, 574/DSR 95). Cf. also A VI 3, 514, where he also specifies that "any property or affection of God involves his whole essence; thus, that God has produced something that is constant in our sensation [...] involves the whole nature of God, since it involves the whole series of things of that sort" (DSR 69-71). The essence/property relation, in particular, is exemplified by means of reference to numbers and numerical essences. See for instance A VI 3, 512, 518-9, and 523. In A VI 3, 512 (DSR 67), the mathematical simile is explicitly connected with the claim that "all things are in God". For occurrences of the latter claim, see also A VI 3, 385, 474, and 573. Those texts have been examined and discussed in M. Kulstad, "Pantheism, Harmony, Unity and Multiplicity: A Radical Suggestion of Leibniz's *De summa rerum*, in A. Lamarra-R. Palaia (eds.), *Unità e molteplicità nel pensiero filosofico e scientifico di Leibniz*, Firenze 2000, pp. 97-105. See also Adams, *Leibniz*, pp. 123-30.

¹⁰⁷ See A VI 3, 370, n. 25: "Parmenides and Melissus, according what has been reported by Plato and Aristotle, have taught doctrines not dissimilar [from that of Spinoza]. I remember that there was a time when I summarized in a demonstrative form Plato's *Parmenides* <even though without approving it completely>" (the passage between angled brackets is a posterior addition). For another reference to Plato's *Parmenides* connected to Spinoza, see *Quod ens perfectissimum sit possibile*, November 1676 (?), A VI 3, 573.

¹⁰⁸ See also Hobbes' explicit reduction of final causation to the efficient one, *De corpore*, X, vii (OL I, 117). On Leibniz's early conception of will, see P. Rateau, *La question du mal chez Leibniz*, pp. 188-95.

autonomous faculty. In another remark to Steno, Leibniz observes that when considering 'will', one has not only to place it among the requisite for a free action, but he has also to look for the requisites of will itself. Hence, concludes Leibniz, "it is absurd to hold that free choice is an ultimate ground, since free choice itself has its own requisites, since it is not a self-sufficient being [*ens a se*]".¹⁰⁹

That Leibniz is struggling for finding a place to (divine) will within the framework of this theory of requisites can be shown by quoting another text of the same period:

"On the other hand, God's will is not necessary but free, i.e., it depends on the consideration of the purpose or the good [*a consideratione finis sive boni*]. Accordingly, the will has its own requisites, partly in God, partly in the idea of the object: in God, his omniscience; in the idea of the object, goodness, or its suitability to the ends put forward by God. Thus, to say that will (be it in God or in another being) is without reason amounts to say that will in general is a being *per se*, i.e., a being without requisites or an entity whose concept cannot be resolved. However, it is straightforward that the concept of will can be resolved into other concepts".¹¹⁰

This passage occurs in a paper devoted to a general proof of Leibniz's most famous principle: *nihil fit sine ratione* (PSR). Even the notion of (divine or human) will has to be understood on the background of the logic of sufficient reason, and the theory of requisites that grounds the latter. The notion of will is not a simple one, but can be analysed into its own requisites. These are, respectively, God's omniscience, which is nothing but the theological counterpart of the plurality of possible worlds (the latter are the object of the former), and, *a parte objecti*, goodness, or the correspondence between the object of his choice and purposes he puts forward in the creation of the world.

It should also be stressed that, at least when concerning God's relation to the world to actualize, the very same notion of 'sufficient reason' passes through a modification with respect to Leibniz's original commitment to the Hobbesian account. According to Hobbes, indeed, the sufficiency of the full cause is understood on the basis of the mechanic model of a sum of conditions required to produce the effect; there is no place for teleology, and the notion of 'purpose' or 'end' in this account. Here a cause is said to be 'sufficient' just because it does not require anything else to produce its effect, not because the effect that has been produced corresponds to the purpose or the goal its producer has put forth (notice that a cause can be 'sufficient' in the first sense but not in the second). In Hobbes, indeed, the notion of causa sufficients maintains only the first sense, while completely abandoning the second one (which was the main sense of 'sufficiency' in the Aristotelian tradition).¹¹¹

¹⁰⁹ A VI 3, 120, n. 6/CP 39. In his remarks to Eckhard's long letter of May 1677, Leibniz makes clear that if God's will does not presuppose his understanding, he could not be said to be wise at all; see for instance the following passage: "Also in the case of God the understanding is naturally prior to will, because God does not want anything which he does not understand, and he also understands many things which he does not want. Will, indeed, is a in a certain sense a consequence of the understanding. God, indeed, wills whatever he understands to be the most perfect"(A II 1, 355, n. 90).

¹¹⁰ "Deus nihil vult sine ratione", 1678-1681 (?), A VI 4, 1389. On the resolution of the concept of will into more fundamental concepts, such as God's knowledge and the goodness of the object, see also "*Elementa verae pietatis*", A VI 4, 1360-61.
¹¹¹ I owe this point to Foisneau, *Hobbes et la toute-puissance de Dieu*, pp. 107-8. On the evolution of PSR in

¹¹¹ I owe this point to Foisneau, *Hobbes et la toute-puissance de Dieu*, pp. 107-8. On the evolution of PSR in Leibniz, see Piro, *Spontaneità e ragion sufficiente*, especially pp. 96-101, where he stresses the deliberative aspect of PSR.

In a sense, Leibniz might be regarded as proceeding the other way round: from a full commitment to a Hobbesian notion of sufficiency (and the corresponding formulation of the PSR) to a recovery of a teleological account of sufficiency to make sense of the claim that God is the sufficient ground of (the choice of) this world.

That means that the choice of the world to create is a consequence of God's intentional aim to create the best, explicitly conceived as the consequence of a (teleologically oriented) decision (*aptitudo ad fines a Deo propositos*), namely, again, of God's infinite wisdom.

5.4.3 Necessity of essences/contingency of existences (and the problem of 'possible causes')

The criticism of the conception of will as an *ens a se*, understood as an entity without requisites, is to be connected to Leibniz's reaction against Descartes' conception of God as *causa sui* in a positive sense (i.e. as an efficient cause) as well as his (in)famous theory of the creation of eternal truths. Both these two points had been extensively discussed by Leibniz in his correspondence with the Cartesian Arnold Eckhard in the midst-1677.¹¹²

As is well known, Leibniz will constantly regard Descartes' theory of eternal truths as the original seed of Spinoza's rather unorthodox image of God. At first glance, Leibniz's position might seem a little bit paradoxical, since Descartes's doctrine was originally intended by his author as a sort of exaltation of God's absolute freedom. Against Suárez's claim that essential propositions would have been true even though (*per impossibile*) God did not exist, from which the conclusion could be drawn that essences are in some sense independent from God, Descartes reacted by positing essences and existences on the same level, i.e. considering both of them as created and, thus, dependent on God as their cause. Whereas for Descartes both essences and existences are contingent insofar as they are created by God, Spinoza reversed this relation of dependence, by pointing out that, insofar as they depend on God, both essences and existences are necessary.

Notice, however, that Leibniz does not overlook the disagreement between Descartes and Spinoza on this point, as the following passage unmistakably shows:

"Descartes and Spinoza plainly disagree. Descartes claims that God does not will things because they are good, but rather things are understood to be good because God wills so. This is a very dangerous opinion, since it follows that there is no divine justice and that the will takes the place of reason. Spinoza claims that those who place an indifferent will in God err far less than those who believe that God acts under the aspect of the good [*sub ratione boni*]".¹¹³

In this passage Leibniz is literally quoting what Spinoza says in the second scholium to prop. xxxiii of the first part of the *Ethics*, where, after having rejected the idea of an indifferent will in God according to the Cartesian theology, Spinoza adds that, however, Descartes' view that that everything depends on God's will (the version of the doctrine of eternal truths that

¹¹² See in particular Leibniz's remark on Eckhard's letter of May 1677, A II 1, 351. Leibniz's rejection of the Cartesian doctrine is in keeping with his recovery of final causes, for the lack of distinction between understanding and will in God (which is the core of Descartes' doctrine of eternal truths) corresponds to the downplaying of final causes. Cf. E. Gilson, *La liberté chez Descartes et la théologie*, Paris 1913, p. 76 and ff.

¹¹³ Deus nihil vult sine ratione, A VI 4, 1389.

emerge from the text of the sixth objections) is less divergent from the truth than the idea of God acting *sub ratione boni*. The latter, indeed,

"seem[s] to posit something external to God that does not depend upon him, to which in acting God looks as if it were a model, or to which he aims, as if it were a fixed target. This is surely to subject God to fate [*the very same criticism Descartes moved to the Suárezian view*]; and no more absurd assertion can be made about God, whom we have shown to be the first and the only free cause of both the essence and the existence of things".¹¹⁴

Where the relevant point is what Spinoza says in the last line, i.e. that God is the first and the only free cause (in the Spinozian sense of *necessary* cause) of both the essence and the existence of things. Spinoza is saying that there is only one kind of dependence according to which all things (essences as well as existing things) derive from God in a necessary way. As in the case of Descartes, the primacy of God's power (*potentia*) over his understanding and will is the theological counterpart of the primacy of the 'cause' over the 'reason'.

The only difference is that, whilst for Descartes the dependence of both the essence and the existence of things on God's absolute power was a sign of their radical contingency, for Spinoza the fact that both the essence and the existence of things derive from God's essence (which is equated to his infinite power) is sign of their absolute necessity. This difference is due to the fact that Spinoza's concept of 'cause' (as his concept of God, of course) is altogether different from that of Descartes and the whole philosophical tradition, since for him the idea of causation loses any contact with the idea of agency or production to be equated with that of logical derivation.¹¹⁵

This also helps us to explain why, for those who, like Leibniz, found natural to read Spinoza's claims through the lens of traditional theology, it was so easy to trace it back to the Cartesian doctrine as to its closest correlate (or, vice versa, to see in the latter the seeds of the former).¹¹⁶

¹¹⁴ Spinoza, *Ethics*, I, xxxiii, scholium 2, G II,32/CW 238. Note also that, in his *Cogitata metaphysica*, II, 9, Spinoza formulates his necessitarianism in terms of all things being dependent on God's decree. However, from what Spinoza says there it is clear that he equates what is dependent of God's decree with what is absolutely necessary: "For if men clearly understood the whole order of Nature, they would find all things to be equally as necessary as are the things treated in mathematics. But because this is beyond the reach of human knowledge, certain things are judged by us as possible and not as necessary. Therefore we must say either that God is powerless –because all things are in actual fact necessary –or that God is all-powerful, and that the necessity we find in things has resulted only from God's decree" (G I, 266/CW 202). In the *Theological-political Treatise*, Spinoza explicitly treats divine decrees as eternal truths, see chapter IV, #5 (G III, 62 and ff.).

¹¹⁵ Cf. M. Messeri, *L'epistemologia di Spinoza. Saggio sui corpi e le menti*, Milano 1990, pp. 40-46, where the author explains that Spinoza's aim is to deprive causality of any connection with the intuitive idea of production exactly because he conceives necessary dependence according to a logical or geometrical model. Spinoza has been traditionally interpreted as a necessitarian in strong sense, even though it has also been proposed that he could have been defended a weak necessitarian view. For the strong reading, see D. Garrett, "Spinoza's Necessitarianism", in Y. Yovel (ed.), *God and Nature in Spinoza's Metaphysics*, Leiden 1991, pp. 191-218. The weak reading has been especially defended by E. Curley (since his seminal book: *Spinoza's Metaphysics. An Essay in Interpretation*, Cambridge Mass. 1969, pp. 82-117). On Leibniz's considered view, Spinoza is always regarded as a strong necessitarian. However, in a very short note he advanced what could be regarded as an early version of the weak reading, see *Ad sententiam Spinozae de necessitate rerum*, 1678 (?), A VI 4, 1777.

¹¹⁶ Cf. the texts of Cartesian and anti-Cartesian authors discussed in M. E. Scribano, *Da Descartes a Spinoza*. *Percorsi della teologia razionale nel Seicento*, Milano 1988, pp. 83-140.

Also for Spinoza, then, the principle holds that both the essence and the existence of things are caused by God, as he explicitly claims in proposition xxv of the first part of *Ethics*. Moreover, in the scholium to this proposition, he connects this sense of causal dependence with that in which God is said to be "cause of himself" (*causa sui*).¹¹⁷

Commenting this proposition, Leibniz points out that *conceivability* and *causality* cannot be assumed to be equivalent, to the effect that, even accepting that the essences of things cannot but be conceived by God, this is not sufficient to conclude that God is their cause as well.¹¹⁸ For Leibniz the essences of things are not external to God, and since causation has been defined as production *ad extra*, they cannot be caused at all (the cause is the reason of a thing outside of the thing itself, said Leibniz in the passage from the *Elementa* quoted in the previous paragraph above). In the case of essences (i.e. God's ideas), their reason is internal to things themselves, since they are 'placed' in God's understanding as their internal object.¹¹⁹ Thus, God can be said to be neither cause of himself (he exists necessarily insofar as he is his own reason) nor of his understanding and his internal objects (ideas, essences).

In this way, Leibniz maintains the relation of logical dependence (or, in epistemic terms, of conceivability) at the level of essences (where the plurality of possible worlds is located), while restricting the relation of causal dependence to the level of existence only (that of the best possible world that God actualizes). There is a little bit of oversimplification here, however, as the reader of the preceding paragraphs can immediately understand. When considering the possibility not of general essences but of individual ones (or individuals *sub ratione possibilitatis*), indeed, Leibniz himself will re-introduce causality at the level of essences, though making clear that merely possible individuals (better: non-actualized complete concepts) involve in themselves causes considered as possible (not as actual).¹²⁰

¹¹⁷ For Spinoza *inherence* implies *conception*, for instance if x is in y, then x is conceived through y; but it also holds that *conception* implies *causation*, for instance if x is conceived through y, then x is caused by y. By transitivity, it follows that what is in something else, is also caused by it (if x is in y, then x is caused by y). cf. D. Garrett, "Spinoza's Conatus Argument", in O. Koistinen-J. I. Biro (eds.), *Spinoza. Metaphysical Themes*, Oxford 2002, pp. 127-58, especially pp. 136-37. From which it follows that, if everything is in God, then everything is also caused by God. On the other hand, what is in itself and it conceived only through itself, is also cause of itself.

¹¹⁸ Cf. Spinoza, *Ethics*, I, xxv and scholium, G II, 68, and Leibniz's remark on it, A VI 4, 1774. On Leibniz's commentary to this proposition, see S.Di Bella, "Leibniz on Causation: Efficiency, Explanation and Conceptual Dependence", *Quaestio*, 2, 2002, pp. 411-47, and Laerke, *Leibniz lecteur de Spinoza*, pp. 748-55.

¹¹⁹ In the late discussion of Spinoza contained in his discussion of J. G. Wachter's *Elucidarium cabalisticus* (1706), Leibniz explicitly writes: "The essences of things are coeternal with God, and the very essence of God comprehends all other essences, to the extent that God cannot perfectly be conceived without them. But existence is inconceivable without God, who is the ultimate reason for things" (Beeley 5/AG 273). Notice that Leibniz stresses the fact that God cannot be perfectly conceived without the essences of things, even though, from a certain point of view (i.e. *qua* merely possible), they can be conceived without God. On the contrary, whereas the existence of things cannot be conceived without God, one can conclude that the existence (or the essence) of God can be conceived without the existence of things (in other words, the double implication between God and the actual world Leibniz held in the *Confessio* is no longer accepted).

¹²⁰ Cf. Leibniz to De Volder, July 6, 1701, GP II, 225: "for conceiving the essence [of a substance], the concept of a possible cause is required; for conceiving of its existence, the concept of an actual existence is required" (L 524). Note the terminology of 'requisites'. See also Leibniz to Bourguet, 1714: "Generally speaking, in order for a thing to be possible, it suffices that its efficient cause be possible; I except the supreme efficient cause [God], which must exist in fact" (GP III, 225/L 661). On this point in the De Volder correspondence, see S. Di Bella, "Indigentia conceptus alterius. Conceptual and Ontological Dependence in the Leibniz-De Volder Correspondence", in H. Breger et alli (hrsg.), *Einheit in der Vielheit*, Hannover 2006, pp. 182-89.

Here, however, what Leibniz is hinting at is exactly the conceivability of individuals at the level of mere possibility (or, if you prefer, the conceivability of existence not as actual but as merely possible). I think that Leibniz's reference to (possible) causes of (possible) existing things has to do with the causal structure of the *series rerum*, i.e. of a world conceived as possible (or, perhaps, better: conceived as making abstraction from both its actual existence as well as its actual non-existence).

As I have showed above, Leibniz originally thought of the actual world as a well-ordered series of things, where the order in question is a causal one (according to his commitment to causal determinism). The same causal structure, which originally was employed by Leibniz to characterize what actually exists (in contrast with the account of possibilities I have discussed in 5.1 above), will be later extended to all the possible series as well. Leaving aside for the moment the problematic reference to something like 'possible existence' (which sometimes Leibniz himself shows to perceive as disturbing), I think that his criticism of the conflation between causal and logical dependence (as represented by Spinoza and Descartes) is not in contrast with his own account.¹²¹

5.5. The Aftermath.

Leibniz on the Distinction between Essential and Existential Requisites

So far, I have tried to show how Leibniz came to his considered view according to which it is divine wisdom, teleologically conceived, which provides the reason for God's choice of the best, and, accordingly, of the actualization of this world. The actual world has been actualized by God only because it contains the maximum of perfection that is possible to find in an aggregate of finite beings (thus, a relative maximum, to be contrasted with the absolute maximum of perfection, i.e. God himself). What has to be highlighted here, however, is that in this kind of explanation the relationship between 'conceivability' and 'causation' are opposed with respect to Spinoza's account (and also to the account defended by the young Leibniz in the *Confessio*).

5.5.1 The causa/ratio distinction and Leibniz's theory of requisites

For Leibniz, indeed, it is only *because* one (and exactly one) world among many possible ones is conceived by God as being the best (and, thus, it is the best, since God is omniscient)

¹²¹ Adams, *Leibniz*, p. 18, observes that there are passages in which Leibniz says that "the possibility or essence, as distinct from the actual existence, of any being depends on the possibility of a cause or reason of its existence, which seems to imply that the concept of creatures as possible depends on the concept of God as possibly causing them". His main reference is to a passage from *Quod ens perfectissimum sit possibile*, A VI 3, 572 (DSR 93), where Leibniz is clearly conflating logical and causal possibility. It is not by chance, however, that this argument for the necessity of the *ens perfectissimum* will never be proposed by him again. This point has been clearly stressed by S. DI Bella, "L'argomento ontologico moderno", *Annali della Scuola Normale Superiore di Pisa-Classe di Lettere*, III, xxv, 4, 1531-78, pp. 1533-35.

that that (and exactly that) world is brought to existence by him by means of a (causally efficient) operation of his will. God does casually produce only what he has already (in a logical, not temporal sense) acknowledged to be the best, but this does not exhaust the range of what is possible; a position that clearly presupposes the distinction between the logical and the causal account of modalities.¹²²

As it has been pointed out many times, indeed, for Spinoza *ratio* presupposes *causa*, and, thus, conceivability presupposes causality, for the causal production of things is a precondition of their intelligibility, since only through their causes things can be conceived in a clear and distinct way. On the contrary, for Leibniz (at least, for the mature Leibniz), divine understanding logically precedes and presides over the production of things, or, which is the same, God's conceiving the best possible world logically precedes his decision to create it, and, thus, it is "reason" to ground "causation" and not the other way round.¹²³

This does not mean, however, that the mature Leibniz will abandon his early theory of requisites. On the contrary, he will continue to employ it, and to be faithful to the Hobbesian principle according to which, once the totality of all requisites for a thing is given, that thing must necessarily follow, or, once the full cause is posited, the effect will necessarily follow. However, he will clearly recognize that the Hobbesian argument does not lead to a necessitarian conclusion in Spinoza's sense, since, when correctly interpreted, it only proves a hypothetical and not an absolute necessity (i.e. the conditional necessity that the effect follows once the cause has been posited).¹²⁴

Discussing this topic in a passage from the *Theodicy*, indeed, he observes that Hobbes had mistakenly thought that the conclusion 'what does not happen is impossible' (which means that everything is either necessary or impossible) could be drawn from the assumption that "all the conditions requisite for a thing that shall not exist (*omnia rei non futurae requisita*) are never found together, and that the thing cannot exist otherwise".

Against this conclusion, Leibniz observes:

In other words, Leibniz is claiming that, even though the existence of something cannot be conceived apart from the totality of conditions which have concurred to produce it (to give it

[&]quot;But who does not see that that only proves a hypothetical impossibility? It is true that a thing cannot exist when a requisite condition for it is lacking. But as we claim to be able to say that the thing can exist although it does not exist, we claim in the same way to be able to say that the requisite conditions can exist although they do not exist. Thus Mr. Hobbes' argument leaves the matter where it is".¹²⁵

¹²² Such a distinction has been plainly acknowledged by Leibniz in # 235 of *Theodicy*: "In a word, when one speaks of the *possibility* of a thing it is not a question of the causes that can bring about or prevent its actual existence: otherwise one would change the nature of the terms, and render useless the distinction between the possible and the actual. [...] That is why, when one asks if a thing is possible or necessary, and brings in the consideration of what God wills or chooses, one alters the issue" (GP VI, 257-58/H 276). Cf. also *De libertate et necessitate*, 1680-84 (?), A VI 4, 1447/AG 20-21.

¹²³ For a wide reconstruction of the *causa/ratio* distinction in the early modern period, see V. Carraud, *Causa sive ratio*. La raison de la cause de Suárez à Leibniz, Paris 2002.

¹²⁴ On the different evaluation of Hobbes' and Spinoza's necessitarianism by Leibniz, see what I have observed in the introduction to this Section.

¹²⁵ *Theodicy*, # 172, GP VI, 216/H 237-38. Cf. also GP VI, 389-90, where Leibniz acknowledges that this point had already been highlighted by Bramhall in his criticism of Hobbes. See also a similar remark in the notes to Stegmann, Jolley 189.

its place in the series of things), those conditions themselves can be regarded as merely possible ones. In other terms, an existent thing and its causal conditions (as well as all the other elements of their *series rerum*) share the same modal status, which, as Leibniz has clarified in the revised version of the *Confessio* (after 1677), is a twofold one: all things, indeed, are *contingent in themselves* and only *hypothetically necessary*, i.e. necessary on the hypothesis of something else (i.e. of God's decision to actualize that particular series of things instead of other possible ones).¹²⁶

That said, however, one has also to remark that, in order to fully avoid necessitarian consequences following from the Hobbesian thesis concerning the double implication between the full cause (the aggregate of conditions) and its effect (the conditioned), the theory of requisites will through some substantial modifications in Leibniz's writings of the Hanoverian period.

5.5.2 The distinction between immediate and mediate requisites

Two modifications, in particular, should be mentioned, because they were probably thought to remedy to the two main shortcomings of Leibniz's theory as it was originally presented in the Paris writings. There, indeed, as I said above, Leibniz (1) did not clearly distinguish between essential and existential requisites, and, thus, between reasons and causes, and (2) understood requisites with necessary conditions *tout court*, and, since necessary conditions taken together provide a sufficient reason for the existence of something, it follows that the aggregate of requisites (the *causa plena*) is both a necessary and sufficient condition for its effect (and vice versa, since the implication goes in the other direction as well).

Against (1), in the writings from the 1680's, Leibniz will explicitly distinguish between *immediate* and *mediate* requisites (or absolute and relative conditions), a move which allows him to clearly distinguish between logical and causal conditions. In other words, causes are identified not with requisites *tout court*, but only with mediate ones, where immediate requisites cover the relation of inherence. Causes are said to be only mediate conditions insofar as they are relative only to a particular mode of production or existence.

The conflation between the essence/property and cause/effect relation (which was the core of the *Confessio* argument and was still maintained in Leibniz's early notes to Spinoza) is now avoided, thanks to the fact that the relation of 'inherence' is now to be explained in terms of a relation of immediate dependence obtaining between the sum of conditions (*requisita*) and the conditioned (*requirens*).

In a text from 1685, Leibniz writes: "Among the requisites of things, some of them are mediate, which means they must be investigated by means of reasoning [*per ratiocinationem*], as causes; others are immediate, as parts, borders, and, in general all those things which are in a thing [*quae rei insunt*]".¹²⁷ On the contrary, when dealing 'causes' properly said, the effect

¹²⁶Cf. *Confessio philosophi*, A VI 3, 128/CP 57. The theory of the twofold modal status of all the members of the *series rerum*, contingent in themselves and only hypothetically necessary (on the hypothesis of a cause producing them), could be traced back to Avicenna's theory of causation and its reception by the Schoolmen, see for instance P. Porro, "*Possibile ex se, necessarium ab alio*. Tommaso d'Aquino e Enrico di Gand", *Medioevo*, XVIII, 1992, pp. 231-73.

¹²⁷ Definitiones notionum metaphysicarum atque logicarum, 1685 (?), A VI 4, 627. For a later text, cf. C 471-72.
results from the cause (still understood as a condition) only through the mediations of something else, that is a particular way of producing that particular effect (in an essay of the same period, Leibniz speaks of "cause" as a *requisitum ad aliquem producendi modum*, or, alternatively, as a *requisitum, secundum eum producendi modum, quo res supponitur produci*).¹²⁸

To understand this point, one has to contrast causal dependence with the case of immediate dependence, where the conditioned follows from the position of the condition(s) in the sense of the latter's being constitutive of the very same nature of the former (in contemporary terms, we would call it *essential dependence*, something like: *x essentially depends* for its existence upon *y* iff it is part of the essence of *x* that *x* exists only if *y* exists).¹²⁹

Now, the immediacy of the consequence is sometimes expressed by Leibniz by saying that it occurs without any real change in things, i.e. without action or passion:

"If *A* is an immediate requisite of *B*, it will be said that *A* is *in B*, i.e. *A* must not be posterior by nature to *B*, and, posited that *A* does not exist, it must immediately follow that also *B* does not exist, and that very same consequence must be immediate, i.e. independent of any change, such as action or passion; when these things are posited, it will be said that *A* is *in B*".¹³⁰

A paradigmatic case of immediate dependence (which Leibniz often uses in contraposition to causal dependence) is given by the part/whole relation, especially when the whole can be regarded as a complex concept and the parts as its conceptual constituents.¹³¹ (However, to be precise, one has to remark that the part/whole relation is only a particular case of the

¹²⁸ Cf. *Divisio terminorum ac enumeratio attributorum*, 1683-85 (?) A VI 4, 563 and 564. On Leibniz's rather intricate explanation of 'cause' in terms of mediate requisites, one can profitably consult S. Di Bella, "Leibniz's Theory of Conditions", *The Leibniz Review*, 15, 2005, pp. 67-93, and M. Futch, "Leibnizian Causation", *British Journal for the Philosophy of Science* 56, 3, 2005, pp. 451-67. The mature Leibniz also arrives to distinguish between full and partial causes. The first occurrence of this distinction, as far as I know, is to be found in his later remarks to the 1671-72 tables of definition (*Vorarbeiten zur characteristica universalis*, A VI 2, 489, n. 11). Both Di Bella and Futch note that in his treatment of the topic in the 1680's categorical tables Leibniz comes very close to an account of causation in terms of INUS conditions (insufficient necessary part of an unnecessary sufficient set of conditions).

¹²⁹ Alternatively, one can say that an entity x essentially depends on an entity (or entities) y iff y is a constituent (or are constituents) in x's essence. Cf. K. Koslicki, "Ontological Dependence: An Opinionated Survey", in B. Schnieder-M. Hoeltje-A. Steinber (eds.), Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence (Basic Philosophical Concepts). Philosophia Verlag 2013, pp. 31-64.

¹³⁰ Analysis particularum, 1685-86 (?), A VI 4, 650. Other times, however, Leibniz's suggestion seems to be even more radical, since he says that, in order to have immediate dependence, the conditioned must be constituted by the condition(s) without any inference or consequence at all. For instance, see the following text, explicitly devoted to characterize the notion of 'inherence': "To be *in A* is the same as to be constitutive of the predicate of *A*. [...] But what constitutes is something prior by nature and gives rise to something else without any intervening or immediate inference [*Constitutivum autem est quod aliquid sine interveniente consequentia ponit, seu immediate inferens natura prius*]" (LH IV, 7B, 3, Bl. 56v, published and translated in M. Mugnai, "Leibniz and 'Bradley's Regress", *The Leibniz Review*, vol. 20, 2010, pp. 1-12. The same notion of "constituent" can be found in *Fragmenta quinque de contento et continuo*, 1689-90 (?), A VI 4, 1001-02. Cf. also the explanation of *inesse* in terms of something being's an *ingredient* of something else in the late *Initia rerum mathematicarum metaphysica*, GM VII, 19/L 667.

¹³¹ For an earlier definition of 'part', see *De materia, de motu, de minimis, de continuo*, A VI 3, 470: "To be in something (i.e., to be within limits and to be something which cannot be understood without something else, is to be a part" (DSR 21). On Leibniz's successive characterization of parthood, see the following note. Of course, the origins of Leibniz's interest in the the part/whole relation date back to the DAC, *Cum Deo*!, ##8-9, A VI 1, 171. Cf. H. Burkhardt-W. Degen, "Mereology in Leibniz's Logic and Philosophy", *Topoi* 9, 1, 1990, pp. 3-13.

general notion of inherence, one specified by the constraint that parts must be homogeneous to whole they are in).¹³²

The part/whole relation provides a good example of what to be a consequence 'independent of change' means for Leibniz: when the parts a, b, c, d, etc., are posited, then, for that very same reason (*eo ipso*), the whole L is posited as well, and note that the inference goes also in the other direction as well (when the whole is posited, also its parts are immediately posited). No real change, however, occurs in this case, no real modification (action or passion) occurs, and, moreover, it is not even necessary that the plurality of things constitutive of a whole of some kind be really gathered together in space and time (or that some relation of connection holds among them), since it is only sufficient to think them together with a single act of thought (Leibniz himself makes the example of the totality of the Emperors of Rome).

Of course, this means that such a totality or collection does not represent anything real, but this is not a problem for Leibniz, who clearly assumes that what is composed of parts (an "aggregate" according to his terminology) does not possess a reality of its own but only a phenomenal one (alternatively, its reality is a derivative one, being grounded on that of its components).¹³³

5.5.3 Natural vs. temporal order

The second, fundamental improvement in Leibniz's theory of requisites has been already anticipated in the passage above, where Leibniz explicitly says that, in order to call it a 'requisite', a necessary condition must be "prior by nature" to its conditioned. Against (2), indeed, Leibniz specifies that a requisite can only be a condition *natura prius*, in order to make room for the conceptual (not only temporal) asymmetry between cause and effect.

The asymmetry, indeed, went irremediably lost when a requisite was equated with a necessary condition *tout court*, and a cause with the sum of all requisites necessary for the existence of a thing, given the fact that if *B* is a necessary condition for *A*, then *A* is a sufficient condition for B, and vice-versa.¹³⁴ Without specifying that a requisite must be 'prior

¹³² Cf. *Non inelegans specimen demonstrandi in abstractis*, 1687 (?), A VI 4, p. 846, scholium: "Not everything that is in something else [*inexistens*] can be regarded as a part of it, nor everything which contains can be taken as a whole, for example, both an inscribed square and a diameter are in a circle, but, whereas the square is a part of the circle, the diameter is not a part of it". What has to be added to the notion of *inesse* to get the part/whole relation is the further requirement that parts be homogeneous with the whole (and vice versa). Cf. A VI 4, 310, 508. On the notion of homogeneity, cf. Hartz, *Leibniz's Final System*, pp. 68-70.

¹³³ Cf. *Definitiones notionum metaphysicarum atque logicarum*, A VI 4, 627. Cf. also the example of the two diamonds in the correspondence with Arnauld, GP II, 76. We could say that, when talking of composite beings as aggregates, we are committed just to the 'mereological sum' of its parts, whereas any unity of the aggregate over and above the plurality of its parts is only imposed by a mental act of recollection (more precisely, the act of perceiving or conceiving together a plurality of things). On the phenomenal nature of aggregates, cf. A VI 4, 627 ("quae partes habent non sunt entia, sed phaenomena tantum"). On Leibniz's mereology, see R. T. Cook, "Monads and Mathematics: The Logic of Leibniz's Mereology", *Studia Leibnitiana*, 32,1, 2000, pp. 1-20, and M. Mugnai, "Leibniz's Mereology in the Essays of Logical Calculus of 1686-90", in *Vorträge des X. Internationalen Leibniz-Kongress*, pp. 175-94.

¹³⁴ Leibniz was perfectly aware of that, as it clearly emerges from the following passage: "If, when the existence of A is posited, it follows that B exists (though not at the same time), A will be the *producer* [*inferens*] and B the *produced* [*illatum*]. If, when the non-existence of B is posited, it follows that A does not exist as well, B will be the *condition* and A the *conditioned*. From which it is clear that condition and produced coincide, as do

by nature' to its required thing, indeed, one would be allowed to say that a producer is a sufficient cause for its produced, which, in turn, is a necessary condition for its conditioned.

By resorting to the (traditional) idea of a 'natural order' (naturally prior/naturally posterior), Leibniz introduces an ordering among the events or states of affairs that belong to the series of things. The notion of natural order, together with the notion of consequence (*consequentia*), i.e. the couples *conditio-conditionatum* and *inferens-illatum*, is one of the fundamental ingredients of Leibniz's understanding of causality: "From order and consequence taken together, there arise cause and effect".¹³⁵

The distinction between natural and temporal priority had been already employed by Leibniz to elucidate causal dependence since his very early years, as exemplified by a passage from the *Elements of Natural Law*:

"A *cause* is a producer prior by nature to what is produced [*inferens natura prius illato*]. There are producing things which are posterior to the things produced, for an effect often produces the cause. When I say: if A exists, also B exists, then A is a *producer*, B a *produced*. Naturally prior, although not temporally prior, is whatever can clearly conceived before the other, whereas the other cannot be conceived without it. On the other hand, temporally prior is whatever can be perceived before the other, whereas the other cannot be perceived before it. What is prior by nature is prior essentially, what is temporally prior is prior existentially. We evaluate essence by means of thinking, existence by means of perception".¹³⁶

This passage, however, is not very clear, and it seems to present tentative ideas more than clear-cut definitions. The distinction between temporal and natural order is explicitly phrased in terms of a difference between the order of existing things in time and that of a-temporal essences, but, at the same time, the peculiarity of the natural order is expressed in frankly epistemic terms (A is prior by nature to B if it is impossible to conceive B without conceiving A). At the same time, however, conceivability plays the role of the criterion for evaluating essences, and is contrasted with sensibility or perceivability which is the criterion of existence.

In another passage of the same period, Leibniz notes that "[a]ccording to the men's common sense a *cause* is what, had not been pre-existing here and now, another thing would not have existed", and added that that also holds in cases in which cause and effect are temporarily simultaneous, since the priority of the cause over the effect is a natural one. Concerning the definition of 'natural priority', however, Leibniz limits himself to say that "something is prior by nature when in the moment of production, if you try to remove something, you will get nothing unless you remove something else". The example is that of a shadow, which could not be removed without removing the object which casts it. ¹³⁷

conditioned and producer. If a condition is prior by nature [*natura prius*] to the conditioned, it will be called *requisite*, and the conditioned will be called *required*" (*Divisio terminorum ac enumeratio attributorum*, 1683-85 (?), A VI 4, 563). Cf. also Di Bella, "Leibniz's Theory of Conditions. A Framework for Ontological Dependence", *The Leibniz Review*, 15, 2005, pp. 67-93.

¹³⁵ De notionibus omnia quae cogitamus continentibus, 1680-1684/85 (?), A VI 4, 398. Cf also ibid., p. 399.

¹³⁶ Elementa juris naturalis, 1671 (?), A VI 1, 483. In his early notes to Stahl, Leibniz wrote: "A requisite is what is necessary to something else, whereas the thing to which the former is necessary is a required thing. A requisite which is not a required thing is called *cause*" (A VI 1, 28).

¹³⁷ Vorarbeitern zur characteristica universalis, 1671-72, A VI 2, 489. The common sense of cause is implicitly contrasted here with the philosophical theories, as that of Suárez, which had been criticized by Leibniz in his 1670 *Preface to Nizolius*, cf. A VI 2, 418.

What Leibniz is looking for, then, seems to be a sort of logical-ontological order which has to be distinguished from the temporal order in which (phenomenal) things appear to us. With respect to the passages quoted above, however, the mature Leibniz's goal seems to be more ambitious. In the passage from the *Elements*, indeed, he simply juxtaposed the temporal and the natural series of events, whereas in his writings of the 1680's he will try to show that temporal order must can (and must) be grounded in the natural one by means of a causal theory of time.¹³⁸

The notion of 'natural priority' (*natura prius*) is not very easy to capture, because Leibniz seems to oscillate between a logical-ontological and an epistemic account thereof. Very generally speaking, one could say that A is naturally prior to B if the notion of A is simpler than the notion of B, which means that the notion of B can be analysed in terms of the notion of A but the reverse does not hold.

This explains why, in one of his first attempts to characterize the notion of 'natural order', Leibniz prefer to insists on the fact that: "Prior by nature is a term which consists of less derivative terms", where a term is said to be 'less derivative' if it is equivalent to a minor number of primitive terms (*a* is prior by nature to *b* if the number of primitive terms which enter in *a* is minor than the number of the primitive terms in *b*).¹³⁹

It is not clear, however, if this is just a sufficient condition for something being's naturally prior to something else, or it can also pretend to be a necessary and sufficient condition for it. The latter, however, cannot be the case, since, as Leibniz himself remarks, there can be concepts which, although being more general then others (being related to the latter as genera to species), nonetheless are not simpler than them. In this case, then, if the condition of x's having fewer simple concepts than y were to be both necessary and sufficient to say that x is naturally prior to y, then one would have to conclude that it does not impose a total order among the elements of things (against the idea of the world's being constituted as a 'series of things').

Leibniz himself was aware of this problem, and that explains why he ultimately resorts to an (albeit partially) epistemic characterization of 'natural priority/posteriority'. As he himself points out, indeed, "there are often many properties of the same subject, one of which can be easier to discover and prove than the other and, nonetheless, they are all reciprocal, and, therefore involve all the same things". He makes the example of two properties of the same subject, *A* and *B*, such that (1) *A* is contained under *B* as a species under its genus, and, however, (2) *A* is prior by nature to *B*, since it can be demonstrated more easily than the other. Thus, he concludes: "For this reason, it is prior by nature that, whose possibility can be more easily demonstrated, that is what can be understood more easily [*facilius intelligitur*]".¹⁴⁰

¹³⁸ For a remarkable account of Leibniz's causal theory of time, see M. Futch, *Leibniz's Metaphysics of Time and Space*, Dordrecht 2008, pp. 115-27.

¹³⁹ Specimen calculi universalis, 1679 (?), A VI 4, 286-87.

¹⁴⁰ Quid sit natura prius, 1679 (?), A VI 4, 180-81. Cf. J. B. Rauzy, "Quid sit natura prius? La conception leibnizienne de l'ordre', *Revue de Métaphysique et de Morale*, 100, 1995, pp. 31-48, and Futch, *Leibniz's Metaphysics of Time and Space*, pp. 110-11. Note that if two states of the world, say s_1 and s_2 , are reciprocal, i.e. they both involve the same things (the entire universe), and, given that transitivity holds among the states of the world $s_1...s_n$, the consequence will follow that no state of the world would be naturally prior/posterior to any other one, thus (given that temporal order is grounded on the causal one and the causal one on the order of nature), no relation of temporal order will hold among the state of the same series of things. This is the problem discussed by Leibniz at the beginning of *Quid sit natura prius*.

That said, however, Leibniz's final characterization of natural order does not seems to be entirely satisfying, especially because 'simplicity' is explained in terms of what is 'easier' (*facilius*), but he usually says that something is 'easier' than something else if the former has less requisites than the latter¹⁴¹; but, then, the explanation seems to be circular, since in order to explain what is to be a requisite, reference to natural priority is required, and in order to explain what is to be naturally prior/posterior one has to resort to the notion of having few/more requisites.

Leaving aside this delicate question, one can remark that, among the consequences that Leibniz draws from this account of 'simplicity', there is that, among the substances, God is what is naturally prior in the highest sense:

"Of two things, one of which is simpler, that is can be understood more easily than the other, the first is said to be naturally prior, the second naturally posterior. From which it follows that of all substances none can be understood more easily than God, and rather nothing else can be perfectly understood if not through God".¹⁴²

If I have briefly mentioned these refinements of Leibniz's theory of requisites (which will be mainly developed by him in his 1680's writings concerning the analysis of categories), is because they constitute a sort of completion of the topics I have discussed in this chapter and, at the same time, a sort of connecting link with the questions that will be discussed in the next one.

5.5.4 Summary and prospect for the next chapters

So far, indeed, I have focused my attention on the relation of dependence holding between the *series rerum* taken as whole and its ultimate reason/cause, i.e. God, showing how the conflation between essential and existential requisites made difficult for the young Leibniz to find a place for divine wisdom and its objective counterpart, possible worlds, in his account of the creation of the world.

The question became particularly pressing when he had to face Spinoza's necessitarian account, which was explicitly based on the equivalence between inherence, conceivability and causation, from which the conclusion follows that God has to be understood as the efficient cause of both essences and existences. Even though he clearly accepts the equipollence between cause and effect (i.e. the principle that the knowledge of the cause involves that of the effect, and vice versa), Leibniz observes that, from accepting it, the conclusion from "A cannot be conceived without *B*" to "A is caused by *B*" has to be rejected as false.¹⁴³ Leibniz's

¹⁴¹ For instance: A VI 4, 29 ("Facile est cujus pauca sunt praerequisita sufficientia"), 303 ("Facile est cujus pauca sunt requisita aut parva"), 530, n. 5 ("Probabilius est quod pauciora habet requisita, seu quod est facilius"). Cf. also A VI 4, 1396, 1412, 1426-27. For a late text (1702-4), see Cout. 475: "*Facile* cujus pauca sunt requisita. *Difficile* cujus multa".

¹⁴² Enumeratio terminorum simpliciorum, 1680-84/5 (?), A VI 4, 389-90. Cf. Grua 390, where, to Wagner's objection that the existence of the world does precede our concepts of it and, for this reason, they derive from it and not the contrary, Leibniz answers: "But the possibility of them [our concepts] is prior by nature or reason to that, because it is the reason or the origin of it. But the possibility of both our concepts and the things themselves is originally or naturally prior to the existence of the world".

¹⁴³ Ad Ethicam Benedicti de Spinoza, 1678, A VI 4, 1774. Against the notion of conceivability (regarded as too subjective, and connected with a form of Cartesian intuitionism), Leibniz also notes that one must clearly

distinction between mediate and immediate requisites, then, can be regard as an attempt to provide a general account of the notion of dependence, grounded in the notion of 'requisite' (and, therefore, in the PSR), while, at the same time, making room for a distinction between causal and conceptual conditions strong enough to block the Spinozistic collapse.¹⁴⁴

In the next chapter, on the contrary, I will focus on the internal structure of the *series rerum*, where the notion of 'order' (spatiotemporal as well as a causal one) plays a fundamental role, especially for what concerns the fundamental thesis about the universal connection of all things. The latter, furthermore, constitutes a sort of ancestor of the notion of 'compossibility', i.e. the relation that orders possibles into a plurality of worlds.

As we will see, indeed, Leibniz will extend the idea of an ordered series of things even to the case of what is merely possible, coming to the conclusion that 'connection' holds not only in the actual but also in every possible world. At the same time, however, it is interesting to note that the thesis that everything in connected in this (actual) world will be his primary argument against the pretence of attributing an absolute, independent (actual) existence to worlds different from the one we happen to inhabit.

The first move (the pluralization of the notion of *series rerum*) goes in the direction of attributing to mere possibles a more-than-imaginary ontological status (thus, finding a place for contingency in God's choice of alternative series, which, albeit weak, was enough to reject Spinoza's necessitarianism). The second move, the restriction of (actual) existence to the actual world (and its inhabitants) only, on the other hand, is necessary in order to safeguard the ontologically privileged status of our world (a requirement of every theory of creation), but is connected also with a specifically Leibnizian tenet (the idea that God cannot but create one and only one world, the best one).

The first and the second move correspond, respectively, to the second and the third step of the ideal reconstruction of the genesis of Leibnizian possible worlds I have sketchily presented at the beginning of this chapter.

distinguish between the notions of "x *involving* y" and that of "x not being conceivable without y" (the knowledge of a parabola involves that of its focus, but the former can be conceived without the latter). The notion of inherence captured by conceptual containment, then, has to be carefully distinguished from the epistemic notion of conceivability (against the Cartesian account). However, as I said above, Leibniz's explanation of 'natural priority' in terms of "that whose possibility can be more easily demonstrated; that is, what can be more easily understood" (A VI 4, 181) seems to retain an (unmistakable) epistemic element.

¹⁴⁴ Leibniz's position can be summarized by saying that he wants to distinguish between 'causes' and 'reasons' by considering causes as a particular subset of reasons, i.e. those which concern existent things, facts or events, whereas (non-causal) reasons have to do with propositions and truths. Cf. *Calculus ratiocinator*, 1679 (?): "Prius natura voco id quod est terminis primis propius. Ratio est propositio prior natura ex qua alia proposition demonstratur. V.g. *lm est cd* quia *l est cde*" (A VI 4, 277-78). The parallelism between the order of reasons and that of causes will be stressed in a famous passage from the *New Essays*, IV, xvii,1: "a cause in the realm of things corresponds to a reason in the realm of truths" (A VI 6, 475). Cf. also S. Di Bella, "Causa sive Ratio. Univocity of Reason and Plurality of Causes in Leibniz", in M. Dascal (ed.), *Leibniz. What Kind of Rationalist?*, Dordrecht 2008, pp. 495-510.

Chapter 6

The Order of the *Series*: The Universal Connection of all Things

"Omne corpus in omnia alia agit et ab omnibus aliis patitur, sive omnia alia percipit". (Definitiones cogitationesque metaphysicae, 1678/80-1 (?), A VI 4, 1400)

"Re recte expensa videtur impossibile ut aliqua propositio de aliquo fiat falsa, nulla in eo facta mutatione. Nimirum Mundus est quasi unum, et unaquaeque res aliarum omnium mutatione afficitur realiter". (Definitiones, 1679 (?), A VI 4, 307, Note)

This chapter is connected with the following one, since, ultimately, my purpose is to investigate the relation between the mutual connection of all things (i.e., all the members of the *series rerum*) and the possibility or impossibility of a plurality of *series*, which, at beginning, are not interpreted as alternative ones (alternative plans for the creation of the world by God), but, rather, as parallel universes, so to say. A fundamental role in this story will be played by the notion of 'existence' and its connection with spatiotemporal position, and, especially, with the topological determinations of space and time (unification, in particular).

Therefore, in the first part of this chapter, I will introduce and discuss in details the topic of the 'universal connection' of all things as it emerges in Leibniz's Paris writings, by pointing out the relevance of 'connection' to Leibniz's account of the *series rerum*, its interpretation in terms of relations of order among the perceptions of individual substances and the understanding of the (actual) world as a *plenum*. The second part of the chapter, on the contrary, has a more tentative nature: I have tried to provide a reconstruction of the way in which Leibniz came to formulate his considered view on the idea that everything is connected with everything else in a(ny) world.

After that, in the next chapter, I will move to discuss Leibniz's hypothesis of a plurality of different series in the texts from April 1676 and his subsequent rejection thereof in December 1676 (probably to be connected with his worries about Spinoza's philosophy).

At that point, the original intuition concerning the possibility of a plurality of series (existing on a par with our world) will be transformed into the idea of a plurality of merely possible series, conceived of as possible alternatives to the one and only actual world, whose 'location' has to be shifted from the level of actuality to that of the objects of divine understanding (at this point, the connection with the preceding chapter should be evident).

6.1 Singularium Essentialis Ordinatio.

A Framework for Existence

First of all, let me introduce the topic of universal connection of all things by quoting a passage from a text of the mature Leibniz:

"The infinitely many series of things and of changes so correspond to one another and are connected with such symmetry that any given one agrees perfectly with all the others, and conversely. Hence, *each thing is so connected to the whole universe, and one mode of each thing contains such order and consideration with respect to the individual modes of other things, that in any given thing, indeed in each and every mode of any given thing, God clearly and distinctly sees the universe as implied and inscribed. As a result, when I perceive one thing or one mode of a thing, I always perceive the whole universe confusedly; and the more perfectly I perceive one thing, the better I come to know many properties of other things from it".¹⁴⁵*

Let me just say that in the first lines of the quotation, when Leibniz speaks of the "infinitely many series of things and of changes", he is not speaking of many *series of things* in the sense of worlds, but in the sense of the "law of the series" which characterizes every individual substance.

The entire world, indeed, constitutes a series of things just because each individual substance develops its own law of the series, and all these laws (which, so to speak, are codified into the complete concepts of every substance) are so harmonized that each one "agrees perfectly with each other" as if all of them reflected into themselves a sort of common public world (as Leibniz notoriously explains in section 14 of the *Discourse*).

6.1.1 Individual accidents and Leibnizian holism

I have chosen this passage because here Leibniz makes explicit a point that has been very often neglected by many scholars. He says, indeed, that "in any given thing, indeed *in each and every mode of any given thing*, God clearly and distinctly sees the universe as implied and inscribed". Of course, everyone knows that, according to Leibniz, God (i.e. an infinitely perfect mind) can read off the entire universe from the complete concept of anyone of its inhabitant. However, what this passage makes clear is that entire universe is "implied and inscribed" not only in the complete concept of a substance, but also in each and every mode of any given thing.¹⁴⁶ The modes of a substance are its accidents, and what this passage makes

¹⁴⁵ Communicata ex disputationibus cum Fardella, March 1690 (?), A VI 4, 1668/AG 103(italics mine)

¹⁴⁶ Cf. *New Essays*, II, xxv, 10, where, to Locke's suggestion of considering 'relative' a term t only if t (when referred to a thing x) necessarily leads the mind also to ideas other than the ones that are supposed to exist in x, Leibniz answers that 'necessarily' has to be interpreted as 'explicitly', since, otherwise, "there would not be any non-relative terms on your account. Consider for example the non-relative term 'black'. We can think of *black* without thinking of its cause, but that involves staying within the limits of the knowledge that comes to one straight away", i.e. confused and incomplete knowledge. However, Leibniz continues: "no term is so absolute or so self-sufficient that it doesn't involve relations. A complete analysis of *any* term applying to a thing x would lead to things other than x –would lead indeed to *all* other things!" (A VI 6, 228). Cf. also Leibniz to De Volder, 1703, GP II, 249: "[...] I do not find among notions any predicates that are entirely absolute, or that do not involve a connection with others".

clear is the sense in which Leibniz can be regarded as committed to the doctrine of individual accidents.

As Leibniz says elsewhere, indeed, "a subject [i.e. an individual substance] is an individual who can be expressed through many different individuals [i.e. its individual accidents]".¹⁴⁷ These accidents are individual not only in the sense of their being numerically different from individual to individual, since they also require being qualitatively discernible ones. Individual accidents, or *individualia* (or also haeccetistic properties, see note 151 below), are to be carefully distinguished from general predicates, which are abstract ones; the difference between the two is not only one between infinite (individual) and finite (general) concepts, since what grounds and explain the fact individual accidents are infinite concepts is that they reflect the entire universe to which they belong, which also means that they are to be characterized as relational ones.

The relations in question are, of course, what Leibniz usually calls relations of connection (and distinguishes from relation of comparison, which hold between abstract concepts and predicates). Concerning the property of the ideal (and, then, unreal) character of relations, I agree with the view of those who maintain that, in Leibniz, the ideality of relations concerns only relations *qua* abstract objects, i.e. insofar as they are abstracted from particular relata (and relational accidents).¹⁴⁹

Again, this does not just mean that there is a difference between an accidental predicate taken generally (say 'red') and the individual, particular red of this apple (or that chair); this distinction, between general and individual accidents (between 'red' and 'this red'), indeed, could be traced back to the ontological square of the Aristotelian tradition (where for Leibniz and other nominalistically minded philosophers, it is clear that the general accident is only the result of a process of abstraction).¹⁵⁰ What seems to be peculiar to Leibniz's position is that what gets lost in the process of abstraction, i.e. in the passage from the concrete, individual predicate (which is always the particular modification of this particular individual) to the

¹⁴⁷ De cogitationum analysi, 1678-80/1 (?), A VI 4, 2770.

¹⁴⁸ This point has been clearly stressed by Schneider, *Analysis und Synthesis bei Leibniz*, pp.202-3, who clarifies his point by saying that the predicate of infinite (individual) concepts represent relational concepts in the sense of being constituted by relations of compossibility of a certain kind. The infinity of such concepts does not consist only in the fact that complete concepts contain in themselves an infinite number of partial concepts, but that each partial concept itself (insofar as it is part of such and such complete concept) is characterized by an infinite number of relations of compossibility, which represent the 'position' of that concept in the (logical) space of a determinate possible world (the place of that individual in the *series rerum*).

¹⁴⁹ See for instance R. T. W. Arthur, "Leibniz's Theory of Time", in K. Okruhlik-J. R. Brown (eds.), *The Natural Philosophy of Leibniz*, Dordrecht 1985, 263-313, p. 266. See also Di Bella, *The Science of the Individual*, p. 343. ¹⁵⁰ See, for instance, Leibniz's famous example of how men come to form to themselves the (abstract) notion of space in his correspondence with Clarke, see Leibniz's fifth writing, #47, GP VII, 400, in particular the following passage: "For the place of *A* and *B* is the same, whereas the relation of *A* to fixed bodies is not precisely and individually the same as the relation which *B* (that comes into its place) will have to the same fixed bodies; but these relations agree only. For two different subjects [...] cannot have precisely the same individual affection, it being impossible that the same individual accident should be in two subjects or pass from one subject to another. But the mind, not contented with an agreement, looks for an identity, for something that should be truly the same, and conceives it as being extrinsic to the subject; and this is what we call *place* and *space*" (L 704). For a detailed commentary, see K. Clatterbaugh, *Leibniz's Doctrine of Individual Accidents*, Stuttgart 1973, pp. 61-73; M. Mugnai, *Astrazione e realtà. Saggio su Leibniz*, Milano 1976, pp. 147-.58. I think that Leibniz's explanation of the genesis of the concept of space (ideal/abstract notion) from the individual concept of position should be extended to the case of all individual accidents (insofar as they contain a, perhaps irreducible, positional element).

abstract notion (the general accident), is the positional element that characterizes individual accidents as such (this positional element has something to do with the 'point of view' which works as a sort of principle of individuation for each individual substance with respect to the whole of the universe to which it belongs).¹⁵¹

Ultimately, I think that the same holistic intuition that was at the basis of Leibniz's original notion of *series rerum* has been transferred, in his mature metaphysics, to the idea that every complete concept express a *law of the series*¹⁵², each one reflecting the same 'series of things'; the series of things, taken as a merely possible world composed of mutually interconnected and interrelated concepts holds only at a conceptual level (for the sake of simplicity, think of the idea of that world *in mente Dei*), whereas, at the level of actuality, it has been pluralized into an infinity of points of view, each one following its own law of the series, and, thus, completely spontaneous and independent from any other thing, with the only exception of God.¹⁵³

The correspondence between the states of a substance and those of every other one is thus guaranteed by God, and this explains how many different substances can be causally isolated from each other (in the sense of lacking any physical interaction) while at the same being connected (at the ideal/conceptual level) with every other of their 'world-mates' and, then, with the entire universe.¹⁵⁴

This point needs to be stressed because it helps us to explain the link between universal connection, individual concepts and accidents and spatiotemporal (and causal) relations. Insofar as relations of connection are intended to capture the relations of coexistence holding between individuals into a series of things (or individual concepts in a determinate possible world), one can understand why Leibniz sometimes characterizes the distinction between the general predicates of a thing (or *essentialia*) and the individual/accidental ones (or

¹⁵¹ See for instance the passage at GP II, 277(from a letter to De Volder): "The essential order of singulars, or relation to time and place, is to be understood of their relations to the things contained in time and space, both near and far, which must be expressed by any singular, so that in it the universe could be read, if the reader were infinitely perspicacious". I think this is the sense in which one must read the mature Leibniz's commitment to haecceities, see for instance: "Individualia seu haecceitates ubi locus et tempus" (*De divisione praedicati*, 1688-89 (?), A VI 4, 926). Cf. also GP II, 39. On this point, see Rauzy, *La doctrine leibnizienne de la vérité*, pp. 299-312. See also the excellent synthesis of M. Fichant, « De l'individuation à l'individualité universelle », in Id., *Science et métaphysique chez Descartes et Leibniz*, Paris 1998, pp. 143-62.

¹⁵² One of the first occurrences of Leibniz's idea of characterizing the essence of a substance as its law of the series is in his private notes to Foucher's reply to Malebranche, which should have been written around 1676 : "L'essence des substances consiste dans la force primitive d'agir, ou dans la loy de la suite des changemens, comme la nature de la *series* dans le nombres" (A VI 3, 326)

¹⁵³ This point had already been remarked by Jalabert: "L'univers, en tant que Tout, n'a qu'une existence idéale en Dieu et dans le monades intelligentes. Ce qui est réel, c'est le système des monades solitaires, dont chacune cependant exprime toutes les autres et s'accorde avec toutes les autres » (J. Jalabert, *La théorie leibnizienne de la substance*, Paris 1947, p. 128).

¹⁵⁴ This is what can be drawn from Leibniz's account in section 14 of the *Discourse on Metaphysics*: "For God, so to speak, turns on all sides and in all ways the general system of phenomena which he finds good to produce in order to manifest his glory, and he views all the faces of the world in all ways possible [...]. The result of each view of the universe, as seen from a certain position, is a substance which expresses the universe in conformity with this view [...]" (A VI 4, 1549-50/AG 46-7). I think Di Bella is right when he suggests that Leibniz's holism should be pushed to the point of saying that "a single state of a substance can be exhaustively described only if one takes into account the whole substantial series and the whole world, according to a correspondence law" (*The Science of the Individual*, p. 340).

existentialia) by resorting to the fact that the latter involve time, and, by doing that, involve also the whole series of things (this point will be furtherly explained in what follows).¹⁵⁵

The notion of *order* is the fundamental one here, since, as I have already pointed out, the real distinction between relations of comparison and relations of connection is that the latter are essentially based on the concept of order (*temporal* as well as *natural* one), since what characterizes relations of connection as properly 'existential' ones is that they describe the mutual coexistence of different substances in the same 'series of things', to the effect that some constraints are imposed on the possibility for such substances to exist together (and those constraints are what ultimately substantiate (in)compossibility claims).¹⁵⁶ (The notion of 'compossibility' will be systematically discussed at the beginning of Chapter 7 below).

6.1.2 Leibniz's notion of order

Order will be defined by Leibniz as a(ny) relation holding among many things by means of which one is distinguished from the others.¹⁵⁷ In this sense, space and time are understood by Leibniz as those orders that allow us to discriminate among existing (or co-existing) things, in particular, space is the order of coexisting things properly said, i.e. those which are simultaneous, whereas time is the order of things which are successive (i.e. they cannot coexist simultaneously).¹⁵⁸ The concept of 'order' is one, if not the main constituent of the notion of 'series', as Leibniz notes in his 1679 *De affectibus* ("*Series est multitudo cum ordinis regula*").¹⁵⁹

¹⁵⁵ See *De affectibus*, 1679, A VI 4, 1441: "The concept of time involves the whole series of things and the will of God as well of other free things". Cf. also *De natura veritatis, contingentiae et indifferentiae*, 1685-86 (?), A VI 4, 1517: "Therefore, all the propositions which contain existence and time as their ingredients, contain also the whole series of things; indeed, one cannot understand 'now' and 'here' if not by means of a relation to other things". Reference to time is fundamental to distinguish the meaning of copula in contingent proposition from that it plays in necessary ones. This point is clearly stated in *De affectibus*: "If from the concept of the essence of *A*, with the addition of the concept of time, it follows this proposition '*what is A is B*', then this proposition is contingent [*marginal note*: The copula 'is' is either absolute or it involves time, that is 'now']" (A VI 4, 1441). Involving a reference to 'now', each contingent proposition involves a reference to everything which exists simultaneously with the subject of the proposition, which means with a temporal stage of the whole universe. This is one of the reasons why a demonstration of contingent propositions would involve an infinite analysis; cf. *GI* # 74: "Thus if I say, 'Peter denies', understanding this of a certain time, then there is presupposed also the nature of that time, which also involves all that exists during that time" (A VI 4, 763/LP 66). Remember that in those passages the concept of 'existence' should be properly understood in terms of 'co-existence', since it refers to the place occupied by a certain subject in the whole series of things (be it actual or merely possible one).

¹⁵⁶ In a text I have already analysed, *De termine, praedicato, relatione* (see chapter 4.6 above), Leibniz clearly says that relations of comparison are rational ones (and concern general essences) while relations of connection are real ones (and concern existence, which also mean 'individual features'). An example of the latter is given by relations like 'coexistence in the same place' and 'coexistence in the same time', i.e. relation of position, time, situation (and influx, which means relations of causal connection).

¹⁵⁷ Cf. the table of definitions at C 476: "*Ordo* est relatio inter multa, qua quodlibet a quolibet discriminantur". Cf also A VI 4, 868: "Ordo est plurium relatio cujuslibet a quolibet discriminativa. Prius et posterius ibi est aut arbitrarium, aut fundatum in natura".

¹⁵⁸ Cf. for example A VI 4, 868: "Locus est ordo coexistendi. [...] Tempus ordo existendi, inter ea singularia quae sibi contradicunt"; A VI 4, 632 note: "Locus ordo coexistendi, Tempus ordo mutationum". The same definitions will be constantly repeated in successive writings. See C 479-80; GP II, 221, 269, and 379; GP III, 612; GP VII, 363; GM VII, 18. On Leibniz's reflections on space and time in his early writings, see H. Schepers, "Neues über Zeit und Raum bei Leibniz", *Studia Leibnitiana*, XXXVIII/XXXIX, 1, 2006/2007, pp. 3-18. Cf. also T. Crockett, "Space and Time in Leibniz's Early Metaphysics", *The Leibniz Review*, 18, 2008, pp. 41-79. ¹⁵⁹ *De affectibus*, April 1679, A VI 4, 1426.

Simultaneity and *succession* (i.e. the relation of 'prior' and 'posterior') are relational notions which stand at the basis of Leibniz's analysis of space and time and, thus, of the basic structure of a(ny) 'series of things', i.e. of a(ny) world. 'Basic', however, has not to be taken in a strict sense here: according to Leibniz, indeed, temporal relations are to be grounded in causal ones, and temporal order in the most basic notions of 'change' and 'natural order'; also simultaneity, if I am not mistaken, is ultimately understood by Leibniz as a fundamentally non-temporal notion.

Since time is analysed by Leibniz in terms of temporal ordering, and, especially, in terms of relations like 'prior', 'posterior', and 'simultaneous with', one can understand why many scholars have regarded Leibniz as a B-theorist about time (and, given his attempt to ground temporal relations on causal one, as a supporter of the causal theory of time).¹⁶⁰

As I said above, the notion of order is a fundamental ingredient of Leibniz's conception of individual things (or their 'counterparts' *in mente Dei*: individual concepts). Such, for instance, is the notion of order Leibniz's logical calculus makes abstraction from, as it is explicitly stated in one of his essays on the so-called calculus of *real addition*. According to one of the axioms of such a calculus, indeed, the operation of real addition is commutative, to the effect that dispositional difference are do not make any difference at all. Once again, take note that making abstraction from order is exactly the reason why Leibniz's combinatorial art is an abstract science, one dealing with abstract notions and not concretes one; in the latter case, indeed, i.e. in the case of individual things, a rule of production, and, thus, a notion of order, is required to their very same intelligibility.¹⁶¹

It has also been remarked that the way in which Leibniz employs the notion of 'order' is somewhat ambiguous, since he seems to employ the same term to cover two distinct notions, a broad and a narrow one.¹⁶² The first one, the broad notion of order, corresponds to the definition given above, whereby order is any relation that allows one to distinguish one item from all the other ones which are related to it.

The narrow one, on the other hand, restricts order to what we call 'serial order', i.e. an irreflexive, asymmetric and transitive relation (to which, as we will see, one has to add the further requirement of connectedness, i.e. that, given a relation R, for any two elements of the series, a and b, if a = /= b then either aRb or bRa). The narrow notion of order covers Leibniz's way of understanding the time order of a series of things, whereas one can see that it cannot be applied to spatial ordering (which, however, fits the broad notion of order); the

¹⁶⁰ See Arthur, "Leibniz's Theory of Time"; Futch, Leibniz's Metaphysics of Time and Space, pp. 115-25.

¹⁶¹ Cf. *Calculus coincidentium et inexistentium*, 1686-87 (?), A VI 4, 834 : "Here, however, we take no account of variations which consist in merely changing of the order of terms; *AB* is the same as *BA* for us" (L 380). Notice that only in the field of abstract terms (terms which do not stand for individuals) it is possible to conceive of variations which consist in merely changing of order, since in the case of concrete things difference in order must be grounded in difference in the internal (qualitative) nature of things themselves. In the following lines of the same text, Leibniz adds: "Finally, it makes a big difference in real addition what the order is when we are dealing with the actual generation of things, for the foundation must be laid before the house is built. But in the mental formation of terms the result is the same, whatever ingredient we consider first [...]" (A VI 4, 835/L 380). The idea that the methods of production must always be discernible in the case of the generation of actual things (in contrast with the methods of production of abstract entities, like geometrical figures) dates back to Leibniz's reflections in *Meditatio de principio individui*, April 1, 1676, A VI 3, 490-91/DSR 51-3.

¹⁶² Cf. Futch, Leibniz's Metaphysics of Time and Space, p. 108; Rauzy, "Quid sit natura prius?", pp. 40-43.

relation of spatial connection seems to be better described in terms of an equivalence relation (reflexive, symmetric, and transitive).

However, this does not mean that there is a tension in Leibniz between his understanding of compossibility as an equivalence relation and the idea of the connection of things based on the relation of (temporal) order among the states of a series of things. I think that in some sense Leibniz is justified in employing 'order' to cover both a broad and a narrow notion, insofar as compossibility, understood as a relation which partitions possible things into possible worlds, is a sort of consequence of the complementarity of these two notions of ordering, which can be exemplified, respectively, by spatial and temporal connection (which also explains why, in the *Theodicy*, Leibniz calls a world "the entire succession and the whole collection of all existing things").¹⁶³ If I am not mistaken, then, the notion of universal connection of all things must cover both these two notions taken together.

6.1.3 Asymmetry between space and time?

Of course, this seems to introduce a sort of asymmetry between space and time, one which does not emerge from Leibniz's usual talking of space and time as 'order of coexistence'.¹⁶⁴ On the contrary one must stress the distinction between space as the order of (simultaneously) coexistent things and time as the order of (successively) coexistent things. The asymmetry between space and time can be noticed by taking into account Leibniz's remark that one can conceive a void space (i.e., a void space is something logically conceivable, even though its realization is prevented by God's wisdom), whereas, on the other hand, it seems that a void time cannot be conceived at all.

See what Leibniz writes in a draft from December 1676:

This passage is taken from the same text in which Leibniz's 'tantalizing argument' concerning the plurality of worlds occurs for the first time (see Chapter 7 below). At the end of this Section, I hope to be able to show that this is not just a coincidence.

For the moment let me remark that the same reflection will be repeated by Leibniz thirty years later in the *New Essays*:

"If there were a vacuum (for instance, if a sphere were empty inside), one could establish its size. But if there were a vacuum in time, i.e. a duration without change, it would be impossible to establish its length. It follows

[&]quot;That space and time are infinite requires a complete demonstration. To say that there was a time without things is to say nothing, because the quantity of that time cannot be determined by any mark. [...] There is a great difference between a time and a line. An interval between two momentary states, between which nothing has been interposed, cannot be determined in any way, nor can it be said how many things can be interposed; for why should there not be more? This is not the case in space, if for example a globe is empty inside. So those things which are in time, and between which nothing is interposed, touch each other. This is not the case in space, on account of situation".¹⁶⁵

¹⁶³ Cf. *Theodicy*, #8, GP VI, 107/H 129. This definition will be extensively discussed in Chapter 7 below.

¹⁶⁴ Note that in a 1693 letter to Jacques L'Enfant, Leibniz explicitly notes that "time is still more essential to created things than place is"(A II 2, 729). This is due to Leibniz's characterization of substance as something which remains the same trough temporal change. On this topic, see S. Di Bella, "Mutamenti. Mappe leibniziane", in A. Bottani-R. Davies (eds.), *Ontologie regionali*, Milano 2007, pp. 83-121.

¹⁶⁵ Catena mirabilium demonstrationum de summa rerum, December 12, 1676, A VI 3, 584/DSR 109.

from this that we can refute someone who says that if there is a vacuum between two bodies then they touch, since two opposite poles within an empty sphere cannot touch –geometry forbids it. But we couldn't refute anyone who said that two successive worlds are contiguous in time so that one necessarily begins as soon as the other ceases, with no possible interval between them. We couldn't refute him, I say, because that interval is indeterminable".¹⁶⁶

According to these two passages, then, a major difference between space and time is Leibniz's commitment to what has been called 'Aristotle's Principle', i.e. the claim that there is no duration (and, thus, no time) without change. Time, thus, is parasitic on change in way in which space is not.

As a consequence, as Leibniz writes in the 1676 passage, an interval between two momentary states "between which nothing has been interposed, cannot be determined in any way", or "the quantity of that time cannot be determined by any mark".

The same verificationist claim will be repeated in the later passage: it would be impossible to establish the length of a duration without change, as Leibniz tries to show by resorting to the mental experiment of two successive worlds, say W1 which ends at t_m and W2 which begins at t_n (with $t_n > t_m$). Since there is nothing happening between the end of W1 and the beginning of W2, it would be impossible to determine the interval of time between t_m and t_n , and, thus, it would be impossible to reject the claim that the worlds are contiguous (i.e. W2 begins immediately after the end of W1). Leibniz's resorting to something like the principle of verification needs to be stressed, since it would play a relevant role in his rejection of the possibility of a plurality of existent worlds.

Let me focus, for the moment, on the close link between time and change, which is at the basis of Leibniz's reductionist account of time. On one hand, indeed, Leibniz clearly endorses the view that it is impossible to conceive time without change (or, at least, the possibility of change).¹⁶⁷ In this sense, there is no doubt that time presupposes change. On the other hand, however, the opposite could be said as well, since there is a sense in which change presupposes time, at least in the sense in which the possibility of conceptualizing change necessarily requires a reference to time (and to time differences).

6.1.4 Time, change, and connection

¹⁶⁶ New Essays, II, xv, 11, A VI 6, 155. Leibniz's refutation of the argument against the existence of a vacuum in space based on the example of an empty sphere is implicitly directed against Descartes, *Principia philosophiae*, II, art. 18, AT VIII, 50/DPW 230-31. Leibniz's rejection of Descartes' argument had been already put forth by Cordemoy, see Leibniz's remarks on Cordemoy in A VI 4, 1800/LC 281. Descartes' argument was a very traditional one among the Schoolmen. It has been also repeated by White, and contested by Hobbes in his discussion of the latter. Cf. E. Grant, *Much Ado about Nothing. Theories of Space and Vacuum from the Middle Ages to the Scientific Revolution*, Cambridge 1981, p. 335, n. 33.

¹⁶⁷ The point will be clarified in Leibniz's fifth letter to Clarke, # 52, GP VII, 401-02: "motion does not indeed depend upon being observed, but it does depend upon being possible to be observed. There is no motion when there is no change that can be observed. And when there is no change that can be observed, there is no change at all" (L 705). This text is extensively discussed by E. Cassirer, *Leibniz' System in seinen wissenschaftlichen Grundlagen*, Hildesheim 1962 (orig. ed. 1902), p. 249. For a general discussion of reductionism about time and Aristotle's Principle, see W. H. Newton-Smith, *The Structure of Time*, London, Boston and Henley. For Leibniz's reliance on Aristotle's Principle, see Futch, *Leibniz's Metaphysics of Time and Space*, pp. 45 and ff., and S. Di Bella, "Change, Contradiction and Possibility. Outline for Leibniz's Metaphysics of Time", *Humana. Mente* 8, 2009, pp. 95-112.

This is what Leibniz clearly asserts in many passages from the middle years, where he explicitly points out that a temporal difference is required in order to solve the contradiction which is involved by change, i.e. by the fact that change has to be understood as two incompatible properties (like *A* and *non-A*) are ascribed to the same individual. See the following passages:

[I]"[...] we observe also novelty, that is change, which is two contradictory attributes of the same thing. [...] Since it is impossible that two quite contradictory [predicates] are said of the same thing, therefore the only difference which alone remains, all the other things being unchanged, and makes that there is not a proper contradiction [...] is a temporal difference. [...] Then, of two contradictory states of the same thing, it is temporally prior that which is prior by nature, that is which involves the reason of the other, or, that is the same, which can be understood more easily. [...] Those things are simultaneous which are connected, either by necessity or by a kind of certainty the reason of which can be given. On the other hand, those things which cannot be simultaneous, either absolutely or with a reason, and nonetheless do exist, they will exist at a different time; and that which involves the reason for the other will be also temporally prior, as I have already said".¹⁶⁸

[II] "If two incompatible things exist, they will involve a time difference, and the one of them which is prior (posterior) by nature will be temporary prior (posterior). What is either prior or posterior to something else (given that both of them exist) is what is simultaneous with something incompatible with that other thing. For instance, if *A* is simultaneous with *B*, and *B* and *C* are incompatible, and *C* exists as well, then *A* will be prior or posterior by time to *C*. If two propositions are true, which appear to be contradictory, with the exception of one difference only, which can be acknowledged only with respect to something external, then they will differ because of time [*tempore different*]".¹⁶⁹

This position will be retained by Leibniz in his mature metaphysics, as it is clear from the late *Initia rerum mathematicarum metaphysica*, where we find a condensed and more systematic version of the same train of thoughts:

[III] "If a plurality of states of things is assumed to exist which involve no opposition to each other, they are said to exist simultaneously. Thus we denied that what occurred last year and this year are simultaneous, for they involve incompatible states of the same thing. If one of two states which are not simultaneous involves a reason for the other, the former is held to be *prior*, the latter *posterior*. My earlier state involves a reason for the existence of my later state. And since my prior state, by reason of the connection between all things, involves the prior state of other things as well, it also involves a reason for the later state of these other things and is thus prior to them. Therefore whatever exists is either simultaneous with other existences or prior or posterior".¹⁷⁰

In these three passages Leibniz is sketching a formal (or semi-formal) theory of time based on the (tenseless) relations of simultaneity and priority/posteriority. Before going into the details of this theory, some preliminary remarks are in order.

¹⁶⁸ Divisio terminorum ac enumeratio attributorum, 1683-85 (?), A VI 4, 562-63.

¹⁶⁹ Enumeratio terminorum simpliciorum, 1680-1684/85 (?), A VI 4, 390.

¹⁷⁰ Initia rerum mathematicarum metaphysica, after 1714, GM VII, 18/L 666). According to Arthur, "Leibniz's Theory of Time", p. 276, the mutual dependence of time and change is a circular one, but an essential rather than a vicious one, since change (and becoming) is fundamental to rescue Leibniz's account of time from being only a 'becomingless' (or 'tensless') theory of time. Note also that one cannot say that change is primary with respect to time only from an epistemic point view (in the *ordo cognoscendi*), since Leibniz clearly points out that the concept of time is logically-ontologically dependent on that of change (*mutatio*). The logical-ontological order of the notions should be as follows: (1) natural order, (2)consequence, (3)cause/effect, (4) change, and (5) temporal order. Cf. *De notionibus omnia quae cogitamus continentibus*, 1680-85 (?), A VI 4, 398-99.

First, in all these passages Leibniz emphasizes that relations of temporal order holds only between existing things, where, I have already said, with 'existence' one must properly understand 'co-existence', i.e. the status of what belongs to a determinate series of things (leaving for the moment its modal status aside). Among existing things that constitute the domain of these ordering relations, Leibniz mentions things and states of things (we might also call of events and/or states of affairs), and also propositions.

Reference to propositions could be the most problematic one. In the second passage above, for instance, the letters A, B, and C are referred to individuals (or events or states of affairs): given that three states of affairs, A, B, C, holds and that (1) A is simultaneous with B, and (2) B is incompatible with C, it follows that A must be either prior or posterior to C (temporal priority/posteriority being grounded on natural order, on which you can see the appendix to the previous chapter). Immediately afterwards, however, Leibniz shifts from talking about things or states of things to propositions: "If two propositions are true which appear to be contradictory, with the exception of one difference only, which can be acknowledged only with respect to something external, then they will differ because of time".

Compatibility/incompatibility does not hold only between any two things, since it can be generalized by means of transitivity. Notice that transitivity is guaranteed by reference to the universal connection of things, from which Leibniz concludes (passage [III] above): *"whatever exists is either simultaneous with other existences or prior or posterior"*. In another passage, Leibniz expresses the same view: "Every proposition is either simultaneous with other or prior or posterior with them. Every complete being or substance expresses everything which are simultaneous or prior or posterior".¹⁷¹

Also in this case, notice, reference to individual substance (an *ens completum*), which involves the prior, posterior, and simultaneous states of its world, are paired with talking about propositions. It might be strange, at first glance, to say of a proposition that it is simultaneous or temporally related to other propositions, or, as Leibniz says in the passage [II] above, that the difference between two propositions can be acknowledged only with respect to something external.

However, if one assumes that propositions have individuals as their subjects (be they actual or merely possible ones), the parallelism can be accepted (especially if one thinks that propositions and concepts are regarded by Leibniz as interchangeable, and possible individuals are nothing but complete concepts).¹⁷²

6.1.5 The notion of simultaneity

Coming to more substantial questions, it is now clear that simultaneity has to do with the compatibility among two (or more) things (or states of things), whereas succession

¹⁷¹ Genera terminorum. Substantiae, A VI 4, 1683-85 (?), A VI 4, 568.

¹⁷² Remember also that in *De termino, praedicato, relatione*, A VI 4, 944, when dealing with a proposition like 'A is similar to B', Leibniz clearly stresses that: "[w]ith A and B we understand things or individuals, not terms". This is the passage in which Leibniz comes closer to the contemporary idea of a singular proposition. For an attempt to find a place to singular propositions in Leibniz, see Cover and Hawthorne, *Substance and Individuation*, pp. 162 and ff. On the possibility of interpreting Leibniz's taking of states of things in terms of states of affairs, see *De illatione et veritate atque de terminis*, 1687-96 (?), A VI 4, 863. This passage is commented in Di Bella, "Leibniz's Theory of Conditions", pp. 77-79.

(posteriority or priority) has to do with states of things which are incompatible. The first ground of Leibniz's theory of the ordering of a series of things, then, is the notion of simultaneity (*simul*). Some aspects of Leibniz's account of simultaneity have already been emerged in the three passages above.

Let me start, however, with an earlier text, one probably written in the early months of 1676:

"Time is something continuous, according to which something is said to endure. But to explain the matter more clearly, it must be borne in mind that the nature which, above all, is to be ascribed to time is that several things are understood to exist simultaneously. Those things are *simultaneous* which can be sensed by one action of the mind. but since the action of the mind has an extent itself, one must see if we should not say that those things are "simultaneous" which are such that, if one exists, the other also exists. And indeed it is generally admitted that, if two things are of such a kind that it is impossible for the one to be understood without the other, then they are "simultaneous".¹⁷³

Under many aspects, this passage is still a tentative one. As we have said, indeed, the mature Leibniz usually characterizes space as the order of simultaneous things (whereas time is characterized as the order of things which are successive). This passage, on the contrary, starts by claiming that the nature we must ascribe to time is that several things are understood to exist simultaneously. Accordingly, its first attempt to provide a definition of 'simultaneity' resorts to the idea that simultaneous things are those which "can be sensed by one action of the mind", i.e. by what Leibniz elsewhere calls an act of *co-perception*. Such a definition is given at the level of the phenomenalist analysis based on the idea that existing things are those which can be distinctly sensed.¹⁷⁴

This phenomenological account, however, is insufficient, since Leibniz immediately remarks that "the action of the mind has an extent itself", which I take to mean a temporal extent, and, thus, in order to overcome this difficulty, the solution consists in providing a definition of simultaneity which does not resort to time at all. Simultaneous things, therefore, are defined in terms of reciprocal coexistence ("those things are "simultaneous" which are such that, if one exists, the other also exists"), or, which is the same, in terms of the impossibility of conceiving A without B (and B without A) when A and B are assumed to be simultaneous.

Notice that this also means that simultaneous things are reciprocally connected. As he wrote in another text of the same period: "Those things are connected of which the one cannot be understood without the other. Requisites are those things which are connected with another, but not conversely".¹⁷⁵ As I have already pointed out in the preceding chapter, a requisite is defined as a necessary condition (prior by nature), so that A is a requisite of B if it is impossible to conceive of B without conceiving of A. When the implication goes in both

¹⁷³ *De magnitudine*, 1676, A VI 3, 484/DSR 41.

¹⁷⁴ For instance, at A VI 4, 866, Leibniz claims that a relation holds when two or more things are thought simultaneously, i.e. they are the object of an act of co-cogitability. And in a successively cancelled passage, he added that position may be characterized as co-perceptibility, i.e. as a relation of co-existence. On co-perception, see V. De Risi, *Geometry and Monadology. Leibniz's* Analysis Situs *and Philosophy of Space*, Basel/Boston/Berlin 2007, pp. 349-54. On the basis of this notion of co-perception, De Risi has provided an ingenious defence of Leibniz's account of time and compossibility at the phenomenological level. See ibid., pp. 463-77.

¹⁷⁵ De formis seu attributis Dei, April 1676, A VI 3, 515/DSR 71. Cf. also Cout. 471 : "Connexa sunt quorum quodlibet necessario infert alterum" (around 1702-4). This idea was already at work in *De conditionibus* (1665), A VI 1, 102, Def. 6: "Connexio est necessitas unius ad alterum, Connexa sunt, quae ad se invicem requiruntur". Cf. also Theor. 198, A VI 1, 134.

directions, so that, we could say, *A* is a requisite of *B* as much as *B* is a requisite of *A*, we have the kind of connection that holds in the case of simultaneous things.¹⁷⁶ And passage [I] above Leibniz repeats that those things are simultaneous which are (reciprocally) connected.

At first sight, this can seem to be in tension with the other definition of simultaneity, that in terms of compatibility or non-opposition (see the passage from the *Initia rerum*), but I believe the contrast is only an apparent one. In order to see why, let me take into account other passages where Leibniz discusses simultaneity.

In a series of definitions written around 1685, he writes: "Those things are simultaneous one of which is the absolute condition of the other. On the contrary, if one is the condition of the other only when a change intervenes, then one is prior, the other posterior".¹⁷⁷ Again, in another text, he says: "If *B* absolutely follows from *A*, then *B* is simultaneous with *A*".¹⁷⁸ Both these passages make clear that, in the case of things which are *simul*, Leibniz is thinking of them as being absolute or immediate requisites of each other. This is to be contrasted with the nature of successive things, where, as Leibniz himself points out, one is condition of the other only when a change (*mutatio*)occurs, which means that successive things are to be understood in terms of mediate or causal requisites (and this is clearly in keeping with the idea that temporal order somewhat results from causal order).

I do not see any contrast between the idea of simultaneous things (events, states) as absolute or immediate requisites and the idea whereby "those things exist simultaneously which exist as singulars and are not contradictory with each other".¹⁷⁹ The emphasis on compatibility (or non-contradiction) has to be explained in parallel with the emphasis put on the fact that temporal differences are required in order to understand how apparently incompatible predicates can be ascribed to the same thing.

6.1.6 Leibniz (and Russell) on time and instants

It is important to stress the fact that, according to Leibniz, simultaneity is not, properly speaking, a temporal notion (time does not enter in its definition).¹⁸⁰ To understand the

¹⁷⁶ The same relation can be also characterized in terms of reciprocal involvement. See *De affectibus*: "Involvitur in aliquo cujus existential ex alicujus existentia concludi potest. Involvit aliquid id ex cujus existentia aliquid concludi potest" (A VI 4, 1349).

¹⁷⁷ Definitiones notionum metaphysicarum atque logicarum, 1685 (?), A VI 4, 628. See ibid., 629: "Those things are simultaneous which are co-necessary on the base of a supposition, where the supposition is the position of the series of things"

¹⁷⁸ Genera terminorum. Substantiae, A VI 4, 568.

¹⁷⁹ Definitiones, 1687-1696 (?), A VI 4, 868.

¹⁸⁰ An apparent exception is a table of definitions at A VI 4, 412, where Leibniz notes: "Simul id est eodem tempore, vel generalius eadem positione". Notice, however, that this passage occurs in a series of definitions of *adverbia temporis*. And, again, I think the relevant aspect is Leibniz's emphasis on the fact that a general notion of simultaneity says that two simultaneous things have the same position. The category of position is closely connected with the notion of existence. See for instance a A VI 4, 164, where he makes clear that positional differences can be recognized only externally (especially in the case of qualitatively and quantitatively identical objects), and, thus, that position "is a certain relation to other things insofar as existence is concerned, i.e. insofar as the coexistence of things, because also those things that do not exist at the same moment, they coexist as well, for instance they coexist in the same year or century. The same can be said about place". See also the famous passage at C 9: "since nothing else can be explained in the case of existence than to make part of the most perfect series of things; in the same way we conceive of position, i.e. as something extrinsic, which does add nothing to the posited thing, even though it adds the way in which it is affected by other things".

rationale of Leibniz's strategy, let me propose a brief comparison between Leibniz's views and Russell's theory of time. In my opinion, indeed, Russell's theory of the temporal order is very similar to what we can extrapolate from Leibniz's drafts on the topic. In what follows, I will use Russell's account (as it has been clearly and concisely proposed by him in *Our Knowledge of the External World*) as a sort of touchstone of Leibniz's own theory of time.

The interesting thing, indeed, is that also Russell moves from the problem of how to construct a semi-formal account of time from the time relations between the events which occur in our experience (simultaneous and prior/posterior events). Exactly as Leibniz did (see the passage above: "since the action of the mind has an extent itself [...]"), also Russell moves from the problem that time relations holding between events of our experience are not exactly instantaneous (and earlier, later, and simultaneous become mutually inconsistent only when we are dealing with instant properly said). The problem, however, is that in experience we do not have instants but only events (another position Leibniz would share).¹⁸¹

Russell's solution consists in constructing instants as equivalence classes of overlapping events:

"Let us take a group of events of which any two overlap, so that there is some time, however short, when they all exist. If there is any other event which is simultaneous with all of these, let add it to the group; let us go on until we have constructed a group such that no event outside the group is simultaneous with all of them, but all the events inside the group are simultaneous with each other. Let us define this whole group as an instant of time. It remains to show that it has the properties we expect of an instant".¹⁸²

An instant, therefore, can be regarded as a maximal and consistent class of simultaneous events. Since, according to Leibniz, simultaneity has to be defined in terms of compatibility, we may also say that an instant is a maximal class of mutually compatible events or states (they do not involve any contradiction or any pair of opposite states).¹⁸³

Among the properties one has to ascribe to these classes if they must be properly interpreted as instants, the first is that they must form a series. This means, as we have already said, that our classes of events must be ordered by an irreflexive, asymmetric, transitive, and connected relation.

Russell assumes that an event is *at* an instant when it is an element of the class by which that instant is constituted. Thus, any instant α will be before another instant β if the class α contains an event which is earlier than (and not simultaneous with) some event in β . Russell

¹⁸¹ Cf. B. Russell, *Our Knowledge of the External World* (1914), London and New York 2009, p. 94: "There is therefore no reason in experience to suppose that there are times as opposed to events: the events, ordered by the relations of simultaneity and succession, are all that experience provides. Hence, unless we are to introduce superfluous metaphysical entities, we must, in defining what we can regard as an instant, proceed by means of some construction which assumes nothing beyond events and their temporal relations". For Leibniz, see GP II, 278: "The essential order of the singulars, or, which is the same, the relation to space and time has to be intended as the relation to things contained in space and time (proximate as well as remote), which are necessarily expressed by every individual [...]". Cf. also *New Essays*, III, iii, 6, A VI 6, 289: "[...] space and time, far from being determinants by themselves, must themselves be determined by the things they contain".

¹⁸³ An analogous definition of instants has been given by Arthur in his formal reconstruction of Leibniz's theory of time. An instant is defined as the set of all monadic states simultaneous with a given one. Simultaneity is an equivalence relation. A family of instants (the set of all instants) is defined as the quotient of the set of all the states in the world by the relation of simultaneity. Cf. Arthur, "Leibniz's Theory of Time", pp. 302-3. Cf. also Cover's notion of "state of affairs", in J. A. Cover, "Non-Basic Time and Reductive Strategies. Leibniz's Theory of Time", *Studies in History and Philosophy of Science*, 28, 2, 1997, pp. 289-318.

says that an event *a* which is not simultaneous with and precedes another event *b*, wholly precedes *b* (think of a < b in contrast with $a \le b$). Of any two events which belong to the same experience and are not simultaneous, we can say that one must wholly precede the other (i.e., a < b or b < a); if, for instance, a < b, then it cannot be the case that b < a. Finally, if a < a and b < c, then also a < c.

Note that, if we are talking of events, the result is that every given event is either simultaneous with or earlier (later) than any other given event in the series. However, when we shift from events to instants (i.e. maximal classes of simultaneous events), the result is that every given instant is either earlier than or later than any other given instant in the series (simultaneous instants are just the same instant).

In the context of Leibniz's philosophy we can translate talking of events into talking of monadic states (or perceptive states of any individual substance), whereas talking of instants can be translated into talking of states of the world (or of the same *series rerum*).¹⁸⁴ In this way, we can also make sense of the mature Leibniz's intuition that states of the world can be constructed from monadic states.¹⁸⁵

Thus, we obtain a total ordering among the states of the same series of things (which also guarantees the linearity and the unification of time; the latter will play a significant role in rejecting the possibility of branching worlds, see below). Again, if we choose to summarize the idea that every event is either simultaneous with or earlier/later than any other event in the same series of things under the label 'temporal connection', we can also say that every event is temporally connected with itself, any two given events are reciprocally temporally connected, and, given any three events, if the first is connected to the second and the second to the third, then the first is connected to the third. (In this way, we can regard this kind of connection as an equivalence relation that perfectly matches with the notion of compossibility as described in the next Chapter).

Of course, in this case we have taken 'temporal connection' in a broad sense, one which includes also the relation of simultaneity (which, as we have seen, cannot be defined temporally).¹⁸⁶ If one wants to reserve the idea of temporal connection to succession only,

¹⁸⁴ "[...] the collection of all bodies that are understood to be in space, i.e. those that have mutual situation, is called the *world*, and there are various states of the world at various times" (*Definitiones cogitationesque metaphysicae*, 1678-80/81 (?), A VI 4, 1397/LC 243). Reference to bodies is correct here, since individual substances in themselves are not located in space and time; individual substances have a situation (and, then, a position in the spatiotemporal framework) only by reference to their bodies, as Leibniz will explain to De Volder, GP II, 253.

¹⁸⁵ Arthur, "Leibniz's Theory of Time", gives a formal reconstruction of Leibniz's theory based on monadic states, where we start with the idea of a series of monadic perceptions (i.e. perceptions of the same individual substance), ordered by the relation of "involving the reason for", which guarantees the passage from one perception to another, and, then, moves to the relation of correspondence (or compatibility) between each single monadic perceptions and all the other monadic perceptions simultaneous with it. My account is based on the writings of the early Leibniz, where the notion of a *series rerum* (a world) in a certain sense precedes that of a monadic series of perceptions (according to the "holistic intuition" I have mentioned many times). Accordingly, one starts with the idea of a class of simultaneous events or states (which constitute a state of the world) and then proceeds to construct the whole series by means of the relation of temporal connection between all the states of a single world. Ultimately, however, these are just two different ways of presenting the same idea, and the difference is just one of emphasis, not a substantial one.

¹⁸⁶ Cf. A. Quinton, "Spaces and Times", *Philosophy*, 37, 1962, 130-47, p. 131: "Let us call two events temporally connected if there is a time-interval between them or if they are simultaneous. This relation, like that of spatial connection, is clearly symmetrical and transitive".

then one has to conclude that the relation of *compossibility* (as world-making relation) results from the composition of both the relation of spatial connection (simultaneity) and that of temporal connection (priority/posteriority). In both cases, however, Leibniz is justified in saying that a world is "the entire succession and the whole collection of all existing things".¹⁸⁷

6.1.7 The order of the series and the problem of causation

At this point, we can assume that all the events which constitute a class of simultaneous one (i.e. all the simultaneous ones), are connected to each other by a spatial relation, i.e. by a relation of *distance*.¹⁸⁸ The connection between simultaneous existence and spatial connection has been clearly stated by Leibniz in a 1676 passage I have already mentioned previously: "'space' is that which brings it about that several perceptions cohere with each other at the same time [*simul*]").¹⁸⁹Again, a every event which is member of a class of simultaneous events is also connected with any other event which is member of any other class.

This is what emerges from one of the passages [II] quoted above, where Leibniz writes that if A is simultaneous with B and B and C are incompatible (i.e. they belong to two different classes of events), then A will be temporally earlier or later than C, where the relation of temporal priority has to be specified according to the theory of the natural order (A will be temporally prior to C if A is prior by nature to C, i.e. if A involves the reason for C).¹⁹⁰

Leibniz's commitment to universal connection, however, seems to raise a big problem for his account of the temporal ordering of the states of the world as grounded on the order of nature. As we have started to see when discussing Leibniz's account of simultaneity, indeed, it seems that commitment to universal connection leads him to claim that everything involves the reason for everything else. Simultaneous things, remember, have been defined as those

¹⁸⁷ "Entire" and "whole" in the "the entire succession and the whole collection of all existent things" imply a reference to the idea of maximality. Simultaneous events are those which belong to the same maximal class of mutually compatible one. This is a first sense of maximality. Then, the relation of compossibility can be furtherly extended by means of reference to time differences, which make possible to extend the world-series to incompatible events (and classes of events). The reason for such an extension, notice, can be provided by reference to the principle that one should maximize the richness of the universe as well as its variety. Again, this class of classes of world-states, could not be indefinitely extended on the pain of contradiction (it is not difficult to understand why; at least if one thinks that successive events must be interpreted as causally connected ones). Thus, a series of things can be regarded as a maximal and consistent class of (classes of simultaneous) events. This, however, does not exhaust the domain of what is merely possible. This explains why Leibniz should admit a domain of possible entities which cannot be part of a certain series of things (leaving aside for the moment the questions if these merely possible entities must be thought of as isolated ones or grouped into alternative series as well).

¹⁸⁸ Cf. A VI 4, 174, n. 9: "Situs duo continet, puncta positione dari, seu percipi, et percipi simul seu eorum distantiam". Notice that spatiotemporal relations are just the counterpart at the level of phenomena of relations of mutual expression between individual substances. Spatiotemporal relations are extrinsic ones, but, according to Leibniz, there are no purely extrinsic denominations: "Every external difference is grounded into an internal one, and every difference which is perceptible is grounded into an intelligible one [i.e. into a qualitative one]" (*Definitiones*, 1687-96(?), A VI 4, 870). One the way in which Leibniz tries to analyse 'distance' in terms of the degree of expression of a substance, see Cout. 9. And see also Adams, *Leibniz*, pp.247-55; Schneider, *Analysis und Synthesis*, pp. 185-97.

 ¹⁸⁹ De veritatibus, de mente, de Deo, de universo, April 15, 1676, A VI 3, 511/DSR 65. The continuation of the passage introduces the notion of spatial distance. I will take it into account in what follows (see 7.2 below).
¹⁹⁰ Cf. A VI 4, 390 (quoted above).

which are reciprocally connected (and connected things are those of which the one cannot be understood without the other).

Now, this claim can easily be generalized to all existent things: "Every existent thing, indeed, involves all the things with which it coexists".¹⁹¹ Here the problem concerns the fact that while the relation of universal connection is required to be symmetric, the relation of temporal order and its basis, that of order of nature, should be asymmetric (in order to save the asymmetry between cause and effect and the linearity of time).

The clash between these two intuitions is clearly envisaged by Leibniz in the following passage:

"There is a certain difficulty in explaining what is prior by nature. For as the posterior state of a certain substance involves its prior state, so, conversely, the prior states involves the posterior as well, and, indeed, each one can be known from the other. From this, it seems to follow that what is prior [by nature] is not what is simpler of what is posterior, but both of them involve the same things, and there is a sort of equivalence among them".¹⁹²

As far as the order of nature is concerned, Leibniz's solution consists in proposing a modification of the way in which it is defined: "prior by nature is that whose possibility can be demonstrated more easily, or what can be understood more easily. [...] Two existent things which are incompatible or which contradict each other differ in time, and it will be temporally prior or posterior that which is, respectively, prior or posterior by nature".¹⁹³

Some scholars have chosen to follow a different path and assume, as a sort of postulate, that, according to Leibniz, any state which involves the reason for another is incompatible with it.¹⁹⁴ This is true, of course, if we are talking of states of the worlds (instants, as defined above); but, applied to monadic states, it seems to go explicitly against what Leibniz says about simultaneous things: they belong to the same state of the world and each one involves the reason for the other (in the sense of being the immediate requisite of the other and vice versa).

Against this, one can observe that there can be causal relations between simultaneous things (which, however, would be impossible according to the postulate above). Moreover, according to the thesis of universal connection and inter-expression of all substances, one can conclude that there are causal relations among all simultaneous things, and also among these and all the prior and posterior ones (here as well as in what follows, note that causal dependence is an ideal one, there is no commitment to anything like physical interaction). I think that Leibniz accepted this sort of trivialization of the notion of causal dependence, and this was the main reason why he tried to work out a more restricted account of causality.¹⁹⁵

¹⁹¹ Definitiones, notiones, characteres, end of 1687 (?), A VI 4, 875. Other passages are discussed in Mondadori, "Mirrors of the Universe", p. 96, n. 29.

¹⁹² Quid sit natura prius, 1679 (?), A VI 4, 180. About the question of natural order, see the discussion in 5.5 above.

¹⁹³ *Ibid.*, p. 181.

¹⁹⁴ This is the strategy followed by Arthur, "Leibniz's Theory of Time", p. 269. He has been criticized on this point by Futch, *Leibniz's Metaphysics of Time and Space*, p. 119-21. ¹⁹⁵ Cf. on this point Garber, *Leibniz*, chapter 5 ("Complete Individual Concepts, Non-Communication, and

¹⁹⁵ Cf. on this point Garber, *Leibniz*, chapter 5 ("Complete Individual Concepts, Non-Communication, and Causal Connection"), in particular p. 222: "Given that any two substances express one another, it would be quite reasonable for Leibniz to want to understand causal relations in terms of his notion of expression, *and in terms of what is special about the expression relation as it applies to substances that are said to be in the relation of*

6.2 On the genesis of the notion of *Connexio rerum*.

Leibniz and the Paradox of the "Full Cause"

So far I have tried to show that Leibniz's notion of *series rerum* and his theory of the universal connection of all things are just two sides of the same coin. In the previous chapter, I have traced back the origins of Leibniz's holistic understanding of the (concept of) world to its theological roots, especially as far as the strategy of theodicy is concerned. Now, I want to trace back Leibniz's theory of universal connection (included its paradoxical consequences) to his commitment to a strong form of causal determinism. Paradoxically as it could be, these two aspects are not only interrelated, but they also form a coherent picture: Leibniz's theodicy, indeed, is perfectly compatible with a deterministic account of the events of the world (human actions included).

6.2.1. Causal determinism and the concept of a "full cause"

But why commitment to causal determinism should have led the young Leibniz to embrace a holistic account of the *series rerum*?

From a theoretical point of view, the question can be put forth in the following way. Why focusing on the whole world and not just on a finite and small group of individual entities or events? One could say, indeed, that an event *E* is causally determined if and only if there is a set of prior events, say {*A*, *B*, *C*, ...}, such that they constitute a jointly sufficient cause of *E*. The main problem with this account is that, in order to be genuinely sufficient to produce *E*, our set of events {*A*, *B*, *C*, ...} must contain in itself "an open-ended *ceteris paribus* clause which exclude the presence of potential disruptors that could intervene to prevent *E*". ¹⁹⁶ By 'potential disruptors' one has to understand those conditions which would act as impediments to the realization of *E* given its causes *A*, *B*, *C*,...(something like: 'when *A*, *B*, *C*,..., then *E*, unless *F* or *G* or *H* or...').

This is the main reason why one cannot just say how a specific event E is determined by a set of previous one, but he has to look at how *everything* that is happening now has been determined by what has happened before. That means that, instead of taking a specific event

cause and effect with respect to one another" (italics mine). In the *Discourse*, sect. 14-5, the problem of providing a restricted account of causation is connected with Leibniz's claim that an individual substance does not act upon another one nor is acted upon by it, since whatever happens to it is just a consequence of what flows from its complete notion (or its law of the series). Leibniz's restricted account of causation is based on the notion of degrees of expression, and says, roughly speaking, that an individual substance *a* acts on another substance *b* whenever the perceptions of *a* are more distinct of the perceptions of *b*, which means that in (the perceptions of) *a* one can find the reason for (the perceptions of) *b*. See, for instance, Leibniz to Foucher, 1686, GP I, 383: "One [substance] acts on another, since one expresses more distinctly than the other the cause or reason of the changes, a bit like we attribute motion to a boat rather than to the entire sea, and correctly so" (translated by Garber, *Leibniz*, p. 212). Notice that, how the passage makes clear, this has much in common with the idea that motion is relative, and, in general, with Leibniz's idea that the same set of phenomena can be explained in infinitely many different ways, cf. *Specimen inventorum de admirandis naturae generalis arcanis*, 1688 (?), A VI 4, 1620. On Leibniz's account of causality, see also M. Brobro-K. Clatterbaugh, "Unpacking the Monad: Leibniz's Theory of Causality", *The Monist*, 79/3, 1996, 408-25. Cf. also M. Kneale, "Leibniz and Spinoza on Activity", in Frankfurt, *Leibniz*, pp. 213-37.

¹⁹⁶ C. Hoefer, "Causal Determinism", in E. Zalta (ed.), *The Stanford Encyclopaedia of Philosophy*, Spring 2016 edition (<u>https://plato.stanford.edu/archives/spr2016/entries/determinism-causal/</u>). All the quotations in this paragraph are taken from Hoefer's entry. In the following lines, indeed, I am just summarizing his views.

as determined by other specific ones, one has to take into accounts world-states (that are "states of the whole world") at a certain time.

A determination of the state of the whole world at t, plus the laws of natures (assumed to be everywhere the same and true at all times and places), is sufficient to determine how things go at any time t_n such that $t_n > t$ (if we are not particularly worried about the problem of safeguard the asymmetry of the cause-effect connection, we can also regard the system as a bi-directionally deterministic one, i.e. such that a determination of the state of the world at t, plus the laws of nature, is sufficient to determine how things are gone at any time t_m with $t_m < t$; as showed above, Leibniz was well aware of this problem).

Leibniz's commitment to (something like) this form of causal determinism is what emerges, for instance, from the following German text, which I will quote extensively, since it is not very well known and contains many interesting suggestions:

"That everything happens through a well-established fate is as certain as that three times three is equal to nine, since fate is just this, that every thing depends on another one as a chain, and this makes impossible to doubt that things will happen even before they have happened, exactly as it is impossible to doubt that they have happened when they happen. [...] And such a chain consists in the succession of cause and effect. That means that each cause has its determinate effect, which is carried out when the cause is alone, but since it is not the only one, thus a determinate and unavoidable effect is the result of a composition of [a plurality of causes], each one acting according to its own force, and this is always true, not only when [the con-causes] are just two, ten, or one thousand, but also when infinitely many things act together, as it truly happens in the world. [...] Hence, everyone can see that everything is mathematical, or that everything unavoidably happens in the whole world, to the extent that, if one were able to have an adequate insight into the internal parts of things, and, therefore, had enough understanding and memory to take into consideration and calculate all the circumstances, he would be a Prophet and would be able to see the future in the present as into a mirror".¹⁹⁷

The same question, however, could be equally regarded from a historical point of view. Notice, indeed, that this very same point was well-known to the medieval and early modern authors who discussed the problem of the *full cause (causa plena* or *causa totalis)*. Roughly speaking, a cause could be said to be a full cause (and not just a partial cause) only if includes in itself the very same conditions which neutralize any impediment to its realization.¹⁹⁸

Again, in order to understand how the young Leibniz came to formulate his own theory of universal connection, it will be very instructive to look at his favourite source, i.e. Hobbes. As already said in the preceding chapter, indeed, Leibniz's theory of requisites (necessary and jointly sufficient conditions) was substantially modelled on the Hobbesian account of necessary and sufficient cause. I have already shown that Leibniz's understanding of the connection holding between two or more simultaneous (successive) things can be understood in terms of immediate (mediate/causal) requisites.

¹⁹⁷ "Von dem Verhaengnisse", hypothetically dated around 1690-97, GP VII, 117. The text has been also published by Guhrauer, II, 48. Variants of the first redaction are given in Grua, 388-89.

¹⁹⁸ On the debates concerning the notions of *causa sufficiens* and *causa totalis* up to Hobbes and Leibniz, see the *excursus* provided by Piro, *Spontaneità e Ragion Sufficiente*, pp. 18-38. The thesis that a cause necessarily produces its effect and it is also sufficient to produce it had met the objection that, of course, it necessarily does so, but only if the realization of the effect is not impeded by something extrinsic (*impedimentum extrinsecum*). Against the latter objection, however, in order to call something a full or total cause, it must contain in itself the conditions which neutralize the very same possibility of such an extrinsic impediment.

Now, it is time to given another look at Hobbes' doctrine, in particular as far as the uniqueness of a full cause is concerned.¹⁹⁹

The main point of Hobbes' strategy in *De corpore*, as we have already seen, was the identification of the necessary and sufficient cause (where a cause is said to be sufficient if it contains the totality of conditions, or *requisita*, for the production of the effect). This is what Hobbes concludes in section 5 of chapter IX of *De corpore*.

In the previous sections of the same chapter, however, Hobbes provides a more comprehensive and detailed definition of what is to be a (full) cause, this time stated in terms of activity and passivity, or, better, in terms of the accidents of the thing which acts on another and the accidents of the thing which is acted upon by the first:

"The cause, therefore, of all effects consists in certain accidents both in the agents and in the patients; which, when they are all present, the effect is produced; but if any one of them be wanting, it is not produced; and that accident either of the agent or patient, *without which* the effect *cannot be produced*, is called *sine qua non* or hypothetically necessary cause; and also a *requisite* for the production of the effect. But cause *simpliciter* or *full cause* [*causa integra*] *is the aggregate of all the accidents both of the agents how many whatsoever they be, and of the patient, which when they are posited all together, it cannot be understood but that the effect is produced at the same time, and when it is supposed that one of them is missing, it cannot be understood but that the effect is not produced*".²⁰⁰

What allows one to move from the hypothetically necessary or *sine qua non* to the sufficient full cause (which, according to Hobbes, is absolutely necessary) is the completeness of the conditions (or requisites or partial causes) which compose it. Now, however, the same problem introduced above can be posited again here: what about the possibility that, in order for effect *E* to be produced, an open-ended series of conditions must be taken into account? Especially if one thinks that each part of the full cause of *E*, i.e. each of the requisites singularly necessary and jointly sufficient to produce *E*, can be regarded as the effect of antecedent full cause in its turn, and so on to infinity.²⁰¹

Of course, the solution we have already envisaged above consists in a shift from talking about single events in the world to talking of temporal states or stages of the whole world, thus concluding that there is a sense (according to what Leibniz would have called the "metaphysical rigour") in which everything is cause of everything else in the same series of things.

This very same point will be touched by Hobbes in his discussion with bishop Bramhall. In his first reply to him, the famous *On Liberty and Necessity*, indeed, answering to a series of arguments the bishop adduced against his theory of absolute necessity in the field of human actions, Hobbes added the following remark:

"[...] neither the stars alone nor the temperature of the patient alone is able to produce any effect [*as believed*, *respectively*, *by the astrologers and the physicians*], without the concurrence of all other agents. For there is hardly any one action, how casual soever it seems, to the causing whereof concur not whatsoever is *in rerum*

¹⁹⁹ On this point, I am indebted to L. Foisneau, *Hobbes et la toute-puissance de Dieu*, Paris 2000, pp. 106-23.

²⁰⁰ Hobbes, *De corpore*, IX, 3, OL I, 107-8 (italics in the original).

²⁰¹ Foisneau, *Hobbes et la toute-puissance de Dieu*, p. 109, refers to *Anti-White*, xxxv, 8, p. 390, to support the thesis that Hobbes envisaged the possibility of an infinite regress in the series of full causes.

natura, which because it is a great paradox and depends on many antecedent speculations I do not press in this place".²⁰²

Leaving aside the context in which it is placed, this passage makes clear Hobbes is ready to embrace what he himself calls a paradox, i.e. the conclusion that the completeness of the full cause requires that one takes into consideration not some limited set of events in the world but the whole world itself as its proper subject.

This conclusion is regarded as completely absurd by Bramhall, who would like to know in which sense Hobbes might say, for instance, that Prester John, the Great Mogol, or the King of China, "or any one of so many millions of their subjects do concur to [his] writing of this reply".²⁰³ Reference to the King of China will also be one of the mature Leibniz's favourite example of his paradoxical claim that there are no purely extrinsic denominations; and that, given that everything is connected with everything else in the universe, a change in a relation implies a change in all correlated subjects (i.e. in the whole world), so that, for instance, the Emperor of China *qua* known by me intrinsically differs from the Emperor of China *qua* not yet known by me.²⁰⁴

Commenting Bramhall's remark, Hobbes replies that the paradoxical character of the claim should not be regarded as evidence of its absurdity. His claim (that there is no action to the causation of which everything which is in the world does not concur) might be considered to be equivalent to this other one: that "all action is the effect of motion and [...] there cannot be a motion in one part of the world, but the same must also be communicated to all the rest of the world". And, if the bishop should say that also this version of the principle must be regarded as a paradox (in the negative sense), Hobbes replies that it is just an extension of the commonly accepted principle according to which if a body, like a concave sphere, is filled with air or some other liquid matter, and if any one of the little particles of the liquid is moved, all the rest of the particle will be moved as well. "It is not the greatness of the tun [or the sphere]".²⁰⁵

As it has been pointed out by Luc Foisneau, in these passages Hobbes is replacing the Stoic concept of 'universal sympathy' with that of causality, the latter to be interpreted according to the concept of motion in the sense of the new mechanical philosophy.²⁰⁶ Hobbes'

²⁰² Hobbes, On Liberty and Necessity, # 21, in V. Chappell (ed.), Hobbes and Bramhall on Liberty and Necessity, Cambridge 1999, p. 33. Concerning the 'antecedent speculations' Hobbes mentions here, Foisneau suggests a passage from Anti-White, xxxvi, 1-10, p. 397 (see Hobbes et la toute-puissance de Dieu, p. 115). ²⁰³ Questions concerning Liberty, Necessity, and Change, XXI, EW V, pp. 302-3.

²⁰⁴ See for instance Leibniz's notes to Temmik, VE 1086: "On my view, all extrinsic denominations are grounded in intrinsic denominations, and a thing which is seen really differs from one which is not seen [...].

What is more, because of the universal connection of things, the King of China as known by me differs in intrinsic qualities from himself as not yet known by me" (translated in Mugnai, *Leibniz's Theory of Relations*, p. 53). Cf. Mugnai, "Leibniz's Ontology of Relations", p. 203 and ff. Cf. also M. Mugnai, "Leibniz, the fly of Ockham and the king of China", in *Leibniz. Tradition und Aktualität*, pp. 607-14

²⁰⁵ Questions, XXI, EW V, p. 305.

²⁰⁶ Cf. Foisneau, *Hobbes et la toute-puissance de Dieu*, pp. 117-18. He also notes that the only possibility for an agent to be causally disconnected from the rest of the world, is that the actions of this agent do not concur in any sense to the production of any effect in the world. But this would also imply that such an agent would not be part of that world, but would constitute another world, detached from the first (cf. Ibid., p. 119). On Hobbes' agnosticism about the plurality of worlds (and his rejection of White's argument for the unity of the world), see what I say in Chapter 7 below.

reformulation in his second reply to Bramhall is extremely clear on this point: there cannot be a motion in one part of the world which is not communicated to all the rest of the world.

The image of the universe which we can draw from Hobbes' claim is that of a closed or isolated system, and one in which there is something constant (in this case: the quantity of motion) which should be preserved through all the motions.

The connection between the thesis that everything contributes to cause everything else in the world and the principle of conservation can be stated in the following way. Note that the composition of local motions is the counterpart (on the physical level) of the compositions of partial causes (or necessary requisites) for the production of the effect (on the metaphysical level). As in the case of requisites, when only one of them is not posited, the effect will not necessarily follow as well, so, in the case of the composition of motions, if we assume that there is a motion (however small it could be), which, however, does not communicate itself to the rest of the world, it would follow that, as far as the quantity of motion is concerned, the outcome will not balance the initial conditions.

In other worlds, according to Hobbes, the system of the world is closed under the law of mechanics (which are the laws of local motions). As Foisneau has rightly stated, this condition also implies that the system of the world is a complete or isolated one; to these two, it should also be associated a third condition, continuity, given the rejection of the void and the acceptance of the principle of plenitude.²⁰⁷

6.2.2. Leibniz's first account of the connection-thesis: the *Demonstratio substantiarum incorporearum*

If I have insisted on these points of Hobbes' philosophy, it is only because I believe they are very helpful to understand the way in which Leibniz originally introduced the thesis of universal connection. If I am not mistaken, indeed, the genesis of this notion must be traced back to Leibniz's physical and metaphysical reflections in the Paris years.

One can see that in these texts the idea of universal connection is placed among a family of ideas and notions, the most relevant among which are: the principle of plenitude (at least in its restricted form), the principle of equivalence of cause and effect (where cause and effect refer to two successive states of the series)²⁰⁸, the principle of conservation of the quantity of motion²⁰⁹ (which will be later challenged by Leibniz himself), the nature of perception (with

²⁰⁷ Again, see Foisneau, *Hobbes et la toute-puissance de Dieu*, pp. 120-21.

²⁰⁸ Cf. *Catena mirabilium demonstrationum de summa rerum*, December 1676, A VI 3, 584: "*There is nothing without a cause*, since there is nothing without all the requisites for existing. *The entire effect is equipollent to the full cause*, since there must be some equality between cause and effect, passing from one to the other" (DSR 107). From the principle of equipollence, Leibniz derives also the 'plenitude' of the actual world: "From that principle, that the entire effect must be equipollent to the full cause, it can be demonstrated that everything is plenum" (A VI 3, 400, March 1676). On the difference between this, 'relativized' account of plenitude and the principle of plenitude in general sense, see my remarks in Chapter 7 below.

²⁰⁹ In the Paris notes, the conservation of the quantity of motion is derived from the plenitude of the world, see A VI 3, 467: "Now, I take it that all things are full, that is, that they are matter moved in various ways. [...] So, the plenitude of things being granted –i.e., it being granted that there is no part of space in which there does not exist matter which is moved with a motion which is different from an infinity of others –I show that the same quantity of motion is conserved" (DSR 13). The proof is given at pp. 467-68. Cf. also A VI 3, 522.

an anticipation of his famous theory of *petites perceptions*), and the capacity of mind of retaining and comparing past and present *conatus*.²¹⁰

What emerges from these texts, I think, can be summarized in this way. Leibniz moves from Hobbes' conclusion that the doctrine of universal sympathy (or, as Leibniz will eventually call it, *sumpnoia panta*) must be understood as the claim that there is nothing in the universe which does not act on everything else in the same universe.

However, passing through the developments of Leibniz's own theory of perception, according to which 'action' has not to be interpreted in a physical sense, but, rather, in terms of the mutual correspondence or expression of the states of every substance, Hobbes' original formulation in terms of physical motion turns out to be transformed in something different: the idea that the causal connection holding among all substances in the same world is something ideal, which, ultimately, could be integrated to(and, in some sense, derived from) Leibniz's theory of complete individual concepts.²¹¹

The best access point to Leibniz's earlier reflections of universal connection is represented by his drafts concerning *Demonstratio substantiarum incorporearum*, tentatively dated around 1672 (at the beginning of his staying in Paris), which, I will show, should be read in parallel with some of Leibniz's reflection in the metaphysical texts *De summa rerum*.

The many drafts of *Demonstratio substantiarum incorporearum* present a lot of very relevant elements to a reconstruction of the genesis of Leibniz's mature philosophy. Unfortunately, this is not the place where I can provide the reader with a comparative analysis of all these drafts; I will extensively quote only those passages where Leibniz discusses the topic of universal connection (leaving the rest aside, as far as it is possible).Let me start, however, with a quotation from another text of the same period, the *Propositiones quaedam physicae*, where, again, topics of Leibniz's early physics (and of his metaphysics and philosophy of mind as well) are discussed.

What has to be stressed here, however, is the close link between Leibniz's physical reflections and his phenomenological account of existence in terms of (distinct) perceptions, which I have already discussed in the previous section (see Chapter 4 above):

"When I have more deeply inquired into the nature not only of extension, but also of existence in general, it seems to me to have discovered this: that to exist is nothing else than to be perceived [*Sentiri*]; to be perceived, however, if not by us, at least from the author of things, to be perceived by whom is nothing else than to please him, i.e. to be harmonious. This is why many perceptions are in agreement [*concordantes*] or congruent, as in the case of music. Posited that existing consists in being perceived, it is necessary that a body

²¹⁰ See in particular what Leibniz says at A VI 3, 393.Cf. also A VI 4, 1400: "Every body acts on every other body, and is acted upon by it. For since everything is a plenum, every endeavour [*conatus*] is propagated to infinity. But every endeavour has some effect, even though the effect of a weaker endeavour is smaller"(LC 249). And, in the same paper, Leibniz added: "Every body acts on all others and is acted upon by all others, i.e. *perceives all others*" (LC 247, italics mine).

²¹¹ Universal connection and the mirroring thesis are counted among the 'paradoxical' consequences of the account of individual substances in terms of complete concepts in the famous section 9 of the *Discourse*. Cf. A VI 4, 1541-42. There is no contradiction between the fact that, from the point of view of the *Discourse*, universal connection should be regarded as derivable from the theory of complete concepts, and the fact that, in Leibniz's earlier texts, Leibniz's account of individual substance in terms of a complete being (and, later, a complete concept) might be regarded as a consequence of his doctrine of causality and universal connection (as I will say in what follows, a complete concept might be regarded as a further transformation of the doctrine of full cause). On the kind of circularity holding between the main notions of Leibniz's philosophy, see Mondadori, "The Leibnizian Circle".

is, i.e. exists; that there is something which affects the sense, from which the sense is moved or, at least, is forced to move [*conari*], because, if everything were at rest, God himself would not be able to distinguish them from what is nothing".²¹²

This passage makes clear that Leibniz's thesis of existence as distinct perception (or, better, perceivability) has to be originally placed in the mind of God, and only derivatively in human minds (insofar as the latter are in some sense a very imperfect duplicate of the divine mind). Moreover, it also makes clear that the agreement among the perceptions of different mind has to be explained in terms of their all being duplicates or images of the original divine mind. Another interesting point is the rejection of absolute quiet by means of something like the principle of verification, from which it follow that if something were completely at rest, it would amount to nothing, not only for us, but also for every mind .²¹³ Note that this point has something to do also with Leibniz's commitment to Aristotle's Principle.

Finally, reference to music in order to explain the sense in which many perceptions are harmoniously in agreement with each other, can be read as evidence in favour of the thesis that at this time Leibniz was already envisaging (perhaps in a still inchoative way) the idea that the connection among different substances has to be exclusively understood in the sense of the harmony or the mutual expression between their perceptive states.²¹⁴ And this is not in contradiction with the idea that necessarily a body exists insofar as there is something which affects our sensibility and, in so doing, produces an effort toward change or motion, i.e. what Leibniz calls a *conatus* (remember that according to the Paris notes, "we call a "body" whatever is perceived in a consistent way, and say that "space" is that which brings it about that several perceptions cohere with each other at the same time").²¹⁵

²¹² Propositiones quaedam physicae, 1672 (?), A VI 3, 56. Similar passages can be found in *De minimo et maximo*. *De corporibus et mentibus*, A VI 3, 100-01/LC 17 (see 4.5 above); *De materia, motu, de minimis, de continuo*, December 1675, A VI 3, 466/LC 31 ; De *existentia*, December 1676 (?), A VI 3, 588/DSR 113 ; see also the relatively unknown autobiographical passage quoted by A. Foucher de Careil, *Mémoire sur la philosophie de Leibniz*, Paris 1905, vol. I, pp. 10-13, in particular p. 10: "Ergo conclusi: existentias rerum mente quadam infallibile sentiri, cujus nos tantum effluvia essemus, id est Deo. [...] principium ergo intimum rerum reperii esse harmoniam universalem". Unfortunately, it has been impossible to find the manuscript from which Foucher has taken the text in question (which he quotes in French, with only few parts of the original in Latin). The text, however, should have been written by the late Leibniz, perhaps in a period posterior to 1695 (or even 1700), in which he summarises the major results he obtained as a young philosopher.

²¹³ Cf. also *De materia, de motu, de minimis, de continuo*, December 1674, A VI 3, 466 and 467. This point will be further discussed below (see Chapter 7.5), when coming to what Leibniz calls his 'Herculean Argument'. ²¹⁴ I assume that reference to music here has to be interpreted in the sense of what Leibniz says to Arnauld to

²¹⁴ I assume that reference to music here has to be interpreted in the sense of what Leibniz says to Arnauld to explain his own hypothesis of concomitance (later: pre-established harmony): "je diray qu'à l'égard de cette concomitance que je soutiens, c'est comme à l'égard de plusieurs differentes bandes de musiciens ou choeurs, jouans separément leur parties, et placés en sorte qu'ils ne se voyent et même ne s'entendent point, qui peuvent neantmoins s'accorder parfaitament en suivant seulement leur notes, chacun les siennes, de sorte que celuy qui les écoute tous, y trouve une harmonie merveilleuse et bien plus surprenante que s'il y auroit de la connexion entre eux »(Leibniz to Arnauld, April 30, 1687, GP II, 95). In the mature Leibniz, the musical metaphor is employed to stress the relevance of the independence of each individual substance much more than universal harmony. The image of different choirs will be also employed by Leibniz (as a sort of variation on the theme of his favourite metaphors of books) to explain his theory of a plurality of possible worlds, among which God chooses the best, see the myth of Deucalion and Pyrrha in *De libertate, fato, gratia Dei*, 1686-87 (?), A VI 4, 1608-12.

²¹⁵ De veritatibus, de mente, de universo, de Deo, April 1676, A VI 3, 511/DSR 63-65. Again, what is peculiar in Leibniz's account of perception (which, in a certain sense, can still be regarded as a causal one !) is that he tries to conciliate the intentional character of perception (perception is always directed toward something different from the subject itself: *varia a me cogitatur*) with its expressive nature, i.e. the idea that the perceptions of a substance *s* can be entirely derived from the nature of *s* itself, which is just the other side of each substance's

Coming to the *Demonstratio substantiarum incorporearum*, one can see how in the first of these seven drafts, Leibniz starts by defining substance as the subject of action, and then distinguishing between corporeal and incorporeal substances. Corporeal substances are those whose only way of acting is motion, i.e. to capacity of changing their place (or, at least, *conari*, i.e. to give beginning to a motion). Incorporeal substances, on the contrary, are those whose action is something different from a change of place.

Such a distinction, of course, would not have pleased Hobbes, who maintained that the only existing substances were corporeal ones (in the sense of material bodies, not corporeal substances of the Aristotelian tradition, of course). However, as one can easily verify, Leibniz's attention in these pages is focused almost exclusively on bodies and their motion, i.e. to the world of phenomena. This explains why the Hobbesian framework still exerts much influence on these earlier Leibnizian reflections.

In the first drafts of the *Demonstratio*, Leibniz wants to defend the claim that a body acts only on what is contiguous to it ("*Nulla est corporis action nisi in contiguum*"). Since the only kind of action a body is capable of is motion, i.e. a change of its place, it follows that the only way in which a body can immediately act on another one is by having a *conatus* to occupy the place of another body, which has to be contiguous to the first (alternatively, a body can act on another one in a mediate way, i.e. by a means of contiguous bodies, whose parts are mediately or immediately contiguous).²¹⁶

From this, Leibniz derives the theorem according to which: "Whatever is moved, it has a tendency to carry with itself contiguous things [*Quicquid movetur, contigua secum abripere conatur*]". And the example he choose is similar to the one used by Hobbes: a stick posited into a recipient filled with water, moved in any direction whatever, puts into agitation the entire liquid. Another example is given by the experience of light, colours, and sounds which can reach our senses even at a very long distance.²¹⁷

Notice that in these first drafts Leibniz does not already speak of universal connection but prefers to say that "All the perceptible bodies in the world are in relation of contiguity with each other" (Leibniz says they are *continuata*, but he explains it by saying that "*continuatum* is a series of contiguous things, or those whose parts are immediately or only mediately contiguous. In this sense, the Baltic and the Mediterranean sea are parts *continuata* of one single sea").²¹⁸ As far as the content of his claim is concerned, however, there are no doubts about what he has in mind: "Every action of a body occurs either *in contiguum* or through

causal isolation(here, of course, 'causal' has to be taken in the sense of physical influence, not in the sense of Leibniz's correspondentist account). Of course, in order to avoid the possibility of solipsism, such an account of perception necessarily requires a theological ground (it is only God's wisdom which ultimately grants that the perception of a certain substance *s* are in agreement with those of all the other substances). On the paradoxical aspects of Leibniz's theory of perception, see M. Kulstad, "Some Difficulties in Leibniz's Definition of Perception", and Mondadori, "Solipsistic Perception in a World of Monads", both published in Hooker, *Leibniz*, respectively pp. 65-78 and 21-44.

²¹⁶ Cf. *Demonstratio substantiarum incorporearum*, A VI 3, 74. Cf. also *Ibid.*, p. 77 and 79; see also p. 78, where Leibniz provides a detailed demonstration of the proposition: "The action at distance occurs instantaneously through a series of contiguous things, which fills a certain line between that which acts and that which is acted upon". Cf. also the figure drawn by Leibniz himself.

²¹⁷ *Ibid.*, p. 74.

²¹⁸ *Ibid.*, p. 74, note, and 75. Cf. also the detailed explanation he provides at p. 77.

other contiguous things [posited between the first and the last] [...]. Therefore, all perceptible bodies are either mediately or immediately contiguous".²¹⁹

From these first propositions, Leibniz immediately derives the corollary that our minds are omniscient, albeit only in a confused ways. It is what emerges from a series of examples Leibniz adds to clarify his views.

Let me quote only the first of them:

"In order to make more clearly understandable this action of everything on everything else, and, thus, the necessity of continuity, imagine seeing a mountain in front of you and at a certain distance, let say the peak of Tenerife. I say that there is no grain of sand or any tree leaf on the side of this mountain which is not seen by you (at least in a confused way), or which does not act on your eye. Say, then, that the whole mountain is nothing but an aggregate of grains, however small they can be; if one of them does not act [on you], then also the whole will not act, because what is many times nothing is just nothing at all, and, accordingly, the whole mountain will not be seen by you, which is absurd".²²⁰

Notice how in this passage Leibniz resorts to the notion of an aggregate in order to explain why we have a confused perception of whatever happens in the world (or, better, or whatever in the world acts on our senses).

The connection between the nature of aggregates and the confused character of our perceptions will be repeated in a famous passage from *De summa rerum*:

"It seems to me that every mind is omniscient in a confused way; that any mind perceives simultaneously whatever happens in the entire world, and that these confused perceptions of infinite simultaneous varieties produce the sensations we have of colours, tastes, and feels. For such perceptions consist, not in one act of the intellect, but in an aggregate of infinitely many acts, especially when some period of time is needed for the sensation of some colour or other perceptible thing. [...] Again, it is not surprising that any mind should perceive what is done in the entire world, since there is no body that is too small to sense all other things, given the plenitude of the world".²²¹

Here the connection between the nature of aggregates, and, in particular, aggregates of infinitely many things, and the confused nature of perception becomes clear. As Richard Arthur has pointed out, indeed, Leibniz means that perceptions are 'fused-together' from an

²¹⁹ *Ibid.*, p. 75. Notice that in these passages Leibniz assumes that motion occurs in a plenum, as he will repeat in his texts De summa rerum. There, indeed, he will show that, at metaphysical level, the rejection of the vacuum formarum follows from universal harmony: "It follows from this principle [harmony] that there is no vacuum among forms; also that there is no vacuum in place and time, as far as that is possible. From which it follows that there is no assignable time in which something did not exist, nor is there a place which is not full -as far as that is possible" (A VI 3, 473/DSR 23). Leibniz will come back to the question at the end of 1676, when he will write: "It is not superfluous to discuss the vacuum of forms, so that it can be shown that not all things which are possible per se can exist together with other things" (A VI 3, 581/DSR 105). On one hand, the principle of continuity leads Leibniz to reject the vacuum among forms; on the other hand, he wants to avoid the unrestricted principle of plenitude (everything possible exists). Thus, he must state that there must be forms or species which do not exist and will never exist, but that, as far as what is compatible with the series of things God has chosen to actualize, continuity among species or forms holds in this world. This point is discussed in the New Essays, III. vi, 12, A VI 6, 307. Cf. Mates, The Philosophy of Leibniz, pp. 146-49. For a recent assessment, see M. Brandt Bolton, "The Continuity of Species, Concepts of Species Determined by Nature, and Concepts with Indeterminate Boundaries in Nouveaux Essais", in W. Li et alii (hrsg.), Vorträge des X. Internationalen Leibniz-Kongresses, vol. V, pp. 89-101.

 ²²⁰ Demonstratio substantiarum incorporearum, A VI 3, 75. See also the third draft, Ibid., p. 78, especially Leibniz's demonstration of the proposition: "All the sensible bodies in the world mutually act on each other".
²²¹ De plenitudine mundi, 1676, A VI 3, 524/DSR 85 (but cf. also the translation in LC 59-60).

aggregate of smaller and smaller perceptions, not that they are confused in the sense of being disturbed.²²²

This follows from the fact that "such perceptions consist, not in one act of the intellect, but in an aggregate of infinitely many acts"; or, as Leibniz writes in another passage of the same period: "Sensible things cannot be understood perfectly by us, since infinitely many things concur in their constitution [...]. Hence the perception of a sensible quality is not one perception, but an aggregate of infinitely many perceptions".²²³

6.2.3 'Sumpnoia panta'. The physical part of the connection-thesis

In the later drafts of the *Demonstratio*, Leibniz progressively abandons the terminology of *contigua* and *continuata*, and starts employing a more familiar one, claiming that there is a sort of "universal sympathy" among the sensible bodies of the world.

In the fourth draft, indeed, Leibniz defines "to impel" as "to be put in motion [*conari movere*]", and proceeds by asserting that if a thing impels another one (and vice versa), they are coherent (*cohaerentia*). The explanation follows the lines of those he had already given in the former drafts. At this point, however, Leibniz introduces the notion of *sympathy* holding among coherent bodies.²²⁴ The most detailed explanation is provided only in the sixth draft, and consists in the proof of three propositions. The first proposition is the rejection of the existence of void space in what he calls the 'visible world' (*mundus aspectabilis*). The second is the claim that all the bodies in this world entertain a relation of "sympathy".

Alternatively, this proposition can be formulated in the following way:

"It cannot occur any perceptible change in a perceptible body whatever, from which it does not follow a certain change (even though it can be an imperceptible one sometimes) in another perceptible body of the visible world. And it is true in the world what Hyppocrates had asserted concerning the human body: $\pi \dot{\alpha} v \tau \alpha$ $\sigma \dot{\nu} \rho \rho o i \alpha \kappa \alpha \dot{i} \sigma \dot{\nu} \mu \pi v o i \alpha \epsilon \dot{i} v \alpha i$ [all things are consentaneous and sympathetic]".²²⁵

The relevance of this passage should be stressed, since, as I will show in a moment, the claim that a change in a body A produces a change in another B in the universe, even though most of the times this change is an imperceptible one –because it occurs through a (perhaps infinite) series of modifications that intervene between all the bodies which are posited between A and B (and they may be very distant), –will provide the basis for Leibniz's well known claim that there are no purely extrinsic denominations and, therefore, when a relation changes, a modification occurs in all the relata (see below).For the moment, however, let me follow a little bit Leibniz's proof of this proposition.

²²² Cf. LC p. 391-92, n. 3, and 441.

²²³ De formis seu attributis Dei, April 1676, A VI 3, 515/DSR 71.

²²⁴ "Coherent bodies, indeed, are $\sigma v Y \kappa i v \eta \tau a$, which means that one cannot be impelled without the other [...]. If one cannot be impelled without the other, it is also the case that one cannot be acted upon without the other. Every passion of a body, indeed, consists in being moved by another, i.e. to be impelled. Therefore, it is necessary that coherent bodies $\sigma v v \pi a \theta \epsilon i v$ " (A VI 3, 80). See also *Ibid.*, p. 85. With respect to the first drafts, the change is mostly a terminological one.

²²⁵ A VI 3, 87.

In the first draft, he introduced very briefly the thesis of universal connection by means of the examples I have quoted above. In addition, he remarked to have already demonstrated it elsewhere from more general principles ("*sed et alibi ex generalibus principiis a me demonstratum est*"), but that such a demonstration could not be transcribed there because it would have require many other principles from which it depends.²²⁶

In this redaction (the sixth), on the contrary, the thesis of the universal 'sympathy' among perceptible bodies in the world is followed by a very long proof, which moves from the assumption that there is no void space in the world (which was the object of the first proposition).

Assumed that, indeed, it follows not only that every perceptible change, but every change in general (also those which are below the threshold of perception) in a given body whatsoever produces an effect in any other body in the world:

"If it has been already demonstrated that there is no vacuum at all in the world, our theorem can be formulated in a more general way, i.e. by saying that all the bodies in the world are sympathetic. [...] For instance, take a certain body that, however far and big it could be, it looks red when it is seen from a great distance, like the planet Mars. It is certain that its red colour depends on the disposition of its parts. Imagine that, first of all, this disposition initially changes in few parts only; nevertheless, the planet does not look as less red then before. However, if you repeat the same change many times, in a great number of small parts, change will become perceptible and the red colour will disappear. Therefore, it is necessary that the single changes of the parts, however small, are nonetheless perceptible, and they change something in the action Mars exercises on us, even though the latter is an imperceptible one. For, if the first change produces no change at all, neither the second will do it, and so the third, and all the other singular ones, namely all the parts in the whole thing; therefore, even when the disposition of all the parts is changed, the red colour does not change, which is absurd. Therefore, it is necessary that every change of a small perceptible part on the surface of Mars [...] changes the way in which Mars acts on us, and, therefore, also the way in which we are acted upon, even though that change could be imperceptible for us (at least until it will be repeated many times). This kind of argument amounts to the same as that which the Stoics misused in order to produce their Sorites or heap-argument. For they said that the first removed hair does not make someone bald, nor the first removed coin makes someone poor; therefore neither the second will do it, and, if not the first and the second, neither the third will do it, and so on to infinity. But our way of weakening this argument proceeds in this way: the first removed coin does make someone poor, or, better, it makes him poorer than before, but not in a noticeable way; for each singular removal contributes to produce poorness or baldness, but in an imperceptible way; it grows in a hidden way like a three in the course of time [...]. In the same way, it should be known that in the visible world every change which can be closely perceived produces some effect even on something very remote, even if the effect cannot be perceived if not after many repetitions.²²⁷

This passage is interesting for several reasons. First of all, it makes clear the link between universal connection, the doctrine of *petites perceptions*, and its physical counterpart, the infinite division of matter (plus the rejection of *vacuum*), and the principle of continuity.

Second, it shows that Leibniz has clear in mind the similarity between its commitment to the principle of continuity and the principle which lays at the basis of the Sorites paradox. Interestingly enough, in this passage Leibniz seems to say that the Sorites paradox, as formulated by the Stoics, draws a fallacious conclusion from an otherwise genuine principle. Leibniz's own way of weakening the paradoxical conclusion of the Sorites consists of accepting the claim that each singular step (for instance, the removal of each singular hair)

²²⁶ Cf. A VI 3, 74-5.

²²⁷ A VI 3, pp. 87-88. A concise version of the same proof is given at p. 91.

contributes to produce the effect (baldness), but it does it in an imperceptible way, which becomes perceptible to us only when it trespasses a certain threshold (which has to do with the coarse-grained nature of our senses).²²⁸

Finally, from what Leibniz says in these passages, he seems also to be committed to the claim that small changes, at least when they are repeated a sufficient number of times, can have large consequences, a point which will play a significant role in his rejection of counterfactual identity (and of a face-value reading of counterfactuals).

The claim the small changes produce big consequences is clearly stated in the following passage (from the German text I have already quoted at the beginning):

"For a limited understanding, however, it is impossible to predict future events in all their circumstances, because the world is constituted by infinitely many things, which act on each other, to the point that there is nothing so small or so far which does not contribute in a certain way according to its magnitude. And such a little thing often produces big changes. I use to say that a fly can change an entire State, if it buzzes very close the nose of a great king, when he is absorbed into difficult decisions, since it can happen that he is somewhat uncertain [about what to do], and he finds good reasons on both sides. Thus, it can happen that, ultimately, those suggestions will prevail on which the king has spent more time in thinking about, and the fly can be responsible for that by disturbing him and preventing him from focusing on a completely different solution. Those who understand something about artillery know very well how a small change [in inclination] can make it that a cannon-ball take a completely different course; so that, thanks to a small thing like this, for example, Turenne²²⁹ has been killed [by a cannonball]; if that would not have happened, the entire war of that time could have had another conclusion, and, thus, also the contemporary events could have been different. Again, it is known that if a little spark falls in storehouse full of gunpowder, an entire city could be burned".²³⁰

Notice that this passage makes clear the connection between Leibniz's commitment to a strong form of causal determinism and his strategy to solve the question of theodicy.

Those who think that God could have created a better world, indeed, imagine that one could take the actual world as it is and, through small changes, produce a better ne one (think of a world in which, say, Adolf Hitler is replaced with a completely harmless man, and so on). Then, God should have created that better one instead of creating this one (which contains

²²⁸ Leibniz will refer again to the Sorites paradox in his 1676 dialogue, *Pacidius Philalethi*, A VI 3, 539 and ff/LC 153 and ff, and then in the brief note *Acervus Chrysippi*, March 1678, A VI 4, 69-70/LC 229-31. On this topic, see S. Levey, "Leibniz and the Sorites", *The Leibniz Review*, 12, 2002, pp. 25-49, who, however, does not mention the passage from the *Demonstratio substantiarum incorporearum*. ²²⁹ Henri de la Tour d'Auvergne, vicomte de Turenne, was a French Marshal General (also known as «the great

²²⁹ Henri de la Tour d'Auvergne, vicomte de Turenne, was a French Marshal General (also known as «the great Turenne »), who was killed by a cannonball in the battle of Salzbach in 1675.

²³⁰ Von dem Verhaengnisse, GP VII, 118-19. The same examples are repeated in a 1691 letter to Princess Sophie, see A I, 7, 35. The principle that small changes can have big consequences is somewhat in tension with some applications of Leibniz's principle of continuity, according to which small alterations in inputs or causes must be paired with small alterations in outputs or effects (note that a similar reasoning can be applied to Leibniz's interpretation of counterfactuals, like talking of several possible Adams in the correspondence with Arnauld). The only passage I know where Leibniz discusses this point is in a letter to Bayle, see GP III, 54: "It is true that in composite things a small change can sometimes yield a great effect. As, for example, a small spark falling into a great mass of gunpowder is capable of wiping out an entire city. But this is not contrary to our principle, for we can account for it by the same general principles. Yet in regard to primary or simple things, nothing like this could ever happen, for otherwise nature would not be the effect of an infinite wisdom" (translated in D. M. Jesseph, "The Principle of Continuity: Origins, Applications, and Limitations", in W. Li et alii (hrsg), Akten des X. Internationalen Leibniz-Kongresses, vol. 5, pp. 193-205). Leibniz seems to say that what appears discontinuous at the level of macroscopic bodies is actually continuous at the level of their microscopic components, but, to tell the truth, I do not see how this could provide a solution to the problem (and this could explain Leibniz's ultimate appeal to divine wisdom).

Hitler and many other evil actions and events), and, since he has not done that, he is not good nor just. Against this line of thought, Leibniz's commitment to strong determinism allows him to embrace the claim that small changes produce big changes in the world (in the *whole* world, actually), and, thus, it is by no means true that, imposing some small changes on the actual world, the result would be a more perfect one (at least from the point of view of the overall perfection, not the local one).

The improvability of the world by means of small changes and local replacements, then, is immediately blocked by what follows as a corollary of the universal connection of all things (and can be dismissed as an illusion which originates from conceiving the perfection of a world only in a local sense, not in a global one).²³¹

6.2.4 The logical-metaphysical counterpart of the connection-thesis: Leibniz on extrinsic denominations

Coming back to the passages from the *Demonstratio* quoted above, it should be said, however, that they are just different versions of the same argument, and nowhere Leibniz seems to display his demonstration of universal connection from "general principles". I assume that, by talking of general principles, Leibniz has in mind something like metaphysical or logical principles (to be contrasted with physical principles, which are the main topic he is concerned about in the *Demonstratio*).

A different line of thought, however, can be traced back to other things Leibniz says in his Paris notes. For instance, in a text of April 1676 we can read:

"It is undeniable that, when the mind perceives something in matter, whilst it perceives various things there is also a change in it. When someone, by growing, becomes bigger than me, then some change occurs in me as well, since a denomination of mine is changed. In this way, all things are in a way contained in all things".²³²

At the same time when he wrote this text, Leibniz was working to a Latin abridgment of Plato's *Theaetetus*. In that dialogue, at 155 b-c, Socrates makes the same example of what, nowadays, we would call a case of 'Cambridge change', i.e. a change according to which an entity (Socrates himself, in this case) has changed if and only if there is some predicate that is not true of it at time t_1 and true of it at time t_2 . In our case, while at t_1 Socrates is as tall as Theatetus is, at t_2 he is shorter than Theatetus. In the time between t_1 and t_2 Theatetus is grown, but there has been no change in Socrates, even though he has acquire a new predicate (being smaller than Theatetus), but one that is purely extrinsic to him.

This poses a problem for the discussion in the dialogue, since Socrates assumed the axiom according to which one cannot become something else (different from what he was before) without a real change or a transformation has occurred. Commenting on this passage, Leibniz

²³¹ This is clearly stated in the following of the passage at GP VII, 119. For a similar strategy from a contemporary point of view, see N. Rescher, "On the Improvability of the World", *Review of Metaphysics*, 64, 2011, pp. 489-514. The main argument against the improvability of the world is "the pervasive interconnectedness of things" (p. 493), which Rescher derives from what he dubs "Burley's principle". Cf. Id., *Conditionals*, Cambridge 2007, pp. 77-83. Here Rescher makes explicit reference to Leibniz's letter to De Volder of 6 July 1701, GP II, 226.

²³² De formis simplicibus, April 1676, A VI 3, 523/DSR 83-5.

notes: "This is a noteworthy difficulty, and one of great importance also in connection with other questions".²³³

In the passage above, however, we can see that Leibniz is ready to accept the apparently counter-intuitive consequence of the principle that there cannot be any change of predicate in a thing without a real change in it, which is particularly paradoxical in the case of relational predicates and properties (if there are any). However, as everyone knows, Leibniz will maintain that there could not be any change of a given relation without there being a change in the intrinsic, qualitative properties of *all* the relata (not just of one of them). This holds in particular in the case of the relation between a mind and its perceptions (we have already seen that according to Leibniz perceptions can be characterised in terms of intentional objects).

It is interesting to observe that, contrary to what happened in the passages quoted above, in this case the direction of explanation seems to go the other way around: since a denomination of me is changed, then a change must be occurred in me (and not only in the other member of the relation). In this way, the connection of all things (the fact "all things are in some way contained in all things") seems to be derived from the claim that there are no purely extrinsic denominations.

The same direction will be followed in the well-known piece *De modo distinguendi*, in a passage where he wants to prove that "not all possible minds exist" (i.e. not all possible things are mutually compossible). The incompossibility claim is demonstrated from the universal connection of things, i.e. "from the fact that all existing things are interrelated".

One of the arguments to prove the mutual connection of all things is based on the nature of relations:

"That all existing things have this intercourse with each other can be proved [...] because there are no extrinsic denominations, and no one becomes a widower in India by the death of his wife in Europe unless a real change occurs in him. For every predicate is in fact contained in the nature of a subject".²³⁴

In this passage conceptual containment (and, then, Leibniz's theory of truth) is explicitly mentioned, and this constitutes the great difference with the Paris texts; also in this case, however, it seems that the connection of things can be concluded from the fact that every predicate is contained in the nature of the subject (and, thus, that there cannot be purely extrinsic denominations).²³⁵

²³³ *Platonis Theaetetus Contractus*, March 1676, A VI 3, 301. He also rejects Plato's solution: "I do not understand how Plato's own reply, that everything flows, responds adequately to the difficulty" (*Ivi*, translation in Mates, *The Philosophy of Leibniz*, p. 215).

²³⁴ De modo distinguendi phaenomena realia ab imaginariis, A VI 4, 1503/L 365. As Mates rightly observes (*The Philosophy of Leibniz*, pp. 214-15), one should pay attention to not trivialize Leibniz's argument, as if he wanted just to make the point that after the death of the her wife, the man who is now in India has the property expressed by the predicate "is a man whose wife has died", which he lacked beforehand. In order to avoid such a trivialization, one must emphasize Leibniz's claim that that a difference at the level of extrinsic denomination (relational predicates) must be grounded on intrinsic denominations of the subjects. On this point, cf. also Mugnai, *Leibniz's Theory of Relations*, pp. 49-55.

²³⁵ The same strategy is also at work in the *Primary Truths*, now edited as *Principia logico-metaphysica*, A VI 4, p. 1645, where the thesis that there are no purely extrinsic denominations (without any foundation in the thing denominated) is derived from the claim that the notion of the subject denominated contains the notion of the predicate. "And consequently"-concludes Leibniz –"whenever the denomination of a thing is changed, there must be a variation in the thing itself" (AG 32).
This second direction of explanation, however, is an extremely puzzling one, and, moreover, if one take it in isolation from other things Leibniz says, it appears to be just a *non sequitur*. First of all, indeed, it would be very bizarre to say that a real change should occur at the level of things just because there is a change in the way a thing is denominated (on the other hand, if one assumes that every denomination, i.e. every predicate, expresses a real property, Leibniz's claim turns out to be just trivially true).

What is problematic here is the passage from the conceptual (or linguistic) level to the real one. As Mugnai has clearly shown, indeed, even if one accepts the premises that (a) any change in the denomination of a thing must have a cause (or reason), and (b) any denomination must be founded on intrinsic denomination of the correlated thing, from both (a) and (b) it does not follow that a real change in the state of the correlated thing must follow from any change in the denomination of the first one.²³⁶

However, the texts I have presented above should have already shown that this is not the whole story, since Leibniz often moves from the claim that all things are connected in the world to the conclusion that, *for that reason*, there could be no purely extrinsic denominations (without a foundation in all the relata).²³⁷ Therefore, what he says in the passage from *De modo distinguendi* should be actually reversed: it is only because all existing things are reciprocally interrelated –so that, if one of them changes, all the others must change with it – there are no purely extrinsic denominations. ²³⁸

All in all, I think that, as in the case of the relation between 'compossibility' and 'being in the same world' (see my discussion in the next chapter), also in this case we should read Leibniz as asserting a sort of reciprocal implication between the universal connection of all things and the rejection of purely extrinsic denominations (or, if you prefer, a sort of circularity is at work here, even though not necessarily a vicious one).

Even though the logical foundation, based on conceptual containment, seems to be more prominent in the writings of the middle years, it is interesting to remark that also the 'physical' foundation of Leibniz's claim, based on universal connection, is explicitly repeated in some texts of the 1680's. For example, in the important *Specimen inventorum*, where (it is not a coincidence, I guess) both physical and metaphysical questions are explicitly discussed.

There, indeed, the thesis of the confused omniscience of every created substance is directly connected with the theory of complete concepts; from the latter, Leibniz says, it can be concluded that: "What Hyppocrates said of the human body, it is true of the universe itself, i.e. that all things are consentaneous and sympathetic, that is there is nothing which happens

²³⁶ For a counterexample that invalidates this argument, see Mugnai, *Leibniz's Theory of Relations*, pp. 128-29. At p. 129, Mugnai observes: "From the fact that all extrinsic denominations are founded on intrinsic ones", there are passages in which Leibniz "appears to draw the direct inference that a modification occurs in the intrinsic qualities of any given subject whenever that subject acquires or loses an extrinsic denomination".

²³⁷ This helps to avoid another possible misunderstanding concerning the thesis of the changing relata: the modification that a given individual undergoes when it loses or acquires a relation (as in the case of the man who becomes a widower in India) is not a direct one, i.e. it is not the loss of his wife in Europe which immediately modifies the man in India; on other hand, the change which occurs in him is only an indirect consequence of what has happened in Europe, the two facts being connected only through an infinite and continuous series of intermediate passages (in which universal connection consists). Cf. the passage at A VI 3, 75, which I have commented above.

²³⁸ After all, this is what Leibniz clearly says in the *New Essays*, II, xxv, 5: "quoique dans la rigueur metaphysique il soit vrai, qu'il n'y a point de denomination entiérement exterieure [...], à cause de la connexion rélle de toutes choses" (A VI 6, 227). Cf. also Mugnai, *Leibniz's Theory of Relations*, pp. 129-30.

in one creature, an exactly corresponding effect of which does not pervene to all the others".²³⁹ Exactly the same worlds he had already employed in one of the drafts of the *Demonstratio* I have analysed above.²⁴⁰

Reference to *sumpnoia panta* will eventually re-emerge in the late *New Essays*, where the topic of *petites perceptions* (which, as we have seen, was already present in his earlier drafts) will be explicitly emphasized in order to defend the theory of innate ideas against Locke.²⁴¹

What is fundamental here, and, especially, what is presented as the ground for the conceptual containment theory of truth, is the notion of a *real* change or, alternatively, of a *real* connection of all things. The emphasis on the 'reality' of universal connection emerges from a lot of Leibnizian texts on the topic.

See, for instance, the following passages (the list is not intended to be exhaustive):

[*i*] "It should be said, however, that in a rigorous sense there is no extrinsic denomination in reality, for nothing happens anywhere in the world which does not really affect all existing things in the world, even though, when one leaves aside this universal sympathy of things, there can still be extrinsic denominations [*marginal note*: When things are correctly considered, it seems impossible that a proposition concerning something should become false without any change taking place in the latter. For the world is almost a singular thing, and every thing is really affected by the change of all the others]".²⁴²

[*ii*]"Thus when we consider carefully the connection of things, we can say that from all time in Alexander's soul there are vestiges of everything that has happened to him and marks of everything that will happen to him and even traces of everything that happens in the universe, even though God alone could recognize them all".²⁴³

[*iii*] "In my opinion there is nothing in the whole created universe which does not need, for its perfect concept, the concept of everything else in the totality of creatures, since everything flows [*influat*] into every other thing in such a way that if anything is removed or changed, everything in the world will be different from what is now".²⁴⁴

These three passages focus on three different aspects of the claim that everything is connected with everything else in the universe. In particular, [ii] and [iii] are explicitly concerned with the theory of complete concepts; on the other hand [i] has to be reconnected with the conceptual containment theory of truth. Anyway, all of them emphasize the 'reality' of universal connection (or the reality of change which is involved by that thesis).

²³⁹ Specimen inventorum de admirandis naturae generalis arcanis, 1688 (?), A VI 4, 1618. For a commentary on this very important text, see G. H. R. Parkinson, "Science and Metaphysics in Leibniz's 'Specimen Inventorum'", *Studia Leibnitiana*, 6/1, 1974, pp. 1-27. Cf. also *Du principe de raison*, # 10, Cout. 14-15.

²⁴⁰ For other passages of the 1680's, see A VI 4, 1613, where Leibniz wants to demonstrate that there is no perfect shape in bodies by resorting to the example of a straight line *ABC*, which turns out to be not perfectly straight: "For with each part of the universe sympathizing with all the others, it is necessarily the case that if the point *A* tends along the straight line *AB*, the point *B* should have a tendency in another direction" (LC 297). See also *Discourse*, # 33: "We also see that the perceptions of our senses [...] must necessarily contain some confused feeling, for our body receives the impression of all other bodies, since all the bodies of the universe are in sympathy, and, even though our senses are related to everything, it is impossible for our soul to attend to everything in particular" (A VI 4, 1582/AG 65).

²⁴¹ See the preface to the *New Essays*, A VI 6, p. 55: "On peut même dire qu'en consequence de ces petites perceptions le present est plein de l'avenir et chargé du passé, que tout est conspirant ($\sigma \delta \mu \pi v o i \alpha \pi \delta v \tau \alpha$, comme disoit Hippocrate) et que dans le moindre des substances, des yeux aussi perçans que ceux de Dieu pourroient lire la suite des choses de l'univers ».

²⁴² Definitiones: Aliquid, Nihil, 1679 (?), A VI 4, 308. Cf. also A VI 4, 944, and GP II, 240.

 ²⁴³ *Discourse*, #8, A VI 4, 1541/AG 41. Cf. the passage to Fardella I have quoted at the beginning of this chapter.
²⁴⁴ Leibniz to De Volder, July 6, 1701, GP II, 226/L 524-25.

In what sense, however, can Leibniz talk of universal connection as of something real (or which concerns things, *res*), without infringing his commitment to the purely ideal nature of relations?²⁴⁵

The notion of 'change' (*mutatio*) is deeply intertwined to that of 'causality', as one can infer from passage [*iii*], where Leibniz explicitly talks of everything having a sort of *influxus* on everything else in the world, which is a technical term for causation (notice that in this passage Leibniz clearly concludes from universal connection that any local change in a part of the *series rerum* would imply a modification in the whole series).²⁴⁶

²⁴⁵ As shown by Mugnai, the thesis whereby the change in a relation affects all the bearers of a relation was a position closely connected with a form of extreme realism about relations. For this reason, it was rejected by nominalist or conceptualist thinkers. See for instance, Suárez, DM 47, xii, 17. But the most interesting text is Antoine Goudin's *Logica* (1671), p. 327: "If relations were something truly distinct from their foundations and superimposed on these latter, then the birth of a fly would change the entire world: but this is an absurdity, therefore the antecedent must be false". According to him, a change in a relation "cannot be considered a change in the proper sense: in fact a thing is said properly to be changed if it is disposed otherwise in se as before. But a relation which supervenes to a subject does not dispose otherwise that subject" (p. 328; translated in Mugnai, *Leibniz's Theory of Relations*, pp. 50-51).

²⁴⁶ It is difficult to say how this might be reconciled with the possible-worlds based account of counterfactual which Leibniz defends in the *Theodicy*, cf. # 42, where he states that "the case of the siege of Keilah [one the counterfactual most discussed in the debate on 'middle knowledge'] forms part of a possible world, which differs from ours only in all that is connected with this hypothesis [i.e. of David not leaving the city of Keilah], and the idea of this possible world represents that which would happen in this case" (GP VI 126/H 149-50, italics in the original). The difficulty, here, rests on the fact that Leibniz assumes that there is something like a possible world which differs from the actual one only for the counterfactual hypothetis (the antecedent of a counterfactual conditional) and "all that is connected" with that. Cf. also Grua 358. The second requirement, however, calls into question the thesis of universal connection, from which it follows that, properly speaking, there is not such a world (since everything is connected with the fact that is denied by the counterfactual hypothesis). Therefore, sticking at Leibniz's holism, one should conclude that, if two worlds differ at least for an event, they would differ at all. On the other hand, in order to state the possibility of counterfactual reasoning, Leibniz should maintain a principle of minimization of change, such that discussed by him where he speaks of the principle of continuity, according to which small alterations in imputs or causes must be paired with small alterations of outputs or consequences (which, as I have noted, is in contrast with the principle that small changes might have big consequences). Also at Grua 358 it seems that Leibniz oscillates between these two horns of the dilemma. First, he rejects the very same possibility of certain conditionals, insofar as we are dealing with the complete notion of an individual (Peter). The question 'What would have happened to Peter if he had not denied Jesus", however, can be given a somewhat determinate answer (i.e. counterfactual reading can be accommodated in Leibniz's system) if 'Peter' is taken in a broader sense. Assume that P stands for 'Peter', whereas P* stands for the concept of Peter from which the denial of Christ and what follows from that has been removed (assuming that what follows from the denial is not the whole universe, of course). In this case from P^* and all the other things in the universe (consider them 'surrounding conditions'), something could follow either per se or nisi accidente novo divino decreto ex ratione optimitatis. This disjunction, if I am not mistaken, is the dividing line between conditionals which can be known, at least by us, and those which are completely unknown to us (since it depends on Gods' knowledge of what is the best, i.e. on his decree). Notice that in the first case, that of counterfactuals which can be known by us, Leibniz speaks of a vinculum natural, from which the consequence is said to follow. This could be a hint to Leibniz's tripartion of predicates into essential, accidental, and natural ones, where a natural predicate is something intermediate between the other two. The distinction between essential predicates (which are necessary in the strictest sense) and natural ones is stressed by Leibniz in his late texts, like GP IV 582 and 592. Other passages are listed and discussed in F. Piro, "Natural Predicates. Properties and Dispositions in Leibniz's Later Writings", in Breger-Herbst-Erdner, IX. Internationaler Leibniz-Kongress: NATUR UND SUBJEKT, Hannover, 26. September bis 1. Oktober 2011, G.-W.-Leibniz Gesellschaft, Hannover 2011, vol. 3, pp. 841-49. A seminal text where this conception of *nature* is already introduced is *De natura sive* analogo animae, A VI 4, 1504-05, together with the distinction between 'essence' and 'nature' in section 16 of the Discourse (A VI 4, 1554-55). As far as I know, the connection between natural predicates and Leibniz's account of counterfactuals has not been highlighted so far. The question, however, would require a longer and more detailed discussion.

We are led back to the notion of cause also from what he says in passage [*i*], even though, in such a case, the inference is an indirect one. The relevant point is what Leibniz says in the marginal note: "it seems impossible that a proposition concerning something should become false without any change taking place in the latter [*videtur impossibile ut aliqua propositio de aliquo fiat falsa, nulla in eo facta mutatione*]". In order to understand this sentence, we should recall what we have said about Leibniz's theory of time.

As we have seen, indeed, time is required in order to make change conceivable without falling into a contradiction. In a passage I have already commented above, indeed, Leibniz noted: "If two propositions are true, which appear to be contradictory, with the exception of only one difference, which can be acknowledged only with respect to something external, they will differ in/for time".²⁴⁷Temporal difference, however, is the typical case of an extrinsic denomination ("with respect to something external"), and this means that there cannot be temporal differences which are not grounded on intrinsic or qualitative differences in the subject the proposition is about. As we already know, indeed, time is parasitic on change, and a temporal succession has to be explained in terms of a causal one (following what Leibniz calls the "order of nature").

Again, notice how in [*i*] Leibniz is assuming a perfect correspondence between the fact that a proposition concerning an individual A becomes false (or true) and the occurring of a genuine modification internal to (the states of) A itself. In this sense, it is not the fact that all the modifications concerning A are derivable from its complete concept to be the cause/reason of the connection between these modifications themselves (and between them and the subject); on the contrary it is only because such a connection between A and its modifications really occurs that justifies the fact that all the modifications of A are contained in and derivable from its complete concept. Of course, this can create a problem when we are dealing with true propositions concerning mere possible individuals or, which are the same, non-actualized complete concepts (or possibilia).²⁴⁸

Here, however, it is important to avoid some possible equivocations concerning this notion of 'reality', which, *en passant*, is the same sense of reality involved in Leibniz's frequent observation that the inherence of the predicate in the subject in a true proposition is something which holds *a parte rei* or in the nature of things.²⁴⁹

²⁴⁷ Enumeratio terminorum simpliciorum, A VI 4, 390.

²⁴⁸ In other words, this reading emphasizes the *descriptive* function of the complete concept vs. its *normative* one, claiming that there is a sort of priority of the individual (or the ontological subject) over the complete concept. I have borrowed this distinction from M. Mugnai's review Adams's *Leibniz, The Leibniz Review*, 6, 1996, pp. 78-88. Mugnai rightly points out a tension between these two aspects of Leibniz's theory of complete concepts, because, from the point of view of God's eye (so to say), complete concepts seem to have a clearly *normative* function, being the models for the possible individuals to be actualized. Cf. *Ibid.*, pp. 79-80, where Mugnai traces back this tension to the conflict between Leibniz's nominalism (which emphasizes the priority of the individual) and his Platonism (which privileges the complete descriptions of individuals *in mente Dei*). In the following section (see Chapter 8), I will come back to this tension between the *ontological subject* and the *individual essence*, especially for what concerns non-actualized possibilia. On the priority of the ontological subject over the complete concept, see Di Bella, *The Science of the Individual*, passim; Piro, *Spontaneità e ragion sufficiente*, pp. 108-110; and N. Fleming, "On Leibniz on Subject and Substance", *The Philosophical Review*, 96/1, 1987, pp. 69-95.

²⁴⁹ In addition to the passages quoted in Chapter 2.1, note 67, see the reference to the *connexio realis inter praedicatum et subjectum* at A VI 4, 805 (and, in a more problematic context, where the rejection of the reality of accidents seems to be in contrast with the reality of change, in A VI 4, 995-96). On the relation between conceptual containment and universal connection, see also the following passage from a letter to Arnauld (July

In order to understand how Leibniz could conciliate the reality of change (and the real connection of all things) with the ideality of relations, we must resort to what we have already said about Leibniz's qualified nominalism (see Chapter 2.1 above). In these contexts, indeed, 'reality' does not refer to actual existence or existence in this world.

First, Leibniz clearly says that universal connection is not just a feature of the actual world (on the contrary, in the *Theodicy*, section 9, he explicitly says that everything is connected in *every* possible world). Second, there is a sense in which relations (among which relations of connection are included) does not exist in this world (the sense if that of what I have called Leibniz's particularism: the only existing things are individual substances with individual accidents). In this sense, relations are only mental things.

But this only means that relations are, so to say, members on an 'intelligible world', where 'intelligibility' has not to be restricted to human conceivability, but has to be understood according to the Scotistic formula of *quocumque intellectu concipiente*, where, however, the intellect in question is typically identified with God's understanding.²⁵⁰ This clearly emerges from what Leibniz says in another passage, where, concerning the ontological status of relations, he notes: "it follows that the relation may in a certain sense [*aliquo modo*] be defined as a creature of reason, though it is at the same time real, since all things are constituted by the operation of the highest intellect".²⁵¹

In calling relations mere creatures of reason (or *entia rationis*), Leibniz is stressing his own conceptualism, but, at the same time, by adding "in a certain sense" he is qualifying this claim. He maintains that they are real in some sense, i.e. in a sort of intermediate one between the pure nothing of the being of reason and the full being of actually existing things (which means that their ontological status correspond to the *esse cognitum*). Moreover, what confers reality to them is the fact of being the object of knowledge of the "highest intellect", i.e. God's understanding (or, perhaps, of his 'knowledge of vision'). This is the sense in which Leibniz can maintain that, even though relations hold only at a conceptual (or ideal level), i.e. they are ideas in the mind of God (and, by emanation, of human minds as well), they possess a certain kind of reality (the same holds for the reality of possibles, of course).

As far as causality is concerned, even if in [*iii*] Leibniz employs the term *influere*, it has not to be understood in terms of a physical influx, but, rather, in terms of the correspondence of the states of different individual substances (in this case, we are dealing with intra-monadic relations only, not with inter-monadic ones). In Leibniz's mature thought, this point is clearly explained by resorting to the spontaneity of individual substances (see for instance what he says in [*ii*]).

^{1686): &}quot;Now, I do not ask for more of a connection here [between me and my future journey] than that which exists objectively [*a parte rei*] between the terms of a true propositions, and it is only in this sense that I say that the concept of the individual substance contains all its events and all its denominations, even those that one commonly call extrinsic (that is to say, that belong to it only in virtue of the general connection of things and of the fact that it is an expression of the entire universe after its own manner), since there must be always some basis [*fondement*] for the connection between the terms of a proposition, and it is to be found in their concepts" (GP II, 56). Notice the distinction between 'terms' and 'concepts', where the latter do not refer to merely linguistic entities, but, rather, to ideas (in the mind of God).

²⁵⁰ On this expression, cf. Mondadori, "Leibniz on the Reality and the Possibility of the Possible", pp. 228-31. See also Id., "The Independence of the Possible according to Scotus", in *Duns Scot à Paris, 1302-2002: Actes du colloque de Paris, 2-4 septembre 2002*, Brepols 2004, pp. 313-74.

²⁵¹ LH IV, 3, 5C, Bl. 2 r, quoted and translated in Mugnai, *Leibniz's Theory of Relations*, p. 111.

Even from the point of view of his early philosophy, where the central notion is that of a *series rerum*, however, we should not take reference to the mutual influences among the members of a series in a too realistic way, i.e. as if there could be something as the acquisition of something *new* by an individual which is modified by all the others. This, indeed, would go against the conception of the *series rerum* as a completely isolated system, where everything follows from the initial state of the series by means of its laws of development.²⁵²

From the view that a *series of things* (at least as it is conceived by God) is a closed and isolated system, it easily follows not only the equal modal status of all the events occurring in it (they are all hypothetically necessary and absolutely contingent)²⁵³, but also the fact that all the compossible things which constitute our series will be realized in the course of time (and according to a determinate sequence), since, as Leibniz says in a Paris text, "possibles cannot be understood one at time [*in singulis*] without understanding the order of the universe", where the context makes clear that he talking of realized possibilities.²⁵⁴ This means that our world (and, perhaps, each world) is a sort of Megaric world, i.e. one where whatever is really (not just logically) possible, i.e. what is compossible, must be realized in time.²⁵⁵

6.2.5 From Universal Connection to the Mirroring Principle

Last but not least, let me say something more about [ii]. Here Leibniz is speaking of Alexander's soul, which he takes to be equivalent with his individual notion or haecceity, mentioned few lines before. In the subsequent section 9 of the *Discourse*, universal connection is not directly mentioned, but the mirroring thesis is introduced as one of the paradoxical consequences following from the theory of complete concepts.

There, indeed, Leibniz says that "every substance is like a complete world and like a mirror of God or of the whole universe". This happens because "the universe is in some way multiplied by as many times as there are substances [...]".²⁵⁶ The latter claim had been

²⁵² Cf. again *Von dem Verhaengnisse*, 118: "For, as one discovers that the flowers, and also the animals themselves, are already preformed at the level of seeds, [...] in the same way one can say that the whole future world is already contained in the present one, and is already completely preformed, since there is nothing external which can be furtherly added to it, because there is nothing external to it". The completeness of the series mirrors the completeness of the concept, and vice versa. After all, the complete concept is the output of Leibniz's working on the notion of a full cause as the total sum of all requisites. As Piro, *Spontaneità e ragion sufficiente*, p. 112, has rightly pointed out, indeed, the complete concept is a sort of analogous of the totality of requisites (conditions which are individually necessary and jointly sufficient in order to derive what happens in the universe). There are two fundamental innovations, however. First, the pluralization of the series into a multiplicity of mind-like substances (which is still at work at the end of the Paris period). Second, the internalization of causal requisites into conceptual ones, i.e. into what constitutes the notion or individual essence of a substance (this second move is indispensable if one wants to extend the domain of ontology to purely possible individuals as well).

²⁵³ Cf. A VI 3, 464/DSR 7. See also my discussion in Chapter 5.3 above.

²⁵⁴ *Numeri Infiniti*, April 1676, A VI 3, 501/LC 95.

²⁵⁵ "And so it must be maintained that if in all things we could in the same way relate everything to the universe, it would be clear to us how in fact only a certain and determinate state of things is possible, and how it is that many things in which we find no impossibility are excluded from the number of possibles [...]" (*Ibid.*, A VI 3, 502/LC 97). Here Leibniz clearly distinguishes between unrealizable possibilities and realizable one. Megaric possibility applies only to the latter ones, not to the first. Whatever is compossible with what actually exists, indeed, will necessarily be realized in time. That a Leibnizian universe is a Megaric world has been argued by Mondadori, "Necessity ex Hypothesi", pp. 195-96.

²⁵⁶ Discourse, # 9, A VI 4, 1542/AG 42.

already put forth in the Paris notes, where Leibniz wrote: "Particular minds exist, in sum, only because the supreme being judges it harmonious that there should exist somewhere that which understands, or, is a kind of intellectual mirror or replica of the world".²⁵⁷

This point will be furtherly explained in section 14 of the *Discourse*, where Leibniz introduces his view about God's emanative causation, i.e. the idea according to which what is positive about creatures (their being and perfections) derives or flows out from the perfection of divine essence and divine mind (in a letter to Des Bosses, Leibniz will write that "however much perfection there is in things, it flows forth [*profluere*] from God by a continual operation"²⁵⁸). In section 14, indeed, Leibniz adds that "substances depend upon God, who preserves them and who even produce them continually by a kind of emanation, just as we produce our thoughts".²⁵⁹

In this case, however, the limited omniscience, and also the limited omnipotence, of each created mind are derived from a different premise, i.e. the fact that each individual substance is an imitation (however imperfect) of God himself.

Notice that, from what Leibniz says in the *Discourse*, it is only because that each individual substance is a 'mirror of God' that it can also be a 'mirror of the universe'. Being an imitation, however limited, of God's infinite wisdom and omnipotence, indeed, each individual substance has to express in itself "everything that happens in the universe, whether past, present, or future –this has some resemblance to an infinite perception or knowledge".²⁶⁰

At this point, however, one might raise the objection that God's omniscience extends not only to what actually exists (this is just the domain of his 'knowledge of vision'), but also to everything which is possible. The objection is not a silly one, since Leibniz himself in section 29, says that "the full extent and independence of our soul [...] makes it contain everything that happens to it, and makes it express God, and, with him, all possible and actual beings, just as an effect expresses its cause".²⁶¹

At first glance, this claim could be dismissed as a simply eccentric one, since it is not very clear in which sense a substance could be said to express all the other possible worlds in itself,

²⁵⁷ De arcanis sublimium, A VI 3, 474/DSR 25.

²⁵⁸ Leibniz to Des Bosses, February 2, 1706, GP II/LDB 11. In the passage quoted by Foucher de Careil, Leibniz wrote: "Therefore I concluded that the existence of things consists in being perceived by a certain infallible mind, of which we are just emanations [*effluvia*], i.e. by God" (*Memoires sur la philosophie de Leibniz*, p. 10). On the connection between emanation and continuous creation, see D. Fouke, "Emanation and the Perfections of Being: Divine Causation and the Autonomy of Nature in Leibniz", *Archiv für Geschichte der Philosophie*, 76, 1994, pp. 168-94. The topic of continuous creation will be extensively discussed by Leibniz in the *Theodicy*, ## 382-91, as well in the *Causa Dei*, ## 9-10. For a survey of all the other occurrences, cf. Robinet, *Architectonique disjonctive*, pp. 418-42, who correctly connects the topic of continuous creation with Leibniz's account of God's *scientia visionis*.

²⁵⁹ And, in the continuation of the passage, he also adds: "For God, so to speak, turns on all sides and in all ways the general system of phenomena [= the world] he finds good to produce in order to manifest his glory, and he views all the faces of the world in all ways possible, since there is no relation that escapes his omniscience. The result of each view of the universe, *as seen from a certain position*, is a substance which expresses the universe in conformity with this view [...]" (A VI 4, 1549-50/AG 46-47, italics mine). Cf. *Origo animarum et mentium*, 1681 (?), A VI 4, 1460-61, where the same account is proposed in a slightly different version. From this passage, however, it clearly emerges that the point of view (in which the soul, or the substantial form, consists in) results from God's referring the entire universe to a certain particular body, as if he were to look at the former from the point of view of the latter (from which it follows that different relations between each body and the system of phenomena originate from the different position that each body occupies).

²⁶⁰ *Discourse*, # 9, A VI 4, 1542/AG 42.

²⁶¹ *Ibid.*, # 29, A VI 4, 1574/AG 60.

without collapsing the very same distinction between the actual and the possible. Notice, however, that a similar remark occurs in Leibniz's notes on Bellarmino, where the topic is discussed in connection with the hypothesis of the solitary monad (which is just Leibniz's own way of stressing the spontaneity of each substance): "It should be known that the nature of the mind is this, i.e. to be something which would act even if all the beings external to itself (with the exception of God) were removed, for it would contemplate God, itself, and the ideas of possible things".²⁶²

It has been pointed out that to contemplate ideas of possible things "is to think how things could be otherwise, [but] is hardly a kind of perception".²⁶³ This is correct, but cannot be taken as an objection to what Leibniz says, since he claims that perception is just a specific kind of expression, which, on the contrary, is the common genus, under which both perception of what is actual and expression of what is merely possible have to be counted. Therefore, one could try to find a way to conciliate Leibniz's claim with the distinction between to conceive and to perceive. A solution of this kind has been suggested by Mondadori, who distinguishes between (a) the fact that non-actualized possibilities are not parts of this world, and, accordingly, cannot be *mirrored* by any of the substances which constitute it, and (b) the fact that non-actualized possibilities can nonetheless by *expressed* or *conceived of* by actual individual substances.²⁶⁴

Notice that the distinction between (a) and (b) can be understood as a different formulation of that between 'perceivability' and 'conceivability' as the marks, respectively, of existence and possibility. One should also add that Leibniz justifies the claim that a substance expresses not only what is actual but also what is (merely) possible by means of a reference to God *and* the principle of equipollence between cause and effect. Since God clearly envisages everything possible, an individual substance, which is a "mirror of God", will also have some sort of (limited) access to the domain of what is purely possible. In this way one can have an idea of how, according to Leibniz, also our capacity of imagining merely possible scenarios (as counterfactual situations?) is ultimately grounded on the nature of God.

Finally, let me recall that in Leibniz's late writings (like the *Monadology* and the PNG), the distinction between 'mirrors of the universe' and 'mirrors of God' will be employed by Leibniz to explain the difference between rational minds and all the other monads (which have perception, or also sensation, in the case of animals, but not rational thought). Only rational minds can be properly said to be mirrors of God, insofar as they can reflect on themselves and, in so doing, know eternal and necessary truths. The fact that such a distinction is only adumbrated in the text of the *Discourse*, while it will be emphasized in the late, monadological text, can be a confirmation of the view (endorsed by some interpreters) that the individual substances of the *Discourse* are not exactly the same thing as the monads of the *Monadology*.²⁶⁵ The model of the individual substance, indeed, is clearly a rational

²⁶² De libertate a necessitate in eligendo, 1680-84 (?), A VI 4, 1451.

²⁶³ Ishiguro, *Leibniz's Philosophy of Logic and Language*, p. 152.

²⁶⁴ Mondadori, "Mirrors of the Universe", p. 98 note, who explains how the fact that non-actual possibilities are not parts of our world "does not imply that they cannot be expressed –i.e. conceived of –by actual individual substances: thus the complete concept of an actual individual substance *s* which conceives of a never-to-berealized possibility will contain not so much that possibility, as the possibility that *s* should conceive of it".

²⁶⁵ On this point, see M. Fichant, "L'invention métaphysique", in G. W. Leibniz, *Discours de métaphysique-Monadologie*, edited by M. Fichant, Paris 2004, pp. 8-140, esp. 14-20, 54-61, 135-40. The distinction between

mind, and Leibniz's example are taken from historical characters (Caesar, Alexander the Great, and so on), so that they correspond to a particular subset of the monads, i.e. to rational souls.

Chapter 7

Leibniz on the Plurality of Worlds

"Mais tout ce qui est possible n'est point conforme pour cela à l'ordre de le choses"

(New Essays, II, xxvii, 6, A VI 6, 233)

"You might say that strictly speaking, only this-worldly things *really* exist; and I am ready enough to agree; but on my view this 'strict' speaking is *restricted* speaking, on a par with saying that all the beer is the fridge and ignoring most of all the beer there is"

(D. Lewis, On the Plurality of Worlds, p. 3)

7.1 Non nisi unum est genus Mundi.

Leibniz's Tantalizing Argument : An Overview

According to Leibniz's favourite creation scenario, God does not create everything which is possible. According to him, indeed, the actual world is, in a sense, a privileged one, namely the one and only world which actually exists among an infinity of merely possible ones, i.e. *barely possible* ones –worlds that could have existed, or, from a theological point of view, worlds that God could have created in place of creating our world. Since God's aim in creating a world is to maximize its perfection, and our world is the best possible one (to the effect that any change in it would make it a less perfect one), Leibniz concludes that God could have created of any other possible one. But one may ask: why 'instead of'? Well, in a sense, God would have created everything possible (all possible things), if he only could; but he *could not*. The point is that, even though all possible things are the objects of God's understanding, in creating a world God has to make a *choice*, actualizing a certain group of possibles instead of others, because not all possible things are mutually *compossible*.

Take note that incompossibility has to be regarded as the very reason why God could not have created all possible things; otherwise, if God could, but would not have done it (as in the case in which incompossibility is not the reason, but the effect of God's choice), his decision

rational souls (or 'minds') and all the other ones, and the connection between the nature of the first and *reflection* have been already stated at the stage of the elaboration of the *Discourse*, cf. for instance *De natura mentis et corporis*, 1683-85/6(?), A VI 4, 1490-91. Concerning the distinction between thought and perception, Leibniz adds here the following marginal note: "It seems that thought [*cogitatio*] always concerns a certain distinct proposition, but this is not the case with perception" (A VI 4, 1490 note).

to create only a subset of all the possible would have been an arbitrary choice (thus violating PSR). Therefore, the *incompossibility thesis*, i.e. the claim that God cannot create everything possible, is the cornerstone of Leibniz's modal metaphysics: if the plurality of worlds is the ground for God's free choice (see Chapter 5 above), incompossibility grounds the claim that, however free, God's choice is not an arbitrary one.

Notice also that, even if his theological views commit him to a plurality of possible worlds²⁶⁶, Leibniz is not a *modal realist*. According to him, indeed, the actual world and the many possible ones are not ontologically on a par. Unlike David Lewis, Leibniz does not claim that other worlds exist in the same ways as the actual world does.²⁶⁷ Even when claiming that *there are* infinitely many possible worlds, he carefully explains that "there is no reality in purely possibles than the reality of they have in the divine understanding".²⁶⁸ This is nothing but a(n implicit) reference to the view that the ontological status of *possibilia* is a

²⁶⁶ As showed in chapter 5 above, I think that Leibniz's main reasons to introduce possible worlds were theological ones, or, more precisely, were reasons directly connected with his theodicy project. See, for instance, the notes on Arminians published in Grua, 340-41, where he claims that there is a possible world at which all men are saved and Adam's original sin is avoided, but it has not been created because "among an infinity of possible series, God, because of the nature of his wisdom, wanted to choose the most perfect one. [...] But the nature of possible things it is so constituted that that series which contains a non-fallen Adam and all men saved is not the most perfect one; which I judge from what has happened [*ex eventu*], i.e. from the very same fact that it has not been chosen". The passage at Grua 342 also contains one of the few occasions in which Leibniz describes in some details how alternative possible worlds would look like: "[God] sees infinite possible series, every of which could constitute a whole universe. Among these, some will completely be without men; those which contain men are of different kinds, in some of them, indeed, men are affected by natural benefits and sufferings, whereas in others they are also waiting for supernatural goods and evils. There are possible series in which all men are damned, others in which they are all saved, and others in which part of them will be saved and part of them will be damned".

²⁶⁷ In the main text, I use the label "modal realism" to refer to Lewis's position, which sometimes is characterized as "extreme" or "genuine modal realism", in contraposition to the positions of those philosophers who (1) accept an ontology of possible worlds, but (2) reject Lewis's idea that possible worlds are composed of concrete entities, and think that possible worlds are made of abstract entities (like propositions or state of affairs). In the contemporary debate on the metaphysics of possible worlds, those who accept both (1) and (2) are usually considered as "moderate" or "actualist realists" about possible worlds. Cf. J. Divers, *Possible Worlds*, London/New York 2002, passim. According to this framework, Leibniz's position would be that of a moderate or actualist realist about possible worlds (whereas Arnauld's position would be ascribable to the field of the antirealists, see the following note). However, since the question whether Leibnizian possible worlds are abstract or concrete entities seems to be quite complicate (essentially due to ambiguities concerning the abstract/concrete distinction), and I will not discuss it until the next chapter, for the moment I will employ the label "modal realism" to refer to Lewis' position only. Usually, Lewis' position is called "realist" when it is contrasted with Kripke's stipulative conception of possible worlds. (Note also that Lewis himself does not consider the abstract/concrete distinction as a reliable one, see D. Lewis, *On the Plurality of Worlds*, Oxford/New York 1986, pp. 81-86).

pp. 81-86). ²⁶⁸ *Remarques sur la lettre de M. Arnauld*, 1686, GP II, 45/AG 75. A remark is in order here. In this passage Leibniz is answering to Arnauld's thesis that purely possible substances are only chimeras. In order to meet Arnauld's needs, as far as it possible for him, Leibniz limits himself to point out that Arnauld's main point, i.e. that "we conceive no possibles except through the ideas actually found in the things God has created", can be accepted by him as well:"it does not harm to me. For, when speaking of possibilities, I am satisfied that we can form true propositions about them". However, Arnauld's original point was that possibility is parasitic over actuality (cf. GP II, 32), whereas Leibniz's answer completely misses this point (cf. Chapter 2, n. 87 above). Arnauld wanted to deprive mere possibles of any ontological reality, whereas Leibniz wants to concede them the status of concepts and truths (even though in this passage he is silent on the ontological status of truths, see Chapter 9 below). On Leibniz's view, to grant some kind of (diminished) reality to mere possibles is necessary in order to safeguard the contingency of God's choice (notice: not the contingency of human actions), as he clearly points out in the very same paragraph: "if we wished to reject pure possibles, contingency would be destroyed; for, if nothing were possible except what God actually created, then what God created would be necessary" (ivi).

diminished kind of being consisting in their *esse cognitum*, which has to be carefully distinguished from the being of actual existence.

7.1.1 Leibniz and the principle of plenitude

In his seminal book on Leibniz, Benson Mates begins his exposition of the possible worlds theory moving from Leibniz's rejection of what we call the "principle of plenitude", that is the idea that all possibles must be realized in time, or, alternatively, that something is possible only if it is realized, will be realized or has been realized at some moment of time. Mates is explicitly interested in understanding which reasons Leibniz provides for his claim that the actual world is just one of many possible ones.²⁶⁹

As Leibniz explicitly says, indeed, whoever accepts (an unrestricted version of) the principle of plenitude, is also forced to embrace a sort of universal necessitation (since there is no distinction between the possible and what is, was or will be actual). Conversely, whoever wants to avoid such a harsh conclusion, is compelled to embrace the idea that the actual world is nothing but one of the infinitely many possible ones God could have created: worlds that remain possible in themselves, even if they will never been actualized, according to the distinction between the logical and the temporal interpretation of modality.

In a famous autobiographical passage Leibniz writes:

"When I considered that nothing happens by chance or by accident (unless we are considering certain particular substances), that fortune distinguished from fatum is an empty name, and that *no thing exists unless its own particular requisites are posited (conditions from whose joint presence it follows, in turn, that the thing exists)*, I was very close to the view of those who think that everything is absolutely necessary [*deleted*: and judged that being possible is the same as actually existing at some time] [...]. But the consideration of possibles, which are not, were not, and will not be, brought me back from this precipice. For if there are certain possibles that never exist, then the things that exist, at any rate, are not always necessary, for otherwise it would be impossible for others to exist in their place, and thus, everything that never exists would be impossible".²⁷⁰

Leibniz himself acknowledges a connection between the acceptance of absolute determinism in particular, the Hobbesian theory of requisites (explicitly mentioned in the passage above)-, and the conclusion that everything is metaphysically necessary. As I have showed in details in the preceding chapter, this consequence followed from what Leibniz explicitly assumed in the *Confessio* (and related texts). I have also tried to make sense of the idea that the consideration of non-actualized (and non-actualizable) possibilities is what pulled back the young Leibniz from the necessitarian precipice.

Now, it is time to focus on the second part of this passage, where Leibniz argues from the subsisting of never-to-be-actualized possibilities to the contingency of things. He claims, in

²⁶⁹ Cf. Mates, *The Philosophy of Leibniz*, p. 72.

²⁷⁰ De libertate, contingentia et serie causarum, providentia, Summer 1689 (?), A VI 4, 1653/AG 94 (italics mine, translation modified). Concerning the view that "fortune distinguished from fate is an empty name", cf. Leibniz's letter to Wedderkopf, A II 1, 117-8. On Leibniz's interpretation of *fatum* in terms of strict causal determinism, see, once again, the German text "Von dem Verhaengnisse" (GP VII, 117quoted in the preceding Chapter). I have no idea of what kind of things Leibniz was thinking of when talking of 'certain particular substances' which would constitute an exception to universal determinism.

particular, that, if the domain of what is possible is the same as that of what is actual (here, as well in what follows, unless differently specified, 'actual' covers all temporal determinations, past, present, and future), then "it would be impossible for others [other possible things] to exist in their place". The point, then, consists of showing that, since the latter is false, it is also false that everything that does not actually exists is impossible.

Among the reasons Leibniz offers to reject the realization of all possibilities, there is an argument which Mates regards as "tantalizing"; it can be found in one of those passages whose exact import is not clear, even if, he writes, "there is always a reason to believe that eventually a text will be found [...] that will provide an explanation".²⁷¹

The passage in question, taken from a paper written in December 1676, runs as follows:

"There is only one kind of world, or, there are no entities besides bodies and minds, i.e., what we sense, nor are there any bodies except those which are at a certain distance from us. For if there were any, it could not be said whether they exist or do not exist now, which is contrary to the first principle. So it follows that not all possibles exist".²⁷²

The end of the passage makes clear that Leibniz's aim is to prove that not all possible things (actually) exist. The intriguing feature of this text, however, is that there Leibniz clearly sees that the latter task requires that one is able to show in advance that the world cannot but be unique ("There is only one kind of world"), i.e. that there cannot be more than one actual world. I will come back to this point below, since it will constitute the core of this chapter.

For the moment let me note that, as Mates rightly observes, the passage suggests that there is some kind of connection between the measurement of space and that of time (in particular: simultaneity), i.e. the existence of something at some distance from us in space seems to be warranted by the fact that we are able to say if it exists now or not; secondly, from such a connection he draws the consequence that non-actualized possible objects cannot be found at any distance from us.

Mates' tentative reconstruction of the argument is the following:

"If a body exists at all, it must be possible in principle to determine, from our perceptions, whether it exists at any given time. To make such a determination, we need to know, inter alia, its distance from us. But some possible bodies –e.g., Pegasus –are not supposed to be at any particular distance from us. Therefore some possible bodies do not exist".²⁷³

In this sense, the passage in question could be easily connected with other passages where Leibniz justifies the claim that not all possibles can be actualized by resorting to the idea that, otherwise, one could not imagine any fictional entity, like the main character of a novel, whose adventures are not situated 'somewhere' in the spatiotemporal framework of our universe.

7.1.2 The 'novel argument' and restricted plenitude

²⁷¹ Mates, *The Philosophy of Leibniz*, p. 12.

²⁷² Catena mirabilium demonstrationum de summa rerum, 2 (12) December 1676, A VI 3, 584/DSR 107.

²⁷³ Mates, *The Philosophy of Leibniz*, p. 72, note.

This is just another formulation of the 'novel argument' we have already encountered in other passages from the Paris period, where Leibniz was eager to stress that the status of merely possible things was close to that of imaginary beings. Already in the *Confessio*, however, the non-contradictory character of the stories told in a novel was taken as evidence of the impossibility to reduce what is possible (in a logical-conceptual sense) to what is realizable (i.e. possible in a causal-temporal sense).

For instance, in the continuation of the passage I have quoted at the beginning, Leibniz writes:

"Nor can we really deny that many stories, especially those called novels, are thought to be possible, though they might find no place in this universal series God selected –unless one imagined that in such an expanse of space and time there are certain poetical regions, where you can see King Arthur of Great Britain, Amadis of Gaul, and the illustrious Dietrich von Bern of the German stories, all wandering through the world".²⁷⁴

And, in another passage from the same period:

"One must certainly hold that not all possibles attain existence, otherwise one could imagine no novel that did not exist in some place and at some time. Indeed, it does not seem possible for all possible things to exist, since they get into one another's way [*quia se mutuo impediunt*]. There are, in fact, an infinite number of series of possible things. Moreover, one series certainly cannot be contained within another, since each and every one of them is complete [*universalis*]".²⁷⁵

Incompossibility, the fact that not all possible can coexist (in the same world) since they "get into one another's way", allows Leibniz to reject the principle of plenitude. More precisely, Leibniz rejects the principle of plenitude only in its unrestricted form, rejecting the claim that, absolutely speaking, there are no possibilities that are never realized. On the other hand, however, he maintains that all (and only) the possible things that can be realized together (i.e. are compossible) must be realized in the very same world. Compossibility, then, seems to require a relative, world-indexed kind of plenitude.

This follows from Leibniz's claim that each possible world is a maximal consistent set of mutually compossible things (or, better, complete individual concepts). Each complete individual concept, indeed, mirrors the entire universe to which it belongs and, by definition, nothing can be added to it on the pain of contradiction. ²⁷⁶ A suggestion in this direction

²⁷⁴ De libertate, contingentia et serie causarum, A VI 4, 1653-54/AG 94.

²⁷⁵ De contingentia, 1689 (?), A VI 4, 1651/AG 29.

²⁷⁶ Mates, *The Philosophy of Leibniz*, p. 77, has convincingly argued that compossibility has to be taken as a reflexive, symmetric, and transitive relation, hence as an equivalence relation, which partitions the totality of possibles into a set of mutually exclusive and jointly exhaustive classes of equivalence (possible worlds). Mates' interpretation has been questioned, especially for what concerns the maximality constraint; see for instance Cover and Hawthorne, *Substance and Individuation in Leibniz*, p. 135. For a general discussion, see also Griffin, *Leibniz, God and Necessity*, pp. 83-111. In what follows, I will provide a somewhat indirect defence of Mates' interpretation, by showing how Leibniz's notion of 'compossibility' originates from an extension of the notion of 'universal connection' to the case of merely possible worlds (alternatively: 'connection' is the counterpart of 'compossibility' in the actual world). And since the relation of connection is clearly reflexive, symmetric and transitive, so will be compossibility too. On the difference between the Schoolmen's notion of 'compossibility' and Leibniz's notion of Compossibility'', in R. Friedman-L.O. Nielsen (eds.): *The Medieval Heritage in Early Modern Metaphysics and Modal Theory. 1400-1700*, Dordrecht 2003, pp. 309-38. Mates had already pointed out that the relation of compossibility between individual concepts has to be distinguished from that of consistency between sentences or propositions, because, contrary to the former, the

comes from the last passage quoted above, where, from the completeness of each possible series, Leibniz draws the conclusion that one series cannot be contained within another (possible worlds do not overlap).

In addition, according to the 'novel argument', one can say that, at least for what concerns our world, compossible things are all and only those that can be placed at some distance from us in space and time (or, better, those which are spatially and temporally connected with something existing in that world).²⁷⁷ The typical Leibnizian example of a possible-in-itself but incompossible concept, then, is that of a fictional character, exactly because such an entity can be placed *nowhere* in the spatiotemporal (and causal) framework of our world (understand: the latter fact is what characterizes such an entity as a *fictional* one)

Now, a proper understanding of the relationship between compossibility and spatiotemporal connection is a very delicate issue. What is obscure, in particular, is the nature of that *impediment* which makes that not all the possibles can fit together into a possible world. From what we have said so far, it seems that it is because an entity (say: King Arthur) is not be found somewhere in our spatiotemporal (and causal framework), that we can conclude that that entity is incompossible with the actual world. However, this seems to hold only *a posteriori*, i.e. from the point of view of us who are in the actual world. In other words, disconnection seems to be the *ratio cognoscendi* of incompossibility. One could look at it from another, non-situated point of view, and say: it is only because King Arthur is (logically) incompossible with us that it does not fit (has no place in) the spatiotemporal framework of our world.²⁷⁸ This second reading implies that it is 'connection' that implies 'compossibility', and not the other way round.²⁷⁹

latter is not transitive. Cf. B. Mates, "Leibniz on Possible Worlds", in Frankfurt, Leibniz, p. 341. Given the parallelism that Leibniz will state between propositions and concepts (even individual ones), it would be perhaps more correct to state that compatibility or consistency concerns only incomplete or abstract terms (and those propositions having them as their subjects), whereas compossibility concerns complete concepts (and those propositions having them as their subjects). As far as I can see, in his mature writings, Leibniz does not stress the difference between compossibility and compatibility (on the contrary, he often refers to compossibility by calling it compatibility). Cf. G. Roncaglia, "Modality in Leibniz's Essays on Logical Calculus of April 1679", Studia Leibnitiana 20/1, 1988, 43-62, especially pp. 59-62. One remarkable exception is represented by an early text, written around 1672, where it is said that compatibility is a relation between things, whereas compossibility is a relation between propositions. In particular, compatibility holds between two things which can exist together at the same time and in the same place; on the other hand, two propositions are compossible if, the former being assumed, the possibility of the latter does follow (i.e. what is stated by the former does not make it that what is stated by the latter is impossible). This distinction will not be retained by Leibniz. In a couple of passages in which he introduces different notions of incompatibility and opposition (see A VI 4, 389 and 401), he points out that the same relation of incompatibility can hold between two things, A and B, as well as between the propositions 'A exists' and 'B exists'.

²⁷⁷ It seems, however, that the case can be extended to possible worlds too: "Le possible imaginaire participe autant que l'actuel de ces fondemens de l'ordre [space and time as relational orders], et un Roman pourra estre aussi bien reglé, à l'égard des lieux et des temps, qu'une Historie veritable" (Leibniz to Sophie, 1705, GP VII, 564). Notice that this consequence is explicitly derived from the relational nature of space and time (and from the fact that space and time are ideal orders, holding for possible as well as actual entities).

²⁷⁸ Cf. what Leibniz says in a letter to Bourguet, December 1714: "I do not agree that *in order to know* if the novel 'Astrea' is possible, it is necessary *to know* its connection with the rest of the universe. It would indeed be necessary *to know* this if it is to be compossible with the universe" (GP VII, 573/L 662, italics mine).

 $^{^{279}}$ Cf. for example Mondadori, "Mirrors of the Universe", p. 98: "It is not to be said that [a complete concept] *c* mirrors, and is compossible with, such-and-such complete concepts [...] because it belongs to such-and-such a world: on the contrary, *c* is a member of the world whereof it is a member because it uniquely determines that world precisely by mirroring the concepts it mirrors and by being compossible with the concepts it is compossible with". Mondadori refers to what Leibniz says in section 225 of the *Theodicy* (GP VI, 252). But the

The first intuition, and the role that spatiotemporal connection plays as fundamental constraint that substantiates Leibniz's incompossibility thesis, has been particularly emphasized in recent years. It has been related to a relevant methodological premise: that the notion of a *world*, and its cognate, that of *being-in-the-same-world*, have to be taken as primary in explaining what compossibility consists in.

In other words, one has to begin with the notion of a world, taken "as an abstract relational structure according to which God conceives of possibilities of existence", thus taking the notion of 'world' as conceptually prior to that of 'compossibility'. Accordingly, two or more substances are compossible because God can conceive of them as belonging to the same world.²⁸⁰

Such a world-first view can be grounded in the account of the mutual correspondence between the phenomena of different substances that Leibniz defends in the Paris notes (but also in the *Discourse on Metaphysics*, section 14 in particular). Moreover, it seems to be permeated by the same holistic intuition that we have already seen at work in Leibniz's account of the actual world as a *series rerum*. Connection between (the phenomena of) different substances is explained in terms of the correspondence between their perceptions, i.e. the fact that each substance expresses, from a certain point of view, the same system of phenomena (the same universe). Reference to *sameness* needs to be stressed here: two or more substances, indeed, can be said to be connected only if they are different expressions of the same world. Conversely, were two substances to belong to different worlds, they would express different systems of phenomena, i.e. their perceptions would not be in mutual correspondence with each other.²⁸¹

7.1.3 Compossibility and connection

On this basis, the kind of constraint required for substances to belong to the same world (and, thus, to be compossible) is given by relations of spatial and temporal connection (which are to be grounded in something like the mutual harmony between the perceptions of different substances).²⁸²This suggestion finds a further confirmation in a passage from the *Theodicy*, where Leibniz explicitly mentions universal connection as a requisite for the conceivability of each possible world: "For it must be known that everything is connected [*tout est lié*] in each

opposite view is clearly endorsed by Leibniz in the *Remarques* to Arnauld's letter, cf. GP II, 41. When coming to Section III, and to the conclusion drawn there, it should appear that the holistic account of the series has been emphasized in order to stress the distinction between the level of general essences and that of individual essences/conditioned existences.

²⁸⁰ This is the position defended by D. Rutherford, *Leibniz and the Rational Order of Nature*, pp. 187-88 (quotation above is taken from p. 187). This view has been furtherly refined (and called "cosmological interpretation") in J. Messina-D. Rutherford, "Leibniz on Compossibility", *Philosophical Compass*, 4/6, 2009, pp. 962-77. A somewhat different version of the world-first view is provided by C. Wilson, "Plenitude and Compossibility in Leibniz", *The Leibniz Review* 10, 2000, pp. 1-20. A similar account of compossibility had been already defended by M. Schneider, *Analysis und Synthesis bei Leibniz*, 1974, pp. 185-208

²⁸¹ Mondadori, "The Leibnizian Circle", p. 82, has rightly pointed out that "compossibility is precisely what enables Leibniz to take the quite crucial step from the claim that each individual substance expresses the *whole* universe to the claim that each individual substance expresses the *same* universe". Here Mondadori is assuming that connection is the counterpart of compossibility in the actual world.

²⁸² Cf. Leibniz to Arnauld, 1686, GP II 115.

one of the possible worlds: the universe, whatever it may be, is all of one piece, like an ocean $[...]^{n}$.

For two or more substances to belong to the same world w, each of them has to be spatiotemporally (and causally) ordered with respect to every other thing in that world, and nothing that is a member of any world u (different from w) can have spatiotemporal (causal) relations with any substance that belongs to w. This holds, of course, because connection is taken by Leibniz as a relation that is both symmetric and transitive, from which it follows that things that inhabit other worlds must necessarily be spatiotemporally (causally) disconnected from (things that inhabit) our world.

Thus, compossibility claims must be interpreted as claims concerning the conditions which allow two (or more) things to belong to the same world. Any two substances which fail to be connected in such a way cannot be conceived of as world-mates and, thus, are not compossible.

There is one relevant case in which the account of compossibility sketched above succeeds in blocking the realization of all the possibles: that in which all possibles are to be actualized in the same world. However, it is difficult to understand what could prevent God from actualizing both our world (complete and closed under relations of spatiotemporal connection) and another world, spatially and temporally unrelated to our, in which, say, King Arthur and all the events connected with him would find a place.

Generally speaking, this notion of compossibility is silent about the plausibility (or implausibility) of a scenario in which God chooses to actualize a plurality of worlds which (1) actually exist and (2) are spatially and temporally disconnected from each other.²⁸⁴ After all, Leibniz himself seems to suggest something similar in passages like the following, taken from his first response to Bayle: "God could give to each substance its own phenomena independent of those of others, but in this way he would have made as many worlds without connection, so to speak, as there are substances [...]".²⁸⁵

²⁸³ Theodicy, # 9, GP VI, 107/H 128.

²⁸⁴ Or, better, there is an ambiguity concerning the notion of 'compossibility' itself. Properly speaking, indeed, compossibility has to be understood as the relation which partitions possibilia into classes of equivalences (possible worlds). In this sense, which I assume to be the proper one, compossibility says nothing about the possibility or impossibility of the joint actualization of two or more isolated worlds. However, one could take (in)compossibility as what explains (or justifies) the actualization of exactly one among many possible worlds (something like: God could not create more possible things because they would be incompossible). I think this is a wrong conclusion from the correct premise that compossibility explains why certain (possible) things are incompatible with what actually exists. The latter is just the way in which (in)compossibility has to be explained from the point of view of the actual world (whatever is compossible with something actually existing, exists, see for instance A VI 3, 582). From the point of view of a plurality of un-actualized possible worlds (among which there is also the world which God chooses to actualize), this can only mean that something existing at *W*, will be compossible with all the other members of *W*, and incompossible with any other individual (individual concept) which is member of any other world different from *W*. These claims concern existence only in the relative sense of 'existing at some world', not in the absolute sense of actuality.

²⁸⁵ Eclaircissement des difficultés que Monsieur Bayle a trouvées dans le system nouveau de l'union de l'ame et du corps, 1698, GP IV, 519/L 493. The problem here, as in other passages, is how strongly one has to take that "could" (in "God could give to each substances its own phenomena"), or, which is the same, to what an extent Leibniz is really committed to the 'world-apart' hypothesis. The best analysis of this question has been proposed by Mondadori, "Mirrors of the Universe", pp. 95-106. His conclusions can be summarized quoting Adams, *Leibniz*, p. 105: "Leibniz might conceivably be using a counterfactual conditional with an impossible antecedent, as a rethorical device to express the mutual causal independence of created substances". The 'could', then, would be interpreted as a *per impossibile* hypothesis which does not pick out any real possible world (thus posing some

In other words, it seems that, in addition to the requisites discussed above, another premise is at work in Leibniz's possible worlds theory: the claim that there can be one and only one actual world, or, alternatively, that God cannot but actualize a single world only. Sometimes Leibniz is fully explicit and writes that "all the possibles are not compatible together *in one and the same world-sequence*, for that very reason all the possible cannot be produced".²⁸⁶ However, the main point with such a claim is that, its relevance notwithstanding, it is incredibly hard to prove.²⁸⁷ At this point, one could object that such a shortcoming has to be ascribed not to Leibniz as to the account of compossibility in terms of being-in-the-sameworld. One would probably say that such an interpretation of compossibility is too weak to rule out the possibility of a plurality of existing worlds.

There is something correct in this criticism, at least insofar as it claims that Leibniz's thesis cannot be captured by the following conditional: "if two things are reciprocally connected (in the same world), they are compossible". I believe, indeed, that the implication goes in both directions, namely: "two things are reciprocally connected (in the same world) if and only if they are compossible".²⁸⁸ (A situation similar to that highlighted in the preceding chapter concerning the circularity between universal connection and the rejection of purely extrinsic determination)

Unfortunately, even if we take compossibility in this stronger sense, it is still difficult to see why such a notion should rule out the possibility of a plurality of worlds. Of course, one could say that two things are not compossible if their joint existence implies a contradiction.²⁸⁹ Because of this generality, however this definition can cover two different notions, which I would call, respectively, 'internal' and 'external (in)compossibility'. *Internal incompossibility* rules out the existence of two substances in the same world, but is silent about the possibility of the disjoint existence of two substances that belong to two different worlds. To rule out the latter hypothesis, one needs *external incompossibility*, i.e. the claim

restrictions on what counts as a Leibnizian possible world, see also Adams, *Leibniz*, pp. 108-9) For a different reading, which rejects the idea that compossibility necessarily implies the rejection of the 'world-apart' hypothesis, see for instance Cover and Hawthorne, *Substance and Individuation*, pp. 138-41.

²⁸⁶ *Theodicy*, # 201, GP VI, 236/H 256 (italics mine). Cf. also *Monadology*, #53: "Now, since there is an infinity of possible universes in God's ideas, *and since only one of them can exist*, there must be a sufficient reason for God's choice" (GP VI, 615/AG220, italics mine).

²⁸⁷ The difficulty is clearly acknowledged by Messina and Rutherford, who, however, address it only in a brief note: "The supposition that God aims to create a unique world is critical to Leibniz's position. Although all possibles cannot be created by God as a single world, it might be objected that nothing prevents God from actualizing many spatiotemporally disjoint worlds [...]" ("Leibniz on Compossibility", p.976 n. 23).Cf. also O. Koistinen-A. Repo, "Compossibility and Being in the Same World in Leibniz's Metaphysics", *Studia Leibnitiana* 31/2, 1999, pp. 196-214.

²⁸⁸ Cf. Mondadori, "The Leibnizian Circle", p. 88.

²⁸⁹ "Compossibile quod cum alio non implicat contradictionem" (Definitiones: Ens, Possibile, Existens, 1687-1696 (?), A VI 4, 867). For the moment, I will leave it undecided if Leibniz is referring to propositions (i.e. two propositions A and B are incompossibles if the conjunction A & B entails a contradiction) or to events, states of affairs or, even possible individuals. Ultimately, I will conclude that this is not a problem, insofar as talking of possible individuals can be explained in terms of talking of complete concepts, and talking of complete concepts can be explained in terms of talking of propositions about them. As I have already stated, however, in an earlier text (1672) Leibniz distinguishes between *compatibility* and *compossibility*, stating that compatibility is a relation holds among things, whereas compossibility holds among propositions, see A VI 2, 498.

that, if two substances are not compossible (i.e. if they do not belong to the same world), they cannot exist at all.²⁹⁰

Compossibility, characterized as an equivalence relation that partitions possibilia into mutually disjoint possible worlds, is just a relation holding among individuals (complete concepts) that belong to the same world (what I have called 'internal compossibility'). In no way can incompossibility be taken as a relation that holds among worlds (without presupposing in advance that only the actual world exists, of course). How could such a relation say something about the mutual actualization not of a plurality of individuals into a world, but of a plurality of worlds?

7.1.4 Leibniz's definition of 'world'. Actuality as a 'blanket term'?

The suggestion might be advanced that Leibniz himself was somewhat forced to conflate the two aspects I am trying to keep separate. One could think of the following analogy. Concerning two or more (possible) individuals, it makes sense to ask where they are located, i.e. which reciprocal relations of position are holding among them. The same, however, cannot be asked about possible worlds taken as wholes (or 'big' individuals), at least unless one does not want to introduce relations of position holding between worlds themselves. The latter claim, however, has to be rejected.²⁹¹ In other words, sometimes Leibniz seems to be inclined to reject the possibility that two distinct worlds could be jointly realized by resorting

²⁹⁰ Cf. Futch, *Leibniz's Metaphysics of Time and Space*, pp. 71-78. Against Rutherford, Futch explicitly claims that incompossibility does not simply rule out the possibility that two substances can exist in the same world, but that they can coexist at all. However, cf. the remarks made by Griffin, Leibniz, God and Necessity, pp. 106-111. ²⁹¹ If only because the world, properly speaking, is not an individual, but an aggregate of individuals. The question, however, is not so clear, at least as far as the young Leibniz is concerned. Leibniz's nominalistic view (there is nothing over and above the individuals) seems to be contrasted with the holistic intuition according to which the world is something whose parts are reciprocally connected with each other. See for instance the passage at A VI 3, 464, already quoted above ("Omniae quae sunt erunt et fuerunt totum constituunt"). At A VI 4, 31, the world is clearly counted among individuals insofar as it is a species monadica. At A VI 4 308, n., written in 1679 (?), Leibniz seems to say that the world is a quasi-individual, given that the universal connection holds among all its parts ("Nimirum Mundus est quasi unum, et unaquaeque res aliarum omnium mutatione afficitur realiter"). In a text written between 1683 and 1685, he seems to put the question between brackets: the world is said to be "what is composed by all the creatures". And then Leibniz adds: "Here I do not define whether it is an aggregate made out of them [creatures], like an army is composed by men, or a being in itself [ens per se], like an animal [is composed] by its organs. The latter would be true if the world were finite and had a soul" (A VI 4, 567). Such a conclusion, however, will be strongly rejected by Leibniz, who stresses that the world is infinite and it does not have a soul. Since then, thus, he will constantly reject that the world has to be counted as a (big) individual, see for instance A VI 4, 1469 (concerning the infinite divisibility of the world) and 1492 and 1509 (concerning the link between the world's being infinite and the world's not having a soul). On Leibniz'argument against the soul of the world, see G. Brown, "Leibniz on Wholes, Unities, and Infinite Number", Leibniz Review 10, 2000, pp. 21-51; R. W. Arthur, "Leibniz on Infinite Number, Infinite Wholes, and the Whole World: A reply to Gregory Brown", Leibniz Review 11, 2001, pp. 103-16. The holistic character of the universal connection, however, is still maintained, since it holds only at the ideal or conceptual level. To De Volder, Leibniz will explain: "In my opinion, there is nothing in the whole created universe which does not need, for its perfect concept, the concept of everything else in the universality of things, since everything flows into [influat] every other thing in such a way that if anything is removed or changed, everything in the world will be different from what it now is" (July 6, 1701, GP II, 226/L 524-25, italics mine). Relations of "influx" have to be interpreted in terms of relations of connection, see the discussion in Chapter 4.6 above. Cf. also the potentially ambiguous statement in #9 of the *Theodicy*, where he speaks of the "essence" or "numerical identity" of the world (GP VI, 107, quoted in 5.3 above).

to his notion of compossibility. In this way, the realization of two or more worlds would be considered as a (deviant) case of the joint realization of two or more incompossible things. At the beginning of the *Theodicy*, for instance, he seems to frame the question exactly in these terms:

"I call 'world' the entire succession and the whole collection of all existent things, lest it be said that several worlds could have existed in different times and different places. For they must need to be reckoned together as one world or, if you will, one Universe".²⁹²

This definition of 'world' is of the greatest interest, especially as far as it emphasizes "the entire *succession* and the whole *collection* of all existent things", i.e. the spatiotemporal order of the "series of things" I have analysed in the previous chapter.

In this passage Leibniz seems eager to rule out the very same possibility of talking of many worlds by resorting to a stipulation concerning the meaning of the term 'world'. The latter, indeed, has to be taken as referring to the most inclusive, all-embracing collection of what exists. When talking of *the* world, and not of *a* world, then, we refer (or, at least, we should refer) to something which, by definition, cannot be pluralized; otherwise there could be something existent which would not be part of the world, against the hypothesis that the world is the most inclusive collection of existing things. In other words, it follows that talking of a plurality of worlds is just a misleading way of talking.

This definition, however, does not go without problems. First, it might be too restrictive. Taking it literally, indeed, one could draw the conclusion that talking of a plurality of possible worlds is just a misleading way of talking, just because the concept of 'world' is not susceptible of a plurality of instances.²⁹³ Of course, one could reply that such an objection works only against the Lewisian account of a plurality of worlds, given that it is only according to modal realism that possible worlds are to be taken as 'worlds' in the very same sense of the actual world (whereas, on the contrary, actualist philosophers distinguish between the actual world and possible worlds conceived of as 'ways in which the world could be', by stressing the fact that *ways* are not the same as concrete *worlds*).²⁹⁴

Leaving aside this question (for the moment), let me rephrase Leibniz's position (in the passage above) as follows: talking of a plurality of (actually existing) worlds is just a misleading way of talking. In this case, then, Leibniz is just stipulating that *the* world is the totality of everything which exists; but, again, this is not something that goes without saying. Leibniz's claim in the passage from the *Theodicy*, indeed, seems to amount to the thesis that 'actuality' is a sort of "blanket term" (to quote an expression from David Lewis). In *On the Plurality of Worlds*, Lewis discusses an objection to his own modal realism that closely resembles Leibniz's position in the *Theodicy*. The objection runs as follows: the modal realist's thesis, according to which there are many possible worlds, and ours is actual and all

²⁹² *Theodicy*, # 8, GP VI, 107/H 129. A parallel passage can be found in *Causa Dei* # 15, GP VI 440. Cf. also Leibniz to Des Bosses, 1708, GP II, 362.

²⁹³ Ironically enough, indeed, the very same argument Leibniz employs in the passage from the *Theodicy* will be employed by Kant in the *Critique of Pure Reason* to reject the very same meaningfulness of talking of a plurality of possible worlds. Kant's argument is based on the impossibility that there could be disconnected spaces and times. I have discussed this point in my "From 'Possible Worlds' to 'Possible Experience'. Real Possibility in Leibniz and Kant', *Kant Yearbook* 6/2014, pp. 65-86.

²⁹⁴ For this position, see R. C. Stalnaker, "Possible Worlds", *Noûs*, 10, 1, 1976, pp. 65-75.

the other ones are unactaulized, goes against the fact that "it is a matter of trivial meaning that whatever there is, is actual. The world 'actual' is a blanket term, like 'entity' or 'exists': it applies to everything [where 'everything' has to be taken unrestrictedly]".²⁹⁵

The objection is raised from the point of view of a (strong) actualist, i.e. someone who maintains that (a) everything is actual, and also that (b) claim (a) is not a substantive metaphysical thesis, but a trivially analytic truth (such that its negation would entail a contradiction). The similarity with the position endorsed by Leibniz becomes stronger if one thinks that, for Lewis, 'actual' has to be interpreted as an indexical term, which means just 'this-worldly' (and it is employed to distinguish us and our worldmates from all the other worlds and the individuals that inhabit them). Thus, the objection can be reformulated by saying that "there can be only one world, because –as a trivial matter of meaning –'world' is a blanket term for the totality of everything". In other words: "If by definition 'the world' comprises all there is, then to speak as I [Lewis] do of things that are out of this world is tantamount to speaking of things that are out of all there is –which is nonsense".²⁹⁶

Lewis' reply to this line of objection is simply that (strong) actualism is not an analytic claim at all, but rather a substantive thesis about what there is. In other worlds, the thesis that there are certain things which are not actual cannot be dismissed as merely contradictory or unintelligible (the question with Lewis is a little bit complicate, since for him it is not the case that everything is actual, but it is the case that everything exists, given that for him 'to be' and 'to exist' amount to the same). Anyway, from the point of view of the strong actualist (someone for whom there is no difference at all between 'to be', 'to exist', and 'to be actual'), the claim that there are other worlds, spatiotemporally and causally isolate from our own world, can be reduced to the claim either these worlds are parts of actuality (and, thus, cannot be disconnected but are parts of a single, all-embracing world) or are nothing at all.²⁹⁷

Can we ascribe to the mature Leibniz a (strong) actualist position? In the preceding section I have argued at length that something like hard actualism is the position that emerges from the writings of the young Leibniz, who, however, was not still committed to a plurality of (merely) possible worlds. The problem with strong or hard actualism is just that it seems strong enough to reject any kind of ontological commitment to possible worlds. Not only Lewisian modal realism, but also the kind of moderate or classical possibilism one usually associates with Leibniz's mature position (since the mature Leibniz clearly maintains that there is a distinction between 'to be' and 'to exist'/'to be actual', and that what exists or is actual does not exhaust the entire domain of being).²⁹⁸ Therefore, a problematic point that will

²⁹⁵ D. Lewis, *On the Plurality of Worlds*, Oxford 1986, p. 97. On restricted/unrestricted quantification, see also

T. Williamson, "Everything", *Philosophical Perspectives*, 17,1, 2003, pp. 415-65.

²⁹⁶ *Ibid.*, p. 99.

²⁹⁷ Cf. what Lewis says at *Ibid.*, p. 100.

²⁹⁸ On the distinction between classic and Lewisian possibilism, see C. Menzel, "Classical Possibilism and Lewisian Possibilism", Supplement to the entry "Actualism", *The Stanford Encyclopedia of Philosophy* (Winter 2017 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/win2017/entries/actualism/>. According to Menzel: "Classical possibilism is rooted in the idea that there is a significant ontological distinction to be drawn between *being*, on the one hand, and *existence*, or *actuality*, on the other. Being is the broader of the two notions, encompassing absolutely everything there is in any sense. For the classical possibilist, every existing thing *is*, but not everything there is exists. Things that do not exist but could have are known as (*mere*) *possibilia*". This distinction has been already explicated in Chapter 2 (concerning Suárez). Leibniz's recovery of this distinction will be discussed in Section III, especially Chapter 9.

be worth discussing in the following pages is to what an extent Leibniz's rejection of a plurality of worlds can be conciliated with his commitment to a plurality of merely possible worlds.

7.1.5 The plurality of worlds. A gap in Leibniz's system?

The main problem with Leibniz's position in the passage above can be stated in the following way. Taken at face value, indeed, his argument in the *Theodicy* seems sufficient to rule out the hypothesis of something like a super-space (or a big Universe) in which worlds are colocated with one another (as in the case of the Epicurean worlds). This only means, however, that there are no cross-world spatiotemporal (and causal) relations and, hence, no connection holding between individuals who belong to different worlds. Call (1) the hypothesis of a plurality of worlds which are co-located into a single, all-embracing space, whereas (2) is the hypothesis of a plurality of (existent) worlds which are spatially and temporally isolated (as in the case of Lewis' worlds). Now, according to Leibniz's definition of 'world' given above, the hypothesis (1) would amount just to a misleading statement, since everything that can be placed 'somewhere' in a spatiotemporal framework has to be counted as a part of our world, no matter how remote it is.²⁹⁹

What about (2)? In order to rule out (2) it is not sufficient to say that all the parts of a world must be spatiotemporally connected. In addition to universal connection, then, one has to state that such a connection is not a contingent fact, but something that holds necessarily, and, perhaps, this is not even sufficient to rule out Lewisian worlds³⁰⁰ (if we take 'necessity' as unrestricted quantification over every possible world, indeed, it holds also for Lewis that universal connection necessarily holds, since there cannot be worlds whose inhabitants are not reciprocally spatiotemporally related; if we take the claim as quantifying not over the inhabitants of a world, but over worlds themselves, it should make no sense at all for him).³⁰¹

²⁹⁹ In the *Theodicy*, as well as elsewhere, Leibniz clearly accepts the idea that "there is an infinite number of globes, as great or greater than ours, which have as much right as it to hold rational inhabitants, though it follows not at all that they are human" (# 19, GP VI,114/H 137). That there may be planets, inhabited by other rational beings, no matter how far from us, does not mean that they constitute another world (according to the definition of 'world' above). In the *New Essays* he refers to the doctrine of the plurality of universes as formulated by Huygens in his *Cosmotheoros* (1698) and by Fontenelle in his *Entretiens sur la pluralité des mondes* (1686), cf. A VI 6, 314 and 472. On this topic, cf. S. J. Dick, *The Plurality of Worlds: The Extraterrestrial Life Debate from Democritus to Kant*, Cambridge 1982. For the early modern debate, see also A. Del Prete, *Universo infinito e pluralità dei mondi*, Napoli, 1998, pp. 280-300; P. Rossi, "Nobiltà dell'uomo e pluralità dei mondi", in Id., *Aspetti della rivoluzione scientifica*, Napoli 1971, pp. 223-64.

³⁰⁰ According to Lewis, two things *A* and *B* are worldmates (i.e. they are compossible) if and only if they are spatiotemporally related. The right-to-left direction of this biconditional is straightforward. The lef-to-right one, however, is more problematic. It amounts to reject the hypothesis of 'island universes', that is the possibility of spatiotemporally disconnected regions of actuality (spatiotemporally disconnected individuals that, however, coexist in the same world). Such hypothesis, notice, is different from that of a plurality of worlds, in which relations of connection hold exclusively among individuals within the same worlds, but not between individuals belonging to different worlds. Lewis accepts the latter but rejects the former, cf. *On the Plurality of Worlds*, pp. 69-81 (and, for a discussion, Divers, *Possible Worlds*, pp. 90-98). However, if one rejects Lewis' distinction between 'existence' and 'actuality' (i.e. the indexical theory of actuality), which I take to be Leibniz's final position, these two hypotheses ultimately collapse into a single one (plurality of worlds = island universes), thus justifying Leibniz's account of 'world' in the *Theodicy*.

³⁰¹ Modal expressions concerning sets and the plurality of worlds itself cannot be analysed according to the ordinary reading of the possibility and necessity operators. Modal expressions concerning worlds themselves

Alternatively, one has to claim that existence cannot be assumed as a world-relative notion, thus concluding that there cannot be any difference between 'existence' and 'actuality' (a claim on which, as I will say in what follows, Leibniz' s position seems to be oscillating). As we will see at the end of this chapter, there are hints in Leibnizian texts that go in the latter direction.

Of course, one could simply say that Leibniz did not recognize any difference between (1) and (2), and, perhaps, he was justified in doing so (given his account of 'actuality'). Ironically enough, however, Leibniz was one of the first (if not the first at all) who kept them separate.

In a series of notes from April 1676, indeed, he clearly rejects the idea of cross-worlds spatiotemporal relations, while, at the same time, considering a plurality of actually existing worlds as a realistic hypothesis. These texts will be the object of my analysis in the next paragraphs. The relevant point, however, is that the claim that there can be other existing worlds, which are completely unrelated to the world he happen to inhabit, perfectly matches with what Leibniz himself says about universal connection.

The coherence among perceptions of different minds is the basis for the claim that the substances corresponding to those minds are reciprocally connected in space and time, and, hence, are parts of the same world. Conversely: "Anyone who asks if there can be another world, or another space, is simply asking if there are other minds which have no communication with ours".³⁰² In these passages, Leibniz is clearly incline to accept, if not the real existence (which cannot be verified), at least the real possibility of many existing worlds.

To use the terminology introduced above, even if different worlds are reciprocally disconnected, they are still externally compossible: substances which are internally incompossible (minds that are not reciprocally harmonized with each other) can exist in different worlds. If one accepts this idea, however, it is difficult not to draw the conclusion that all possibles have to be realized, if not collectively (into the same world) but, as it were, distributively into many worlds. The rejection of the latter (principle of plenitude) is at the basis of Leibniz's sudden rejection of the hypothesis of a plurality of worlds at the end of 1676, immediately after his visit to Spinoza.

7.1.6 The phenomenalist background of Leibniz's Argument: from the Paris notes to *De modo distinguendi*

After this detour into the texts of the mature Leibniz, it seems that we are brought back again to the tantalizing argument discussed by Mates. Written more than thirty years before the passage from the *Theodicy* discussed above, the text from December 1676 seems to hint at the

represents a case of what is called 'advanced modalyzing' or extraordinary modal claims. The logic of advanced modalizying for Lewisian modal realism is typically based on the principle of plenitude, since it works the fundamental postulate that "It is possible that *A* if and only if *A*", and it can derived that "It is necessary that *A* if and only if *A*" (so that the claim that there is a plurality of worlds cannot be taken as contingent). Cf. Divers, *Possible Worlds*, pp. 47-50. This is the main reason why I cannot accept *in toto* Futch's solution that Leibniz's rejection of a plurality of (actual) worlds must be based on the claim that "it is necessarily true that all existents are temporally [and spatially] related" (*Leibniz's Metaphysics of Space and Time*, p. 71). It seems to me that the necessity operator here cannot be taken according to its ordinary reading ("true at every possible worlds"). ³⁰² De veritatibus, de mente, de Deo, de universo, 15 April 1676, A VI 3 512/DSR 65.

very same train of thoughts: "There is only one kind of world, or, there are no entities besides bodies and minds, i.e., what we sense, nor are there bodies except those which are at a certain distance from us".

An element that has not been stressed by Mates is the strong phenomenalist strand that emerges from this passage, especially where Leibniz says: "*nulla dantur Entia praeter corpora et mentes, seu qualia sentimus*". As I have already showed in the previous section (Chapter 4 above), a strong phenomenalist perspective is the common feature of a whole series of texts written by Leibniz at the end of his Paris period (from the end of 1675 to the end of 1676). That account is important because, as I will show in a moment, Leibniz's remarks on the (im)possibility of other worlds are deeply intertwined with this phenomenalistic perspective of him (and this, of course, represents a big difference between Leibniz's account).

Moreover, Mates does not take into consideration the formal structure of Leibniz's argument, in particular his choice to employ a *reductio ad absurdum*. Significantly, in the concluding lines of the passage from December 1676, he states that, if there were things which cannot be situated at a certain distance from us, then "it could not be said whether they exist or do not exist now, *which is contrary to the first principle*" (italics mine). The "first principle" in question has been clearly stated by Leibniz himself in the first sentence of the same paper: "Nothing is and is not at the same time, or anything either is or is not".³⁰³

The conclusion of a *reductio*, indeed, is always a proposition that violates the principle of contradiction (in this case, Leibniz formulates both the principle of contradiction and the law of excluded middle) and forces us to dismiss the premise(s) from which such contradiction has been derived. Anyway, at first glance, it is difficult to understand why the admission that there can be something existing in a separate spatiotemporal framework could lead us to formulate a contradictory proposition. In what follows, I will try to answer this question by focusing on Leibniz's insistence on the use of a temporal indexical like "now" and, hence, on the connection between existence and time. This will allow me to show also that the phenomenalist approach to the question (based on something like the principle of verification) and his logico-ontological approach (based on the principle of contradiction, or, more exactly, on that of bivalence), are intended by Leibniz as two sides of the same coin (even though, of course, we might question the complete reliability of such parallelism).

Finally, another interesting element, which, as far as I can see, has been neglected by the majority of scholars, is that the very same 'tantalizing argument' has been formulated by Leibniz in one of his most relevant papers among those which precede (and prepare) the *Discourse*, namely the famous *De modo distinguendi phaenomena realia ab imaginariis*.³⁰⁴ Here, indeed, Leibniz employs the very same argument to demonstrate the reciprocal connection among all existing things in the world:

³⁰³ A VI 3, 584/DSR 107.

³⁰⁴ A remarkable exception is represented by Di Bella, "Leibniz's Way from the Minds' Experience to the Real World", who correctly emphasizes the relevance of the argument as stated in *De modo distinguendi*.

"That all existing things have this intercourse [*commercium*] with each other can be proved [...] from the fact that otherwise no one could say whether anything is taking place in existence now or not, so that there would be no truth or falsehood for such a proposition, which is absurd".³⁰⁵

Notice that the claim that 'all existing things are reciprocally interrelated' is what allows Leibniz to say that, even though "there is nothing to prevent innumerable other minds from existing as well as ours", nonetheless not all possible minds do actually exist (the reference to 'minds', possible as well as actual, rather than 'substances', is typical of Leibniz's phenomenalist approach). In this passage, then, Leibniz maintains that the universal connection of all things has to be accepted because its rejection (which is compatible with the possibility of there being something which exists and is not connected with anything existing in our world) would lead to a violation of the principle of bivalence: "so that there would be no truth or falsehood for such a proposition, which is absurd". Should we take this as evidence in favour of the fact that universal connection, and, hence, compossibility, has to be taken as a necessary feature of a(ny) world? What about the strength of this 'necessity'? I hope to show that there is a way to conciliate Leibniz's oscillating claims on this point. As I will say in what follows, this passage is a crucial one to understand Leibniz's notion of a 'possible world', and, thus, to provide a reliable reconstruction of the genesis of such a notion in Leibniz's thought.

In my opinion, indeed, there is a relevant aspect of this story that has not been adequately emphasized by the interpreters. I am thinking of the fact that, in the two passages quoted above as well as in others, Leibniz employs his argument to undermine the idea that all possible things exist. This very same argument, however, has already been used by the young Leibniz in the Paris notes to hold the view that a plurality of existing world constituted a real possibility (as I have said above). The interesting (and even puzzling) aspect of this story is that a sort of *Gestalt* shift occurred in the mind of Leibniz (from April 1676 to the end of the very same year), to the effect that the same argument that originally appeared to him as evidence in favour of the real possibility of a plurality of worlds is now regarded by him as the best proof against that hypothesis. The ironic aspect is that the building blocks of Leibniz's argument are more or less the same, but the interpretation is substantially different.³⁰⁶

Therefore, following the transformations and evolutions of a single argument, we might provide the reader with an interesting insight into the genesis of Leibniz's possible worlds theory, according to an alternative route with respect to that I have followed in Chapter 5 (however, at the end one can easily realize that, after all, they are just two parts of the same story).

7.1.7 A note on terminology

 $^{^{305}}$ De modo distinguendi, A VI 4, 1503/L 365.

³⁰⁶ Generally speaking, this is not strange if one takes into the account the development of the system of a determinate philosopher. Think of the similar case with Kant's well known argument of incongruent counterparts, introduced in 1768 to defend a Newtonian/Eulerian account of absolute space and employed in 1783 to defend space as a subjective form of intuition. The moral of the story, perhaps, is that it is not always wise to reduce the idea of a great philosopher to the structure of the arguments he employs to support them.

In what follows, when using the expression 'plurality of worlds', I will refer only to a plurality of *existent* worlds, each one spatially and temporally disconnected from the others. This idea has to be carefully distinguished from both the idea of a plurality of planetary systems (each one contained into a single, all-encompassing spatiotemporal framework) and from that of a plurality of *merely possible* worlds (interpreted as different ways the world could be or could have been created). The relevant point here is that, on Leibniz's considered view, a plurality of existent worlds cannot be accepted. The actual and the merely possible worlds are not ontologically on a par. On the contrary, he wants to claim that existence (read: actual existence), if a property at all, is an absolute one, i.e. that all the worlds but one fail to instantiate.

7.2 From the 'Worlds of Dreams' to the Plurality of Worlds.

Leibniz's Reflection of April 1676

In Chapter 4.4 above, when discussing Leibniz's early conception of existence, based on the distinction between real and imaginary phenomena, I have discussed the following equivalence, proposed by Leibniz in a text of the Mainz period:

"Whatever is sensed exists. Indemonstrable.

Whatever exists is sensed. To be demonstrated".³⁰⁷

As I have already pointed out, the second side of this equivalence (the one stating that "if something exists, it is clearly and distinctly perceivable") is not straightforward, and this is why Leibniz notes that a demonstration is required. This claim, however, is much more difficult to defend than the first one, since it seems to challenge the strength of Leibniz's phenomenalism itself. Leibniz's long run strategy will be the following. Instead of providing a direct demonstration that "if something exists, it is clearly and distinctly perceivable" (which would force him to assume a meaning of existence independent from or presupposed to the domain of our sensible perception), he will resort to prove the truth of the contrapositive of the former proposition, namely "if something *cannot* be clearly and distinctly perceived, it does *not* exist". The claim that "all existing things are reciprocally connected", then, will play a fundamental role in Leibniz's attempt to complete his proof.

What, however, if one assumes, just as a working hypothesis, that the proposition at stake is false? What if one accepts that whatever is sensed exists but rejects its converse, assuming that there can be existing things that, nonetheless, are not accessible to our perceptions? As one can easily see, the hypothesis of a plurality of worlds, everyone spatially and temporally disconnected from the other (and all disconnected from our own), will represent the biggest obstacle to the achievement of Leibniz's original task.

Such an alternative hypothesis is what clearly emerges from a series of notes written in April 1676. The context is that of Leibniz's working out of the 'dream argument' (see Chapter 4.4

³⁰⁷ De conatu et moto, sensu et cogitatione, A VI 2, 282.

above for the details), which aims to prove that the regular, law-like, and ordered character of our perceptions it is sufficient, at least from a pragmatic point of view, to assure us that something really exists 'outside us'.

Let me quote again a passage parts of which I have already discussed above:

"[...] it is not necessary that a dream differs from waking experience by some intrinsic reality [*realitate differre quadam intrinseca*], but it is only necessary that they differ in form or in the order of the sensations [*forma sive ordine sensionum*]. Therefore there is no reason why we should ask whether there exist certain bodies outside us, or whether space exists, and other things of this sort [...]. Unless, that is, we say that we call a "body" whatever is perceived in a consistent way, and say that "space" is that which brings it about that several perceptions cohere with each other at the same time –so that if, by a journey which is so long, I arrive at a certain place, and by a journey of another length at another place, and by a third journey at a third place, and again from one of these to another, then from these I will infer how long it will take me to arrive, from one of the remaining places, at another of the remaining places, from the assumption of the unity of space. Therefore the idea of space is recognised by this: namely, that it is that by which we separate the place and, as it were, the world of dreams from our own".³⁰⁸

We are now in a better position to understand and fully appreciate the coherence of Leibniz's views. For instance, it is now easy to understand why, where Leibniz says that reality cannot differ from dream by some intrinsic reality but only "in form or in the order of sensation", this reference to *order* has to be immediately understood as a reference to space as the order of simultaneous things. From the point of view of Leibniz's phenomenalist approach, indeed, space "is that which brings it about that several perceptions cohere with each other at the same time [*simul*]", where the notion of simultaneity has to be understood according to what we have said in Chapter 6 above

7.2.1 From the unity of space to the unity of the world

Few lines below, however, Leibniz adds to the first another characterization of space: "the idea of space is recognised by this: namely, that this is that by which we separate the place and, as it were, the world of dreams from our own". These two characterizations of space do not seem to be equivalent, at least *prima facie*. And, indeed, there is a sense in which something new and important has undergone in the passage from the first to the second, so that the latter cannot be just regarded as a redundant repetition.

This passage, indeed, opens the way for a twist in Leibniz's argumentation. He starts formulating a criterion whereby one can distinguish between dreams and reality. Soon, however, this very same criterion turns into a condition for conceiving two or more substances as being part of the same world (they must be ordered into a such-and-such series of things). Moreover, he passes from talking about 'dreams' and 'reality' in general terms to talking about the contraposition between our world and the world(s) of dream. Modal considerations play an important role in this (almost unnoticed) passage.

At the beginning of the passage, indeed, Leibniz formulates a *negative* thesis (dreams and reality do not differ as far as they perceptual content is concerned) as well as a *positive* one (dreams and reality do differ as far as their form or structure is concerned). This, however,

³⁰⁸ De veritatibus, de mente, de Deo, de universo, 15 April 1676, A VI 3, 511/DSR 63-65.

does not solve the problem whether Leibniz's criterion based on the agreement among perceptions should be considered just a sufficient one or a necessary and sufficient one. In other words, one might ask if the fact that real phenomena are regular and law-likely ordered, whereas dreams are not, is just a contingent matter or a necessary one. I said that Leibniz's original desideratum was to prove that "something exists if and only if it can be distinctly perceived", which means that 'distinct perceivability' should be regarded as both a necessary and sufficient condition for knowing if something exists. From what Leibniz says here, however, it seems that the best that his criterion can do is to provide us with a merely sufficient condition.

In order to understand the passage from talking of dreams to talking of dream-worlds, we should pay attention to the connection between Leibniz's two characterizations of space. Between them, notice, Leibniz has inserted an interesting example:

"[...] so that if, by a journey which is so long, I arrive at a certain place and by a journey of another length at another place, and by a third journey at a third place, then from these I can infer how long it will take me to arrive, from one of the remaining places, at another of the remaining places, from the assumption of the unity of space [supposita unitate spatii]".

I assume that, with "the unity of space", Leibniz is meaning what we would call 'spatial connection'. Interestingly enough, A. Quinton characterizes the relation of spatial connection in terms that closely resemble those of Leibniz's example: "Two things are in the same space if they are spatially connected, if there is a route connecting them, if each lies at some definite distance and in some definite direction from the other".³⁰⁹ Such a relation is symmetrical and transitive. In Leibniz's example, we have a route from place A to place B, one from B to C, and a third from C to D, and he says that, from anyone of these points, we can trace a route to any of the remaining ones (thus, the relation of spatial connection is symmetric, transitive and reflexive as well).

What Leibniz has in mind when talking of the "unity of space" is that the elements of a series of things are closed under the relation of spatial connection. Note that, as Quinton correctly remarks, "it does not follow from these properties of the relation of spatial connection that everything is in one and the same space, that everything is spatially connected to everything else".³¹⁰ Spatial connection only says that *if* two things, *a* and *b*, are spatially connected, *then* everything spatially connected with a is also spatially connected with b, and vice versa.

Thus, Leibniz concludes that space is that by which we separate the space, and the world, of dreams from our own world. I think that this characterization is perfectly in keeping with the one presented above (space as the condition of simultaneous perceptions). If I am not mistaken, Leibniz's aim is to show that those relations, which allow us to discriminate dreams from reality, are spatial and temporal relations (causal relations should be added, but, as we know, temporal relations are in some sense supervenient on causal ones). This means that for a body to be an object of 'consistent perceptions' is to bear a determinate spatial (and temporal) relation with us (or with something simultaneous with us). It is true that Leibniz

³⁰⁹ Quinton, "Spaces and Times", p. 130. ³¹⁰ *Ivi*.

does not mention time in the passage I am discussing now, but I think that this can be explained by the fact that he is just focusing on the case of simultaneous perceptions.

Now, what is required for different minds to share something like a 'common world'³¹¹ is the particular harmony that allows one to connect each perception with every other one (be they successive perceptions of the same mind or simultaneous perceptions of different minds)³¹². Thus, for all the minds to represent the same world, they have to share at least the same spatiotemporal framework. And, whereas the unity of the world depends on the unity of space, the unity of space consists in the possibility of having coherent perceptions. Therefore, the unity of the world requires the unity of space, and the unity of space requires coherence or harmony among the perceptions of different minds. Finally, since the harmony among those perceptions is the criterion for distinguishing real from imaginary phenomena, it follows that space, as the system of all the relations of distance among bodies, is the dividing lines between our world (which we call "real") and the world(s) of dream.

Notice, however, how the twist in Leibniz's argumentation I have mentioned above is at work here. At the beginning, indeed, the contraposition between real phenomena and dreams was essentially thought of as one between an ordered series of perception vs. disordered ones: real phenomena are part of a ordered series of things, while dreams are not (like in the case of possibilia according to Leibniz's early Paris notes, see Chapter 5.1 above). Now, however, Leibniz is clearly talking of a contraposition between 'worlds', even though the term of 'world' for a dream-world is introduced with some caution ("*somniorum locorum et velut Mundum*").

When we start thinking of dream-spaces as worlds, we are implicitly saying that the contraposition between dreams and reality cannot be longer stated as one between disorder and order, but, perhaps, as one between different degrees of order. Moreover, talking of the worlds of dream as *worlds* means talking of them as other series of things, and, thus, it means to challenge the presupposition that there can be just one and only spatiotemporal framework.

The latter point is clearly emphasized by Leibniz in another passage from the same texts, where he writes: "Anyone who asks if there can be another world, or another space, is simply asking if there are other minds which have no communication with ours".³¹³ Since space has been characterized in terms of the consistency of our perceptions, the hypothesis of something like a world of dreams (spatially disconnected to our own) brings with itself the idea of non-harmonizing perceiving minds (or 'alien minds', as I will call them in what follows). Then if there can exist two (or more) minds whose perceptions are not reciprocally consistent, they would lack spatial connection as well. Consequently, they would live in different worlds.

³¹¹ The idea of a common or public world is borrowed from what Leibniz says in section 14 of the *Discourse*, where he points out that God is the ultimate guarantee of the interconnection among phenomena of different minds: God alone "makes that which is particular to one of them public to all of them; otherwise there would be no interconnection" (A VI 4, 1551/AG 47).

³¹² Interestingly enough, the same view will be retained by the late Leibniz, see the passage from a 1704 letter to De Volder: "it may be said that there is nothing in the world except simple substances and, in them, perception and appetite. Matter and motion, however, are not so much substances or things as they are phenomena of perceivers, whose reality is located in the harmony of perceivers with themselves (at different times) and with the other perceivers" (GP II, 270/L 537, italics mine). On space and time, see also Leibniz to Arnauld, October 9, 1687, GP II, 115: "Toute la notion que nous avons du temps et de l'espace est fondée sur cet accord [the agreement among the phenomena of different substances]".

³¹³ De veritate, de mente, de Deo, de universo, A VI 3, 512/DSR 65.

7.2.2. Dreams and worlds: Leibniz and Bradley

This passage from the worlds of dreams to the existence of other worlds can appear bizarre at first sight. However, let me observe that it is not strange to resort to dreams in order to challenge the uniqueness of space and time (or the existence of only one all-embracing spatiotemporal framework). The same line of thought, indeed, can be found in Bradley's *Appearance and Reality*, as part of an argument intended to prove the unreality of time. In particular, Bradley wants to disprove the necessity that all the events should be placed into a single temporal series:

"For there is no valid objection to the existence of any number of independent time-series. In these the internal events would be interrelated temporarily, but each series, as a series and as a whole, would have no temporal connection with everything outside. [...] The events in each of these would, of course, be related to in time, but the series themselves need not have temporal relation to one another. The events that are in one need not be after, or before, or together with, the events in any other. [...] When we dreams or when our minds go wandered uncontrolled, when we pursue imaginary stories, or exercise our thoughts on some mere supposed sequence –we give rise to a problem. [...] For within these successions the events have temporal connection, and yet, if you consider one series with another, they have no unity in time. And they are not connected in time with what we call the course of our "real" events".³¹⁴

Interestingly enough, against the uniqueness of the temporal series, Bradley pairs together the case of dreams and that of our thoughts when "our minds go wandered uncontrolled". Now, Leibniz himself will compare the structure of what he calls the 'series of thoughts' (*series cogitationum*) with that of the 'series of things' (*series rerum*) in a series of drafts written in April 1679, *De affectibus*.

The general idea is that a series is a multiplicity of elements ordered by some rule ("*Series est multitudo cum ordinis regula*").³¹⁵And it is undoubtedly true that, at least from the genetic point of view, the psychological series of thoughts (a chain of ideas or affections of the human mind) works as the model for Leibniz's account of an ontological series of things (ultimately, the two things will coincide when the series of thoughts is a chain of ideas in the divine mind; remember that, from the point of view of a monadological metaphysics, the series of things originally exists as the object of God's understanding).

However, it is also true that Leibniz arrives to delineate a sharp contrast between the kind of order which rules the series of human thoughts and that which rules the series of things. As we have already seen, indeed, the order of the world is a serial one (a series of world-states ordered by an asymmetric, transitive, and connected relation). As a consequence, the spatiotemporal structure of the series of things clearly rules out the non-linearity of time (for instance, circular time), the possibility of time-branching or other kinds of non-unified times (like the fission-fusion time).³¹⁶ On the other hand, when dealing with the phenomenological analysis of the series of thoughts, Leibniz explicitly takes into consideration the case of a cyclical series of thoughts (based on the experience of thought which comes back to its

³¹⁴ F. H. Bradley, *Appearance and Reality* (1893), sixth impression, London1916, p. 211.

³¹⁵ De affectibus, April 1679, A VI 4, 1426.

³¹⁶ Cf. Newton-Smith, The Structure of Time, chapter IV, p. 79 and ff.

starting point), the case of two independent originally independent series of thoughts with an intersection point, or a knot, which is common to both of them, and, finally, the case of branching series.³¹⁷

The case of dreams, however, is different, since, as we have already partially seen when discussing the dream-argument, Leibniz does not refrain from formulating the hypothesis of a well-ordered dream; on the contrary, in the attempt to show that there is no metaphysical certainty concerning the existence of an external world, he himself goes as far as to envisage the possibility of a dream which is more ordered than real life.

This will be the point of departure for questioning the very same possibility of calling this series of things, in which we happen to live, the 'real' one and the other as merely 'imaginary'. This principle of relativity, however, will have serious consequences on the possibility of drawing an absolute distinction between what is actual and what is merely possible.

For the moment, we can see that the case of dreams leads Leibniz to pose the same problem which Bradley has so clearly formulated in the first lines of the text quoted above: the possible existence of many independent time-series in which "the internal events would be interrelated temporarily, but each series, as a series and as a whole, would have no temporal connection with everything outside". The only difference is that, as we have seen, Leibniz's emphasis is put on space rather than on time (and space is taken as what allows different minds to have coherent perceptions, according to the phenomenalist approach); the consequences he draws, however, are the same.

7.2.3 Plenitude and the plurality of worlds

In the lines which immediately follow the passage I have quoted at the beginning, indeed, Leibniz writes:

"From this it follows that infinitely many other spaces and other worlds can exist, in such a way that between these and ours there will be no distance, if there exist certain minds to which other things appear which are in no respect consistent with ours. Further, just as the world and space of dreams differ from ours, so there could be different laws of motion in that other world. From this is evident that so far is it from being the case that material things are more real than others, but that on the contrary one can always doubt of their existence; or, rather, they do not differ materially, i.e. in their existence in themselves, from the existence of dreams [...]".³¹⁸

If there can exist two (or more) minds whose perceptions are not reciprocally coherent, they would lack spatial connection as well (there will be no distance between them, or, rather, between their respective bodies). Consequently they would live in different worlds. This

³¹⁷ Cf. *De affectibus*, A VI 4, 1424-25 and 1434. For the phenomenology of the series of thoughts in this text, see Di Bella, *The Science of the Individual*, pp. 99-111. On the logical-ontological structure of the series of things, see H. Schepers, "*De affectibus*. Leibniz an der Schwelle zur *Monadologie*. Seine Vorarbeiten zum logischen Aufbau der möglichen Welten", *Studia Leibnitiana*, XXXV/2, 2003, pp. 133-61 (a formal presentation of Leibniz's arguments is provided by Schepers in appendix to this article).

³¹⁸ De veritate, de mente, de Deo, de universo, A VI 3, 512/DSR 65.

point, notice, will be retained by the mature Leibniz.³¹⁹ From such a claim, however, the Parisian notes of April 1676 draw a different conclusion, i.e. the real possibility that a plurality of existent worlds.

Notice that the claim that "infinitely many other spaces and other worlds can exist" is said to follow from "this", i.e. from what Leibniz said in the line immediately before: "[...] it does not follow that there exists anything but sensation, and the cause of sensation and of its consistency", which is just Leibniz's phenomenalist claim plus the idea of God as the external cause of the harmony between the perceptions of different minds (in this sense, section 28 of the *Discourse* will say that God is the only *immediate* object of our perceptions, as well as the only *external* one).

Before moving on, however, one should ask whether Leibniz is justified in deriving such a conclusion from his phenomenalist assumption or not. This is not immediately evident, indeed. For all we know, the existence of such worlds depend on the existence of 'alien minds', whose phenomena can in no way be harmonized with those of our minds. Since the existence of those alien minds is something which cannot be verified in principle, an agnostic position (neither in favour nor against their existence) should be more in keeping with a phenomenalist position. Let me also anticipate, *en passant*, that the impossibility to provide a verification of their existence will be one of Leibniz's main arguments against the plurality of worlds at the end of 1676.

Of course, one could rightly object that Leibniz is not deriving the existence of different worlds from his assumption, but only the *possibility* of their existence. This is true, but it is also true that this possibility is a positive one, i.e. it expresses a sort of bias in favour of the existence of other worlds. Then, one should ask which side assumptions led the young Leibniz to be positively biased in favour of the real possibility of other worlds (the same should be done in the case of those side assumptions which will lead him to reject that possibility after 1676). In both case, however, I think the answer is the same: the principle of plenitude.

In order to develop this point, let me stress what Leibniz says in the passage above: "just as the world and the space of dreams differ from ours, so there could be different laws of motion in that other world". The point here is very intriguing, since Leibniz will always maintain that natural laws are contingent ones, i.e. different laws hold in other possible worlds. Here, however, the contingency of natural laws is immediately interpreted in terms of different laws holding at other (existent) worlds. There are other passages in the Paris notes where Leibniz couples the possibility of other spaces (and worlds) with the possibility of other laws.

The first one is taken from another part of the same paper, where Leibniz comes back to God as the cause of things and of the harmony between our sensations, which he takes to be compatible with the eternity and the spatial infinity of the world:

³¹⁹ As one can see from the following passage from the correspondence with Arnauld: "all substances must have a harmony and connection which links them together, and must express in themselves the *same* universe [...]. Otherwise the phenomena of different minds would not harmonize with each other, and *there would be as many systems as substances*" (GP II, 115/M 147-48, italics mine). Emphasis on the 'sameness' of the universe has to be stressed once again. The worlds of dreams and our world are disconnected just because they express different systems of phenomena (involving different kinds of perceptions), not the reverse. When talking of "systems (of phenomena", Leibniz is clearly talking of worlds, cf. section 14 of the *Discourse*, A VI 4, 1549-50.

"But it does not follow from this [i.e., the fact that the world is eternal and infinite] that there is not another world, or, other minds which cohere among themselves in a way which is different from that which holds in our case. However, is clear enough from this that space differs from God, since there could be several spaces, but there is one God, and the immeasurability [*immensitas*] of God in all things is the same. But since each space is in continuous change, and in each of two spaces something persists, do these two persistent things differ from each other, or is there, as it were, the same idea or universal nature in each? I think that there is. And this nature brings it about that God is equally present both to this and to that world, for there could be a different law of nature in that world".³²⁰

Here Leibniz is drawing a distinction between *immensitas*, which is an attribute of God, and, thus, is one and the same in all worlds, and different spaces, which could have different properties in different worlds. He also adds that this nature of God, i.e. his *immensitas*, is what "brings it about that God is equally present both to this and to that world", i.e. is omnipresent to whatever exists in any different world.

The same idea of different laws of nature had been already sketched in a text of December 1675, where Leibniz is asking whether the principle of conservation of the quantity of motion (which he will reject only later on)³²¹ is consonant with the harmony of things or not; he says, indeed, that "it seems consonant with the variety of things that in different systems different laws of motion should hold".³²²This passage, however, is still a tentative one, also because Leibniz will conclude that the preservation of the same quantity of motion is a necessary conclusion from the plenitude of the world.

The idea of a plurality of worlds with different laws of motion, however, will be brought back to the fore in April 1676 and connected with the idea of the derivation of all things from God's attributes. In particular, Leibniz is working out an account I have partially hinted at in the previous chapter (see 5.4 above), namely a sort of mixture between the Neoplatonic view according which all things emanate from God, although in a limited and diminished fashion, and a combinatorial view, whereby created things (in this case, worlds) result from different combinations of the attributes which compose the essence of God: "hence it comes about that the same essence of God is expressed in any genus of the world in its totality, and so God manifests himself in infinitely many ways".³²³

This passage gives us a clue to grasp the connection between the principle of plenitude and the bias in favour of a plurality of worlds: each world can be regarded as a way in which God's essence can be expressed, and a plurality of ways seems to be better than just one. In creating a world, God can maximize its perfection not only in producing as many things as it is possible, or, perhaps, as many kinds of things as it possible (depending on whether you take the criteria of maximization be quantitative or qualitative; perhaps both of them, if one sticks

³²⁰ De veritate, de mente, de Deo, de universo, A VI 3, 513/DSR 67.

³²¹ Cf. G. W. Leibniz, *La réforme de la dynamique. De corporum concursu (1678) et autres textes inédits*, edited, translated and with an introduction by M. Fichant, Paris 1994. Together with Fichant's introduction to this edition, one can usefully see Garber, *Leibniz*, especially Chapters 3 and 4.

³²² De materia, de motu, de minimis, de continuo, A VI 3, 467/LC 31.

³²³ De formis seu de attributis Dei, April 1676, A VI 3, 514/DSR 71. Commenting this passage, Adams, Leibniz, p. 128, maintains that Leibniz's reference to "any genus of world" (*in quolibet Mundi genere*) should presumably be taken as a reference to possible worlds. I disagree with him on this point. The parallel with the other passages quoted in the main text reveal that Leibniz is thinking of a plurality of actual worlds. Moreover, the idea of different genera or kinds of world has to be compared with what Leibniz will say at the end of 1676, when he will reject the plurality of worlds by arguing that there can be only one genus or kind of world: "Non nisi unum est genus Mundi [...]" (A VI 3, 584).

at Leibniz's idea that perfect world is the one where the richest number of phenomena can be combined with the simplicity of laws), but also in creating creatures which are able to express and, thus, increase, the perfection of the world itself.

As Leibniz puts in in the Paris notes: "Particular minds exist, in sum, simply because the supreme being judges it harmonious that there should exist somewhere that which understands, or, is kind of intellectual mirror or replica of the world".³²⁴ And this claim, notice, is also taken as a further justification of the idea that coherent perceptions are the mark of existence.

7.2.4 A plurality of spaces?

Finally, the same claim concerning the natural laws is repeated in another text, where something very interesting is added to what he has already said elsewhere:

"For example, if it is a law in our world that the same quantity of motion is always preserved, there can be another universe in which are also other laws. But it is necessary that the latter space differs from the former; there will be position of some kind, and multitude, but it will not be necessary that there should be length, breadth and depth".³²⁵

To the best of my knowledge, this is the only passage where Leibniz affirms that the space of another world has to share some general features which are common to all kinds of worlds (he mentions *positio* and *multitudo*), but does not necessarily preserve the three dimensions which are peculiar of our own space. Other geometries, then, are possible in other worlds. This claim has not to be read as we would commonly read it, i.e. as 'God could have created other worlds with alternative geometries', but, rather, as 'it is probable that there are (exist) other worlds with alternative geometries'. The interesting point, however, is that both these readings will be rejected by the young Leibniz, who will affirm that it is a necessary truth that space has only three dimensions and, therefore, there are not possible worlds with alternative geometries.³²⁶

What the young Leibniz says about *positio* and *multitudo*, which are regarded as invariant features, necessarily tied up with the nature of spatiality, seems to give some plausibility to Rescher's interpretation of Leibnizian space. According to him, indeed, the 'idea' or 'concept' of space must be uniformly the same in all possible worlds, will the different kinds of concrete space differ from a world to another. However, it is impossible to agree with Rescher when he adds that Leibniz has always maintained the same position throughout his career, from the Paris notes onwards. As it will be shown in what follows, indeed, Leibniz will

³²⁴ De arcanis sublimium, February 11, 1676, A VI 3, 474/DSR 25. Cf. *ibid.*, 472: "[...] I take as a principle the harmony of things: that is, that the greatest amount of essence that can exist, does exist. It follows that there is more reason for existing than for not existing, and that all things will exist, if that can come about" (DSR 21). I will come back to this passage in the following chapter.

³²⁵ De formis simplicibus, April 1676, A VI 3, 522/DSR 83.

³²⁶ In the *Theodicy*, #351, GP VI, 322-23, Leibniz categorically affirms that space's having only three dimensions does not depend on God's choice of the world, but it is a matter of 'geometrical necessity', which means an absolute one. Cf. Poser, *Zur Theorie der Modalbegriffe bei Leibniz*, p. 77. On Leibniz's attempts to prove the three-dimensionality of space, see De Risi, *Geometry and Monadology*, pp. 205-15.

radically change his mind on this point, holding that space and time are the same in every possible world (at least as far as mathematical space and time are concerned).³²⁷

The passages I have listed show up that, at least for a while, Leibniz adopted the plurality of worlds as a serious 'working hypothesis' in his metaphysical speculations. Of course, from what we have already seen, this hypothesis seems to represent the most proximate ancestor of Leibniz's mature theory of possible worlds.

The most striking difference between the two, however, is that in the Paris notes Leibniz seems to be committed to the actual existence of other worlds, or, better, to the claim that the other worlds are ontologically on a par with our own. This constituted the really 'deviant' feature of this theory with respect with the mature Leibniz's account of possible worlds. It will be better to investigate which reasons could have led Leibniz to embrace such a realistic view of possible worlds (which, as I will show in a moment, closely resembles some aspects of Lewis' modal realism).

7.2.5 The plurality of worlds in the early modern debate. Some background source materials

From the historical point of view, it has been already pointed out that Leibniz's many spaces (and many worlds) view is very similar to Tschirnaus' uncommon reading of Spinoza's doctrine of the infinitely many attributes of God in terms of a plurality of worlds.³²⁸ We know from the correspondence between Schuller and Spinoza that Tschirnaus interpreted Spinoza's claim that we cannot know more attributes than thought and extension as if creatures constituted by other attributes would not have any idea of extension (whereas thought is common to everyone), and, thus, they would constitute as many worlds as there are attributes of God.³²⁹ As a matter of fact, an echo of these thoughts by Tschirnaus can be found in Leibniz's reflections in the Paris Notes of the period 1675-76 (when Leibniz and Tschirnaus worked together).³³⁰

However relevant, I think that Tschirnaus (mis)interpretation of Spinoza's theory of attributes should not be regarded as the only possible source of Leibniz's intense working on the idea of the plurality of worlds in this period. Both the late scholastic debates on the distinction between God's absolute and ordained power and the discussions of the so-called *philosophi*

³²⁷ See the discussion on this point between Rescher and Belaval. See N. Rescher, "Leibniz and the Plurality of Space-Time Frameworks", Rice University Studies, 63, 4, 1977, pp. 97-106; Y. Belaval, "Note sur la pluralité des espaces possibles d'apres la philosophie de Leibniz", in R. Berlinger et alii (eds.), Perspektiven der Philosophie, vol. 4, Amsterdam 1979, pp. 9-19 (reprinted in Y. Belaval, Leibniz.De l'Age classique aux Lumières, Paris 1995, pp. 165-77. Belaval had originally discussed his views on Leibniz on space in Id., Études leibniziennes, Paris 1976, pp. 206-16.

³²⁸ Cf. M. Kulstad, "Leibniz, Spinoza, and Tschirnaus: multiple worlds, possible worlds", in Brown (ed.), The Young Leibniz and His Philosophy, pp. 245-62. See also Id., "Leibniz, Spinoza and Tschirnaus: Metaphysics à Trois, 1675-1676", in O. Koistinen-J. Biro (eds.), Spinoza. Metaphysical Themes, Oxford 2002, pp. 221-40. ³²⁹ Cf. Schuller to Spinoza, July 25, 1675, Ep. LXIII, G IV, 275/CW 916.

³³⁰ Cf. Leibniz's 1675 report of his conversation with Tschirnaus concerning Spinoza's *Ethics:* "He [Spinoza] believes that there are infinitely many other positive attributes in addition to thought and extension, but that thought is present in all things as extension is present here; however, it is impossible for us to conceive of what sort they could be, and everyone is infinite in its own genus, as in the case of space here" (A VI 3, 385). Cf. also De formis simplicibus, April 1676, A VI 3, 522-23/DSR 83-85. On Leibniz's knowledge of Spinoza in Paris, see G. H. R. Parkinson, "Leibniz's Paris Writings in Relation to Spinoza", in A. Heinekamp (ed.), Leibniz à Paris, vol. II, pp. 73-89 (together with Parkinson's introduction to DSR).

novi concerning the mechanical explanation of nature, natural laws and the very same idea of 'world' (think of Descartes' fable of the world) should be taken into consideration; and, of course, there was also an interplay between these two in authors who were concerned with theological questions as well as scientific ones.

For instance, some years after Leibniz's Paris notes, we can find very similar remarks concerning the possibility of alternative natural laws in other worlds in the work of Robert Boyle:

"Now, if we grant, with some modern philosophers, that God has made other worlds besides this of ours, it will be highly probable, that he has there displayed his manifold wisdom, in productions very differing from those, wherein we here admire it. [...] Now in these other worlds, besides that we may suppose, that the original fabrick, or that frame, into which the omniscient architect at first contrived the parts of their matter, was very different from the structure of our system; besides this, I say, we may conceive, that there may be a vast difference betwixt the subsequent phenomena, and production observable in one of those systems, from what regularly happens in ours, though we should suppose no more, than that two or three laws of local motion may be differing in those unknown worlds from the laws, that obtain in ours".³³¹

Boyle's passage is very interesting, but, as it is clear from the context of his whole argumentation, he does not always distinguish between the hypothesis of a plurality of worlds as a plurality of planets or globes in the same universe on one hand, and the idea of parallel universes on the other one.

The same ambiguity can be found in the recovery of the Epicurean cosmology in early modern atomism. For instance, Gassendi, who personally rejected the idea of a plurality of worlds (for theological reasons; if this rejection was a sincere one, it is another question!), distinguished between the position of those who accepted the idea of a plurality of worlds reciprocally interconnected (*mundi communicantem invicem*) and those who asserted that there infinitely many worlds situated apart (*mundi dissiti*).³³² However, also in the case of worlds situated apart, the hypothesis is still one that admits a void space between different worlds, and, thus, still a relation of distance between them (at least, as far as I can understand it).

In the philosophical tradition preceding Leibniz, indeed, the possibility of a plurality of worlds has been principally discussed in a context deeply influenced by the Aristotelian cosmology, or, as in the case of Gassendi, by the Epicurean ones. In both cases, the problem discussed was that of a plurality of separately and simultaneously existing worlds. Thus, the question ultimately amounted to whether one could accept the idea of the existence of an

³³¹ R. Boyle, On the High Veneration Man's Intellect owes to God, peculiarly for Wisdom and Power (1685), in *The Works of the Honourable Robert Boyle*, London 1772, vol. V, p. 139. See also Ibid. 131, 138, and 147-48. A. Funkenstein, *Theology and the scientific Imagination from the Middle Ages to the seventeenth century*, pp. 192-95 compares Boyle's ideas with those of Newton. He also writes: "Throughout the seventeenth century, a new concept of 'laws of nature' gave a new urgency and vigor to the old [...] distinction between God's absolute and ordained power. Methodological discussions about the theoretical foundations of science became [...] a protracted exercise in the reification of modal categories" (p. 192). On Leibniz and Boyle, see L. Loemker, "Boyle and Leibniz", *Journal and the History of Ideas*, 16/1, 1955, pp. 22-43; S. Brown, "Leibniz and Robert Boyle", in P. Phemister-S. Brown (eds.), *Leibniz and the English-Speaking World*, Dordrecht 2007, pp. 88-93

³³² On Gassendi, see Dick, *Plurality of Worlds*, pp. 54-55; Del Prete, *Universo infinito e pluralità dei mondi*, pp. 179-209.On the Epicurean tradition, see C. Wilson, *Epicureanism at the Origin of Modernity*, Oxford 2008, especially chapter 3 (pp. 101-05 are devoted to Leibniz's criticism of the modern Epicureans).

extra-cosmic void space which separated each world from all the others or not. Following Aristotle's anti-atomistic arguments, many authors rejected the latter hypothesis.³³³

In general, the rejection of a plurality of worlds was still grounded on one of the main tenets of Aristotle's cosmology, i.e. the uniqueness of the frame of reference guaranteed by the theory of the natural places and the univocal direction of space. The crisis of Aristotelian cosmology in the age of the modern science played a fundamental role in dismantling the traditional view.³³⁴

However, it is only with Leibniz that the question concerning the relativity of space (to be understood as the order of simultaneous things) came explicitly to the fore. Moreover, it seems to me that it is only Leibniz who ultimately grounds spatial order in the order of our perceptive experience that he is able to build an account of the plurality of worlds substantially different from the traditional ones.³³⁵

What is peculiar to Leibniz's hypothesis is the fact of being the first account (at least, according to my knowledge) in which many worlds are conceived as mutually isolated and

³³⁵ Another relevant difference can be highlighted if we remember, with Grant, that "[w]hen scholastic natural philosophers assumed that God had indeed made such worlds [distinct, separate, and simultaneously existing worlds], the worlds they imagined were identical replications of ours. Although many acknowledged that God could make worlds different from ours in every conceivable way, scholastic commentators concerned themselves overwhelmingly with the possible existence of identical worlds". According to Grant, this may have been determined by "Aristotle's argument that if other worlds were possible at all, they would have to be of a kind identical with ours (*De caelo* 1.8. 276 a 32-276 b5)", a conclusion derived from the theory of natural places and natural motion of the four elements. See Grant, *Planets, Star, and Orbs*, p. 158 and note.

³³³ Aristotle's argument is contained in *De caelo* 279 a 10-17, and immediately follows his defence of the uniqueness of this world based on the theory of natural places and natural motion. For the medieval and late-Scholastic debate on the plurality of worlds, the most complete source is still the monumental work of Pierre Duhem's *Le Système du Monde*. See in particular P. Duhem, *Theories of Infinity, Place, Time, Void, and the Plurality of Worlds*, edited and translated by R. Ariew, Chicago and London 1985, pp. 431 and ff. For a more recent assessment, see Grant, *Planets, Stars and Orbs*, pp. 158-68. See also L. Bianchi-E. Randi, *Vérités dissonantes. Aristote à la fin du Moyen Age*, Fribourg 1993, pp. 76-85. After the condemnation of 1277, the considered view held by the major part of theologians was that, even if a plurality of worlds was possible *de potentia Dei absoluta*, it should be rejected according *de potentia Dei ordinata*. The problem was that of reconciling the uniqueness of the actual world with God's omnipotence.

³³⁴ A typical example of this attitude can be found in Hobbes' criticism of Thomas White. See chapter III of Anti-White. White defends the unity of the world on the basis of three arguments. All these arguments follow the path of the traditional (Aristotelian and scholastic) rejection of the plurality of worlds. In particular, the possible existence of two worlds separate one from another by some interval is rejected by resting on the non-existence of a void space. Imagine two things, among which no existing thing (no body) is posited; there will be no distance between them. Thus, there will be no space posited between two different worlds, since space is no existing thing; therefore, White concludes that there cannot be two worlds at no distance between each other (the idea of two contiguous world is then rejected by considering them as two parts of the same world). In Anti-White, III, 6, Hobbes rejects White's argument by resorting to his distinction between imaginary and real space: for there being a distance between two things, it is not necessary that something between these two things is actually interposed, rather it should only be possible to pose something between them. In contemporary terms, we would call it a modal reductionist view about space (there is a spatial location n units in a certain direction from a body *a* iff there are either actual or possible entities *n* unities in a certain direction from *a*). As we have already seen in Chapter 6, Leibniz clearly accepts modal reductionism about space while he seems to endorse a form of nonmodal reductionism about time (cf. the rejection of temporal vacua between two successive worlds or worldstates in the New Essays). Another interesting point is that Hobbes clearly acknowledges that White's argument rests on the Aristotelian definition of 'place', from which it follows that there is no sense in which other worlds can exist, since there would be no place between them. Cf. Anti-White III, 6, and also De corpore VII, 2, where Hobbes, without mentioning White, criticizes the view of those philosophers who maintain that it is impossible for God to create more than one world, for there would be absolutely nothing outside the place of this world. Concerning the existence of other worlds, or the possibility for God to create a better world than the actual one, Hobbes adopts an agnostic position; cf. Anti-White, xxxi, 2.
each of them is closed under spatial and temporal relations. This move allows him to say that the idea of a plurality of worlds as 'simultaneously existing' makes no sense at all, given the impossibility of any spatiotemporal cross-worlds relation. Notice that this very same point, the impossibility of establishing relations of simultaneity or temporal priority/posteriority between events located in different worlds, will also be the main reason which will lead Leibniz (at the end of 1676) to regard those worlds not as really existing ones but as merely possible ones, i.e. as alternative version of the only actual world (reducing their reality to the diminished 'reality' of the objects of divine understanding).

In order to better understand the latter point, it is time to move from mere historical considerations to theoretical ones, and from the search of probable external sources to the investigation of the internal development of Leibniz's own trains of thought.³³⁶

7.3 Indexicality and Actuality:

Leibniz's Egalitarian Temptation

Let me start with what, at first sight, could be regarded as a reason for not taking Leibniz's theory of many worlds too seriously. At first glance, indeed, Leibniz's talking of other worlds as worlds of dreams should be regarded as an argument *against* the real possibility that such worlds can actually exist. Of course, this would be true if the distinction between imaginary and real phenomena were an absolute one. In the text of the *De veritate, de mente, de Deo, de universo*, however, Leibniz plainly states: "From this it is evident that so far is it from being the case that material things are more real than others, but that on the contrary one can always doubt of their existence". In the following line, the same thought is rephrased in another way: "or, rather, they do not differ materially, i.e., in their existence themselves, from the existence of dreams [...]". This is the main product of what I have called the conceptual twist which occurs in this passage with respect to earlier passages where he discusses the same dreamargument.

He had already stated, indeed, that it is not necessary that a dream differ from waking experience by some intrinsic reality, but only by their structure. In chapter 4.4 I have observed that the young Leibniz employed such a principle (that existence is not a perceptible properties of things) in order to reject the idea that existence is a qualitative property of objects (assuming, for the moment, that there cannot be properties which cannot be perceived). One can take it to mean that, while waking experience is a series of well-ordered perceptions ruled by certain laws of succession, dreams are not. Moreover, one could say that appearances that belong to dreaming experience cannot fit with those that constitute the

³³⁶ For historicaly accuracy, let me add that the topic of the (im)possibility of a plurality of actual worlds will be debated by the authors of the Leibnizian tradition, like Wolff and the Wolffians. An echo of this debate can be found in the pre-critical works of Kant, from his first published text, the *Thoughts on the True Estimation of Living Forces* to the well known inaugural dissertation *On the Form of the Sensible and the Intelligible World*. For Kant's first works, see E. Cafagna, "Kant e la pluralità dei mondi (1746-55)", in D. Bosco et alii (eds.), *Logica, ontologia ed etica. Studi in onore di R. Ciafadorne*, Milano 2011, pp. 154-71.

stream of perceptions of our entire life, which we assume as the standard of what we call 'reality'.³³⁷

7.3.1 From scepticism about the external world to scepticism about actuality

However, that would be a mistake. First of all, indeed, Leibniz himself shows that the contraposition between dreams and reality is not the same as that between absence of order and order, but, rather, is one between different degrees of order (even for the mature Leibniz, notice, 'absence of order' can be only a relative concept).³³⁸ Second, he comes to formulate the hypothesis that a system of phenomena that we use to call a 'dream' can be even superior to the system of perceptions that constitute our waking experience as far as their internal connections are considered (it is the case of the life-long dream we had already met in Leibniz's answer to solipsism).

As I have shown above, a pragmatic solution is more than enough in order to dispel the Cartesian doubt concerning our knowledge of the external world. Unfortunately, however, the same pragmatic move does not work as well when applied to what we call the problem of actuality. How do we know that we are actual and are not living in a merely possible world? If the distinction between our world and the world(s) of dream were an absolute one, then such a problem would never arise.

This was the situation in Leibniz's original account of possibility which I have discussed in Chapter 5.1, where the compact series of things which constitute the actual world was contrasted with possible as imaginary or fictional entities. In that context, notice, the sceptical doubt concerning actuality is simply meaningless, since in that case there is nothing like an egalitarian ontology of actual and possible things. Possible things, indeed, are just fictional entities and, whereas I can imagine or think of a fictional entity like Ariosto's hippogriff, the opposite is not a conceivable situation.³³⁹

In that context, moreover, the adoption of the first person's point of view (typical of Leibniz's phenomenological approach) plays a fundamental role, because it makes possible to immediately dismantle the possibility of an egalitarian approach (when moving to the third person's point of view, the question becomes much more intricate and difficult to solve, indeed).³⁴⁰

³³⁷ Cf. also A VI 3, 394: "Si nostrae sensiones diu essent incohaerentes et perturbatae, velut aegri somnia, nec quaedam recurrerent, certa lege, diu futuri essemus infantes".

³³⁸ Cf. *Discourse*, # 6, A VI 4, 1537-8; *Theodicy* # 242, GP VI, 261-62.

³³⁹ The example of Ariosto's hippogrif is taken from *De modo distinguendi*, A VI 4, 1501. For a useful discussion of this point, from a theoretical point of view, see A. Voltolini, *Finzioni. Il far finta e i suoi oggetti*, Roma-Bari 2010, pp. 160-68.

³⁴⁰ Interestingly enough, an egalitarian approach emerges exactly when Leibniz abandons the first person to embrace the third person's point of view, moving from the problem of *my* own existence (and the existence of *my* appearances) to that of the existence of the other minds. Cf. *De modo distinguendi*, A VI 4, 1503: "Hence it is at once clear that there exists many minds besides ours, and, *since it is easy to think that men who converse with us can have exactly the same reason to doubt our existence as we have to doubt theirs, and since no reason operates more strongly for us than for them*, they will also exist and have minds" (L 365, italics mine). The same argument is briefly recalled at A VI 4, 1395 and 1467. On this 'indifference argument' see the interesting remarks of Westphal, "Leibniz and the Problem of Other Minds".It seems to me that it can be also regarded as a

If, on the contrary, we move from an ontology of (possible) worlds as that proposed by David Lewis, which is a typically egalitarian one (i.e., from the ontological point of view, there is no difference between the possible and the real), then scepticism about our own actuality (and the actuality of our world) becomes a serious problem. The only plausible way out therefrom, indeed, seems to embrace the view that actuality is just a world-relative notion, i.e. the indexical theory of actuality.³⁴¹

Now, what Leibniz says in the passage quoted above ("it is so evident that so far is it the case that material things are more real than others [...] they do not differ materially, i.e., in their existence in themselves, from the existence of dreams [...]") leads him to embrace an egalitarian view. Commenting this passage, Castañeda correctly observes that "Leibniz is contrasting degrees of reality, and existence or actuality is definitely included [among them]. Now Leibniz is categorically saying that each of the perceptual contents that occur in a dream is just as actual as the content of the most veridical perception".³⁴²

Thus, if we end up with imagining that what he have called so far the world of dreams is as well-structured as our world, and that every event occurring in it is reciprocally connected with all the other events therein, and, finally, that spatial and temporal connections hold among all the parts of such world, then it seems that there is no reason to take our world as the real one and the other as just an imaginary world. We do not see any reason to assume that the first world is the actual one and the second is only a merely possible world.

7.3.2 The indexical theory of actuality

In the last quotation above, then, Leibniz consequently concludes that things in our world as not more real than those in the dream world, as far as their existence in themselves is concerned. I think that here 'existence in itself' should be contrasted with 'existence with respect to us'. In other terms, this seems to allude to something like the indexical theory of actuality, on the basis of which Lewis can grant a distinction between 'existence' and 'actuality'. On Lewis' view, indeed, worlds and their inhabitants do not differ as far as their ontological status is concerned, since there is nothing like different ways of existing (existence being identified with the 'there is' of the existential quantifier). On the contrary, what makes the actual world '*actual*' is just the fact that it is *our* world, namely, the world we happen to inhabit, or, more simply, *this* world.³⁴³

so far neglected application of the "no reason argument", on which see Cover and Hawthorne, *Substance and Individuation*, 187-92 (where the argument is referred to prove the identity of indiscernibles only).

³⁴¹ Cf. Lewis, *On the Plurality of Worlds*, 93: "Given my acceptance of the plurality of worlds, the relativity [of actuality] is unavoidable. I have no tenable alternative". This claim has been contested by P. Bricker, who wants to show that indexicality can be distinguished from relativity in the case of actuality, cf. his "Absolute Actuality and the Plurality of Worlds", *Philosophical Perspectives*, 20, 1, 2006, pp. 41-76.

³⁴² Castañeda, "Leibniz's Meditation about Existence, Dreams, and Space", p. 125.

³⁴³ Cf. D. Lewis, "Anselm and Actuality", in Id., *Philosophical Papers*, vol. I, New York/Oxford 1983, pp. 10-25, and Id., *On the Plurality of Worlds*, pp. 92-96. For a criticism of Lewis, see P. Van Inwagen, "Indexicality and Actuality", *The Philosophical Review*, 89, 1980, pp. 403-26. Robert Adams has observed that sometimes Leibniz expresses his view in terms that could recall the indexical theory of actuality. He refers to *De propositionibus existentialibus*, 1688 (?), A VI 4, 1632 = C 271, where he claims that the adjective '*existent*' means "this series of things posited", where, Adams notes, the emphasis has to be put on 'this' ("*posita semel hac rerum serie et hoc semper notat* to *existens*"). Cf. R. M. Adams, "Theories of Actuality", originally

As Lewis notes, 'actual' is an indexical terms exactly as 'present'; whereas 'present' refers at any time t to t itself, 'actual' refers at any world w to w itself. Indexical terms depend for their reference from the context of utterance.³⁴⁴ The consequence is that 'actuality' turns out to be a relative term: it is a problem that a world w possesses only in relations to its inhabitants. To quote an example employed by Robert Adams, according to this theory, the difference between Henry Kissinger and the Wizard of Oz is just a difference in their relations to us. This happens because, for Lewis, our world consists of "us and all our surroundings, however remote in space and time".³⁴⁵

This means that actuality for us is the maximal spatiotemporally related whole of which we are part. A non-actual entity will be something which is not part of the same spatiotemporally related whole which we are part of, but it will nonetheless exist in the very same sense of us and our world; moreover, it will be part of another maximally spatiotemporally related whole of which we are not part of.

Lewis' informal introduction of his concept of 'world', after all, presents stroking similarities with that proposed by Leibniz:

"The world we live in is a very inclusive thing. Every stick and every stone you have ever seen is part of it. And so are you and I. And so are the planet Earth, the solar system, the entire Milky Way, the remote galaxies we see through telescopes, and (if there are such things) all the bits of empty space between the stars and the galaxies. There is nothing so far away from us as not to be part of our world. Anything at any distance at all is to be included. Likewise the world is inclusive in time. No long-gone ancient Romans, no long-gone pterodactyls, no long-gone primordial clouds of plasma are too far in the past, nor are the dead dark stars too far in the future, to be part of this same world. [...] But nothing is so alien in kind as not to be part of our world, provided only that it does exist at some distance and direction from here, or at some time before or after or simultaneous with now".346

Leibniz, indeed, has shown that if other worlds exist, they must be necessarily spatially disconnected from our world, and, I assume, also reciprocally disconnected with each other. There are no spatiotemporal relations across worlds, and this is just a consequence of the fact that spatiotemporal connection has been assumed as an equivalence relation. Then, the notion of actuality has to be world-relative, i.e. internal to each closed maximal spatiotemporal framework. On the contrary, when speaking of 'existence' (without indexing it at any particular world), we are not allowed to presume that the existing things are all and only those that are placed at a certain distance from us (in the case of Lewis, unrestricted quantification ranges on everything existing, i.e. on everything at all; restricted quantification ranges only over the entities of a particular world, as when I say that 'all the beers are in the fridge').

published in Noûs, 8, 1974, pp. 211-31; reprinted in M. Loux (ed.), The Possible and the Actual. Readings in the Metaphysics of Modality, Ithaca 1979, 190-209, esp. p. 194 and note. I will take into considerations these indexical aspects of Leibniz's account of existence in what follows.

³⁴⁴ «Our present time is only one time among others. We call it alone present not because it differs in kind from all the rest, but because it is the time we inhabit. The inhabitants of other times may truly call their own times 'present', if they mean by 'present' what we do; for the meaning we give to 'present' is such that it is indexical, and refers at any time t to that time t itself» (D. Lewis, Counterfactuals, Oxford 2001^2 , p. 84). Lewis says that his doctrine of actuality mirrors his, less controversial, theory of time. Also in this case, there are Leibnizian passages that seem to go in the same direction as Lewis. Cf. A VI 4, 412: "Nunc id est in hoc temporis puncto"; A VI 4, 1517: "neque enim τò *nunc* vel *hic* nisi relatione ad caetera intelligi potest". ³⁴⁵ Lewis, *On the Plurality of Worlds*, p. 2. Cf. Adams, "Theories of Actuality", p. 194.

³⁴⁶ Lewis, On the Plurality of Worlds, p. 1.

Of course, unlike Lewis, the young Leibniz has derived his theory of a plurality of worlds moving from a phenomenalist account of perception, and not from considerations on the meaning of modal operators. In the case of Lewis, the relativity of actuality is mainly a question of linguistic meaning (assuming that 'actual' is the same as 'this-worldly', it trivially follows that our world is actual and the others are not). In the case of Leibniz, on the contrary, the relativity of actuality seems to be grounded on his theory of perception, whereby the subject of perception (the Cartesian *cogito*) has a cognitive access to everything which exists in his same world (even though is knowledge is for the most part a confused one), whereas he has no cognitive access to what is not actual (he can only *think of* a non-actual thing, but he cannot *perceive* it; this is exactly the sense of the distinction between *concipere* and *percipere*). ³⁴⁷

Those differences notwithstanding, the young Leibniz's account shares many common features with Lewis' one. In both cases, indeed, we have a sort of reification of modal categories: possible worlds are not just ways in which this same world could be (or could have been), they are worlds, i.e. entities of the same kind as we and our surroundings (in this sense, Lewis' account is closer to a *cosmological* theory than to a *modal* theory of worlds). Second, from the causal and spatiotemporal isolation of worlds, it follows that they do not overlap and, thus, the possibility of identity across worlds is absolutely meaningless (since it is impossible for the same person to live in two worlds).

7.3.3 The indexical theory revisited. An epistemic account of existence?

A point that needs to be stressed now is that if, as I have showed so far, the distinction between (absolute) existence and (relative) actuality is just a consequence of a realistic account of worlds ('possible' is redundant here), then such a distinction will stand and fall with that theory.

Even before analysing the details of Leibniz's argument against the plurality of worlds, we can anticipate that, among its corollaries, there is the impossibility of distinguishing between existence and actuality. In other words, there are no other existing things than the actual ones (in the following chapter, I will explain the consequences of this conclusion for Leibniz's mature theory of possibilia).

Now, let me focus just on the general reasons that might have induced Leibniz to reconsider his position.

First of all, I do not think that Leibniz has ever fully embraced something like the indexical theory of actuality. The passage I have quoted above is where he comes closer to such a view (and, in focusing on that and just on that, I have indulged an exercise of what Castañeda

³⁴⁷ As Di Bella, "*Phenomenon*, Action, Coherence", p. 29, notes, the relative characterization of actuality seems to be even more plausible when it is referred, as in Leibniz, to a phenomenally-minded scenario, than when it is referred just to our linguistic practice. In a sense, whereas Lewis started with the plurality of worlds and derived the indexical theory of actuality therefrom, one could say that Leibniz proceeded the other way round: from the impossibility of disposing of an absolute criterion of distinction between this world and the dream-worlds, to the impossibility of rejecting the existence of the latter, and, finally, to the plurality thesis. On the distinction between *concipere* and *percipere*, and the sense in which we can say to have access to mere possible things, see the last part of Chapter 6 above.

called the 'Darwinian' method of philosophical history of philosophy).³⁴⁸Even in that case, however, one can observe that Leibniz has not exactly stated the very same position that will be hold by Lewis.

Let me quote the passage in its integral version:

"From this is evident that so far is it from being the case that material things are more real than others, but that on the contrary one can always doubt of their existence; or, rather, they do not differ materially, i.e., in their existence in themselves, from the existence of dreams, even though they differ in beauty".

What Leibniz is saying here is that, even though (the worlds of) dream and (the world of) waking experience do not differ as far as their existence in themselves is concerned, they differ "in beauty". 'Existence' in this passage is paired with 'matter', while 'beauty' is paired with 'form'. What does it mean, however, that they differ in beauty? Some preliminary observations have to be put forth before this question might be answered.

Let me start by remarking once again that the mature Leibniz (especially in his late texts) will hint at a distinction between an epistemic criterion of existence and a metaphysical characterization thereof. According to the first, as we have seen, existence is clearly a relative matter, but according to the latter it should very probably be understood as an absolute property (even though a very peculiar one, perhaps). The absolute character of actuality is required in order to conclude that, for every possible world, there is one and only one that God has actualized, and it is the best one. Being the best is, of course, a comparative notion, but not a relative one, at least in the sense in which the indexical notion of actuality is relative (in this sense, take note that *relational* does not mean *relative*, at least in the sense in which, according to the indexical theory, actuality is a world-relative property).

For if the notion of a best possible world (BPW) makes any sense at all, it should be only one, and, thus, the expression 'best possible world' has to refer to the same thing (the same world) in all the contexts. In other worlds, at every possible world different from a, it is true that a is the best, and, thus, the best-ness is not world relative; whereas, according to the indexical theory, every world is actual at itself, and there is no world which is actual at a world different from itself.³⁴⁹

Sometimes, as I have already noted, Leibniz distinguishes between an *a priori* and an *a posteriori* account of (actual) existence. In a passage I have already mentioned, we can read:

"The notion of existence is that of a harmonious perception [*perceptio consentiens*], i.e. one which does not involve a contradiction. When something does not cohere with other perceived things, it is completely false.

³⁴⁸ On the distinction between the Darwinian and the Athenian method, see Castañeda, "Leibniz's Meditation about Existence, Dreams, and Space", pp. 91-94.

³⁴⁹ Lewis rejects the absolute nature of actuality, since it would involve that this world is necessarily actual (if actual at all). Whereas, the indexical theory would preserve the contingency of actuality: there is no world which is actual from the point of view of every possible world. In this sense, notice, Leibniz should conclude that this world, if actual, is necessarily so (for it is true at every possible world that this is the BPW). However, this is the sense of necessity (as truth at all possible worlds) captured by the possible worlds semantics. When Leibniz rejects that this world is necessarily the best possible world, he does so on the basis of a different, proof-theoretic account of necessity, based on the notion of finite demonstrability ('p is necessary' means 'p can be demonstrated in a finite number of steps'). For this second sense of necessity, see Adams, *Leibniz*, pp 23-30; D. Blumenfeld, "Leibniz on Contingency and Infinite Analysis", *Philosophy and Phenomenological Research*, 45, 4, 1985, pp. 483-514.

The a priori principle is completely different, that is to be harmonious with the most perfect [consentiens *perfectissimo*], i.e. the fact that if something is not posited in it, this series of things is not the most perfect one".350

As this passage shows, however, the contraposition between these two accounts is not an absolute one. The a priori one, indeed, is defined in terms of what is consentiens *perfectissimo*, i.e. what is coherent or harmonious with the most perfect being, i.e. with the divine mind. In other words, the distinction between the epistemic and the ontological account makes sense only for finite minds, not for the divine one.

This is confirmed by Leibniz's attempts to provide a satisfying characterization of 'existence' in section 73 of the GI, where, again, epistemic and ontological considerations seem to be inextricably intertwined.

There, indeed, these two accounts are clearly taken as equivalent formulations:

"I say [...] that an existent entity is that which is compatible with most things, i.e. is the most possible entity, and so all co-existents are equally possible [here 'possible' means 'compossible']. Or, what comes to the same, 'existent' is what pleases something intelligent and powerful; but in this way existence is presupposed. However, this definition at least can be given: 'existent' is what would please some mind, and would not displease another more powerful mind, if minds of any kind were assumed to exist. So it comes to this, that there is said to 'exist' that which would not displease the most powerful mind, if it should be assumed that a most powerful mind exists. But so that this definition shall be applicable to experience, it must rather be stated as follows: there 'exists' that which pleases some (existent) mind [...], and does not displease (absolutely) the most powerful mind".³⁵¹

As the last line makes clear, the passage from a relative account of existent to an absolute one corresponds to that from compatibility or harmony with finite minds, whose perspectives are always partial, to compatibility or harmony with the most perfect mind, i.e. with the divine one. The necessity of linking the definition of existence to the divine mind (assumed as actual or merely possible) will be discussed in the next chapter. For the moment, let me add that there is also another way in which Leibniz frames the question, one which has to do with the relation between 'essence' and 'existence'. The a posteriori account of existence, indeed, moves from existence as a fact, whereas, on the contrary, an alleged a priori account should not move from existence itself but from essence.

For instance, in an autobiographic sketch in which he explicitly acknowledges of having spent a lot of time investigating the notion of 'existence' ("integros dies fatigavi inquirendo in notione existentiae"), Leibniz ends up with putting forth his a posteriori account of existence as distinct perceivability. But he also adds: "Mais j'avais beau imaginer d'autres principes, je croyais que tout cela se rapportait à l'essence et non à l'existence, et que je ne pourrais trouver aucun autre notion claire de l'existence que celle d'être sentie ».³⁵²

³⁵⁰De illatione et veritate, atque de terminis, 1687-96 (?) A VI 4, 865. Cf. also the remark on Temmik published by Mugnai, Leibniz's Theory of Relations, p. 158: "Explaining the matter a priori, an entity is whatever is possible, but there actually exists whatever is in the best series of possible things". I have discussed it in Chapter ⁴ above. ³⁵¹ GI, # 73, A VI 4, 763/LP 65-66.

³⁵² The original text, in Latin, went (temporarily?) lost (or it has been subtracted to the Hannover archive by his first editor). The only source, at the moment, is the French translations provided by Foucher de Careil, who was the first and the only to print and to mention it. Cf. A. Foucher De Careil, Mémoire sur la philosophie de Leibniz,

The passage is not very clear, but I think he is referring to his metaphysical characterization of existence in terms of (maximum) degree of perfection, namely the thesis that it exists what is the most perfect (which holds in the case of God, who is the absolutely perfect being, as well as in that of the actual world, which is relatively perfect, if compared to God, but it is still the most perfect among all the possible worlds). This metaphysical characterization, indeed, has clearly to do with 'essence', since perfection is usually taken by Leibniz as the measure of the degrees of reality or essence of a thing.³⁵³

Now the question could be raised of why Leibniz said that he could not find any clearer notion of existence than that in terms of perceivability, especially if, as I have shown, the perfection- and the perception-based accounts are ultimately regarded as equivalent ones by him. If I am not mistaken, the relevant point here is that such equivalence between these two accounts is something that has to be assumed but cannot be proved.

Unfortunately, this point has not been discussed by Leibniz with all the carefulness one would desire from him but his views on this point can be reconstructed from what he says in many different passages.

The first one is in his 1675 letter to Simon Foucher, in which he discusses the dreamargument:

"Now, since a reality passed for a vision, what prevents a vision from passing for a reality? It is true that the more we see some connection in what happens to us, the more we are confirmed in the opinion we have about the reality of our appearances; and it is also true that the more we examine our appearances closely, the more we find them well-sequenced [...]. This constant accord engenders great assurance, but after all, it will only be moral assurance until somebody discovers the *a priori* origin of the world we see and pursues the question as to why things are the way they appear back to the ground of essence [*jusqu'à ce que quelque homme découvre à priori l'origine du monde que nous voyons, et qu'il puise dans le fonds de l'essence pour quoy les choses sont de la maniere qu'elles paroissent*]. For having done that, he will have demonstrated that what appears to us is a reality and that it is impossible that we ever be deceived about it again. But I believe that this would nearly approach the beatific vision and that it is difficult to aspire to this in our present state".³⁵⁴

Paris 1905, vol. I, pp. 10-13. Foucher believes that it had been written by a very young Leibniz around 1666, but this supposition is completely wrong. In the whole passage Leibniz constantly employs the past tense, either in the perfect or imperfect form, which makes me think that the entire text has to be regarded as an autobiographical passage, where the mature/old Leibniz summarises the best results he obtained when he was a young philosopher. This intuition has been confirmed by the members of the Leibniz-Forschungstelle (Münster), who believe that the passage quoted by Foucher belong to a period posterior to 1695 (or even 1700). Many thanks to Lucia Oliveri for her kind assistance.

³⁵³ See for example the final part of *Elementa verae pietatis*, A VI 4, 1363-64, where Leibniz initially distinguishes between "quantity of reality" (or "essence") and "quantity of possibility", but he acknowledges that these two ultimately amount to the same thing. The best account of Leibniz's theory of "perfection" is that of A. Heinekamp, *Das Problem des Guten bei Leibniz*, p. 135 and ff.

³⁵⁴ Leibniz to Foucher, 1675, A II 1, 249/AG 4. Cf. also *Definitiones: aliquid, nihil*, 1679 (?), A VI 4, 307: "The connection of all appearances with each other, which the dreams fall short of, is a certain *a posteriori* mark of the real being. However it is not a demonstrative mark. Therefore the reality of the objects which affect our senses can be known in no other way than *a priori*, i.e. by considering that we cannot be alone in the world [...]; and even though it seems to be possible that all those things are phantasms in themselves, it is no longer possible when they are in the world, considered the universal connection of things. So far, however, I am not able to demonstrate that bodies are real beings [...]". Notice that in this passage Leibniz thinks he can prove that other minds exist (the argument is the same he develops in A VI 4, 1503), but he cannot prove that bodies are real beings (perhaps they are just phenomena).

Here Leibniz repeats that the connection we constantly find in our appearances (the harmony among our perceptions and those of other minds) gives us only a moral assurance to the conclusion that they are appearances of something really existing 'outside there'. In order to fill the gap –from moral to metaphysical certainty –one should discover an *a priori* argument which would explain why things appear to us in this way and not in another one (which means why God has chosen right this world and not another one, assuming a one-to-one correspondence between a world and a system of phenomena). Notice also that the possibility of establishing *a priori* the metaphysical derivation of this world from "the ground of essence" is considered equivalent as to attaining the so-called 'beatific vision' (*visio beatifica*), as sort of immediate acquaintance with the essence of God (a knowledge of him 'face to face'), which the theological tradition granted only to the blessed.

7.3.4 The impossibility of an a priori knowledge of existence

The connection between the beatific vision and a complete *a priori* knowledge (in the traditional sense, of knowledge *quia* or knowledge from the effect to the cause, to be contrasted with knowledge *propter quid*, from the cause to the effect)³⁵⁵ of the origin of the world will be repeated by the mature Leibniz in his 1686 *Systema theologicum*, where he explicitly endorses the traditional and orthodox view whereby we will attain the beatific vision only after the resurrection from death. In our present state (*in via*), indeed, even though God is always the light of our souls and the only immediate external object of our understanding, we still see all things as through a mirror (*in speculo*), from which the confused character of our thought can be derived.

On the other hand:

[&]quot;when our cognition will be distinct, we will be able to drink at the source of things and have an intuition of God face to face. For, as God is the ultimate reason of things, for this very same reason we will certainly see God when our cognition will be a priori, i.e. through the cause of causes, inasmuch as our demonstrations will require neither hypotheses nor experiments, and we will be able to provide a reason even to primitive truths".³⁵⁶

³⁵⁵The traditional difference between *quia* and *propter quid* is also stated by Dante Alighieri, when he speaks of the incapacity for creatural beings to grasp the mistery of Trinity ("Matto è chi spera che nostra ragione/possa trascorrer la infinita via/che tiene una sustanza in tre persone./State contenti, umana gente, al *quia*;/ché, se potuto aveste veder tutto,/mestier non era parturir Maria; *Purgatorio*, III, II. 34-39).

³⁵⁶ Examen religionis christianae (Systema theologicum), April-October 1686, A VI 4, 2452. The beatific vision has to be carefully distinguished from angelic knowledge. The latter has been sometimes mentioned by Leibniz. See, for instance, *De modo perveniendi ad veram corporum analysin et rerum naturalium causas*, May 1677, A VI 4, 1971/GP VII, 265: "First of all, I take it to be certain that *all things come about through certain intelligible causes, or causes which we could perceive if some angel wished to reveal them to us*" (L 173). Cf. also Leibniz to Hartsoeker, February 1711, GP III, 519, where physical explanations by means of occult qualities (among which Leibniz includes also Newton's theory of attraction) would be unintelligible even from the point of view of angel. As one can clearly understand, according to this passage angelic knowledge is considered on the same side of human one (from the qualitative, even if not quantitative, point of view). Other times, however, both angelic and beatific knowledge are directly equated with the direct vision of God, as in the so-called *Systema theologicum*, A VI 4, 2401-02. On the methodological function of Leibniz's reference to angels in his papers on natural philosophy, see R. E. Butts, "Leibniz on the Side of the Angels", in K. Okruhlink-J. R. Brown, *The Natural Philosophy of Leibniz*, Dordrecht , pp. 207-26. On Leibniz's angelology, one can see also M. Geretto, *L'angelologia leibniziana*, Soveria Mannelli 2010. In the theological tradition (for instance, Aquinas), beatific vision (i.e., the immediate intuition of the essence of God) was contrasted with angelic knowledge, for the latter

At this point, one has to remark that the question why things are the way they appear to us (and not otherwise) is just the epistemic counterpart of the fundamental metaphysical question of why God created this series of things instead of another one.

One might claim that, as far as the metaphysical question is concerned, Leibniz *does* actually have a strong answer to it, one following from his idea that God is (morally) necessitated to create the best. Henceforth, the world we happen to live in is the best. In this sense, notice, both the perfection- and the perception-based accounts of existence should be subsumed under a more general explanation based on the notion of 'harmony'.

God, indeed, chooses the most harmonious among infinitely many possible worlds; and the connection of phenomena is nothing but a mark or consequence of this harmony, since, after all, it is a sort of harmony among our perceptions and the perceptions of other substances. Harmony, thus, would constitute the bridge, so to say, between the epistemic (or phenomenal) and the metaphysical level, just because the harmony among perceptions is nothing but a mirroring of the harmony of the possible world God has chosen to create, or, more briefly, the harmony between the perceptions of many substances is just a mirroring of 'universal harmony').³⁵⁷

So far so good, one would say. However, I want to point out that the passage from 'God creates what is best' to 'This world we happen to live in is the best' would be granted only if we were able to prove that 'This world we happen to live in is the world God has actualized, i.e. the actual world'; but no argument, or, better, no *a priori* argument seems to be available to us in order to fill the gap in the demonstration.

In order to do this, indeed, we should be able to prove that the world as it appears to us (the phenomenal world) is not only a harmonic system (one in which everything is connected with everything else, everything can be predicted, where the simplest hypotheses explain the greatest amount of phenomena, and so on); but, also, that it is the most harmonic one, that is the most harmonic among all the other possible systems of phenomena God could have produced.³⁵⁸ This task, however, could be accomplished by an infinite mind only, and notice

was explained in terms of innate cognition. On the distinction between these two kinds of non-human cognitions and their relevance to early modern epistemological debates, cf. Scribano, *Angeli e beati*, and, as far as Leibniz is concerned, N. Jolley, *The light of the soul. Theory of Ideas in Leibniz, Malebranche, and Descartes*, Oxford 1998.

^{1998.} ³⁵⁷ Cf. the continuation of the passage quoted by Foucher: "On ne pourrait en effet trouver d'autre raison à ce que telles choses existent et non telles autres, c'est-à-dire soient perçues par l'intelligence première, si cette intelligence restait purement passive. Et alors je compris pourquoi l'intelligence perçoit les une plutôt que l'autre, et pourquoi telle choses existent plutôt que telles autres. C'est que elle préfère les unes aux autres, et si elle les préfère, la cause est en que les unes sont plus harmoniques que les autres [*alia aliis sint* ἀρμονικωτερα]. Je trouvais donc que le principe intime des choses était l'harmonie universelle [*principium ergo intimum rerum reperii esse harmoniam universalem*] » (Foucher de Careil, *Mémoire sur la philosophie de Leibniz*, p. 12). For parallel passages, cf. A VI 3, 588/DSR 113 ; A VI 4, 1637. The early occurrence of the Greek superlative *harmonikotata* is in the letter to Wedderkopf, 1671, A II 1, 117/CP 3. The idea of harmony as diversity compensated by identity (as in the case of musical harmony), to be employed in the context of theodicy, dates back to Augustine (for instance, *De civitate Dei*, xi 22; *De vera religione*, chap. 48). A classical book on the argument is L. Spitzer, *Classical and Christian Ideas of World Harmony. Prolegomena to an Interpretation of the Word "Stimmung"*, Baltimore 1963.

³⁵⁸ Cf. also a very interesting passage from the 1678-79 essay *Praefatio ad libellum elementorum physicae*, A VI 4, 1998, where Leibniz distinguishes two ways, an *a priori* and an *a posteriori* one, of discovering causes: "The a priori method is certain if we can demonstrate from the knowledge of God's nature which structure of the world is in agreement with the divine reasons and, from this structure, we can finally arrive at the principle of

that, according to what is probably Leibniz's considered view on the topic, even God is not able to demonstrate that this world is the best, but he can only see, with his infallible vision, that this world which he has actualized is the best of all possible worlds).³⁵⁹ In other worlds, the argument should run, more or less, in the following way:

(P1) 'God creates the BPW';

(P2) 'This (the world we happen to live in) is the world God has actualized'; therefore

(C) 'This (the world we happen to live in) is the BPW'.³⁶⁰

As one can easily note, however, (P2) can be rephrased as (P2*), 'This world (the world which appear to us as such and such connection of phenomena) is the world God has actualized (the really existing world)'. Thus, a clearer notion of existence (an a priori one) would necessarily require a proof of (P2), which is exactly what Leibniz believes to be impossible for us, at least *in statu viatoris*, before we can attain the beatific vision.

³⁵⁹ This is what seems to emerge from a comparison of the passages where the mature Leibniz introduces his infinite analysis theory of contingency with those in which he claims that the proposition "This world is the best" is contingent. The most interesting passage is in *De natura veritatis, contingentiae et indifferentiae*, 1685-86, A VI 4, 1517, where contingent propositions are equated with the existential ones, i.e. with those which are true of a certain time only and do not express only the possibility of things but also their (conditional or actual) existence. The interesting point, which is stressed at p. 1518, is that "even if someone would be able to know the whole series of the universe, he would not yet be able to provide a reason [for the truth of such propositions], without establishing a comparison between this universe and all the other possible ones". Thus, there is a double level of infinite analysis, one connected to the infinity of this series of things, and the other to the comparison between this infinite series with all the other possible ones. The best account of infinite analysis is Adams, *Leibniz*, pp. 22-45. On the sense in which God could only 'see' the truth of contingent propositions, see also A. Hart, "Leibniz on God's 'Vision'", *Studia Leibnitiana*, 19/2, 1987, pp. 182-99.

³⁶⁰ My version of the argument is an oversimplification, since Leibniz's would probably imply also reference to modal operators. I have omitted them, however, because they are not relevant to the point I want to discuss here, and also because Leibniz himself oscillates between the claim that necessity has to be ascribed to 'God creates the best' and the claim that 'The world God has created is the best'. Both claims seem to find a justification in other tenets of Leibniz's philosophy. Their conjunction, however, would force him to accept the conclusion that it is necessary that this world has been created by God, against the alleged contingency of existence (which Leibniz wants to defend). In the context of Leibniz's theory of infinite analysis, Leibniz maintains that it is contingent (i.e. non demonstrable in a finite number of steps) that this world is the best. Cf. Adams, Leibniz, pp. 23-25. Again, if you assume that necessity is truth in every possible world, the conclusion follows that it is necessary that this world is the best (since the best-ness of this world is not a world-relative fact). Notice, however, that one can re-write Leibniz's reasoning in epistemic terms, as the impossibility of passing from generic to specific knowledge (roughly speaking, from "I know there is something which is a world and is the best possible one" to "There is something which is a world and I know it is the best possible world"), which, when the operator of 'knowledge' is taken as the epistemic counterpart of the operator of necessity in alethic modal logic, it is nothing but a re-statement of the impossibility of moving from a de dicto ("Necessarily, there is something which is the best possible world") to a de re ("There is something which is necessarily the best possible world") statement concerning the BPW. On this point, cf. what Leibniz says at Grua 493, where what we said about 'knowledge' is stated in terms of 'demonstrative knowledge'.

sensible things. This method [...] does not seem to be entirely impossible. For our mind is endowed with the concept of perfection, and we know that God works in the most perfect way. I admit, however, that, though this way is not hopeless, it is certainly difficult and that not everyone should undertake it. Besides, it is perhaps too long to be covered by men. For sensible effects are too greatly compounded to be readily reduced to their first causes. [...] Yet we believe that the absolute use of this method is conserved for a better life" (L 283). Again, we have the twofold structure I have already pointed out above: the a priori method (from the knowledge of the nature of God to sensible things) seems to be possible insofar as we know that God acts in the most perfect way, but, at the same time, we know it only *generally*, and we cannot apply this principle to particular cases because "sensible effects are too greatly compounded" to be resolved into their first causes (at least in this life, see the usual reference to beatific vision in the last line).

An interesting point which emerges from my reconstruction of Leibniz's argument is that, according to the perfection-based account, the actuality of a thing *A* has to be, if not explained away or reduced, at least characterized in terms of *A*'s being part of the BPW, where the term 'best possible world' stands for something like a *descriptive content*, one to be explicated in terms of the perfection/degree of reality of the essences which, collectively, make up that particular world.

On the other hand, according to the perception-based account, the actuality of a thing *A* has to be characterized in terms of *A*'s being consistent with this well-connected series of things, and, then, to this entire phenomenal world; where, notice, the latter is always characterized through an unmistakable and irreducible *indexical element*: *this* world, the world *we* happen to live in, and so on.

Now the reducibility or irreducibility of this indexical element seems to be exactly the point Leibniz is concerned with in the passage from the letter to Foucher quoted above. The alleged reduction might be accomplished only if we would be able to prove that *this* world, taken in the second sense, is the *best possible* world, taken in the first one; but this is exactly what, according to Leibniz, is precluded to our finite minds. An indexical element, then, is essentially connected to what is for Leibniz the reference to actuality from the point of view of a finite or created understanding (especially for what concerns the possibility that we have of individuating an object by means of its position in the spatiotemporal framework of our series of things).³⁶¹

7.3.5 "Altitudo divitiarum": the mystery of existence

A somewhat similar question will be touched in section 30 of the *Discourse*, concerning the possibility or impossibility we have to provide a reason for contingent events, like Judas' sin (and, thus, a reason for the truth of the correspondent contingent proposition). First of all, he explains that

the correct way of posing the question is not to ask "why this man will assuredly commit this sin" (answer: since, otherwise, he would not be *this* man), but rather: "why does such a Judas-the-traitor, who is merely possible in God's idea, actually exist?".

Leibniz's answer to this second, correct formulation of the question is the following:

"But no reply to this question is to be expected on earth, except that, in general, one must say that, since God found it good that he should exist, despite the sin that God foresaw, it must be that this sin is paid back with interest in the universe, that God will derive a greater good from it, *and that it will found out that, in sum, the sequence of things in which the existence of that sinner is included is the most perfect among all the possible*

³⁶¹ Again, this indexical element in the characterization of actuality is due to the fact that we (as cognitive subjects) are part of what is actual, i.e. that the point of view on actuality is, so to say, a situated one, or one internal to the actual world itself. Now, moving from a situated account of what is actual (in the sense just explained), the only plausible characterization of existence we can give is a causal one: objects which actually exists are those and only those which can stand in a certain causal relation with us (where, of course, 'causation' does not necessarily mean 'physical interaction'; Leibniz's causal account of existence is given in terms of (sense) perception). This reference to something like a causal chain makes us think of a Kripkean theory of individuation (or nomination) in contrast with Lewis' descriptive account of possible worlds and individuals. For this Kripkean element in Leibniz account, see the remarks in G. Lloyd, "Leibniz on Possible Individuals and Possible Worlds", *Australasian Journal of Philosophy*, 56, 2, 1978, pp. 126-42.

sequences. But we cannot always explain the admirable economy of this choice while we are travellers in this world; *it is enough to know it without understanding it*. And here is the occasion to recognize the *altitudo divitiarum*, the depth and the abyss of divine wisdom, without seeking a detail that involves infinite considerations".³⁶²

The distinction between "know" (*savoir*) and "understanding" (*comprendre*) correspond to that between *intelligere* (and *cognitio*) and *comprehendere* (and *comprehensio*) which Leibniz develops in a text of the same period, which the editors have entitled: *Facilius intelligere Deum, comprehendere corpus*.³⁶³ Such a distinction seems to be reminiscent of what Descartes said concerning the possibility for our minds of having an innate idea of God. In particular, according to Descartes, we can have a clear and distinct idea of God, i.e. we can know the nature of God, even though we are not able to understand it. As Descartes said in the third *Meditation*:

"It does not matter that I do not grasp [*comprehendam*] the infinite, or that there are countless additional attributes of God which I cannot in any ways grasp [...]; for it is in the nature of the infinite not to be grasped by a finite thing like myself. It is enough that I understand [*intelligere*] the infinite, and that I judge that all the attributes which I clearly perceive and know to imply some perfection –and perhaps countless others of which I am ignorant –are present in God either formally or eminently".³⁶⁴

On this point, both Descartes and Leibniz are the heirs of Scotus' rejection of one of the most fundamental tenets of Aquinas' thought, i.e. the impossibility of having a positive idea of God, and, in particular, the impossibility of conceiving the infinite (God) through something finite (a concept or a *species*). In the Scotistic tradition, indeed, one must distinguish between the impossibility for us (before attaining the beatific vision) of having an adequate notion of God (what the Schoolmen called *species* or *notio comprehensiva*) and the impossibility of having a distinct notion of him. The former is accepted while the latter is rejected, since Scotus believed that it is not necessary for a concept or a notion to be completely homogeneous to the object that it is meant to be represented by it.

Notice that this point, already stressed by Descartes' rejection of the Thomistic theory of *species*, will be furtherly emphasized by Leibniz's theory of expression, for it does not require that similarity holds between the object expressed and its expression; so that the finite mind can be said to express God, and, thus, having an idea of him, even though the latter is infinite.³⁶⁵ *En passant*, one can add that the same distinction can be usefully employed to

³⁶² Discourse on Metaphysics, # 30, A VI 4, 1576-77/AG 61. See also Ibid. # 31.

³⁶³ Cf. A VI 4, 640.

³⁶⁴ AT VII, 46/DPW, II, 32. Cf. also *Primae responsiones*, AT VII, 112: "So let me say first of all that the infinite, *qua*

infinite, can in no way be grasped [*comprehendi*]. But it can still be understood [*intelligi*], in so far as we can clearly and distinctly understand that something is such that no limitations can be found in it, and this amounts to understanding clearly that it is infinite" (DPW II, 81). See also *Objectiones tertiae cum responsionibus authoris*, AT VII, 189.

³⁶⁵ For Scotus vs. Aquinas, see Suárez, DM XXX, xi, esp. ## 27-28. In section 28, in particular, Suárez adopts the distinction between *comprehendere* and *intelligere*. Suárez's text may be the genuine source of Descartes. Notice also that both Descartes and Leibniz share also Scotus' view that the knowledge of the infinite precedes (from the logical, not temporal) point of view that of the finite (against Aquinas' claim that we cannot have any positive account of God's infinite essence). On this point, see Scribano, *Angeli e beati*,pp. 122-26 (on Descartes)

understand the sense in which Leibniz might say that should necessarily acknowledge that there are individual notions of individual substances, even though only God is able to understand them, since human thought is unable to grasp the infinite complexity of complete concepts.³⁶⁶ Again, in the passage from the *Discourse*, Leibniz repeats the traditional theme of the distinction between the possibility of knowing *in statu viatoris* and the contemplation of God we could attain through the beatific vision.

Finally, one must notice Leibniz's reference to divine wisdom, whose inscrutability is here associated with a reference to the Pauline notion of *altitudo divitiarum* (from *Rom.*, 11, 33).³⁶⁷ Such a reference to Paul will be often repeated by Leibniz in other passages, and always with the same meaning.³⁶⁸ In commenting Bellarmino's treatise on free will, for instance, Leibniz clearly equates what he calls Paulus' abyss (*abyssus Pauli*) with universal harmony, i.e. with "the harmony of things which goes beyond what can be grasped by the human mind, even though our mind knows that it exists" (again, the distinction between knowing and understanding).³⁶⁹

The most telling passage, however, occurs in a series of notes on Arminian theology dated around 1691-95, in which Leibniz discusses at length his theological account of different possible worlds God could have created (a passage I have mentioned at the beginning of this chapter, see note 266). He also repeats his standard account, according to which God cannot choose the destiny of a determined individual (like Adam, Peter or Judas), since his destiny is already inscribed in the individual notion of that individual. Thus, properly speaking, God does not want that Judas sins, but he only admits Judas-the-sinner into existence since he belongs to the best possible world.

Also in this passage Leibniz wants to stress the holistic account of the series of things: properly speaking, indeed, God's decree does not concern the possibility of admitting Judasthe-sinner or Peter-the-denier into existence, as if these could be taken in isolation from the world they belong to. On the contrary, what God does decree is not this or that single fact, but only "whether he wants to admit to existence that universal series of possibles, which, among infinite other ones, contains Peter and Judas affected in such and such a way".³⁷⁰

At this point, he continues:

and 85-103 (on Scotus vs. Aquinas). On Descartes, see also L. Devillairs, *Descartes et la connaissance de Dieu*, Paris 2004.

³⁶⁶ Cf. Arnauld to Leibniz, GP II, 28, and Leibniz to Arnauld, GP II, 42-43 and 49. On the theological vs. nontheological foundation of complete concepts, see Di Bella, *The Science of the Individual*, pp. 266-74. See also V. Carraud,"Connaître comme Dieu connaît : omniscience et principe de raison suffisant », in *Le contemplateur et les idées*, pp. 249-69.

³⁶⁷ The passage from Paul was also quoted by Augustine, *Sermones*, 27, 7: "Quaeris tu rationem, ego expavesco altitudinem. O *altitudo divitiarum sapientiae et scientiae Dei*! Tu ratiocinare, ego mirer. Tu disputa, ego credam. Altitudinem video, ad profundum non pervenio". Interestingly enough, Augustine's passage was employed by Arnauld against Malebranche's theodicy. On this point, of course, Leibniz would side with Malebranche, rejecting the opposition between *credere* and *ratiocinare*; even though Leibniz himself will eventually conclude that finite minds can only partially (and generally) understand the reasons behind God's choice of this world.

³⁶⁸ See, for instance, Leibniz's remarks on Bellarmino, *De libertate a necessitate in eligendo*, A VI 4,1451; letter to Molanus, February 2, 1698 (Schrecker 84); Grua 299, 342, 366, 381; *Theodicy*, # 134, 179, 412; *Causa Dei*, # 126, 139, 142.

³⁶⁹ A VI 4, 1451.

³⁷⁰ Extraits des Arminiens, 1691-95 (?), Grua 343.

"Furthermore, this makes clear what is, according to Paul, the *altitudo divitiarum*. It can be explained by means of the following syllogism: Whatever is the best, it should be taken as fit to be produced by God. This series of the universe is the best. Therefore, this series of the universe should be taken as fit to be produced by God. The major premise cannot be doubted, it follows from the nature of divine wisdom. But the minor proposition, even though it should be taken for certain by us from what is happened [*ex eventu*], i.e. for the very same fact that it has been produced we should state that this series is the best, however, it cannot be comprehended and understood by us a *priori* (i.e. by the inspection of the very same nature of the series). And the *altitudo divitiarum* consists exactly in this: for in the universe there are infinitely many creatures, and among these there are many which are much more perfect than men. Neither the human being, if not insofar as it has been sublimated in Christ, can be considered of great importance to God's eyes. Therefore, God had infinitely many reasons concurring which each other, which he had to take into account when he judged this possible universe as worth to be chosen".³⁷¹

This passage contains Leibniz's most complete explanation of his argument, which I have tried to put forth above, and of his account of universal harmony as something which cannot be grasped by finite minds (even though we must be certain that it exists).

7.4 Divine Wisdom and Order:

A Theological Argument against the Plurality of Worlds

So far I have stated that the equivalence between the two accounts of existence (the a priori and the a posteriori one) cannot be accounted for in strict metaphysical terms, since to prove it would go much beyond the limit of natural reason. However, if a rational proof cannot be provided, it seems that one can recur to a theological argument, as Leibniz's continuous appealing to divine wisdom seems to suggest.

7.4.1 Leibniz's rejection of chance: a reformulation of the 'dream argument'?

In this sense, one can observe that Leibniz's attitude toward the moral certainty we can attain from the dream-argument and the perception-based account of existence based on the reality of phenomena has been changed from the time of his 1675 letter to Foucher to his late exposition of the same question in the *New Essays*.

In the latter work, indeed, he comes back to the dream argument, once again entertaining the possibility that the whole sequence of our life (or the entire succession of our phenomena) be nothing but a well ordered dream:

"Consequently I believe that where objects of the senses are concerned the true criterion is the linking together of phenomena [*la liaison des phenomenes*], i.e. the connectedness of what happens at different times and places and in the experience of different men [...]. It must be acknowledged, though, [...] that none of this certainty is

³⁷¹ Ibid., p. 343. See also Dialogue effectif sur la liberté de l'homme et l'origin du mal, 25 January 1995, Grua p. 366 : « Ainsi il faut croire que Dieu n'auroit point permis le peché [...] s'il n'avoit sçu le moyen d'en tirer un bien incomparablement plus grand que le mal qui en arrive. [...] Je puis asseurer qu'il est [this superior good], mais ne puis en expliquer le detail. Pour cela, il faudroit connoistre l'harmonie generale de l'universe, au lieu que nous n'en connoissons qu'une tres petite partie » (italics mine).

of the highest degree. For it is not impossible, metaphysically speaking, for a dream to be as coherent and prolonged as a man's life. But this would be as contrary to reason as the fiction of a book's resulting by chance from jumbling the printer's type together²³⁷².

In this passage, the usual reference to 'moral certainty' has not to be taken as exclusively referred to a pragmatic account of reality. The latter, of course, is not absent from this text, since it is immediately mentioned in the following of the passage I have quoted. However, in the lines I have highlighted a somewhat different sense of 'moral certainty' is emphasized by Leibniz: the hypothesis of a life-long, well-ordered illusion would be "contrary to reason" as the case of a book (which is a well-ordered story) composed in a completely random way (like in the example of the typewriting monkeys made popular by E. Borel).

Such a hypothesis –that a book be the product of a purely random combination of letters – would be contrary to reason because of its extreme improbability, which was just the point stressed by Borel with his example. But there is something more than this. In fact, Leibniz's rejection of what has been called 'order from noise' is typically a rejection of the plausibility of atomism, as it is clear from a passage in which he associates the latter with Epicurus' conception of a plurality of worlds.

In this passage, Leibniz clearly shows that the rejection of atomism is motivated not only by its implausibility, but also from the fact that it would be contrary to an architectonic and finalistic view of creation, i.e. contrary to God's wisdom:

"However, from the sole beauty of things it is at least highly probable that the world has been created by a very wise architect, even if this conclusion is not necessary, since, metaphysically speaking, it would be possible that an infinity of worlds or system of things exist in an infinite space and time, and it would not be strange if, among these infinite worlds randomly assembled some beautiful and well-ordered ones had emerged, one of which has been given to us by fate".³⁷³

As I have already shown in chapter 5, reference to divine wisdom plays a fundamental explanatory role in Leibniz's account of God's choice of the world to create (and also in his restauration of final causes). As I have said, emphasis on divine wisdom goes hand in hand with his account of creation as a choice of a determinate universe among infinitely many possible worlds.

The link between divine wisdom and the genesis of Leibniz's theological account of possible worlds *in mente Dei* has been already developed above. Now, I would like to show that what I have said in the preceding chapter can also help us explaining the development of Leibniz's

³⁷² New Essays, IV, ii, 14, A VI 6, 375 (italics mine). cf. S. Brown, "The Leibniz-Foucher Alliance and Its Philosophical Basis", in P. Lodge (ed.), *Leibniz and His Correspondents*, Cambridge 2004, pp. 74-96. For what concerns a general account of Leibniz's confrontation with scepticism (and sceptical arguments), see E. De Olaso, "Leibniz and Scepticism", in R. Popkin-E. De Olaso-G. Tonelli (eds.), *Scepticism and the Enlightenment*, Dordrecht 1997, pp. 99-130.

³⁷³ De liberate, fato, gratia Dei, 1686-87 (?), A VI 4, 1604-5. The same anti-Epicurean argument, together with the example of a whole library produced by the casual combination of atoms, had already been proposed in a text from the beginning of the 1680's, cf. the dialogue *Conversation du Marquis de Pianese et du Pere Emery eremite*, 1681 (?), A VI 4, 2268-69. This text is directly concerned with a sort of refutation of sceptical positions as well and the possibility of drawing highly probable (even though not metaphysically certain) conclusions from the analysis of appearances. For a commentary of these two texts, see M. Fichant's aftwerword in Fichant, pp. 184-85.

view on his account of existence and provide his background motivations for rejecting the plurality of worlds.

7.4.2 'Sapientia ordinans'

Remember that, according to the Epicurean cosmology, an infinite number of worlds disseminated in space arise from the purely casual combinations of atoms. The atomistic doctrine had been already rejected in the theological tradition. For instance, Aquinas had accepted the idea that God could have created many worlds, but only in terms of his absolute power (*de potentia absoluta*). Even if not metaphysically impossible, however, the creation of a plurality of worlds has to be rejected because the unity of the actual world is required by God's "ordaining wisdom".

Notice that, when discussing arguments in favour of the plurality of worlds, in addition to the traditional one from God's omnipotence, Aquinas adds another one which moves from what Leibniz would have called the 'principle of perfection': the nature makes only what is best, and, *a fortiori*, so does God. But, then, "it is better that there are more worlds than just one, for many good things are better than few ones". Both arguments, however, are ultimately rejected by Aquinas, who maintains that, as far as God's ordained power is concerned, "the very same order which subsists in things so created by God reveals the unity of the world". In particular, Aquinas claims that whatever God actually creates must contain order in a way which is incompatible with the existence of a plurality of worlds.

Thus, the unity of the world depends on God's ordaining wisdom, and, especially, on the uniqueness of his design. Against the argument which from the maximization of goods moves to the plurality of worlds, Aquinas replies that it cannot be accepted, because an agent who acts on purpose (as God does) must have a singular object as what terminates his action; on the contrary, a multitude of things does not have a determinate ending, since it could be always infinitely increased (of course, Aquinas presupposes here the rejection of actual infinity).

As he says: "when someone says that many worlds are better than one, he says that according to a material multiplicity. That, however, cannot be the kind of good the action of God is directed to, because if God had actually created two worlds, with the very same reason one could say that it would have better if had created three, and so on, to infinity". He also maintains that those who assumed the existence of many worlds, could do that only because they do not acknowledged that the cause of the world is an ordaining wisdom [*sapientia ordinans*], but casualty, exactly as Democritus, "who said that this world, as well as an infinity of other ones, has been produced from the clash of atoms".³⁷⁴

This finalistic argument (which can be traced back to Plato more than to Aristotle)³⁷⁵ is also at the basis of Leibniz's ultimate rejection of the plurality of worlds. As we have seen in the

³⁷⁴ All quotations are taken from Aquinas, *Summa theologiae*, I, q. 47, art. 3. Cf. also Aquinas's commentary to *De caelo*, I, lec. 19, par. 197.

³⁷⁵ "Et Plato ex unitate exemplaris probat unitatem mundi, quasi exemplati », says Aquinas, *Ivi*. Reference is to what Plato says in *Timaeus*, where, in the story of the creation of the world, Plato emphasizes the contrast between rational purposiveness and the blindness of necessity (this point will be referred to by Leibniz in section 20 of *Theodicy*). Cf. in particular 29 D-30 C, and the commentary of this passage in F. Mac Donald Conford

passages quoted above, indeed, there is a sense in which, according to him, the plurality of worlds is an unnecessary hypothesis which has also the problem of being in contrast with God's wisdom.

A point that has to be stressed is that, in a sense, Leibniz's objection against the plurality of worlds is more an ethical than a metaphysical one. In rejecting Spinoza's commitment to necessitarism, and the claim that God produces everything possible, indeed, Leibniz will distinguish between a metaphysical and a moral notion of perfection.

The very same distinction between moral and metaphysical perfection has been introduced by Leibniz in order to distinguish his own position from that of Spinoza (and Descartes): a morally perfect God, indeed, does not create everything which is possible, but only what is morally good.³⁷⁶ This is clearly connected to Leibniz's rejection of the combinatorial (and casual) account of creation which is a typical feature of every atomistic cosmology.

7.4.3 A moral objection to the indexical theory

The connection between these two points can be elucidated by taking into account what Leibniz says in another of his notes to Spinoza's correspondence with Oldenburg. Commenting a passage where Spinoza says that the inevitable necessity of all things undermines neither divine nor human laws (since moral precepts will be "divine and salutary" even if they follow, as Spinoza believes, from the necessity of things), Leibniz notes:

"If all things emanate by a certain necessity from the divine nature, and all possibles also exist, the good and the bad will generally suffer equally [*aeque facile male erit bonis atque malis*]. Therefore, the whole of moral philosophy will be destroyed"³⁷⁷

The manuscript confirms that also this short note has been added by Leibniz only after having met Spinoza at the end of 1676 (as I have showed in the preceding chapter). Its content, indeed, is very similar to that of a paper Leibniz wrote in December 1676, shortly after his visit to Spinoza.

It cannot be a coincidence that this is also the paper where Leibniz discusses for the first time his tantalizing argument against the plurality of worlds:

"[...] it can be shown that not all things which are possible *per se* can exist together with other things. For otherwise there will be many absurdities; nothing can be conceived which is so absurd that it does not exist in the world –not only monsters, but also evil and miserable minds, and also injustices, and there would be no reason why God should be called good rather than evil, and just rather than unjust. *There could be some world in which all good people are punished with eternal penalties, and all evil people would be rewarded, and*

⁽ed.), *Plato's Cosmology. The* Timeaus *of Plato*, Indianapolis/Cambridge 1997 (orig. ed. 1935), pp. 33-39. On Leibniz and Plato, see P. Schrecker, "Leibniz and the Timaeus", *Review of Metaphysics*, 4/4, 1950, pp. 495-505; T. Leinkauf, "Leibniz und Platon", *Zeitsprünge. Forschungen zur Frühen Neuzeit*, 13,1/2, 2009, pp. 23-45.

³⁷⁶ Cf. *Discourse*, #1: "Whence it follows that God, possessing the supreme and infinite wisdom, acts in the most perfect manner, not only metaphysically, but also morally speaking [...]" (A VI 4, 1531/AG 35).

³⁷⁷ A VI 3, 365, n. 3. Also this note has been successively added by Leibniz to his original commentary to the correspondence. On this point, see what I have said in Chapter 5.4.

would explate crime with happiness. [...] If all possibles were to exist, there would be no need of a reason for existing, and mere possibility would be enough".378

In these passages, an ethical objection to the plurality of worlds is connected to a metaphysical objection by means of Leibniz's reference to God's wisdom. The metaphysical objection, of course, is that if all possibles were to exist, "there would be no need of a reason for existing, an mere possibility would be enough".³⁷⁹

The ethical objection against Spinozism, on the other hand, closely resembles the kind of objection Robert Adams has moved against Lewis' theory of actuality.

Adams' objection runs as follows:

"Our normal belief in the absoluteness of actuality is reflected in our value judgments too. We may be moved by the joys and sorrows of a character known to be fictitious; but we do not really believe it is bad that evils occur in a nonactual possible world, or good that joys occur in a non-actual possible world, though of course it would be bad and good, respectively, for them to be actual. I think that our very strong disapproval of the deliberate actualizing of evils similarly reflects a belief in the absolutely, and not just relatively, special status of the actual as such. Indeed, if we ask, "What is wrong with actualizing evils, since they will occur in some other possible world anyway if they don't occur in this one?", I doubt that the indexical theory can provide an answer which will be completely satisfying ethically". 380

Leibniz's objection is a little bit different, since he is mainly concerned (as usual) with the consequences that the creation of a plurality of worlds (in which evils and goods are equally probable, since the distribution is random) would have on the nature of God.

Notice, however, that the interpretation Lewis gives of Adams' objection is very close to Leibniz's original formulation: "[t]here would be the same sum total of good and evil throughout the worlds, no matter which world is ours", and, again, "the sum of total being [which is absolutely necessary] involves a variety of miseries horrible to think of. And it is futile to lead a good life and attempt to eradicate evil -the evil you have gone to the trouble of preventing just happens off in another world".³⁸¹ In the continuation of the discussion, Lewis is mainly focused on answering Adams' point concerning the indifference of our good actions in a scenario where all the worlds (bad as well as good ones) are on a par. Again, Leibniz's main concern is with God's actions and not the human ones, since a God who had produced a plurality of worlds where goods and evils are equally probable, might be said to be good rather than evil, wise rather than non-wise, i.e. he would be a morally indifferent God.

As Leibniz will write in a passage against Descartes' alleged theory that "all the possibles are realized at a certain time and place":

"If this opinion is true, indeed, nothing is left to the divine will that chooses to create the best from infinitely many possibles. And God's perfection in the ethical sense [Ethico quodam more] has not to be posited in the

³⁷⁸ Principium meum, December 12, 1676, A VI 3, 581-82/DSR 105 (emphasis mine).

³⁷⁹ Notice that, from the point of view of Lewis' indexical theory of actuality, the metaphysical question "why is there soemething rather than nothing?" becomes completely meaningless. Moreover, also the other metaphysical questions: "why this world rather than another one?" becomes meaningless, since from such a perspective it is logically true that everything exists. The point had been stressed by van Inwagen, "Indexicality and Actuality", p. 166 and note. Cf. also Lewis's answer in Postscript to "Anselm and Actuality", in Lewis, Philosophical Papers, vol.I, pp. 23-24.

Adams, "Theories of Actuality", p. 195.

³⁸¹ Lewis, On the Plurality of Worlds, p. 123.

fact that all things cohere together as if they were the most beautiful and are in agreement with justice, but, rather, a metaphysical perfection such as it has been conceived of by Spinoza. [...] Hence, [if this opinion is true], we will discuss in vain about providence and justice. For it could be the case that we happen to live in that among the infinite parts of the world, in which it is necessary that just people are unhappy, whereas impious are successful. Nor we should complain about that, as correctly has been said also by Spinoza. In this way, indeed, the perfection of things has made it that no species at all has been neglected".³⁸²

This passage, especially the last lines, makes extremely clear the sense in which Leibniz rejects the principle of plenitude. The realization of all the possibles, indeed, cannot be accepted not only because of its metaphysical consequences (the modal collapse), but, even more, because of its moral consequences ("the whole of moral philosophy will be destroyed"). Complaint against the evil actions outnumbering the good ones, indeed, would be in vain at all, since it is just the effect of the perfection of the world which made every species to be realized in some part of the world (or in some different world). Moreover, "there would not be a God, except in so far as he is possible [i.e. as a purely necessary and necessitating principle]. But a God of the kind in whom the pious believe [good, wise, and just] would not be possible, if the opinion of those who believe that all possibles exist were true".³⁸³

7.4.4 'Ratio formalis existentiae'

At this point, one can see that the topic I have discussed in the preceding chapter (cf. 5.4 concerning Leibniz's readings of Spinoza's necessitarianism) perfectly matches with what we have said in this paragraph.

In particular, we know that at some point (at the end of 1670's) Leibniz started to envisage a close connection between God's absolute wisdom and his choice of the best (the latter having to be explained and justified in terms of the former) ; at the same time, however, he drew the conclusion that such a theological ground could play an analogous explanatory role in providing a justification of the coherence of phenomena as the mark of reality (in other worlds, the idea of moral necessity of the best comes to support and reinforce the idea of moral certainty concerning the reality of the world).³⁸⁴

³⁸² *Periculosa in Cartesio*, 1683-1684/85, A VI 4, 1478. From the end of 1670's, Leibniz will always claim that absurd and dangerous view according to which all the possibles must be realized in time had already been envisaged (albeit implicitly) by Descartes' claim (in *Principia philosophiae*, III, 47) that matter will assume all the forms it is capable of. The first occurrence of this criticism is to be found in Leibniz's 1677 (?) letter to H. Fabri, GP II 259 (=A II 1, 299). Cf. also Leibniz to Philipp, January 1680, GP II, 283 (= A II 1, 505-8). Contrary to what Leibniz assumes, there is no evidence that Descartes' claim committed him to the realization of all possibles. Perhaps, he was influenced on this point by the way Descartes' thesis was employed by Spinoza in his exposition of the *Principia philosophiae* (which had been read by Leibniz around 1677, cf. what he says in a letter from March 1677, A VI 4, 2197-98, and Laerke, *Leibniz lecteur de Spinoza*, pp. 566-69). Apparently, Descartes' claim is just a rephrasing of a Thomistic view, at least according to V. Carraud, "La matière assume successivement toutes les formes'. Note sur le concept d'ordre et sur une proposition thomiste de la cosmogonie cartésienne", *Revue de Métaphysique et de Morale*, 1, 2000, pp. 57-79.

³⁸³ Principium meum, A VI 3, 582/DSR 105.

³⁸⁴ See, for example, what Leibniz says to Arnauld, October 9, 1687: "toutes les substances devant avoir *une* harmonie et liaison entre elles, et toutes devant exprimer en elles le même univers, et la cause universelle qui est la volonté de leur createur [...]. Aussi cette correspondence mutuelle des differentes substances [...] est un des plus fortes preuves de l'existence de Dieu ou d'une cause commune que chaque effect doit tousjours exprimer

The consequence of this evolution of Leibniz's thought extends also to his way of understanding the conclusion of the dream-argument, as we have said when comparing its original formulation in the letter to Foucher and the final version in the *New Essays*. Again, evidence of this sort of *Gestalt* shift can be found in the text of the middle period. For instance, in a paper written around 1683-85, Leibniz concludes that "the reality of bodies is no different from the reality of dreams, except for the fact that they are constant and depend on certain rules; *moreover, these rules derive from the will of God, that is, from his understanding of the best*".³⁸⁵

And, in a text of some years later, he maintains that "nothing but appearances are perceived" and, therefore, he concludes that:

"So coherence is the sign of truth, but its cause is the will of God, and its formal reason is that God perceives something to be the best or most harmonious [*harmonicwtaton*, sic!], i.e. that something is pleasing to God. So divine pleasure itself, so to speak, is the existence of things".³⁸⁶

Saying that "coherence is the sign of truth", he is just repeating what he had already said in 1676, namely that "consistent sensations are the mark of existence". He also adds that, whereas coherence is just the sign or the *mark* of the existence of things, its *cause* has to be identified with the will of God. Finally, he also adds that the "formal reason" of God's will is something being perceived by God as being the best or the most harmonious.³⁸⁷

suivant son point de veue et sa capacité. Autrement les phenomenes des esprits differens ne s'entraccorderoient point, et il y auroit autant de systemes que de substances ; *ou bien ce seroit un pur hazard, s'ils s'accorderoient quelques fois* » (GP II, 115, italics mine). Reference to chance (*hazard*) has to be connected with what I have said above. Cf. also *Discourse, #* 14, A VI 4, 1550. According to these passages, the subsisting of harmony is made possible by God's wisdom and goodness. Let me point out once again that this was *not* Leibniz's original view of "harmony" in his early writings (from the Mainz period to the first version of the *Confessio*). Cf. again the letter to Wedderkopf, A II 1, 117, where the young Leibniz explicitly remarks that universal harmony ("the harmony of things") is the reason of God's understanding (as God's understanding is the reason of God's will); but, ultimately, there is no reason of the *universal* harmony, and it is implicitly equated with divine essence itself (and the essences or ideas of things are said to be coincident with God himself). Whereas in the letter to Wedderkopf (as well as in the *Confessio*) universal harmony is clearly equated with eternal truths, in a later passage (written around 1694-98), the two are clearly distinguished. In Grua 580-81, indeed, he says that there are two means of knowing God's beauty, "namely in the knowledge of eternal truths [...] (which explain [their own] reasons in themselves), and in the knowledge of the Harmony of the universe (in applying reasons to facts)" (PW, 84).

³⁸⁵ Absurdum, falsum, difficile Cartesii, 1683-85 (?), A VI 4, p. 1467 (translated in Garber, Leibniz, p. 287, italics mine).

³⁸⁶ Corpus non est Substantia sed modus tantum Entis sive apparentia cohaerens, 1689-90 (?), A VI 4, 1637 (LC 261, translation modified). The dating of this piece proposed by the Academy editors is contested by Arthur (LC 416, note 2), who suggests it has been written immediately after the Paris period. Also Adams, *Leibniz*, p. 236, believes that it should be dated no later than 1679. On the contrary, Garber, *Leibniz*, 288 and note, accepts the dating of the Academy edition. Moreover, both Adams and Arthur read the last line of the text following the version printed in the *Vorausedition*: "Itaque ipsa ut ita dicam *voluntas* divina est rerum existentia", whereas A VI 4 reads it as : "Itaque ipsa ut dicam *voluptas* divina est rerum existentia". I think the latter is the correct reading, especially because it makes sense with the line immediately preceding it: "[...] formalis ratio est quod Deus percipit aliquid optimum esse seu harmonicotaton, sive quod aliquid Deo *placet*". Other passages in support of this reading will be provided in what follows below.

³⁸⁷ Cf. *De libertate et gratia*, 1680-84 (?), A VI 4, 1460: "Formalis ratio existentiae rerum contingentium videtur esse Enti necessario placere". See also *De contingentia*, 1689 (?), A VI 4, 1651: "Quia non possumus cognoscere veram rationem formalem existentiae, in ullo casu speciali, involvit enim progressum in infinitum". Again, notice that these two passages are not in contrast: we cannot know the formal reason of existence "in any special case", i.e. why this thing rather than another one belong to the best possible world, since this would

This, if I am not mistaken, is the sense in which we have to understand the claim we have found in the 1676 Paris note, where Leibniz was claiming that, although they cannot be distinguished as far as reality and existence is concerned, the world of dreams and the real world differ as far as beauty is considered (compare this with the passage above concerning "divine pleasure" as the existence of things).

The expression *ratio formalis* is a sort of technical term in the scholastic jargon, primarily related to the question of abstracts and connotative terms.³⁸⁸ Generally speaking, it was commonly employed to refer to the 'essence', 'nature', or 'quiddity' of something.³⁸⁹ In this context, however, Leibniz is not looking for something like a nature or essence of existence (a similar idea, indeed, will always be resisted by him and for good reasons).³⁹⁰ Reference to something like the 'formal reason' of existence is a clue to the fact that Leibniz is not concerned here with the extension but, rather, with the intension of the concept of existence. In this context, in particular, talking of a 'formal reason' can be interpreted as something like an explanatory reason (something which answers to a *why*-question)³⁹¹ which grounds existence (understand: the existence of those things instead of alternative possible ones).

The formal reason in this sense, then, is the reason which explains *why* God created just this world, and Leibniz's answer is that he did it because he perceived it as the best or the most harmonious. Thus, he concludes, the existence of things can be equated with what pleases God. In other words, the reason why God chose just this world (the one in which coherence is the a posteriori mark of existence) is that he has perceived it as the most harmonious one (and harmony is what pleases God). Another way in which Leibniz formulates this conclusion is by saying: "divine pleasure itself, so to speak, is the existence of things".

imply an infinite analysis (a comparison between all possible worlds). On the other hand, we can say that the formal reason of existence is that being the best (or the most harmonious) is what pleases God and, thus, motivated him to create that particular world. Looking for a "formal reason" of existence, of course, makes sense only from the point of view of the *a priori* account of existence (what I have dubbed the perfection-based account).

³⁸⁸ "An abstract is an entity in another entity which is the immediate reason (or the formal reason) of the predicated of being" (A VI 4, 570). Cf. also *De abstracto et concreto*, 1688 (?), A VI 4, 987: "Abstract terms have been invented in order to signify the formal reasons of concrete terms. For instance, justice is the formal reason of just, goodness the formal reason of good". In this sense, *ratio formalis* can be taken as a synonym of *formalitas, modus concipiendi* or *modus considerandi*. Cf. the list of Leibnizian passages provided by Nuchelmans, *Judgment and Proposition*, p. 224.

³⁸⁹ Cf. the excertps from Weigel and Jungius printed, respectively, at A VI 4, 1167 and 1211. Cf. also Leibniz, *Entretien de Philarete et d'Ariste*, 1713, GP VI, 584: "en Metaphysique on voudroit des attributs essentiels, ou pris de ce qu'on appelle raison formelle ».

³⁹⁰ Cf. *De veritatibus primis*, 1680 (?), A VI 4, 1443, note: "If existence were something else than a certain essence's demand, it would follow that existence itself has some essence or adds something new to things, about which it could be asked again whether this essence exists or not, and why this rather than another one" (the marginal note can be a posterior addition to the main text). The point had been already raised in another text, *Existentia. An sit perfectio*, 1677 (?), A VI 4, 1354. I will come back to this problem in the following chapter.

³⁹¹ This seems to be the sense in which the expression is employed by Leibniz in a passage from the *Discourse*, where he takes the distance from the theological perspective of those, like Descartes and Spinoza, "who maintain that there are no rules of goodness and perfection in the nature of things [...] and who say that the works of God are good solely for the formal reason that God has made them" (#2, A VI 4,1532 /AG 36). See also *Meditations on the Common Concept of Justice*, 1702-3, where he claims that "power is not the formal reason which makes [something] just. [...] Otherwise, if power were the formal reason of justice, all powerful persons would be just, each in proportion to his power [...]. It is thus a question of finding this formal reason, that is to say, the *why* of this attribute, or this concept which should teach us what justice is [...]"(PW, 48).

The latter formulation, however, is a very ambiguous one. Every voluntarist interpretation of it has to be immediately excluded, of course. It cannot be interpreted at face value either, as the 'so to speak' clause clearly suggests. Leibniz, indeed, does not mean that the existence of things is the same as God's pleasure, nor the (perhaps more convincing) claim that the existence of things is what pleases God. Taken literally, indeed, the latter claim would make no sense at all. It has not to be taken, indeed, as a definition of 'existence' in proper sense (a definition of existence, indeed, seems not to be available, at least to us).

Then, the conclusion follows that what is contained in the concept of actual things (or the actual world) is *not* actual existence properly said (which would be absurd), but, rather, those factors which made those things (or that world) existence-worth or, which is the same, eligible by God. One might have the impression that Leibniz is putting forth as an explanation of existence what is actually only an explanation of what is to be existence-worth.³⁹²

It seems that Leibniz is simply giving for granted the distinction between the possible and the actual as a primitive one (assuming that everyone has already in mind the sense in which something is said to be actual or actualisable by God); thus, he moves to explain which are the reasons that moved God to confer to a determinate set of (possible) things such a privileged status we call 'actuality'. This attitude was clearly at work in Leibniz's early remarks on the idea of a *series rerum* in the Paris notes, as I have shown in 5.1 above. On the contrary, if one assumes that the primary sense of being is not actuality but the being-of-the-possible (the notion of *ens* or *essentia realis* in Suárez' sense), the explanation of what is for something like the 'instantiation' of a certain set of complete concepts or similar expressions would count as not explanation at all). This is why a particularly attractive solution for the possibilist –at least, for the radical one –is to resort to the idea that actuality is not an absolute property but only a relative one, as in the case of Lewis' indexical theory.

Conversely, looking for the reasons or the factors which moved God to create (or actualize) this world perfectly fits with Leibniz's attempt to solve the general question of theodicy. In a theodicean context, indeed, the question, 'Why this world?', does not concern the meaning of 'actuality' in a proper sense (i.e. the distinction between the possible and the actual), but is explicitly addressed to investigate the reasons which have led God to act in a way that, at first sight, seems to be non-optimal, given something like the presence of evil in this world.³⁹³

³⁹² This would be in keeping with an axiological theory of actuality, such as that which Adams dubs "optimistic theory of actuality", cf. "Theories of Actuality", pp. 192-93, where existence is treated as a value property. On this point cf. Ishiguro, *Leibniz's Philosophy of Logic and Language*, pp. 192-93 (at p. 193, in particular, she observes: "It is obvious that Leibniz believed that there was a complete difference between the actual world [...] and possible worlds which exist only as ideas. The efforts he made to explain the difference, however, were far from satisfactory. This is probably because the existence of the actual world was never separable in his mind from God's creation"). As Adams notes (p. 193), however, if "we adopt the optimistic theory of actuality, we do not have any reason that I can discern for believing that we are in the actual world". See also my discussion in Chapter 9 below.

³⁹³ In addition to that, one has to remember that possible worlds are introduced by Leibniz as a solution to the problem of contingency, i.e. as a way to maintain that some things are only contingently non-actual (even though in fact they are not actual and will never be, there is a sense according to which they could have been actual) and also that the actually existing things are only contingently actual (with the only exception of God). In this sense, Leibnizian possible worlds are primarily to be understood as alternative creation scenarios, which allow rejecting the view that everything which exists is necessary (and, thus, what does not actually exist is necessarily non-actual). More on this in Chapter 5 above.

Although, as I have shown above, an indexical element is clearly contained in Leibniz's *a posteriori* account of existence, he could and would not accept the consequence of a relativisation of existence from the metaphysical point of view. Interestingly enough, his long-run project, however only sketchily delineated, seems to be that of making sense of the indexical aspect of actuality (at least at the phenomenological level) while, at the same time, rejecting its relativity at the logical/ontological level.

7.5 Mira ratiocinatio.

Leibniz's Philosophical Argument against the Plurality of Worlds

Now it is time to give a closer look at the argument Leibniz addressed against the plurality of existing worlds. Let me quote the most important passages in which such an argument occurs (following a chronological order):

[a] "There is no need for the multitude of things to be increased by a plurality of worlds; for there is no number of things which is not in this one world, and indeed in any part of it. To introduce another genus of existing things, and as it were another world which is also infinite, is to abuse the name of existence; for it cannot be said whether those things exist now or not. But existence, as it is conceived by us, involves a certain determinate time; or, we say that that thing exists of which it can be said at some certain moment of time, "That thing now exists".³⁹⁴

[b] "Nothing is and is not at the same time, or anything either is or is not. [...] There is only one kind of world, or, there are no entities besides bodies and minds, i.e., what we sense, nor are there any bodies except those which are at a certain distance from us. For if there were any, it could not be said whether they exist or do not exist now, which is contrary to the first principle. So it follows that not all possibles exist".³⁹⁵

[c] "It can be demonstrated that not everything possible takes place, at least in this series of things, i.e. in this space or this world. For if we imagine that another state [of the world], different from that which actually follows, will follow from the preceding state, then there will appear also different forms of things from those which, however, will never actually appear unless someone does not want to say that they appear in another universe, or, that there are as many universes as there are possible ways of imagining it. It should be required a demonstration against the idea of a plurality of infinite spaces and universes, because it seems that there cannot exist [any] two things which are not reciprocally connected. [...] If there existed another series outside of ours, then it would not be possible to say whether something in it existed which is simultaneous with [something in] ours or not. Which is impossible. For necessarily it does exist or not. This is a wonderful argument".³⁹⁶

[d] "[T]here is nothing to prevent innumerable other minds from existing as well as ours, although not all possible minds exist. This I demonstrate from the fact that all existent things are interrelated. However, minds of another nature than ours can be conceived which are also [not] interrelated with ours here. That all existing things have this intercourse can be proved [...] from the fact that otherwise no one could say whether

³⁹⁴ Principium meum, December 12, 1676, A VI 3, 581/DSR 103-5.

³⁹⁵ Catena mirabilium demonstrationum de summa rerum, December 12, 1676, A VI 3, 584/DSR 107.

³⁹⁶ Notae plerumque metaphysicae, 1677 (?), A VI 4, 1349-50.

anything is taking place in existence now or not, so that there would be no truth or falsehood for such a proposition, which is absurd $[...]^{".}^{397}$

Text [d], as I have already noted at the beginning, presents striking similarities with the train of thoughts Leibniz entertained in the passages from April 1676 I have quoted in the previous paragraphs. The conclusion reached here, however, is diametrically opposed to that of the Paris notes. Even if alien minds are conceivable, they must be extruded from existence because of the universal connection of all things, a point which comes back also in text [c] ("because it seems that there cannot exist two things which are not reciprocally connected").

In a certain sense, the building materials Leibniz is employing here are the same he already used in April 1676. Compare, for instance, reference to alien minds in [d] with that we have already met in *De veritate, de mente, de Deo, de universo* ("[...] if there exists certain minds to which other things appear which are in no respect consistent with ours"). What is changed, however, is that now the principle of interconnection serves to strengthen Leibniz's incompossibility thesis, and, thus, to distinguish that particular group of possibles that has been actualized from all the others that remain at the level of mere possibility.

7.5.1 Worlds within worlds

Passages [a]-[d] present slightly different versions of the same argument. The main target is the idea that there could be another genus or another kind of world, or, which is the same, that 'world' is a concept that might have more than one instance. This is clearly stated in both [a] and [b].

In the first part of [a], however, he just claims that a plurality of worlds would be a nonnecessary hypothesis. His point seems to be that the multiplication of things in the universe does not require a multiplication of worlds as well. For it is sufficient to say that the variety of things can go (and, in fact, does go) to the infinite in this very same world.

Reference here goes to Leibniz's notorious commitment to the thesis of the infinite richness of the world ('worlds within worlds' are contained in this universe) and the infinite actual division of matter (and of any part of it):

"If it is true that any part of matter, however small, contains an infinity of creatures, i.e., is a world, it follows also that matter is actually divided into an infinity of points. But this is true, provided that it is possible, for it increases the multitude of existents and the harmony of things, or, the admiration of the divine wisdom. Hence

³⁹⁷ De modo distinguendi, 1683-85/6 (?), A VI 4, 1503/L 365. The Latin text says: "Possunt autem intelligi mentes alterius naturae quam nostra et [nullum] commercium habentes cum hac nostra". The world "nullum" ("not" in the translated text) has been added by the editors (thus, I have corrected Loemker's translation consequently). Without the negation, indeed, the passage would make no sense. Notice that Leibniz has originally written: "mentes nihil commune habentes cum nostra" (cf. textual apparatus ad loc.). An alternative reading of this passage has been provided by Garber, who rejects the correction and suggests that Leibniz refers here to corporeal substances. Cf. Garber, *Leibniz*, pp. 285-86. However, compare the similarity between this text and those written in April 1676 quoted above. In the passage I have omitted, Leibniz puts forth a second argument in favour of the universal connection of things, based on the nature of relations. I discussed it in Chapter 6 above.

it follows further than any part of matter is commensurable with any part, which again is an admirable effect of the harmony of things".³⁹⁸

The same point will be repeated by Leibniz many other times, especially, as far as our topic is connected, in the discussion with Bayle which follows the publication of Leibniz's New System. The point comes back especially when Leibniz discusses the multiplicity of individual substances (or monads) as a consequence of God's will of maximizing the perfection and the variety of the universe:

"The marvel is that the sovereign wisdom has found in representing substances a way to vary the same world at the same time with an infinite degree, for since the world already contains in itself an infinite variety, and has that variety diversely expressed by an infinity of different representations, it possesses an infinity of infinities, and could not be more appropriate to the nature and intentions of its inexpressible author $[\dots]^{n,399}$

Coming back to Leibniz's argument, text [a] seems to be oscillating between the view that a plurality of worlds is just an unnecessary hypothesis, one which has to be rejected by resorting to God's infinite wisdom, and the stronger claim, discussed at length in the second part of [a] as well as in [b], that a plurality of worlds is an impossible hypothesis, one whose assumption would lead to a contradiction.

The first strategy seems to be taken again into consideration by the late Leibniz in the Causa *Dei*, where we can read:

"Contingent possibles can be looked at in either of two ways: either separately or as correlated in an infinity of complete possible worlds. Each possible world is perfectly known to God, though only one of them has been brought into existence. There is no question of there being more than one actual world, because our single universe includes the whole totality of creatures of every place and time, and in this sense the term 'world' will be employed here".400

The contrast between the impossibility and the non-necessity of the plurality of worlds makes the pair with the well-known contrast between those who maintain that compossibility is a necessary feature of any world vs. those who maintain it is only a contingent one. In both case, however, I think this opposition has to be weakened, as it emerges from the last passage. The argument is the same we have already read in the *Theodicy*, and Leibniz's conclusion that the concept of 'world' is that of an all-embracing totality of all existent things (everywhere in space and time). Accordingly, as Leibniz says in [a], to "introduce another genus of existing things, and as it were another world [...] is to abuse of the name of existence". However, in the passages listed above, Leibniz does not limit himself to present the unity of the world as a

³⁹⁸ De arcanis sublimium, A VI 3, 474/DSR 25 (the mature Leibniz will reject any commitment to the existence of material points). See also what he says few lines below in the same text: "One must see if it can be proved that there exists something infinitely small, but not indivisible. If this exists, wonderful consequences about the infinite follows. Namely: if one imagines creatures of another world, which is infinitely small, we would be infinite in comparison to them. From which is evident that we, conversely, can be imagined to be infinitely small in comparison with the inhabitants of another world, which is of infinite magnitude and yet is limited" (Ibid., 475/DSR 27). The idea can be traced back to the HPN, # 43 however, cf. A VI 2, 241/LC 338. Cf. also A VI 3, ⁵⁵⁵ ³⁹⁹ Leibniz's remarks on excerpts from Bayle's *Dictionnaire*, GP IV, 554/LNS 106.

⁴⁰⁰ Causa Dei, # 15, GP VI, 440.

trivial matter of meaning; on the contrary, he wants to show that it would be absurd to state the contrary (I will come back again to the question of the modal status of such a claim).

7.5.2 The unity of time and Leibniz's reductio

The main focus of Leibniz's argument seems to be the unity of time, and, especially, the necessity that time be unified, which would guarantee that the world has to be necessarily one as well. In order to do so, he aims to show that there cannot be existing things which are not temporally connected with any other thing existing in our world. Thus, Leibniz's argument is a *reductio ad absurdum* moving from the hypothesis that there is at least one thing that exists outside the series of things that make up our world –'outside' here has not to be taken in a spatial sense, of course. After all, as Leibniz the mathematician perfectly knows, every demonstration of the unicity of such-and-such an x takes the form of a *reductio* moving from the hypothesis that there are many such-and-such xs.

A point that has to be stressed is that, whereas in the Paris notes, Leibniz's emphasis was mainly on the unity of space (and the connection of all spatial events), in passages [a]-[d] the emphasis is on the unity of time.

Thus, one might believe that, reflecting on the unification of time, Leibniz ultimately realized that his original hypothesis on the plurality of worlds, which moved from considerations concerning the fact that different world could be spatially unrelated (there is no distance holding between them), would fall short when coming to the possibility of two (or more) temporally unrelated worlds. In other words, in April 1676 from the hypothesis of alien minds (whose perceptions are not harmonised with ours), the consequence followed that different spaces and worlds could exist "in such a way that between these and ours there will be no distance"; now, on the contrary, this hypothesis seems to crash against the idea that temporally disconnected worlds could not exist, "for if there were any [minds and bodies at no distance from us], it could not be said whether they exist or do not exist now, which is contrary to the first principle" (i.e. the excluded middle stated in [b]).

If this suggestion were correct, it would follow an even deeper breaking of the parallelism between space and time than the one I have already pointed out in Chapter 6 above.

However, as I have already said, there is a sense in which the parallelism between temporal and spatial connection can be maintained, especially if we include simultaneous events into temporally connected ones (so that two or more events are temporally connected if there is a time interval between them or they are simultaneous). Notice also that 'simultaneity' for Leibniz is not defined in temporal terms, but, rather, in terms of logical compatibility or compossibility between events.

As it can be seen in texts from [a] to [c], the core of Leibniz's argument is clearly based on the notion of 'simultaneity'. This creates a big problem for the overall tenability of Leibniz's claim in [b] that the argument is meant to prove the incompossibility thesis. If simultaneity is to be defined in terms of compossibility, indeed, it seems to conclude that those things are incompossible between which there cannot be established temporal relations of simultaneity or temporal connection (priority/posteriority).

In other words, when put in a formal version, the argument seems to be question begging, because it surreptitiously assumes the very same principle (the unity of time) which it is supposed to prove. As Leibniz puts it in [a], indeed: "we say that that thing exists of which it can be said at some certain moment of time, "That thing now exists"". Again, either one takes this a stipulation about the meaning of existence (or the meaning of 'world', as in the *Theodicy*) or he has to acknowledge that there is something wrong here. For the fact that we can say *now* that something exists in a world *u* (different from our world *w*) does not allow us to conclude that there is something at *u* that exists *now*, unless we take 'now' as a rigidifying expression (as a rigid designator, we would say); as much as the fact that we can say in the actual world *w* that something actually exists in *u* does not allow us to conclude that something actually exists in *u* does not allow us to conclude that something actually exists in *u* does not allow us to conclude that something actually exists in *u* does not allow us to conclude that something actually exists in *u* does not allow us to conclude that something actually exists in *u* does not allow us to conclude that something actually exists in *u* does not allow us to conclude that something actually exists in *u* does not allow us to conclude that something in *u* exists in the actual world *w* (again: unless one takes 'actually' as a rigid designator).⁴⁰¹

In order to not misunderstand Leibniz's argument, one has to clarify that when he says (in [c]): "if there existed another series outside of ours, then it would not be possible to say whether something in it existed which is simultaneous with ours or not", the latter clause has to be explained as follows: it would be impossible to say if something existing in a different world is simultaneous with us (or with something simultaneous with us in the actual world) or is temporally prior or posterior with us (or with something simultaneous with us in the actual world). In other worlds, something existing in another world would not be simultaneous or temporally prior/posterior to anything in the actual world, and, thus, it would impossible to say whether it exists or not.

7.5.3 A transcendental argument? Verificationism and the 'Herculean Argument'

The strategy followed in [c], however, seems to suggest a different and, perhaps, more profitable reading of the argument. The expressions he employs in some passages –"for it *cannot be said* whether those things exist or not", "it would not be *possible* to say...", and so on) – seems to suggest that Leibniz might have in mind a sort of 'transcendental argument', in the sense of Kant's claim that transcendental proofs deal with the conditions of possibility of experience.⁴⁰² In the contemporary debate on transcendental arguments (mostly based on Strawson's reading of Kant), it has been a commonplace to discuss whether they are based on

⁴⁰¹ The ambiguity between the rigid and non-rigid reading of 'actual' (and 'now') has been clearly pointed out by Lewis, cf. "Anselm and Actuality", p. 18-20 (and also the Postscript, p. 22), and also Id., *On the Plurality of Worlds*, p. 94.

⁴⁰² I am thinking especially of Kant's proof that all appearances must be contained into a single, all-embracing spatiotemporal framework: "Whether the field of possibility is greater than the field that contains everything actual [...] are proper questions, and can, to be sure, be solved synthetically [...]; for they mean, roughly, to ask whether all things, as appearances, belong together in the sum total and the context of a single experience, of which each given perception is a part [...], or whether my perceptions could belong to more than one possible experience (in their general connection)" (*Critique of Pure Reason* A 230/B 282-83, translated by P. Guyer and A. Wood, Cambridge1998, pp. 330-31). As I have already said, Kant's acceptance of the first horn of the solution leads him to reject the claim that the field of the possible is wider than that of the actual (at least in the positive sense), and, hence, to the rejection of possible worlds.

something like the principle of verification or not. In the case of Leibniz, as we already now, he seems to have no problem with endorsing such a principle.⁴⁰³

On this view, asserting that something exists in another series (temporally unrelated to ours) is simply meaningless, because all the events that we can perceive either occur at the present instant of time or at an instant of time temporally connected with the present one, in the past or in the future (see above for the construction of time instants). For the only way we have of verifying that something exists is that of showing that it is spatially connected with us (if it is simultaneous), or that is connected with us by means of a temporal chain (if it is not simultaneous). If no evidence can be put forward in favour of the claim that there is an object spatiotemporally disconnected to our world, then we can conclude that it does not exist. This is the sense in which Leibniz says in [a] that existence involves a certain determinate time: "we say that that thing exists of which it can be said at some certain moment of time: "That thing now exists".⁴⁰⁴

Leibniz's commitment to the principle of verification is clearly stated in many texts in which he repeats that all those things which cannot be perceived by anyone (any mind whatsoever), are nothing.

This is the sense of what he calls his "Herculean argument" to prove that bodies are not substances but only coherent (harmonious) appearances:

"But if we say only this, that bodies are coherent appearances, this puts an end to all inquiry about the infinitely small, which cannot be perceived. But this is also a good place for that Herculean argument of mine, that all those things which are such that it is impossible for anyone to perceive whether they exist or not, are nothing".⁴⁰⁵

Concerning the Herculean argument, Richard Arthur labels it the *principle of non-existence of imperceptibles* (PNI), and correctly observes that, when it is applied to the specific case of (qualitative) differences, we obtain the principle of the identity of indiscernibles (PII) as a special case thereof, given that those things are indiscernibles whose difference is in principle imperceptible. Furthermore, from a genetic point of view, one can see that Leibniz's earlier statements of PII are connected with a verificationist claim concerning the perceptibility/impercebtility of difference between two things.⁴⁰⁶

⁴⁰³Cf. B. Mates, *The Philosophy of Leibniz*, p. 234. In connection with this, see also P. Lodge, "The Empirical Grounds for Leibniz's 'Real Metaphysics'", *The Leibniz Review* 20, 2010, pp. 13-36.

⁴⁰⁴ The same point has been raised by R. Swinburne, *Space and Time*, second edition, London 1981, pp. 165-66: "if an observer observes an event, the occurrence of the event must (...) be simultaneous with or prior to the observation of it[...]. Hence all events about which at a given instant an observer has knowledge occur at instants connected with the present instant by a temporal chain [...].Hence the claim that there were events not temporally related to each other could have no evidence produced in its favour. For evidence would be evidence about events at other instants and the only ways in which we could learn about those events would be ways which presuppose that the events are temporally related to the event of learning about them". This text is quoted by Futch, *Leibniz's Metaphysics of Time and Space*, pp. 70-71, who defends the verificationist reading.

⁴⁰⁵ *Corpus non est substantia*, A VI 4, 1637/LC 261. The editors of the Academy date this piece around 1689-90; on the contrary, Richard Arthur in LC proposes an earlier date, around 1678-79.

⁴⁰⁶ Cf. Arthur's remark is in LC 384, note 2. There, Arthur correctly refers to the first occurrence of the principle of non-existence of indiscernibles in Leibniz's *De materia prima*, 1670-71 (?), A VI 2, 280, where he states that "whatever is not sensed is nothing", from which the consequence follows that "if prime matter will move in one direction, that is in parallel lines, it would be at rest, and, accordingly, it would be nothing". The same conclusion is presented in *Propositiones quaedam physicae*, 1672-76 (?), A VI 3, 56. Cf. also A VI 3, 466 and

Concerning PNI, another thing to note is that its origin can be traced back to Leibniz's *Preface to Nizolius*, especially in those pages in which he states that moral assurance cannot be granted on induction alone, but on the conjunction of observation statements and some universal rules which do not follow from the experience (on the pain of circularity) but from the definition of terms. Among the three rules Leibniz mentions there, the second says: "The existence of a thing which is not perceived, should not be presumed"; and the third sounds: "Whatever is not presumed, has to be regarded as nothing from the pragmatic point of view [*in praxi habendum pro nullo*], unless it has been proved".⁴⁰⁷ The conjunction of these two rules corresponds to Leibniz's PNI, i.e. the formulation of the Herculean argument.

An interesting point to be stressed is the asymmetry between Leibniz's attitude toward possibility and existence which occurs in these rules. We already know, indeed, that according to Leibniz's principle of presumption, the possibility of p has to be presumed, at least until one can prove that p is not possible; on the other hand, however, the existence of p has to be rejected and amounts to nothing (at least from the pragmatic point of view) until one can prove that p exists (here p is taken to refer to individuals or events; the same could be said about propositions, with little variations). This kind of asymmetry plays an important role in Leibniz's metaphysics.

^{588.} Concerning the genesis of PII from a phenomenological approach based on a verificationist claim, see the texts discussed by Di Bella, *The Science of the Individual*, pp. 161-64.

⁴⁰⁷ Preface to Nizolius, A VI 2, 431. On the idea that it is easier for something to turn out to be possible rather than impossible, cf. A VI 1, 471, and Adams, Leibniz, 202-5. Adams is right when he points out (p. 207) that Leibniz's argument may be interpreted "as an argument for presuming the possibility of *beings*". The problem, however, is that, since for Leibniz the possibility of a thing is the same as the possibility of the existence of that thing, one should conclude that there is bias for existence rather than non-existence. This view is somewhat connected with Leibniz's recovery of the ontological argument, for, as it has been pointed out, both Descartes and Leibniz believe that there is an 'ontological bias' which favours existence over non-existence "at the fundamental level of reality" (Griffin, Leibniz, God, and Necessity, p. 9). This view is also connected with Leibniz's theory of the striving possibles (cf. Chapter 8 below). As Adams acknowledges, however, this view seems also to be in contrast with what Leibniz says in the PNG, i.e. the first metaphysical question one has to ask is "why is there something rather than nothing?": "For nothing is simpler and easier than something" (#7, GP VI 602/AG 210), from which it would follow that non-existence should be preferred to existence as far as presumption is concerned (cf. Adams, Leibniz, p. 210). This tension, however, could be weakened if we pay attention to the fact that the 'something' which is said to be less easy than nothing in the PNG is just the existence of the actual world, leaving God's existence aside (on the other hand, if we include God in the domain of actuality, we should say that what is created or has temporal and contingent existence must be ultimately grounded on something which has eternal and necessary existence, i.e. on God). On the contrary, the kind of being or 'something' which is said to be easier than nothing in the other passages is referred to essential being, i.e. the essence of God and the natures of possible things (to which God confers a tendency toward existence). In other words, what Leibniz does not always explicitly distinguish is the essential sense of 'something'/ 'nothing' from the existential one. For instance, the existential sense of 'nothing'(le Néant) is discussed by Leibniz in the dialogue with Dobrzensky, where it is clear that 'nothing' comprehends whathever does not actually exists, and it is employed by Leibniz to explain the original limitation of things at the level of mere possibility (cf. Grua 361 and ff/AG 111-17). This idea is employed by Leibniz to make sense of the traditional view that the existence of things comes out of 'nothing', where, once again, what is nothing from the existential sense is, at the same time, 'something' from the essential one (actually, there is a sort of plenitude of being at the level of what is merely possible). Therefore, one must distinguish the absolute (or essential) sense of nothing from the relative (or existential) one. Then, the question posed in the PNG must be rephrased in terms of the reason why the world (or this world) exists rather than not (it is posed in this way in De rerum originatione radicali, GP VII 302). Furthermore, this fits well with the asymmetry between possibility and existence stated in the main text above.

The presumption of possibility, indeed, is the same as Leibniz's bias in favour of possibility over impossibility, and will be the ground of his thesis of the propensity of possible to existence (this claim will be discussed in the next chapter). The presumption against the existence of what cannot be proved (or verified), on the contrary, plays a prominent role in his rejection of the reality of other worlds (or, which is the same, of what falls outside the field of 'possible experience').

The virtues of the verificationist approach are that, according to it, Leibniz's argument is no longer circular (we are not just presupposing the unity of time, we are saying that we cannot make sense of a non-unified time stream), and, moreover, it seems to be in keeping with Leibniz's phenomenalist approach (in [b] Leibniz says that "there are no entities besides bodies and minds, i.e., what we sense [...]", and remember also his phenomenological characterization of space and spatial distance). That said, however, even this version of Leibniz's argument seems to fall short, even though for a different reason. PNI, indeed, says that "all those things which are such that it is impossible *for anyone* to perceive whether they exist or not, are nothing". The expression *for anyone*, however, is ambiguous. Should we include God among the perceiving minds or not?

What Leibniz says in [a], i.e. that "existence, *as it is conceived by us*, involves a certain determinate time", seems to speak against the inclusion of God among those perceivers to whom his argument can be applied (after all, God is not in time). If this is the case, however, Leibniz's argument can be easily criticized because it moves from an epistemic premise to an ontological conclusion (a criticism which has been moved to many versions of transcendental arguments, by the way).

For, from the fact that we can perceive only those things which are at a certain distance from us in space and time (due to the universal connection of things), it does not follow that those things that we cannot perceive (and are not in our spatiotemporal framework) do not exist at all. Lewis' realism about worlds, after all, is grounded on this fundamental distinction between epistemology and ontology.

However, it seems to me that Leibniz's texts clearly go in the direction of including God among those percipient minds to which his Herculean argument must be applied. There are, indeed, many passages in which he clearly states that God is the first perceiving being.

Among the Paris notes, for instance, one can quote the following:

"We have no idea of existence, other than that we understand things to be sensed. Nor can there be any idea of existence, since existence is included in the essence of necessary beings alone. Without sentient beings, nothing would exist. Without one primary sentient being, which is the same as the cause of all things, nothing would be sensed".⁴⁰⁸

"When I have more deeply inquired into the nature not only of extension, but also of existence in general, it seems to me to have discovered this: that to exist is nothing else than to be perceived [*Sentiri*]; to be perceived, however, if not by us, at least from the author of things, to be perceived by whom is nothing else than to please him, i.e. to be harmonious".⁴⁰⁹

⁴⁰⁸ *De existentia*, December 1676, A VI 3, 588/DSR 113. Cf. the parallel passage in the text quoted by Foucher: "Ergo conclusi: existentias rerum mente quadam infallibile sentiri, cujus nos tantum effluvia essemus, id est Deo" (*Mémoire*, p. 10)

⁴⁰⁹ Propositiones quaedam physicae, 1672-76 (?), A VI 3, 56.

However, if we include God among the perceivers, it is difficult to see why perceiving two or more separate series of things should be impossible for him (especially because all possible worlds are 'located' in his understanding).⁴¹⁰ Again, another problem concerns the temporal character of perceiving existence: God is not in time, but it seems that we should conclude that his perceptions are temporal, and this is why, when Leibniz says that existence presupposes some determinate time, that passage seems to go against the inclusion of God in the number of perceivers. However problematic, however, I think that this second is Leibniz's favourite option, and also that the questions raised here can find a solution (or, at least, hints toward a solution) in what he says concerning God's *knowledge of vision* and the nature of phenomena.

7.5.4 Logic or phenomenology? The primacy of bivalence

For the moment, however, I will just postpone the discussion of an alleged solution to this problem, because there is another aspect of the verificationist approach that could create some problem.

In texts [a]-[d] above, indeed, the verificationist approach is clearly paired with another argumentative strategy which finds its ultimate ground in the primacy of the principle of bivalence. Generally speaking, Leibniz states that if there were something 'placed' at no distance from us in space and time, then it would be impossible to say if such a thing exists or not (let me put reference to time aside for a moment). In [b] Leibniz says "if there were any, it could not be said whether they exist or do not exist now, which is contrary to the first principle", where the first principle is "Nothing is and is not at the same time", i.e. the law of the excluded middle.

In [d] the existence of what I have called 'alien minds' is rejected because "otherwise no one could say whether anything is taking place in existence now or not, so that there would be no truth or falsehood for such a proposition, which is absurd [...]", where the proposition mentioned is anyone of the form '*m* exists' where *m* is an alien mind. According to [d] such a proposition would be neither true nor false, and, therefore, it is considered absurd as a violation of the principle of bivalence (the same point has been elliptically stated in [c], where Leibniz says that such a conclusion is impossible, "For necessarily it [something existing in another world] does exist or not"). In this sense, Leibniz believes that a contradiction can be derived from the assumption of a plurality of worlds.

Let me say something about the way in which Leibniz is employing the principle of bivalence here. He wants to demonstrate that indeterminacy about the existence of something has to be regarded as being in contrast with the holding of bivalence. Suppose, indeed, that there is another series of things, completely unrelated to our own, and an individual m existing therein. Concerning m, we are not able to say if it is simultaneous with us, i.e. if it exists now, or not, i.e. if it existed at an instant of time prior/posterior to the present one.

⁴¹⁰ As Griffin, *Leibniz, God and Necessity*, p. 108, has pointed out, "From God's point of view, we might think, the existence of multiple cogitable systems may lead to increased intellectual satisfaction". Furthermore, if God's understanding can actually think of many possible worlds, it is not clear, at least at first sight, why his will cannot realize all of them, instead of just one.

Thus, we can say of m neither that it exists now nor that it does not exist now; accordingly, both the propositions 'm exists now' and 'm does not exist now' are without a determinate truth value. This, however, is a violation of the "first principle", be it the law of excluded middle (as stated in [b]), or, more correctly, as I will say, the principle of bivalence (as clearly stated in [d]).

In my opinion, indeed, the core of Leibniz's argument lays in the primacy he tributes to the principle of bivalence, to the effect that, when stating (what he calls) the principle of contradiction, he is actually stating (what we call) the principle of bivalence⁴¹¹ (of course, from Leibniz's point of view, this is not a problem, since in the context of classical logic, the law of non-contradiction, that of excluded middle, and the principle of bivalence are all equivalent).⁴¹²

Leibniz's interest, indeed, seems to be almost exclusively directed toward the truth-value of propositions and he is willing to reject the very same possibility of something like the lack of determination in assigning truth-values to propositions. Bivalence says exactly that every proposition has a determinate truth-value.

My contention can be confirmed by what Leibniz says elsewhere, as in the following passage:

"First of all I assume that every judgment (i.e., affirmation or negation) is either true or false and that if the affirmation is true the negation is false, and if the negation is true the affirmation is false; that what is denied to be true –truly, of course –is false, and what is denied to be false is true; that what is denied to be affirmed, or affirmed to be denied, is to be denied; and what is affirmed to be affirmed and denied to be denied is to be affirmed. [...] All these are usually included in one designation, the *principle of contradiction*".⁴¹³

The most explicit passage, however, occurs in the *New Essays*, where Leibniz clearly derives the law of non-contradiction and excluded middle from the principle of bivalence (which he dubs "principle of contradiction in general"):

"Stated generally, the principle of contradiction is: *a proposition is either true or false*. This contains two assertions: first, that truth and falsity are incompatible in a single proposition, i.e. that *a proposition cannot be*

⁴¹¹ This point has been already noted by G. H. R. Parkinson, *Logic and Reality in Leibniz's Metaphysics*, Oxford 1965, p. 60.

⁴¹² I have reserved the name 'principle' for bivalence (vs. the law of non-contradiction and excluded middle), because the formulation of the first requires a reference to truth and falsity, and, thus, with respect to a first order formal language (in which both non-contradiction and the excluded middle can be expressed), it has to be regarded as a metalinguistic principle. This device reflects the point of view of modern logic. On the contrary, in his essays on logical calculi, Leibniz normally employs propositions expressing the truth or the falsity of terms, where, notice, a term is said to be false if it entails a contradiction, whereas it is said to be true if it is does not entail a contradiction. In this case, thus, 'truth' coincides with 'possibility' (given a term A, 'A is true' is the same as 'A is a being' where 'being' ranges on possible entities as well, not just on actual ones). In the next chapter, I will refer to the position those who take 'existence' as a metalinguistic predicate in Leibniz's logical works (most notably, the GI). As far as 'truth' (taken in the essential sense, i.e. as ranging over concepts and not just over actual entities) is concerned, I think it could not be taken as a metalinguistic expression (On this point, see see the formalization of GI recently proposed by M. Malink-A. Vasudevan, "The Logic of Leibniz's *Generales Inquisitiones*", in *The Review of Symbolic Logic*, 9, 2016, pp. 686-751).

⁴¹³ De principiis praecipue contradictionis et rationis sufficientis, 1686/87(?), A VI 4, 804 (=GP VII, 299)/L 225. See also *Principium scientiae humanae*, 1685-86 (?), A VI 4, 670 : « Hoc principium quaerendum censeo in ipsa generali natura Veritatum, atque illud ante omnia tenendum : *Omnem Propositionem aut veram aut falsam esse* ».

both true and false at once; and second, that the contradictories or negations of the true and the false are not compatible, i.e. that there is nothing intermediate between the true and the false, or better that *it cannot happen that a proposition is neither true nor false*^{".414}

This explains why in [b] Leibniz seems to resort to the law of excluded middle in order to ground his argument: the excluded middle, as stated in [b], is clearly implied by the principle of bivalence (while the converse might not hold). Emphasis on bivalence, of course, has to be connected with Leibniz's account of truth in terms of conceptual containment.

In this sense, it is not a coincidence that the most explicit text on this point is [d], which is also the one chronologically closer to the metaphysics of the *Discourse*. In [d], indeed, the connection between bivalence and the conceptual containment theory of truth is explicitly stated in the following terms: that universal connection holds among all existing things (with 'existence' to be taken without any relativization to a given world) can be proved by the fact that (a) otherwise it would be impossible to say if something in another world does exist or not, against bivalence; and by the fact that (b) there are no (purely) extrinsic denominations without a real change (*mutatio*) occurring in the denominated subject(s), since "every predicate is really [*revera*] contained in the nature of the subject", i.e. the conceptual containment theory of truth.⁴¹⁵ Notice how the account of truth is given here in terms of inherence, i.e. a *real*, ontological containment, not just a linguistic one.

Now, to make room for an exception to the principle of bivalence would be the same as to calling into question the principle of inherence. This, for instance, is what happens in the case of (what Leibniz takes to be) Aristotle's solution to the problem of propositions concerning future contingent events. In the *Theodicy*, Leibniz explicitly criticizes Aristotle for having rejected to apply bivalence to the case of contingent futures: he "went too far, saying (inadvertently, as I think) that propositions on contingent futurities had no determinate truth; on which point he was justifiably abandoned by most of the Schoolmen".⁴¹⁶

However, that of propositions concerning contingent futures events is not the only case in which one might invoke a failure of bivalence. Leibniz's commitment to bivalence (i.e. to the conceptual containment account of truth) imposes him to reject the very same possibility of what one can call (in a very broad sense) semantically 'undecidable' propositions, namely of propositions whose truth-value is not determined in itself.

Michael Dummett has repeatedly pointed out that in the natural language is not difficult to find many ways of forming not decidable sentences:

[&]quot;The difficulty arises because natural languages is full of sentences which are not effectively decidable, one for which there exists no effective procedure for determining whether or not their truth-conditions are fulfilled. [...] Many features of natural language contribute to the formation of sentences not in principle decidable: the use of quantification over an infinite or unsurveyable domain (e.g. over all future times); the

⁴¹⁴ New Essays, IV, ii, 1, A VI 6, 362. A different reading of this passage has been given by Ishiguro, *Leibniz's Philosophy of Logic and Language*, p. 58.

⁴¹⁵ Cf. A VI 4, 1503. The argument concerning extrinsic denominations has already been discussed in 6.2 above. ⁴¹⁶ *Theodicy*, # 169 (GP VI, 211). See also *Ibid.*, # 331, GP VI 311/H 328. Cf. also Leibniz's remarks to Caramuel's *Leptotatos*, 1689 (?), A VI 4, 1342; and "Conversation su la liberte et le destin", 1699-703 (?), Grua 479-80. Leibniz's first reference to the view that contingent futures have a determined truth (as accepted by Christian thinkers even though denied by Aristotle) occurs in his 1664 *Specimen quaestionum philosophicarum ex jure collectarum*, XII, 7, A VI 1, 90. On the question of contingent futurities, see M. Mugnai, "Leibniz e i futuri contingenti", *Rivista di storia della filosofia*, 1, 2013, pp. 191-210.

use of the subjunctive conditional [...]; the possibility of referring to regions of space-time in principle inaccessible to us".⁴¹⁷

Dummett's reference to "the possibility of referring to regions of space-time in principle inaccessible to us" seems to be a good approximation to the case discussed by Leibniz in the passages [a]-[d]. Of course, Dummett's remark is primarily addressed to case of sentences for which no effective decision procedure exists from the point of view of our, limited approach (inaccessible "to us"). On the other hand, we have already seen that the problem has to be extended in order to cover also the (im)possibility of a decision procedure from the point of view of God's mind (or of any mind whatsoever).

I have quoted Dummett also because his works have clearly highlighted the connection between commitment to bivalence and a realist theory of truth. Realism about truth says that a statement p can be true (or false) even if there is (or better there can be) nothing which would count for us as proof of the truth (or falsity) of p. In other worlds, the truth of p is completely independent from the possibility of any verification procedure by means of which we could justify our stating p. The opposite view (defended by Dummett himself) is an anti-realist theory, which makes truth dependent not as much on truth-conditions (and bivalence) as on the conditions of justifiability of a statement.

I have made reference to this distinction because, from what we have read in [a]-[d] above, it is clear that for Leibniz, both the justificationist approach (based on the principle of verification) and the realist one (based on bivalence) seems to go hand in hand, as if they were just two sides of the same approach. In the case of human knowledge, however, these two approaches can and should be distinguished: Leibniz clearly accepts that there is just a way in which things are, but in many cases we are not able to know it.

When coming to the case of an infinite and omniscient mind, however, one should say that there can be no real distinction between the reality of truth (in the sense of 'realism') and what God proves or, at least, sees to be true (reference to seeing/intuiting vs. proving seems to be required by Leibniz's account of contingent truths in terms of infinite analysis, but, as we will see, also by his reference to God's knowledge of vision). In the case of the mind of God (or of God's act of perceiving the actual world as such), then, there can be no real distinction between the verification-based approach and the bivalence-based one.⁴¹⁸

This allows us to understand that Leibniz's apparently opposite approaches to his argument are actually two sides of the same strategy, at least when one refers to the particular case of an infinite mind (and also justifies our choice of the reading according to which God has to be included among the perceiving minds to which the Herculean argument has to be applied). However, this does not seem to provide any clue to understand why in the case of divine

⁴¹⁷ M. Dummett, "What is a theory of meaning? (II)", 1976, in Id., *The Seas of Language*, Oxford 1993, p. 46.

⁴¹⁸ As Dummett himself acknowledges, indeed: "If we had a language in which every statement that could be framed admitted of an effective means –effective at least in principle –for deciding its truth or falsity, there would be no practical difference between a justificationist and a truth-conditional explanation of meaning" (M. Dummett, *Truth and the Past*, New York 2004, p. 69). Such a language might correspond to divine thought, or, which is the same, to the theory of complete concepts. Again, the only problem with Leibniz is the infinite analysis account of contingency, according to which it seems that one should deny that even God has an effective procedure which allows him to decide the truth or the falsity of a contingent proposition: in the case of a contingent proposition p, God just sees the inclusion of the predicate in the subject, and, thus, the truth of p, without being able to prove it (whatever this could mean).

knowledge the existence of two or more disconnected worlds (two or more mutually inaccessible regions of space and time) should lead to a failure of bivalence (against Leibniz's theory of truth) and/or to a failure of provide a justification of their existence.

7.5.5 Knowledge of vision. A possible solution?

A justificationist approach, like the one defended by Dummett (whose preference went to intuitionist logic rather than to classical one) defends the claim that there are 'gaps' in reality, i.e. questions for which there is no yes/no answer (and, thus, bivalence fails). Since the divine mind, for Leibniz, is something like the quintessence of the classical reasoner, he could not admit something like the presence of gaps in reality. This is clearly understandable in the case of what happens into a single world, especially in the case of non-actualized possible worlds. To stick at the example proposed by Dummett himself, in a fictional context, like the 'world' of Shakespeare's *Hamlet*, if one asked whether Laertes was left-handed or right-handed, Shakespeare would have no answer to give. However, think of the case of a non-actualized possible world in which (among other things) the events described in *Hamlet* take place; in surveying that world, God should know whether Laertes is right-handed or not (or, alternatively, the right- or left-handedness of Laertes' should be derivable from Laertes' complete concept).⁴¹⁹

The completeness of the world is required by (and also requires) the determinate character of whatever happens therein (and, therefore, of every statement or proposition concerning whatever happens therein; especially if a mere possible world is composed by propositions, or concepts, and not by individuals in flesh and bones).

The case of two (or more) existent and not related worlds, admittedly, is more difficult to deal with. First of all, having to do with existent worlds, one has to shift from God's knowledge of the possible (or *scientia simplicis intelligentiae*) to his knowledge of actuality (or *scientia visionis*). In the case of the knowledge of merely possible worlds, infinitely many different worlds can be placed in the logical space which is God's understanding. Being just a logical space, it makes sense that no relation of distance holds between what exists in a world and what exists in another one (better said: between what would have existed in one world, had God decided to create it, and what would have existed in another one, etc. –I will come back to this point in what follows).

In the case of God's knowledge of vision, however, the existence of two (or more) existing but mutually unrelated worlds would amount to accept the presence of gaps in reality, for the very simple reason that the mutual isolation of worlds consists in the lack of cross-world spatiotemporal and causal relations.

This would be true especially in the case in which God's knowledge of vision consists of God's act of seeing the relations between the actually existing individuals: in the case of two isolated but existing worlds, it would impossible (in principle) for God to see the relation between an individual A in world w_1 and an individual B in w_2 , especially for what concerns

⁴¹⁹ Cf. Dummett, *Truth and the Past*, p. 63. The comparison between a fictional piece and a possible world is not an idle one; Leibniz's favourite example of a non-actualized possible is that of a fictional character (as shown above).
the spatiotemporal situation of B with respect to A (or vice versa). In particular, it would be impossible, even for God, to say if B exists simultaneously with A or not; and given that we have made the hypothesis that both A and B are existing, from the presence of a gap in reality one should conclude to a gap in God's knowledge of what exists.

7.5.6 Phaenomena Dei and God's knowledge of actuality

Of course, much of this reconstruction of Leibniz's argument is purely speculative. For, as I have shown above, Leibniz always presents his argument from the point of view of we who exist in the actual world, not from the point of view of God's eye. Furthermore, since the core of the argument is based on the impossibility of establishing any relation of temporal connection between us (and all our surroundings) and what (would) happen in another existing world, it seems difficult to say in which sense this situation could be applied to the case of God's knowledge (especially given that God's existence is not a temporal one, and so must be his knowledge as well). However, much of what I have said so far can be drawn from Leibniz's occasional remarks concerning God's knowledge of vision.

Let me start with knowledge of phenomena. Already in the Paris notes, in a discussion concerning the nature of perception, Leibniz remarks that "[n]ot even God would have pleasure unless he perceived various creatures, which for him take the place of images". Indeed, as he immediately adds, "God is the perfect mind, and that mind is the cause of its own perceptions; which is not the case with any other mind".⁴²⁰

God's being the cause of his own perceptions means that God is a purely active mind, whereas, on the contrary, finite minds in general, and human ones in particular, all share a sort of passivity. This claim has to be taken in connection with the idea that our minds produce phenomena, whereas the divine mind produces things (*nostra mens phaenomenon facit, divina Rem*). This, however, does not mean that phenomena are accessible to human minds only, otherwise it would be impossible to understand the way in which God could be said to have knowledge of the actual world. The solution to the problem consists in the fact that, when creating things (*res*), God substantially creates mind-like substances (*nostra mens*), and, therefore, by knowing our minds, he is also able to know their phenomena.

This idea is already at work in a series of notes from the end of 1676, where Leibniz writes:

"There is no doubt that God understands how we perceive things; just as someone who wants to provide a perfect conception of a town will represent it in several ways. And this understanding of God, in so far as it understands our way of understanding, is very like our understanding. Indeed, our understanding results from it, from which we can say that God has an understanding which is in a way like ours. For God understands things as we do but with this difference: that he understands them at the same time in infinitely many other ways, whereas we understand them in one way only".⁴²¹

This passage has to be read together with what Leibniz will write ten years later in the famous section 14 of the *Discourse*:

⁴²⁰ De reminiscentia et de reflexione mentis in se ipsum, April 1676, A VI 3, 516/DSR 71.

⁴²¹ Aufzeichnungen zur Metaphysik, December 1676, A VI 3, 400/DSR 115. On the notion of *resulting*, see my discussion in Chapter 9 below.

"For God, so to speak, turns on all sides and in all ways the general system of phenomena which he finds good to produce in order to manifest his glory, and he views all the faces of the world in all the ways possible, since there is no relation that escapes his omniscience. The result of each view of the universe, as seen from a certain position, is a substance which expresses in conformity with this view, should God see fit to render his thought actual and to produce this substance".⁴²²

Both these passages are meant to explain the same idea concerning the way in which God knows the actual world. Reference to the actual world is explicit in the second passage: "the general system of phenomena which [God] finds good to produce" is a periphrasis for 'the actual world' (note also the clear counterfactual way of talking of a (possible) substance, i.e. of what would be a substance "should God see fit to render his thought actual"). In the first passage, God's knowledge of our understanding of things is justified on the basis of the fact that our minds are just emanations (although limited ones) of God's infinite mind: this is why, while we can see the universe from a single point of view only, God understand if "at the same time in infinitely many other ways".

In section 14 of the *Discourse*, Leibniz also adds that it is God alone ("from whom all individuals emanate continually and who sees the universe *not only as they see it but also entirely differently from all of them*") to be the cause of the mutual correspondence between the phenomena of different substances. In other words, this means that only God, properly speaking, is able to see the relations occurring between different substances ("he views all the faces of the worlds in all ways possible, *since there is no relation that escapes his omniscience*").⁴²³

Two points should be stressed here: (a) God's knowledge of phenomena amounts to his knowledge of the relations holding between different substances in this world (and, therefore, to the very same *reality* of these relations); (b) God's twofold way of having knowledge of this world (which emerges from the passage of the *Discourse* italicized above).

Concerning (a), this is the sense in which one has to take Leibniz's later reference to the *phaenomena Dei* in a study for a letter to Des Bosses:

"If bodies are phenomena, and are judged by our appearances, they will not be real, since they will appear differently to others. Thus, the reality of bodies, space, motion, and time seems to consist in this: that they are the phenomena of God, that is, the object of his knowledge of vision [*scientia visionis*]. And the difference between the appearance of bodies with respect to us and their appearance with respect to God is in some way like the difference between a drawing in perspective [*scenographiam*] and a ground plan [*ichnographiam*]. For whereas drawings in perspective differ according to the position of the viewer, a ground plan or geometrical representation is unique. God certainly sees things exactly such as they are according to geometrical truth, although likewise he also knows how each thing appears to every other, and thus he contains in himself eminently all the other appearances. Moreover, God does not only consider single monads and the modifications of any monad whatsoever, but he also sees their relations, and the reality of relations and truths consists in this".⁴²⁴

⁴²² *Discourse*, # 14, A VI 4, 1549-50/AG 46-47.

⁴²³ A VI 4, 1500, italics mine.

⁴²⁴ Leibniz to Des Bosses, 15 February 1712, *Beilage*, GP II, 438/LDB 231-33. The most extensive commentary to this text is G. Brown, "God's Phenomena and the Pre-Established Harmony", *Studia Leibnitiana*, XIX, 2, 1987, pp. 200-14.

Here Leibniz explicitly says that the 'reality' of motion, space and time consists in the fact that they are God's phenomena. Since all these things are made up of relations, he also concludes that the reality of relations between different substances (and the modifications of different substances), i.e. inter-monadic relations, consists in their being the object of God's *scientia visionis* (here, 'reality' has to be taken according to the doctrine of *objective being*, i.e. the *esse cognitum*).⁴²⁵

Notice that this holds especially in the case of the universal connection of all things: relations of connection (like spatiotemporal and causal ones) are real insofar as they are the object of God's knowledge (since we are talking of Gods' knowledge of vision, which was typically regarded as a contingent one, it will follow that relations of connection might be regarded as contingent as well, or, at least, non-essential ones).⁴²⁶

In order to understand how it is possible something like God's knowledge of phenomena, Leibniz resorts to (b), i.e. the distinction between God's two ways of understanding things, something he had already envisaged in the passage from the Paris note quoted above. Here, however, he employs a different image, that of the difference between a perspectival representation (*scenographia*) and a ground plan one (*ichnographia*), which he had already introduced in a marginal note to a text from the end of 1680's.⁴²⁷

The difference between the way things appear to us and the way in which they appear to God (i.e., the difference between our phenomena and the phenomena of God) corresponds to that Leibniz already discussed in the *Discourse*, where he explains that, first of all, God has a knowledge of the "general system of phenomena" as a whole, and, afterwards (logically, not temporally)⁴²⁸, he pluralizes it by looking at it (=the same universe) from infinitely many different points of view. In this way, God does not only know things as they are in themselves but also how each of them appears to every other (or, better, how each of them would appear to every other, had this world to be actualized).

This is the sense in which the young Leibniz often repeats that the existence of things (i.e. of a plurality of substances) consists in their being perceived by an infinite mind. Finally, the late Leibniz will be able to disambiguate in a very clear way between the sense in which we are said to perceive things (which imply a certain passivity, a being acted upon something

⁴²⁵ The best explanation of the 'reality' of relations in Leibniz is given by Mugnai, *Leibniz's Theory of Relations*, p. 111 and ff. Cf. also the texts quoted in 6.2 above.

⁴²⁶ "Two things are realized [*realisantur*] by the divine intellect: all the eternal truths and, among the contingent truths, all those implying relations [*respectivae*]", Leibniz's remarks on Temmik, in Mugnai, *Leibniz's Theory of Relations*, p. 155. (On this sense of the verb 'realize', see also the passages discussed in Chapter 9, especially 9.6.3, where they are discussed in connection with Leibniz's idea of *transitus* from possibility to actuality). Cf. also this other passage in the remarks on Temmik: "Quod fit per intellectum divinum, simul est formaliter in rebus, respect ad intellectum" (*Ibid.*, p. 156).

⁴²⁷ Cf. Specimen inventorum de admirandis naturae generalis arcanae, 1688 (?), A VI 4, 1618: "Quin imo substantiae finitae multiplices nihil aliud sunt quam diversae expressiones ejusdem Universi, secundum diversos respectos et proprias cuique limitationes. Quemadmodum una ichnographia infinita[s] habet sce[nographias]" (notice, however, that the marginal note has been probably added only subsequently to the original text). The distinction between *scenographia* and *ichnographia* has been probably taken from Goclenius' *Lexicon philosophicum*, Fracofurti 1613, sub voce "Scenographia", p. 1009, b: "*Ichnographia* est delineatio aut figurarum planarum, aut communium sectionum, quas efficitunt planum horizontis communis, eaeque superficies, quae per lineamenta corporum delineandorum traiectae, horizonti ad perpendiculum insistunt".

⁴²⁸ The distinction between instants of nature and instants of time (originally introduced by Scotus) is explicitly recalled by Leibniz in the *Theodicy*, # 225, GP VI, 252 (end of the paragraph.

else) from the way in which God, perhaps improperly, is said to perceive things and harmony between them.⁴²⁹

7.5.7 Space, time, world. The phenomenological genesis of the series rerum

At this point, I think I have justified all the assumptions implicitly at work in my reconstruction of Leibniz's argument, especially those concerning the connection between God's knowledge of the actual world and his knowledge of relations. Concerning the peculiar sense in which relations are said to be 'real', Massimo Mugnai has rightly observed that, if relations do not exist, in the sense of being "effective realities in the existing world", nonetheless "it is [...] equally true that the world receives its individuality from relations, that is from the way in which God has defined mutual relationship among the individuals belonging to it".⁴³⁰

This is why, I think, one is entitled to refer to God (at least, to God's knowledge of vision) what he says about the way in which, from the analysis of phenomena, we can draw the ideas of *body, space, time, world*; a process he displays in a text from the end of the 1670's.⁴³¹

As we have already seen above, space is characterized as what allows us to distinguish between the world of real phenomena from that of imaginary ones (or dreams): those phenomena to which we can assign a position in this space, then, are called 'bodies'.⁴³² The introduction of change, which "disturbs the assigned situation [of these bodies in space]", requires us to distinguish between simultaneous phenomena and those which are not simultaneous (past/future ones); thus 'time', as a "relation of things with each other", is introduced, and it comprises "the whole of everything [not only of what is simultaneous], for nothing can occur which is not either before or after or simultaneous with any other given thing" (the principle of connection).

Once we have space and time thus characterized, we can conclude that "the collection of all bodies that are understood to be in space, i.e. those that have mutual situation, is called the *world*, and there are various states of the world at various times".⁴³³ This is nothing but the definition of 'world' we have found in the *Theodicy:* "the entire succession and the whole collection of all existent things".

From what we have said concerning the phenomena of God, such a phenomenological genesis of the idea of the world can be legitimately applied to God's knowledge of vision. Let us think of that as the way in which God, the wisest architect, makes the plan for the world he chooses to create. In which sense this way of building a world forces him to the unity of the

⁴³⁰ Mugnai, Leibniz's Theory of Relations, p. 118.

⁴²⁹ Cf. Leibniz's Fifth Letter to Clarke, #87, GP VII, 411/L 711. Cf. also Grua 583 (dated around 1694-98), where Leibniz writes: "*There are two kinds of knowledge, that of facts, < which is called 'perception'> and that of reason, which is called 'intelligence'*. Perception is of singular things, intelligence has for its object universal or eternal truths [...]" (italics in the original). Attributing perception to God, then, is necessary in order to grant him the possibility og having knowledge of singular truths (or truths about individual things).

⁴³¹ In what follows, I paraphrase what Leibniz says in his *Definitiones cogitationesque metaphysicae*, 1678-1680/81(?), A VI 4, 1396-98/LC 241-45.

⁴³² Conversely, "those bodies which do not have a definite situation of this kind, such as rainbow or an image in water, we therefore call *emphatica* or simply apparitions, for which we can nevertheless provide reasons from the action of bodies" (A VI 4, 1397/LC 243).

⁴³³ A VI 4, 1397/LC 243.

world itself? In other words, in which sense the unity of the actual world must be taken as a 'necessary' one? We have already said that space as the order of coexisting things is defined in terms of mutual compatibility between them (such a maximal set of compatible thing is a "state of the world"); states of the worlds can be pluralized by resorting to time, for time is what allows two contradictory states to belong to the same world without violating compossibility.

Also this process can be extended until it will reach a maximum: the world will be a maximal series of mutually compossible states. But, one could say, why what works in the case of the same thing having opposite states at different times cannot be applied also to the case of two incompossible things, i.e. why cannot they exist in different spaces (in different worlds)?

A first, apparently plausible solution, has to be rejected: one could think that while time allows an individual substance to remain the same passing through opposite states, this could not happen in the case of things existing in different worlds, for they would necessarily be different (existence at different spaces does not preserve personal identity).⁴³⁴ However, this solution cannot work in the case of Leibniz: his commitment to a strong form of causal determinism, indeed, leads him to reject trans-world identity (while accepting identity through time), and this is the only sense in which his position seems to be in keeping with those who accept a plurality of existing worlds (think of Lewis' theory of counterparts).^{435 436}

⁴³⁴ This topic will be discussed by Leibniz in the *New Essays*, II, xvii, 23, A VI 6, 245. See E. Curley, "Leibniz and Locke on Personal Identity", in Hooker, Leibniz, pp. 302-26; N. Jolley, Leibniz and Locke, Chapter VII ("Personal Identity"), pp. 125-44, especially for what concerns the example of the twin-earth inhabited by men apparently indiscernible from those who inhabit our world. Notice, that, commenting on Locke's point that selfhood is not determined by the identity of the substance (Leibniz's considered view), but only by the identity of consciousness, Leibniz observes (A VI 6, 244-45): "I acknowledge that if all the appearances of one mind were transferred to another, or if God brought about an exchange between two minds by giving to one the visible body of the other and its appearances and states of consciousness, then personal identity wouldn't be tied to the identity of substance but rather would go with the constant appearances, which are what human morality must give heed to. But these appearances would not consist merely in states of consciousness: God would have to exchange not only the states of awareness or consciousness of the individuals concerned, but also the appearances that were presented to others [...]". But this possibility, that of a "divorce between the insensible and the sensible realms" would be a miracle, i.e. something not in conformity with the order of nature as established by God (by his ordained power). This restriction to what is possible within the order of nature (i.e. within the scope of God's ordained power) plays a fundamental role in order to understand Leibniz's rejection of a plurality of worlds.

⁴³⁵ The rejection of trans-world identity immediately follows from the impossibility of 'branching time' which is just a corollary of Leibniz's understanding of temporal order (see Chapter 6.1 above). Given the symmetry and the transitivity of the notion of temporal connection, indeed, it immediately follows that branching time is impossible. Notice that the impossibility of branching will be explicitly referred by Leibniz in his denial of transworld identity in the correspondence with Arnauld, where Leibniz rejects the possibility of two possible worlds qualitatively identical up to a certain time but different thereafter; according to him, indeed, these worlds would have been different from the very beginning (given the universal connection of all things). Cf. GP II, 42 (the rejection of the counterfactual identity of the 'marble block'). If Leibniz's rejection of counterfactual identity is a consequence of his strong deterministic conception of the 'series of things', then one can understand him not as a anti-Haecceitist (in the sense of Lewis), but, rather, as a Haecceitist who endorses a strong form of determinism ("Although the Anti-Haecceitist may seem to assert that no possible individual exists in more than one possible world, that view is properly reserved for the Haecceitist who holds to an unusually rigid brand of metaphysical determinism", D. Kaplan, "How to Russell a Frege-Church", *Journal of Philosophy* 72, 1975, 716-29, p. 723, quoted by Cover and Hawthorne, *Substance and Individuation*, p. 144).

⁴³⁶ That every individual which is part of a world is part of exactly one world is given as a postulate in Lewis' theory of counterparts, but (as noted in Divers, *Possible Worlds*, p. 307, note 10) it can be demonstrated by *reductio* from the hypothesis that the same individual, say *a*, is in two different worlds, say *w* and *v*. One of these worlds, for instance *w*, has a part, say: the individual *b*, which is not part of *v*. Since *a* and *b* belong to the

The other solution that can be put forth is that concerning the nature of relations and God's knowledge thereof: a plurality of worlds cannot constitute the object of God's knowledge of vision, otherwise, as I have shown above, there would be gaps in reality, for neither spatial nor temporal relations can hold between individual existing at different worlds.

Thus, we would have the following scenario: there would be two (or more) individuals who exist (each one in his own world) and, nonetheless, it is not the case that a relation of connection does hold between them. From our, limited point of view, of course, this would not be a problem; but it would constitute a problem from the point of view of God's *visio*, "since there is no relation that escapes his omniscience". Since God views every existing thing, and, in so doing, establish relations among them (thus connecting them into a single world), in the case of two existing but unrelated entities, the conclusion will follow that God would not be able to say, for instance, if one is simultaneous or prior/posterior to the other. And since God is a classical reasoner (the classical reasoner *par excellence*), this would amount to a violation of the principle of bivalence.

Therefore, a plurality of existing but non related worlds is impossible even from the point of view of God's vision (from the point of view of God's vision, the hypothesis of a plurality of worlds would be the same as that of a non-unified world, i.e. what in contemporary terms is called a series of "island universes").

7.5.8 Absolute and ordained Power.

Notice, however, that the whole reasoning concerns only God's *scientia visionis*. The contraposition between *scientia simplicis intelligentiae* and *scientia visionis* is the epistemic counterpart of that between God's *potentia absoluta* and his *potentia ordinata* (i.e. between absolute omnipotence and his ordained power). This means that the plurality of worlds is impossible only as far as God's ordained power is concerned; on the other hand, from the point of view of God's absolute power, it should be possible (since it does not seem to imply a logical contradiction *tout court*). This is the reason why sometimes Leibniz says that a plurality of worlds is just an unnecessary hypothesis, and not an impossible one (here 'impossible' has to be taken as referred to what God can do *de potentia absoluta*); in the passages [a]-[d], on the contrary, the impossibility of a plurality of worlds has been proved as far as what God can do *de potentia ordinata* is concerned.⁴³⁷

same world w, they are spatiotemporally related; but, then, v would have a part, a, which is spatiotemporally related to something, b, which is not part of v. But this is contrary to the hypothesis that v is a world (since all the parts of a world are spatiotemporally related). As one can see, this is nothing by the translation in the mereological language of the theory of counterparts of the failure of transitivity which leads Leibniz to reject the possibility of overlapping possible worlds.

⁴³⁷ Another way to substantiate Leibniz's reference to *ordained power* (taken as a subset of what God could do/have done according to his absolute power) is by reference to what is possible within/compatible with the order of nature (with the exclusion of miracles). This point will be emphasized by Leibniz in the preface to the *New Essays:* "I acknowledge that we must not deny what we do not understand, but I add that we are entitled to deny (within the natural order at least) whatever is absolutely unintelligible and inexplicable [...] [A]ltough what creatures conceive is not the measure of God's powers, their 'conceptivity' or power of conceiving is the measure of nature's powers: everything which is in accord with the natural order can be conceived or understood by some creature" (A VI 6, 66). This passage is a fundamental one in order to grasp the connection between conceivability and (real) possibility in Leibniz. It makes clear in which sense one could reject the possibility of a

This is an interesting point. First of all, because in the whole theological tradition before Leibniz it has been constantly maintained that a plurality of worlds is possible only from the point of view of God's omnipotence, but has to be rejected when one comes to take into account God's ordained power.⁴³⁸ Of course, the main difference between Leibniz and the theological tradition consists in the peculiar way in which he interprets reference to God's *absolute power*.⁴³⁹ Second, the hypothesis of a plurality of worlds has the same modal status of the hypothesis of a solitary monad (or a solipsistic universe), and it has to be taken as possible/impossible depending on the extension of God's power which is taken into account.

Concerning the latter point, it has rightly pointed out that a difference between Leibniz's approach to possible worlds and contemporary modal metaphysics has to be stressed here. From the contemporary point of view, there is no problem in rephrasing the hypothesis of the solitary monads in terms of a possible world with a single individual only (being possible, however, means that it can be created by God).

On the contrary, from the point of view of Leibniz, it would be difficult to say that such a situation (which sometimes he dubs as a "fiction"⁴⁴⁰) represents a genuine possible world: just

hypothesis (like the plurality of worlds) if this is in contradiction with whatever can be conceived or understood by some creature. In this sense, Leibniz's Herculean argument (or the principle of non-existence of imperceptibles) can be traced back to what Rutherford has dubbed "the principle of intelligibility", i.e. the idea that "nothing happens for which it is impossible to give a *natural* reason, i.e. a reason drawn from the natures of the beings that belong to this world" (D. Rutherford, "Leibniz's Principle of Intelligibility", *History of Philosophy Quarterly*, 9, 1, 1992, 35-49, p. 35). Moreover, as Rutherford has rightly pointed out, there is a tight connection between the intelligibility (or, in our case, perceptibility) requirement and God's wisdom: "God has gone so far as to write the conditions of intelligibility into the very fabric of the world, such that for whatever obtains within the order of nature it is possible to understand why it obtains in terms of the intrinsic natures of the beings which comprise the world" (p. 45).

⁴³⁸ For a good selection of texts (and a commentary thereof), see O. Boulnois (ed.), *La puissance et son ombre*. *De Pierre Lombard à Luther*, Paris 1994. On the history of the distinction between absolute and ordained power, see W. Courtenay, *Capacity and Volition. A History of the Distinction of Absolute and Ordained Power*, Milano 1990. According to Grant, the distinction has been elaborated by medieval theologians also in order to solve the problem of the plurality of worlds after the condemnation of 1277 (where the claim that just one world could have been created by God was condemned as a threat to divine omnipotence), see E. Grant, "The Condemnation of 1277, God's absolute power, and physical thought in the late middle ages", *Viator*, 10, 1979, pp. 211-44.

⁴³⁹ Cf. F. Mondadori, "Leibniz on the Distinction between Potentia Absoluta and Potentia Ordinata", in *Leibniz. Tradition und Aktualität*, V. Internationaler Leibniz-Kongresses, Hannover 1988, pp. 582-91; Funkenstein, *Theology and the Scientific Imagination*, pp. 195-201. Both Mondadori and Funkenstein stress that the distinctive trait of Leibniz's view is that he is committed to the claim that God has actualized the BPW (something unheard of in the theological tradition). In particular, as Mondadori has rightly pointed out, talking of God's *potentia absoluta* is just talking of what God could have done in making abstraction from his wisdom and goodness, and, furthermore, "in the sense that –relative to, and in the context of, God's actual ordination –some (most ?) of the possibilities which were initially the object of God's *potentia absoluta* do not count any more as (real and realized) possibilities" (p. 583). In this way, Leibniz distances himself from Scotus' view, according to which God's absolute power should be regarded as a capacity whose exercise is permanently open to God (as a "could φ " and not just a "could have φ ").

⁴⁴⁰ The world-apart (or the solitary monad) hypothesis is said to be a "fiction" as well as a bare "metaphysical possibility" by Leibniz in his discussion of Bayle's article "Rorarius", cf. GP IV, 530: "But since that [the world-apart hypothesis] is contrary to the designs of God, who has willed that the soul and the things outside of it are in agreement, it is clear that this pre-established harmony destroys such a fiction, which is a metaphysical possibility' are taken as synonym because the hypothesis is a fiction within the scope of God's ordained power (the natural order), and, for the same reason, is just a metaphysical possibility (i.e. one that could be accepted only by reference to God's miraculous intervention, but something like a 'continuous miracle' is exactly the kind of scenario Leibniz usually rejects).

because the constraints necessary in order to conceive of a world are stricter than required by entertaining a mere metaphysical possibility (conceivability without contradiction).⁴⁴¹

The conclusion should be drawn that not every metaphysical possibility is a possible world in the genuine and proper sense. In the case of a plurality of existing worlds, even though one can still conceive of it as a metaphysical possibility, this does not mean that it represents a situation which God could actualize (perhaps: something that God *could have* actualized only making abstraction from his wisdom). The case of a solitary monad is anomalous because it would be 'too small' to be a genuine possible world; the case of a plurality of worlds is anomalous for the opposite reason: it would be 'too big' to be a genuine possible world (= a possible creation), especially for what concerns the realization of all possibles (and its dangerous consequences).

Again, one must stress that the root of the rejection of these two candidates as plausible creation-scenarios rests on their incompatibility with God's wisdom (and goodness and justice, and so on), which is another way in which Leibniz refers to what God can do within the limit of his "ordained power".

7.6 Leibnizian Actualism

However intriguing, my reconstruction of Leibniz's argument against the plurality of worlds would not be able to convince someone who endorses modal realism, and for a very simple reason. My reconstruction, indeed, is entirely based on the distinction between what holds in the case of God's knowledge of vision and what holds in the case of God's knowledge of simple understanding. Now, this very same distinction *presupposes* (and does not explain) an absolute distinction between what is actual and what is barely possible, and, therefore, the

⁴⁴¹ On this 'strict' understanding of (possible) world, see Adams, *Leibniz*, pp. 108-09 (where he concludes that "a collection of substances that did not correspond with each other's perceptions would not be sufficiently connected to constitute a single 'world'). Again, one must distinguish between a 'possible world' as a possible 'creation scenario' and a 'possible world' in the sense of any counterfactual situation which do not imply a contradiction. It is clear that the first sense of 'possible world' is stricter than the second one. The second is what Leibniz sometimes calls a bare metaphysical possibility (or also a 'fiction'), which does not correspond to a real possibility. A possible objection: if this distinction is correct, it seems to follow that there are mere possibilities which do not belong to any possible world (=creation scenario) whatsoever (cf. De Risi, Geometry and Monadology, p. 569 and note, who raises this point about Leibniz's theory of ideal space). However, this seems to go against the view that the totality of possibles is partitioned into possible worlds by compossibility as an equivalence relation. Assumed that Leibniz's modal metaphysics has not necessarily to be taken as a coherent whole (at least according to contemporary standards), the following consideration might be advanced (more on this in Chapter 8 below). One should stress the distinction between (a) bare possibilities (especially abstract ones) and (b) possibilia in the sense of 'possible individuals' (complete individual concepts); in this sense, compossibility can still be regarded as an equivalence relation that provides a partition of *possibilia* in the sense of (b), and not of bare possibilities. Moreover, as pointed out above, one has not to forget Leibniz's very weak reading of "could" in ' God could create another world' (which has properly to be understood as 'God could have created another world'). Being committed to the claim that there is something like the BPW (and that God is morally necessitated to choose it), indeed, Leibniz's understanding of 'ordained power' (i.e. what God could really do) is something completely different from what one can find in the Scholastic tradition. For him, indeed, the possibility for God to act (or to choose) otherwise, makes sense only from the point of view of God's absolute power (and becomes a vacuous possibility when the hypothesis of the best is introduced). Cf. again Leibniz's remark on Spinoza's prop. 33 of book I of Ethics and the discussion in chapter 5 above.

view that actuality is a privileged status (something which all the worlds but one are lacking of).

This distinction, however, is simply rejected by the Lewisian possibilist, who does credit no sense at all to this distinction (or, better, he believes that it is just a misleading way of presenting the distinction between what exists *tout court* and what is actual only relatively to us; where the misunderstanding is originated by the fact that we normally quantify only over a restricted domain of objects). In this sense, as I have showed at the beginning of this chapter, it seems that no contradiction at all can be derived from the hypothesis of a plurality of worlds, and, thus, Leibniz's semantical stipulation about the meaning of 'world' cannot be accepted without proof. This point has been stressed also by a Leibnizian scholar, who has concluded that "[t]he claim that there is only one actual world is *not* a tautology. [...] There is no contradiction in supposing that, in a number of actual worlds that are not ours, actual thinking creatures are having these thoughts about their worlds".⁴⁴²

A typically egalitarian attitude about worlds and individuals is at work in the passage I have quoted: we are imagining a scenario in which, individuals that exist at another world are entertaining wondering whether their is the only actual world or not, exactly as we do from the point of view of our actual world.⁴⁴³ However, I think Leibniz (and those who do not accept modal realism in general) has some good reasons to resist such a conclusion. The very same way in which this criticism is formulated, indeed, is strongly inclined toward a realistic conception of possible worlds, one that, as I have said at the beginning, Leibniz clearly rejects (or, better, should reject according to his considered view). Lewis' criticism, indeed, makes sense only if one already conceives of non-actual individuals as if they were individuals 'in flesh and bones' living in other worlds. The distinction between (absolute) existence and (relative) actuality is just a consequence of such a realistic picture of possible worlds.

Unlike what he suggests (or seems to suggest) in passages like [a]-[d] above, then, it seems to me the unity of the existing world cannot be derived from something else (as if it were the conclusion of an argument). It should be taken, rather, as the starting point of Leibniz's whole system, as a mark of what I would like to call his strong bias in favour of actuality (one that could, but not necessarily must, be contrasted with an altogether strong bias of him in favour of possibility).

This is what stands out from what Leibniz himself says in [a]: "To introduce another genus of existing things [...] is to abuse the name of existing". This, as I will say in the next chapter, will be the ground for Leibniz's rejection of the very same meaningfulness of the expression 'possible existence'. Notice how all the passages [a]-[d] move from the point of view of someone who inhabits our own world, the actual world, where it is not the case that every possible is going to be realized just because there are many different (and mutually incompatible) ways in which our space and time could have been filled.

This is exactly what Leibniz remarks in the continuation of the passage from the *Theodicy* I have quoted above. Let me quote it integrally:

⁴⁴² Wilson, "Plenitude and Compossibility", p. 2.

⁴⁴³ It is the very same strategy employed by Lewis in order to dismantle the idea of absolute actuality: if we are immediately acquainted with the idea of our own actuality, says Lewis, "wouldn't my elder sister have had it too, if only I'd had an elder sister? So there is, unactualised, off in some other world getting fooled by the very same evidence that is supposed to be giving me my knowledge". *On the Plurality of Worlds*, p. 94.

⁴⁴⁴ Cf. B Look, "Leibniz and the Shelf of Essence", *The Leibniz Review* 2005, pp. 27-47.

"I call 'world' the entire succession and the whole collection of all existing things, lest it be said that several worlds could have existed in different times and different places. [...] And even though one should fill all times and places, it still remains true that one might have filled them in innumerable ways, and that there is an infinity of possible worlds [...]".⁴⁴⁵

The infinity of possible worlds is presented here as the idea that there are innumerable ways of filling all times and places (of a world) and that, among them, God has chosen the best one (notice that, against Lewis, "ways" are not the same thing as "worlds", even though the expression 'possible worlds' might be misleading on this point).⁴⁴⁶ In this sense, the all-embracing nature of the world (and of its spatiotemporal framework) is the key concept that allows him to block the proliferation of real worlds in a Lewisian sense. Notice that this does not just amount to say that universal connection holds in every possible world, because this statement is an ambiguous one: as we say, both Leibniz and Lewis will agree that everything is connected in every possible world, if this is taken to mean that each possible world has its own space and time. Here, on the contrary, Leibniz is saying something different: that space and time are necessarily the same in every possible world.

It might be objected, however, that space and time are relational structures, or, to use Leibniz's own jargon, orders of compossible beings.

To be precise, however, Leibniz remarks that "space and time [...] relate not only to what actually is but also to anything that could be put in its place".⁴⁴⁷ This means that in this passage, as well as in the *Theodicy*, Leibniz is referring to ideal or mathematical space, and not to the concrete or physical one.⁴⁴⁸ Space and time, then, are orders of compossible things, but only insofar as these possibles can be realized together in the same world. In this sense, (real) spaces and times of different worlds are disconnected (or unrelated) not because these worlds are located in different places, but rather because they are supposed to occupy the same spatiotemporal framework, i.e. the spatiotemporal framework of the actual world.⁴⁴⁹

According to what Leibniz says in the *New Essays*, space and time –i.e. ideal space and time –belong to the domain of eternal truths ("[...] time and spaces designate possibilities beyond the presupposition of existences. Time and space are of the same nature of eternal truths which concern in the same way the possible as well as the existent").⁴⁵⁰ Concerning eternal truths, Leibniz will also remark that they are universal, i.e. their truth is the same for us as for an angel and even for God, and, moreover, that "[t]hese eternal truths are the fixed and immutable point around which everything else turns"⁴⁵¹, which, if I am not mistaken, is also

⁴⁴⁶ In the following chapter, I will argue that in his mature works Leibniz implicitly works with an attributive (and not predicative) notion of 'possible'. In this sense, a 'possible world' is not a world (i.e. it is not something

⁴⁴⁵ Theodicy, # 8, GP VI, 107/H 129 (italics mine).

which is a world and is possible), but only a way in which the world might be (might have been).

⁴⁴⁷ GP IV 570/L 583. See also GP II, 379, where Leibniz explicitly refers to 'ideal space'. See also the distinction between possibilities (abstract entities) and possible individuals (complete concepts) developed in Chapter 8 below.

⁴⁴⁸ On ideal space, see De Risi, *Geometry and Monadology*, p. 551 and ff.

⁴⁴⁹ Cf. Di Bella, "Change, Contradiction and Possibility", p. 105, who makes this remark about time. The same, however, holds in the case of space as well: the impossibility of a plurality of (real) spaces seems to derive from the fact that two worlds are supposed to occupy the same spatial framework.

⁴⁵⁰ New Essays, II, xiv, 26, A VI 6, 154.

⁴⁵¹ Leibniz to Electress Sophia, 1696 (?), Grua 379.

the key to understand Leibniz's notorious claim that those truths are necessary which would have been the same however God would have created the world.⁴⁵²

Of course, this kind of reasoning seems to fit better within a theory (like the one defended by the young Leibniz in the Paris notes) in which there is only one "series of things" (the actual world) spatially and temporally unified, while, on the other hand, things possible-in-themselves are not yet conceived as organized or gathered into (maximal and consistent)"series" or "worlds" (it is not by coincidence that the 'novel argument' originates right in this context).

When extended to a plurality of (merely) possible worlds, however, Leibniz's original argument exposes itself to the risk of falling into a circle. From the point of view of the actual world (or from our point of view), indeed, it is not the case that everything is compossible with everything else, because there are many different ways in which space and time could have been filled. The other possible worlds are said to be incompossible (with our world) because they cannot be conceived as either simultaneous with or prior/posterior to anything existing in our world. However, simultaneity is clearly defined by Leibniz in terms of compossibility ("if a plurality of states is assumed to exist which involve no opposition to each other, they are said to exist simultaneously", as written in the *Initia rerum mathematicarum metaphysica*). At this point, one cannot define compossibility in terms of simultaneity without falling into a circular reasoning.⁴⁵³

In order to solve this problem, one might say that we must carefully distinguish between two levels of explanation: one according to which two (or more) things are spatiotemporally connected in the same world because they are compossible, where 'because' stands for a sort of logical-ontological grounding relation (thus, compossibility is the *ratio essendi* of connection); the second according to which two (or more) things are compossible because they are reciprocally connected, where, however, 'because' stands for an epistemic relation (connection is the *ratio cognoscendi* of compossibility). Between what holds at the level of the pure possible (compossibility) and what holds at the level of what is actual –or at the level of the possible taken as it were to be actualized (connection) there must be a relation of

⁴⁵² Cf. De natura veritatis, contingentiae et indifferentiae, 1685-86 (?): "These are the eternal truths. Not only will they hold as long as the world exists, but also they would have held if God had created the world according to a different plan" (A VI 4, 1517, translated in Mates, The Philosophy of Leibniz, p. 107). Many have regarded this passage as evidence that Leibniz was (at least implicitly) committed to the contemporary idea of necessity as truth in every possible world. However, this does not mean that Leibniz regarded it as a definition of necessary truths (as in the possible worlds semantics), and, moreover, it does not mean that necessary truths (like, for example, those of geometry and arithmetic) should be regarded as necessary because holding at every possible worlds. On this point, indeed, I suspect that Leibniz's attitude has to be regarded as closer to Platonism than to nominalism. On this Platonic strain in Leibniz's metaphysics, see especially E. Vailati, "Leibniz on Necessary and Contingent Predication", Studia Leibnitiana, 18, 2, 1986, 195-210, p. 210: "One could say that for [Leibniz] what is necessary is not what is true in all possible worlds [...], but what is true independently of them (what is contained in God's intellect before any consideration of the will). That is, what is necessary constitutes the logical space in which possible worlds are constructed, or God's intellect prior to His will. To understand necessity one must not start with individuals and their properties, but [...] with essences and their properties" (italics mine). The last point (the contrast between the primacy of essences vs. the primacy of individuals and worlds) will be discussed again in the following Section.

⁴⁵³ Cf. Futch, *Leibniz's Metaphysics of Time and Space*, p. 124 and ff. He suggests that Leibiz's theory of time works if temporally simultaneous events are defined as the class of spatially related events. However, as we have seen, spatially related events are defined in terms of the class of compatible or compossible events. Finally, compossibility seems to be ultimately understood (once again) in terms of simultaneity. This seems to be a vicious circle.

"perfect harmony" (even though, perhaps, it is a harmony which is not completely transparent to the human understanding).⁴⁵⁴

Be it as it may, the point that I want to stress in conclusion is that, according to these Leibnizian passages, there are no such things as non-actual individuals (or worlds), and the distinction between existence and actuality makes no sense at all. Accordingly, everything which is possible-in-itself but cannot be connected with anything which exists in our series of things should be extruded from existence (not from existence-at-this-world, but from existence *tout court*).

Of course, sometimes Leibniz indulges himself with such a mistake, thus giving the impression of being somehow committed to a realist picture of possible worlds. E.g., when he maintains that "everything is connected in each possible world", this can give the impression that each possible world must be conceived of as having its own space and time. On the contrary, the former claim should be taken as shorthand for something like the following (counterfactual) claim: "had God decided to actualize another world *w*, then all the individuals which (instantiate complete concepts which) belong to *w* would have been reciprocally connected by temporal and spatial relations". Notice that in this case we are talking of concrete space and time, i.e. space and time as phenomena or perceptions of different created minds, not of abstract, mathematical space and time, which are one and the same for each world.

Finally, let me say that even this solution is not completely free from difficulties. In particular, there is one big problem which would deserve to be discussed at length (on the contrary, I will limit myself to few scattered observations). Such a solution, indeed, seems to be at odds with Leibniz's notorious anti-substantivalism about space and time, and, in particular, with his view that space and time are themselves determined by the things they contain, being supervenient on other, more fundamental properties of substances.⁴⁵⁵

7.7 Addendum.

Space, Time, and the Original Limitation of Creatures

This tension can be clearly detected from what Leibniz says in one of the most famous metaphysical essay of his late period, *De rerum originatione radicali*. The context is that of Leibniz's attempt to find a conciliation between his plenist attitude (the claim that being will always prevail over non-being) and the rejection of the unrestricted version of the principle of plenitude (the realization of all the possibles). Therefore, says, Leibniz, once one has assumed that being has to prevail over non-being, or, which is the same, that "something has to pass from possibility to actuality, although nothing beyond this is determined [no further conditions are imposed], it follows that there would be as much as there possibly can be,

⁴⁵⁴ Cf. Mondadori, "The Leibnizian Circle".

⁴⁵⁵ This point has been stressed, among the others, by Cover and Hawthorne, *Substance and Individuation in Leibniz*, p. 141.

given the capacity of time and space (that is, the capacity of the order of possible existence) $[\dots]^{456}$

The same view, however, had been already anticipated in an earlier text, in which Leibniz writes: "From many possible ways [of creating the world] the most perfect is the one which brings it about that more reality exists in a given volume or receptacle", from which it follows that more bodies are to be placed in a given space and more motions in a given time (i.e. more than in any other possible configuration of the world).⁴⁵⁷Admittedly, especially among the writings of the young Leibniz, there are passages in which he explicitly talks of space and times as "receptacles".⁴⁵⁸

7.7.1 Space and time as receptacles. A Neoplatonic inheritance?

My suggestion is that a (Neo)Platonic influence is at work here, especially if one thinks that Leibniz's reflections of space and time as the capacity of possible existence have to be read in connection with his idea of creation as *emanation* (God as emanative cause, not only efficient one), according to which the perfection of God is participated by creatures but only in a limited way, given what Leibniz calls the original limitations of creatures *qua* creatures (i.e. at the level of possibility or possible existence), which is also Leibniz's favourite explanation of what he will call the "metaphysical evil" (i.e. the idea of evil as privation).⁴⁵⁹

The connection between space and time and a sort of Neoplatonic metaphysics can be traced back to Leibniz's reflections in the Paris notes, especially what he writes in the text *De* origine rerum ex formis, where God is conceived of as "the subject of all absolute simple forms –absolute, that is, affirmative". Among these absolute attributes (or forms) of God, Leibniz mentions his being "absolutely ubiquitous, or omnipresent", "absolutely enduring, i.e. eternal", "absolutely active, i.e., omnipotent", and, last but not least, his being "absolutely existent, or, perfect". The latter is a very interesting characterization, since Leibniz immediately adds: "No one exists, without being something. That to which existence is ascribed absolutely, i.e., existence without some determining addition [existentia sine additione determinante], has ascribed to it as much existence as can be ascribed, i.e., the greatest existence".⁴⁶⁰ What is left implicit here is that, contrary to God, a created being is something whose existence is determined by something else, and, in being so determined, is

⁴⁵⁶ *De rerum originatione radicali,* 23 November 1697, GP VII, 304/AG 151. In this text, Leibniz proposes an analogy with tiles (or jigsaws) in order to explain God's optimization strategy. This way of explaining compossibility has been recently defended by J. K. Mc Donough, "Leibniz and the Puzzle of Incompossibility. The Packing Strategy", *Philosophical Review* 119, 2, 2010, pp. 135-63.

⁴⁵⁷ Elementa verae pietatis, 1677-78, A VI 4, 1359/LST 191.

⁴⁵⁸ Cf. in particular *De mundo praesenti*, 1684-85/6(?): "One can distinguish things in those that are receptacles, and those that occupy them, their recepts. *Time* and *place*, or space, are receptacles. The bodies which exist in them are recepts" (A VI 4, 1509/LC 289).

⁴⁵⁹ On Neoplatonic influences on Leibniz's theory of space, see now V. De Risi, "Plotino e la rivoluzione scientifica. La presenza delle *Enneadi* nell'epistemologia leibniziana dello spazio fenomenico", in R. Chiaradonna (ed.), *Il platonismo e le scienze*, Roma 2012, pp. 143-63. The lasting influence of Plotinian elements in Leibniz's metaphysics had been already emphasized (peharps too much) by G. Rodier, "Plotin. Sur une des origines de la philosophie de Leibniz", *Revue de métaphysique et de morale*, 10, 1902, pp. 552-64. For a more reasonable account see V. Mathieu, "Die drei Stufen des Weltbegriffes bei Leibniz", *Studia Leibnitiana*, 1, 1969, pp. 7-23.

⁴⁶⁰ *De origine rerum ex formis*, April 1676, A VI 3, 519-20/DSR 79.

also limited (so that, to it, it cannot be ascribed as much existence as it is possible, unless in its own genus). In Chapter 9 below, I will show how this passage should be correctly understood as part of Leibniz's life-long reflexion on the relation between the ontological subject and the attributes.

The terminology employed in this passage, in particular reference to "existence without some determining addition" might be also regarded as an echo of the Thomist idea of God as *ipsum esse subsistens*. More than a reference to the so-called doctrine of *actus essendi*, however, it should be regarded as an echo to a more general Platonic or Neoplatonic tradition, to which also the doctrine of the *actus essendi* was inspired. A certain similarity can be found also with some reflections of Malebranche on the contraposition between God's unlimited way of being and the limited existence of particular substances. In particular, he conceives of God as the infinite being, i.e. without restriction, which contains all beings in itself without being no determinate being in particular (since determinations arise from limitations only); whereas human mind can understand things only by means of finite determinations.

This proximity with the Neoplatonic tradition nonetheless, one has to acknowledge that for the latter it makes sense to talk, indistinctly, of degrees of being and degrees of existence; whereas, in Leibniz's mature philosophy, one can talk of degrees of being only in the sense of *degrees of perfection*(i.e. essence). Existence, taken as what is actual, is an all-or-nothing matter. In his mature ontology, then, the question of the degrees of being will be translated into that of the different degrees of perfection or 'reality' of creatures, especially of merely possible ones (possible worlds cannot be said to be 'less existent' than actual ones; on the contrary, they do not exist at all, because they were less perfect at the level of their very same possibility). This is another way of saying that the limitation of creatures is an 'essential' one, i.e. it is independent from their actualization.⁴⁶²

Concerning God's omnipresence, or, also, his immensity (*immensitas*), Leibniz shows to consider it as the basis of (phenomenal) space; it is something which gives rise to place from the combination of the absolute form (the attribute of divine immensity) with matter. Notice that in the same text Leibniz establishes a comparison between the relation between our mind and the divine one on one hand, and between place (=phenomenal space) and God's immensity (which is also called "imaginary space", but only improperly: "for that space is supremely real, since it is God himself in so far as he is considered to be everywhere, or, is immeasurable [*Immensum*]") on the other one.⁴⁶³ It seems to follow from that that it is only reference to God's immensity which guarantees some reality to space, exactly as reference to God's eternity guarantees some reality to time. At least this is what Leibniz says in some texts of his mature period.⁴⁶⁴

⁴⁶¹ Cf. the remarks in M. Gueroult, *Malebranche*, vol. 1, Paris 1955, pp. 300-03; see also T. Schmaltz,

[&]quot;Malebranche on Ideas and the Vision in God", in S. Nadler (ed.), *The Cambrdge Companion to Malebranche*, Cambridge 2000, pp. 59-86.

⁴⁶² Also in the case of his account of the different levels of reality, Leibniz will always speak, for instance, of the problem of the *realitas* (essence or nature) of phenomena (to be contrasted with that of true substances), not of that of their existence.

⁴⁶³ De origine rerum ex formis, A VI 3, 519/DSR 77

⁴⁶⁴ Cf. *De tempore locoque, duratione ac spatio*, 1689-90 (?), A VI 4, 1641 : « Tempus et locus, seu duratio et spatium, sunt Relationes reales, seu existendi ordines. Earum fundamentum in re est Divina magnitudo, aeternitas scilicet et immensitas ». See also *Defitiones notionum metaphysicarum atque logicarum*, 1685 (?), A VI 4, 629 : « Tempus est Ens imaginarium, quemadmodum, locus, qualitates, aliaque multa. [...] Radix autem

7.7.2 The original receptivity of creatures: privation or negation?

Coming back to the idea of creatural 'receptivity', one should remember that this limitation of creatures is said to be 'essential' in the sense that it pertains to possible things before and independently of God's decree of creating something, since it is due to the impossibility of a created thing to *receive* the whole of divine perfection. For this reason, it is often referred to as "receptivity"⁴⁶⁵ and employed by him to explain the passive aspect of creatures (like primary matter).⁴⁶⁶

There is another reason why the limitation of creatures has to be placed at the level of possibility (possible individuals), which is connected with Leibniz's metaphysics of worlds. In a purely Platonic or Neoplatonic framework, indeed, it is what actually exists (especially matter) that which brings it about that the imitation of the model or idea is not a perfect one; on the contrary, in a Leibnizian framework, the complete concept of an individual (an individual essence) is perfectly identical to the actual individual in all its details, like a copy of the second; or, better, the second (the actual individual) is not an imperfect imitation of the model (the idea), but the simple instantiation of the complete concept without any modification in the passage from possibility to actuality (otherwise the individual would not be the actualization of that determinate complete concept).

Therefore, the original limitation of creatures has to be shifted from the level of actual existence to that of possibility, and the creatures are to be regarded not as imperfect imitation of their ideal models, but of the divine essence.⁴⁶⁷

The main difficulty here is the attempt to conciliate Leibniz's metaphysics of worlds (in particular, the incompossibility thesis) with this Platonic framework concerning the limitation of creatures. Compossibility is the relation which partitions possible individuals into different and mutually incompatible worlds, where the incompatibility at stake is clearly understood in the sense of contradiction and/or opposition; on the contrary, the negation at work in the

temporis est in causa prima, successiones rerum virtute in se continente, quae facit, ut omnia sint simul, aut priora vel posteria. Idem est de Loco nam efficit causa prima ut omnia distantiam quadam habeant. Quicquid ergo reale est in spatio et tempore, id est in Deo omnia complectente". Although Leibniz's terminology is not always uniform, one should not forget that he himself (as many other philosophers of this period) clearly distinguished between extension/duration on one hand, and space/time on the other hand (the latter are just imaginary entities, whereas the former have or should have some kind of ontological status). Cf. M. Gueroult, "L'espace, le point et le vide chez Leibniz", *Revue Philosophique de la France et de l'Etranger* 136, 1946, pp. 429-42.

⁴⁶⁵ Cf. *Monadology*, # 47: "all created or derivative monads are products, and are generated, so to speak, by continual fulgurations of the divinity from moment to moment, *limited by the receptivity of the creature*, to which it is essential to be limited" (GP VI, 614 /AG 219, italics mine).

⁴⁶⁶ On this topic, see the very well-documented work of G. Mormino, "La limitazione originaria delle creature in Leibniz", in B. M. D'Ippolito-A. Montano-F. Piro (eds.), *Monadi e monadologie. Il mondo degli individui tra Bruno, Leibniz e Husserl*, Soveria Mannelli 2005, pp. 115-139.

⁴⁶⁷ Cf. the famous section 20 of *Theodicy*, quoted in 1.3 above. See also *Causa Dei*, # 69, GP VI, 449: "This limitedness is *essential* to created things. It is not that they are limited because they were created. On the contrary, their limitedness was already inherent in their essence considered as mere possibilities, i.e. considered as belonging to the region of eternal truths, the domain of the ideas that present themselves to the divine intellect". Do not forget that in the *New Essays*, Leibniz will explicitly say that space and time belong to "eternal truths" (Book II, xiv, 26, A VI 6, 154).

account of the original limitation of creatures is clearly a "privation" (as the traditional doctrine of evil as *privatio boni*).⁴⁶⁸

If incompossibility has to be explained by the original limitation of creatures, then, it is difficult to understand how something like a contradiction/opposition between worlds could originate from the limitation/privation of God's absolute perfection⁴⁶⁹; it is particularly difficult to understand why and how the limitation of the perfections contained at the highest level in God's essence (which is one and only one) can turn into a multiplication of distinct and mutually incompatible possible worlds (concerning the similar problems of how an incompatibility can arise from the compatibility of all simple attributes in God, Leibniz will candidly reply that the answer is unknown to us).⁴⁷⁰

Some the questions briefly touched here will be discussed again (from another point of view) in Chapter 8 below.

⁴⁶⁸ Cf. Leibniz to Molanus, February 2, 1698, Grua 412: "Dixeram omnem creaturam essentialiter esse limitatam, et hanc limitationem seu negationem vocabam imperfectionem privativam [...]"; and also *Causa Dei*, # 69, GP VI, 449.

⁴⁶⁹ According to Mormino, these two theses (the essential limitation of creatures and the incompossibility thesis) are "strictly connected: the plurality of worlds, indeed, finds its ground in the incompatibility between the essences which inhabit them; those, however, have to be traced back just to negations contained in their notions" ("La limitazione originale", p. 117). However, it is difficult to understand as an opposition by contradiction (like compossibility) could arise from a negation in the privative sense. On the distinction between *negatio* and *privatio*, see M. R. Antognazza, "Leibniz's Metaphysical Evil Revisited", in S. Newlands-L. Jorgensen (eds.), *New Essays on Leibniz's Theodicy*, Oxford 2014, 112-34, esp. pp. 126-128 (and the literature discussed therein). Interestingly, she observes that Leibniz's departure from the theological tradition consists exactly in disregarding the distinction between 'negation' and 'privation' (p. 128: "given his view that any limitation is formally a privation", something unheard of in the theological tradition, "Leibniz has no conceptual space for the more robust distinction between *privatio* and *negatio*").

⁴⁷⁰ "Illud tamen adhuc hominibus ignotum est, unde oriatur incompossibilitas diversarum, seu qui fieri possit ut diversae essentiae invicem pungent, cum omnes termini pure positive videantur esse compatibili inter se" (*De veritatibus primis*, 1680 (?), A VI 4, 1443). The only, very obscure reference to this problem occurs in a text from November 1676, where he writes: "There are necessarily several affirmative primary attributes; for if there were only one, only one thing could be understood. It seems that negative affections can arise only from a plurality of affirmative attributes –for example, thought and extension" (*Quod ens perfectissimum sit possibile*, November 1676, A VI 3, 572-73/DSR 93). Remember that 'attribute' is a non-analysable predicate (which can be conceived only trough itself), while 'affection' is a predicate which (1) is attributed to a subject and (2) is analysable into attributes (cf. A VI 3, 574). On this topic, see M. Fichant, "L'origine de la negation", in Id., *Science et métaphysique dans Descartes et Leibniz*, pp. 85-119.

Between Ontology and Modality. Leibniz's Account of Existence and Existential Propositions

This Section is focused on the notion of 'existence' (and existential propositions as well) in the general framework of Leibniz's metaphysics. The particular point of view from which such notion shall be investigated, however, is that of the interplay between the ontological and the modal level, insisting on the fact that between these two there is no 'pre-established harmony' and that, on the contrary, there seems to be a sort of mismatch between the two levels. Tensions between these two levels, which are not automatically in tune with each other (this is why I speak of a sort of lack of pre-established harmony) is the consequence of the evolution of Leibniz's thought as far as I have tried to follow it in the two previous Sections.

In particular, as I have shown above (see Section I), the ontological level does prevail on the modal one according to the young Leibniz. The ontological level, remember, was based on the contraposition between the concrete and the abstract. From the ontological point of view, the main idea was that only what is concrete is actual, and vice versa. What Leibniz had in mind, of course, is the possibility of autonomous existence, i.e. what the Schoolmen labelled *subsistentia*. According to his nominalist background, the only things which exist (as autonomous and independent existence) are individuals, i.e. individual substances, whereas individual accidents have a sort of parasitic existence, for they inhere to substantial beings. Finally, *abstracta* are the very same accidents taken in isolation from the substances which they inhere to and regarded as universal; since they must not be treated as substances (according to the critique to the hypostatization of abstract entities derived from Hobbes), they are just said to be unreal.

What I have shown, however, is that the *coextensiveness* between the actual and the concrete was regarded (albeit implicitly) as a sort of quasi-identity by the young Leibniz, because of his deflationary account of modalities. In particular, as it appears from the analysis of his modal philosophy in his first years and in the Paris notes, he was keen to associate possibilities with abstract notions (and relations as well), and, furthermore, he has not yet envisaged the necessity of committing himself to the subsistence of possible individuals organized in possible worlds. The latter point was in keeping with the young Leibniz's distrusting purely intensional entities (like possibilia), even if he could make room for intensional items at the logical/linguistic level.

As shown in Section II, however, the period from the Paris notes to the first years in Hannover corresponds with to sort of revolution in Leibniz's way of thinking his modal ontology, i.e. the introduction of his possible worlds ontology. Furthermore, since the end of the 1670's, he acknowledges the necessity of adopting the intensional point of view in his logical calculi, i.e. to regard logic mainly (even though not exclusively) as a logic of concepts more than as a logic of classes in a proper sense. This move, however, makes the pair (also from a chronological point of view) with an expansion of his ontology, which includes no longer actual entities only, but also merely possible ones. The very same notion of *ens*, indeed, however taken in a diminished sense (when compared to the full sense of the being of existence), cover both the possible and the actual (and, in a certain sense, the actual turns out to be just a special case of the possible).

This ontology, however, seems to include not only actual but even merely possible individuals. Given Leibniz's rejection of any form of modal realism, however, possible individuals are plainly to be understood as complete individual concepts –and, in general, talking of purely possible things should be always rephrased in terms of talking of concepts and/or propositions. This means that the *reality* of essences and possibilia (in the sense of the Schoolmen's *realitas*) is combined with an ontology of purely *ideal* beings (modelled on a sort of Platonic account, especially as far as mathematical concepts are taken into account). This point will be discussed in details throughout Chapter 8 below.

From the point of view of this enriched ontology, however, the coextensiveness between actuality and individuality is always maintained (at least in the sense that everything actual is individual), but it might be no longer taken as a quasi-identity, for intensional concerns become relevant now from the ontological point of view as well. This is where the possibility of a mismatch between the old ontological backgrounded (retained by Leibniz) and his new modal concern (the metaphysics of possible worlds) comes to the fore. The introduction of complete individual concepts, i.e. of something which stands for individual essences of possible beings (not just actual ones), indeed, is the point where the harmony between 'individuality' and 'actuality' breaks down.

Among the many consequences of this fact, that which is most relevant for my account consists of a sort of duplication of the notion of 'existence' itself. Insofar as existence is related to what is concrete vs. what is abstract –i.e. existence is the feature distinguishing what pertains to individuals from what pertains to general notions and specific essences –, it seems that it must be shared by both actual and merely possible things. For merely possible individuals (complete individual concepts) are to be regarded as possibly existing things (whereas abstract entities, like general essences or mathematical objects, cannot).

This, however, seems to go against the (quite intuitive) view that, being *merely possible*, possible individuals are abstract as well, for (and insofar as) they make abstraction from existence. In other words, as far as existence is clearly connected with what is actual, and with that alone, this conclusion has to be rejected; not surprisingly, indeed, there are passages where Leibniz shows strong dissatisfaction with the notion of 'possible existence', which he takes to be a simply absurd one. Unfortunately, however, the same Leibniz cannot refrain from employing the very same expression, 'possible existence' (as well as similar ones), without showing to consider it as a problematic one.

The discussion of the 'puzzle of existence', i.e. the combination of the view that existence does add

something to a mere possible thing (and, thus, has to be regarded as a *perfection* or a *reality* in a proper sense), and that existence cannot be regarded as a perfection, since each and every perfection can be taken as a possible as well as an actual one (and, therefore, we would have a sort of infinite regress connected with the idea of possible existence), has to be placed within this more general framework concerning the genesis of Leibniz's thought in order to be fully understood and appreciated (and, also, in order to understand Leibniz's oscillations and apparently contradictory statements on the topic).¹

The second part of Chapter 8 is mostly devoted to discuss this question; it also provides the reader with a sort of taxonomy of both ontological and modal notion of Leibniz's metaphysics, showing the connections between the abstract/concrete pair, the ideal/real, and the possible/actual one, which are the three levels where the notion of existence is explicitly involved.

Another point which I have emphasized is the necessity of distinguishing (better than what Leibniz actually did) between two different classes within the domain of the possible itself, i.e. between the possibles as essences (incomplete notions), and the possible as possible individuals (individual essences or complete concepts). The main difference is that the latter have to be taken as 'possible' in the sense of *possibly actual*, whereas the former cannot. My suggestion, indeed, is of reading abstract entities (among which possibles in the first sense are included) as necessarily non-actual ones; possible individuals (or individual essences: what complete individual concepts stands for and/or represent) are only contingently non-actual.

The first part of Chapter 8, on the contrary, dwells with the question whether Leibniz's enriched ontology makes for individuals only (be they possible or actual), or for general essences as well (like mathematical entities, or species and genera of traditional essentialism). Leibniz's main solution, of course, consists of shifting the question of essences from actuality to their being the object of God's mind. In this way, however, the question is not resolved, but only pushed one step back, since one can ask whether God does actually have ideas of general essences over and above the ideas of individuals.

Surprisingly as it might be, whereas Suárez follows the nominalist tradition on this points (he clearly states that God does not have ideas of genera species, but of individuals only), Leibniz's view seems to be a much more nuanced one, and, all in all, also much more ambiguous.² His discussion of ideal entities, indeed, is very often framed in a frankly Platonic

¹ This does not mean, however, that the idea (defended by Russell and others) that Leibniz's oscillating between the claim that existence is a perfection and the claim that it cannot be a perfection has to be ascribed to his defence of the ontological argument for the existence of God, was wrong. On the contrary, as I will show in the following pages the recovery of the ontological argument concurred to Leibniz's insistence on the close connection between the notions of 'existence' and 'perfection'. As I have already anticipated in Chapter 4 above, more than the ontological argument in itself, it is the idea of a *reality* of essences (which has to be presupposed in order to make the argument a successful one from the logical point of view) which leads Leibniz close enough to the identification of existence with the maximum of perfection. In Chapter 9 below, I will insist on the tensions between the sort of Platonism concerning essences that forms the background of Leibniz's version of the ontological argument and his conceptualist account of ideas and possibilia.

² Probably, this is due to his entertaining of the combinatorial account of the genesis of possible worlds, according to which the ideas of individuals are formed through composition of more general concepts, which seems to presuppose a sense in which general ideas precede ideas of individuals, after all. The problem has been touched by Mugnai (*Astrazione e realtà*, pp. 178-9), where it is referred to the case of relations (but it can clearly be generalized to other kinds of universal notions). As Mugnai himself points out, indeed, *relational predicates* (like Salomon's being the father of David) stand to *abstract predicates* (like *paternity*) as concrete entities stand

framework, but –this is a warning to keep in mind –almost always when he is discussing the status of mathematical entities, especially geometrical notions. Also on this point, however, together with passages where Leibniz's ontology of mathematics seems to be inspired to a sort of Platonic model, there are other passages where it is clearly framed into a nominalist (or, also, fictionalist) context. When coming to essences in the traditional sense, on the contrary, the nominalist framework (and its deflationary account of essences), seems to be Leibniz's favourite one.³ Concerning the questions of the status of abstractions or general essences in the mind of God, moreover, Leibniz does not say too much (the passages I know are discussed in Chapter 8, where some very tentative solutions are advanced).

The combination of modal and ontological questions is also the topic of Chapter 9. Whereas Chapter 8 is mostly based on the interplay between Leibniz's metaphysical and his theological views (especially as far as the topic of God's knowledge is concerned), Chapter 9 focuses on the interplay between metaphysical and logical views.

In particular, I will move from what I take to be a disjunction between two different strands in Leibniz's account of propositions and eternal truths. From his early letter to Foucher onwards, indeed, there are texts where Leibniz expressly talks of the 'existence' of essences as something independent from the actual existence of objects (from *Wirklichkeit*, or existence as having causal powers and being in space and time). The main strategy, discussed in Chapter 8, is to weaken this Platonic strand by re-interpreting the existence of essences as the subsistence of ideas in the mind of God. This is the strategy at work, for instance, in the discussion with Gabriel Wagner in 1698.

On the other hand, however, there are other texts where Leibniz seems to embrace a stronger realist position, i.e. one according to which essences do have a kind of autonomous ontological status independent from both physical and mental existence. This idea seems to be in keeping with what we nowadays call 'platonism' (small letter, this time), i.e. the theory that abstract objects (and/or universals) exist. In this case, the notion of existence is univocal, i.e. all objects exist, but while concrete objects exist in space and time (and are causally

to abstract ones. He adds that from the point of view of the *ordo cognoscendi*, primacy goes to the concrete, i.e. 'paternity' is only obtained through abstraction from the relational predicate in Salomon and in other similar cases; from the metaphysical point of view, however, 'paternity' is the ground for all the relational properties of this kind. He concludes (p. 179) that, from the metaphysical point of view, it is the abstract which grounds the possibility of the concrete, not the reverse (as it happens from the point of view of knowledge). The problem is that what is true from the metaphysical point of view is (or should) be true also from the point of view of divine knowledge, whence the problem formulated in the text above.

⁽Notice that, if this conclusion is true, then there is a strong sense in which, in Leibniz's mature system, Platonism works as a sort of limitation of his original nominalist views).

³ See for instance the late remarks on Stegmann: "He [Stegmann] spends a lot of time discussing ideal beings and especially notions, but these are not beings but consists in relations to the mind. To say it in so many words, ideal beings are only terms; *thus universal substance, or man in general, is not a thing but a term.* There is no man who is universal, so philosophers can abstain from many inane questions and spare paper [...]" (Jolley 205, italics mine). The nominalist rejection of universals as entities follows the path open from the time of the *Preface to Nizolius* (cf. the claim that notions and ideal beings are just relations to the mind). Reducing universals (like "man in general") to terms, Leibniz rejects their hypostatization. The problem, however, concerns the ontological status of *terms* (in the following pages, I will show that sometimes Leibniz equates 'terms' with 'possibles', i.e. concepts endowed with a weak ontological status, other times takes 'terms' as standing for mere linguistic entities).

efficacious), abstract objects do not exist in space and time (or in the mind) and are causally inert.

A similar view seems to be endorsed by Leibniz in a series of texts written around 1677-78, which are related to his reformulation of the ontological argument moving from the notion of 'necessary being'. The interesting point is that Leibniz seems to commit himself to the existence of as many necessary beings as necessary propositions (or essences) there are. Notice the distinction between this account and the conceptualist one (discussed in Chapter 8). According to the latter, essences as abstract entities have no actual existence and, moreover, they are regarded as necessarily non-actual. On the contrary, according to the former, existence seems to be univocally predicated of both abstract and concrete entities: they are both said to be actual, but while abstract essences exist as modes, concrete entities exist as substances (and God is the only non-abstract necessary being, whereas all the other concrete things, i.e. individual substances, are contingent).

This strategy will be later rejected by Leibniz, by showing that the passage from saying that a proposition p is necessary if its opposite *non-p* is impossible to the conclusion that, therefore, the subject of that proposition has necessary existence should not be accepted (since one can resort to the old conditional reading of necessary propositions).

At the same time, this view resurfaces in some writings of the mature Leibniz as well. In particular, I will focus on a text on existential propositions (written at the end of 1680's), where Leibniz's strategy is that of providing a paraphrase of such propositions where 'existent' is shifted from the predicate- to the subject-term, and the predicate is represented by the term *entity* (*ens*). Among the many problematic aspects of this attempt, the most important one is that necessary existence immediately resurfaces once again. This gives me the occasion to show that such a problem is connected with Leibniz's attempt to distinguish an essential and an existential reading of the propositions of the Aristotelian square, and with his strategy of reducing propositions to terms.

The topic of the reducibility of hypothetical propositions to categorical ones and of categorical propositions to terms, and their ontological consequences, will be discussed in the second part of Chapter 9.

After that, I will come back to the problem of divine knowledge, since Leibniz himself endorses the view that God has *a priori* knowledge of all kinds of propositions (included existential ones) from his perfect understanding of terms.

This allows me to (1) clarify some points concerning the status of conditioned existences (and possible individuals) in Leibniz's philosophy, in particular as far as the question of "middle knowledge" is concerned (since 'middle knowledge' is explicitly identified with knowledge of conditioned existences), and (2) discuss the sense in which Leibniz might say that existential propositions are grounded on terms (and existences are grounded on essences), trying to understand whether he thinks that existence can be reduced to something more basic (like essence or a combination of essences) or not.

Chapter 8

Reality, Ideality, and Actuality. A Map of Leibniz's Discussion of Existence

"Omnes [...] veritates circa possibilia seu essentias reique impossibilitatem et necessitate seu contrarii impossibilitatem, nituntur principio contradictionis; omnes vero veritates circa contingentia seu rerum existentias nituntur ex principio perfectionis"

(De libertate et necessitate, A VI 4, 1445)

"Sunt quaedam veritates indemonstrabiles etiam in possibilibus, nempe circa contingentia spectata ut possibilia"

(Remarks on Twisse's Scientia media, Grua 353)

"Quia possibilia quaedam existunt, cum aeque possent non existere, sequitur possibilitatem esse quandam ad existendum potius quam non existendum dispositionem" (Elementa verae pietatis, A VI 4, 1363)

8.1 The 'Existence' of Essences in Leibniz's Letter to Foucher. Between Plato and Malebranche

What I have dubbed Leibniz's metaphysics of 'real essences' has been explicitly introduced for the first time in the 1675 (?) letter to Simon Foucher, where he clearly states that "the very truth of hypothetical propositions themselves is something outside of us and independent of us". This derives, explains Leibniz, from the fact that all hypothetical propositions deal with what would be (or would not be) the case had something (or its contrary) been posited. Accordingly, "they assume two things at the same time which agree with each other, or the possibility or impossibility, necessity or indifference of something".

It is interesting to see how, already in this early passage, Leibniz seems to envisage (at least in an implicit and inchoative way) what he himself will regard as one of his best achievements in the field of philosophical logic, i.e. the equivalence between concepts and propositions. When he says, indeed, that the supposition of the agreement between two things (subject and predicate, or antecedent and consequent) is the same as the possibility (or necessity) of something, he seems to hint at the fact that to state, e.g., that *homo est ridens* is the same as to say that the complex concept *homo ridens* is possible (or, as he will say in the *GI*, that *homo ridens est ens*)

8.1.1. Weak or strong reading? The great disjunction

From the ontological point of view, however, the decisive step is contained in the lines immediately following:

[&]quot;This possibility, impossibility, or necessity (for the necessity of something is the impossibility of its contrary) is not a chimera we create, since we do nothing more than recognize it, in spite of ourselves and in a

consistent manner. Thus of all things that there actually are, the very possibility or impossibility of being is the first. Now, this possibility or this necessity forms or composes what we call the essences or natures and the truths we commonly call eternal –and we are right to call them so, for there is nothing so eternal as that which is necessary. Thus the nature of the circle with its properties is something existent and eternal[*est quelque chose d'existant et d'eternel*]. That is, there is a constant cause outside us which makes everyone who thinks carefully about the circle discover the same thing. It is not merely that their thoughts agree with each other, which could be attributed solely to the nature of the human mind, but even the phenomena or experiences confirm these eternal truths when the appearance of a circle strikes our senses".⁴

I have briefly mentioned this passage in Chapter 3.5 above, in order to stress the difference between the early Leibniz's account of definitions (in his Mainz papers) and his ontological views on essences at the end of his Paris period. There, however, I have rapidly passed over the fact that in this text Leibniz is ascribing a very strong ontological status to possibilities and necessities. The nature of the circle and its properties (following from the definition) are said to be "something which exists and is eternal".

Concerning the 'eternity' of eternal truths, Leibniz himself states that it is grounded on (and derived from) their being necessary truths ("there is nothing so eternal as what is necessary"). This, if I am not mistaken, is just another way of saying that, as in the case of God's eternity, there is no question of their temporal existence, since eternity has to be clearly distinguished from sempiternal existence (in what follows, we will see that Leibniz himself will be very explicit about the non-temporal and non-spatial character of general essences).

The main problem, however, concerns the sense in which Leibniz says that essences or natures or eternal truths are something existent. Two options are available at this point. The first, which I have provisionally adopted in Chapter 3.5 above, is that 'existence', in this context, has not to be taken as referring to actual existence, but it is just a way to stress and remark the difference between genuine essences ('real' ones) and merely fictional objects ("possibility [...] is not a chimera which we create"). In this sense, then, the existence of essences would just mean that they have a genuine (non-fictional) ontological status.

The second reading is that this ontological status has to be taken in a stronger sense, as a commitment to a form of platonism, that is the view that abstract entities exist, exactly as concrete objects are said to exist, or, which is the same, that existence is univocal and the only difference is that between the abstract and the concrete. This second reading will be developed in the following chapter, when I will analyse some texts in which Leibniz seems to be committed to a full-fledged platonist position.⁵

⁴Leibniz to S. Foucher, 1675 (?), A II 1, 246/AG 2-3. It should be pointed out that this letter can only tentatively be dated to September 1675, even though all the editors suggest it has been written somewhere in between 1675 and 1676. The suggestion, however, might be advanced that, actually, it should have been written a little bit later, in order to solve the apparent contrast with Leibniz's deflationary remarks on the reality of the possibles in his 1676 reflections (see my discussion of those passages in Chapter 5.1 above), where Leibniz explicitly says that possible things are nothing *a parte rei*. (I owe this remark to an observation made to me by M. Lærke). I think, however, that there is another –and, perhaps, more plausible –solution to this tension, i.e. that, whereas in the Paris notes the expression 'possible things' is reserved to merely *possible individuals* (which are said to be purely imaginary), in his letter to Foucher (as well in his 1677 texts, see below), he refers to possibilities in the sense of *general essences* or *natures*, i.e. abstract possibilities, as in the case of the idea or notion of the circle, explicitly mentioned in the passage above.

⁵ See Chapter 9 below.

8.1.2 Leibniz's remarks on Foucher

In favour of the weak reading, there is also the polemic context of the passage from the letter to Foucher, i.e. the fact that Leibniz is criticizing Foucher's own account of necessary truths. Let me briefly say something about that.

In his criticism of Malebranche's (first part of) *The Search after Truth*, published in 1675, Foucher contested the view that mathematical truths have to be regarded as *truths* in proper sense, since they are based only on suppositions –given their hypothetical form –and, therefore, they can teach us nothing about what really exists outside us (the material world).

This passage –from the hypothetical nature of mathematical truths to their unreality –is immediately contested by Leibniz, who, as one can see (in the passage quoted above), makes immediately clear that "we cannot deny that the very truth of hypothetical propositions themselves is something *outside of us and independent of us*". When claiming that mathematical truths say nothing about what exists 'outside us', however, Foucher had in mind something like (for instance) the view that the properties following from the definition of the circle say nothing about the fact whether there are circular figures actually existing in the world ('out there') or not.

On the latter point (the lack of existential import), Leibniz agrees with Foucher, as one can see from what he writes in his private notes to Foucher's book. At the same time, however, he also adds that this is not a sufficient reason to deprive mathematical propositions of the name of 'truths'.

On this second point, indeed, he writes that

"[...] even though they do not tell us whether there is something outside us or not, or whether what we perceive are just appearances or not, nonetheless they provide us with the means to correctly reasoning about these appearances, and also allow us to make predictions about them and to search for them".⁶

And, concerning the question of their 'reality', Leibniz adds:

"It should also be remarked that there are certain hypothetical truths which subsists [*ont lieu*] even though no one is thinking about them, and they does depend neither on our thought nor on the existence of things".⁷

About this, *prima facie* bizarre, idea of a realm of truths which have hypothetical (and not categorical) form, and, which, at the same time, are said to subsist independently of both human thought and the existence of a counterpart in the actual world, Leibniz does not say something more in these notes. In his marginal notes to his copy of Foucher's book, he repeats that the truths of mathematical propositions do not depend on the actual existence of things outside of us, to the effect that they would be generally valid for someone who is asleep as well as for someone who is awaken.⁸

⁶ Excerpta ex notis meis ad Foucherii responsionem in Malebranchium critica, 1676 (?), A VI 3, 313 (=Robinet 72).

⁷ *Ivi.* Here the idea of a sort of third realm (in a platonic or Fregean sense) of entities independent of both ideas and the material (spatiotemporal) world seems to have been plainly envisaged. On Leibniz's further development of this idea and his final weakening of its undesired ontological consequences, see my discussion in the following paragraphs.

⁸ Cf. A VI 3, 312, note 4. This point could be traced back with the dream argument (and Leibniz's confrontation with Hobbes on necessary propositions) which I have discussed in Chapter 3 above. Concerning the lack of

This is the sense in which Leibniz can conclude that these propositions do say something true about what is 'outside us', where, notice, 'outside us' does not mean only what is independent from our thought but also what is independent from what is actually existing in the world (therefore, the term 'outside us' is understood in a different sense with respect to Foucher's original point). In Leibniz's mature texts, reference to indifference to the dream/reality question when we come to mathematical truths will be replaced by the well-known claim that necessary truths are those that do not hold just in this world, but "would have held if God had created the world according to a different plan" (which has been regarded as the most explicit approximation to the modern view that necessary truths are those which hold in every possible world).⁹

Furthermore, the platonist flavour of Leibniz's claim concerning the 'existence' of essences or natures can be elucidated by reference to another point which Leibniz discusses in these notes and which concerns the Foucher-Malebranche controversy, i.e. the criticism Foucher moved to Malebranche's account of ideas.

This point, indeed, is implicitly at work in the passage from the letter I have quoted above, especially when Leibniz observes: "all that we do consists in recognizing them [essences], in spite of ourselves and in a constant manner". And, again, when coming to the example of the circle and its properties, he says that "there is some constant cause outside of us which makes everyone who thinks carefully about a circle discover the same thing"; and not just in the sense of the mutual agreement between the phenomena of different human minds, but "in the sense that phenomena or experiences confirm them [the geometrical truths about the circle] when some appearances of a circle strikes our senses".

8.1.3 Leibniz and the Foucher/Malebranche controversy

In order to make fully explicit what is only implicit in these lines, we have to resort once again to Leibniz's private remarks on Foucher. Remember that, even before the famous polemic between Arnauld and Malebranche on true and false ideas, Foucher has been one of the first to attack Malebranche's extremely realistic account of ideas, i.e. his well-known thesis that ideas are not in our mind but only in God, and, that, therefore, we see everything in God.¹⁰

Following his conciliatory attitude –and, this time, also Descartes' original views –, Leibniz maintains that there are two meanings of the term 'idea', a subjective and an objective one: an

existential import of mathematical propositions, cf. also Leibniz's late remarks on Stegmann: "But the question of the essence is one thing, that of existence is another. When the essence of the circle is known to us [...], we enquire afterwards about existence, by applying this definition to some given figure, which is claimed to be a circle, and thus we find out about the existence of a circle, i.e., whether it exists or not" (Jolley 198).

⁹ The passage is taken from A VI 4, 1517 (translated by Mates, *The Philosophy of Leibniz*, p. 107). In what follows, I will express some doubts about the possibility of reducing this perspective to the idea which grounds possible worlds semantics.
¹⁰ On the Foucher-Malebranche polemic, see the classical study by H. Gouhier, "La première polémique de

¹⁰ On the Foucher-Malebranche polemic, see the classical study by H. Gouhier, "La première polémique de Malebranche", *Revue d'Historie de la Philosophie*1, 1927, pp. 23-48, 168-91, and 185-88 (the last part takes into account also the role of Leibniz). Cf. also R. A. Watson, *The Breakdown of Cartesian Metaphysics*, Indianapolis/Cambridge 1987, esp. Chapter 5 ("The Controversy Concerning Ideas between Malebranche and Foucher"), pp. 57-78; and M. Favaretti Camposampiero, "Pure Intellect, Brain Traces, and Language. Leibniz and the Foucher-Malebranche Debate", *Oxford Studies in Early Modern Philosophy*, 5, 2010, pp. 115-45.

idea, indeed, can be either a modification of our thought ("*la qualité ou la forme de la pensée*") or an immediate object of our perception or thought ("*objecto immediate sive proximo perceptionis*").¹¹

The second horn – an idea as an object and not as a modification of our thought –is the one defended by Malebranche and, as Leibniz writes, by Plato as well, because "when the soul thinks of something like being, identity, thought, duration, it has a certain immediate object or a proximate cause of its perception". Accordingly, Leibniz thinks there is a sense in which we can say (with Malebranche) that we see all things in God, and also that "the ideas or the immediate objects are the attributes of God himself".¹²

Moreover, in his marginal notes, when Foucher writes that, according to his own knowledge, Malebranche is the only one to employ the word 'idea' to indicate something different from a modification of the soul, Leibniz replies: "It seems to me that Plato says the very same thing as he [Malebranche] does, and that our mind knows immediately the essences".¹³

Concerning what Leibniz says in the letter about the existence of a "constant cause outside us" which makes us think of the circle as well as of all its properties, he might be referring to essences as the immediate objects and proximate causes of our thought. In the case of material things, on the other hand, he seems to refer to God as to the constant cause of what is perceived by us.

In his private remarks, indeed, he writes that "it can be that the nature of our soul is the immediate cause of our perceptions of material things, and that God, the author of things, is the cause of the agreement that subsists between our thoughts and what exists outside of us".¹⁴ In his letter to Foucher, then, he seems to be close to Plato's and Malebranche's account of ideas, at least insofar as ideas are interpreted as essences or natures (which he will later call 'divine ideas'), which cannot be regarded as modifications of our mind but have a certain autonomous ontological status, even though, notice, they are still the immediate objects of our acts of thought.

When he will finally comment the controversy between Arnauld and Malebranche in 1684, Leibniz will officially declare to side with Arnauld because he cannot accept Malebranche's

¹¹ This twofold way of understanding the meaning of 'idea', which corresponds to the distinction between the formal and the objective nature of ideas, is clearly at work in Descartes' texts. However, it will be perceived as the sign of an internal tension by Cartesian thinkers, as it will be showed by the controversy between Arnauld and Malebranche. On this question, cf. Jolley, *The Light of the Soul*, passim. See also S. Nadler, *Malebranche and Ideas*, Oxford 1992.

¹² Note that, as examples of these essences, Leibniz mentions "being, identity, thought, duration", which are the same things as the simple forms (or the attributes of God) which Leibniz mentions many times in the Paris notes, cf. A VI 3, 514, 518, and 275 note A.

¹³ Leibniz's *Excerpta* and Notes to Foucher, A VI 3, 316, note 17 (= Robinet 73). The similarity between these remarks and the content of Leibniz's letter makes me think that they have been written in the same period. The editors of the critical edition date Leibniz's notes to Foucher around 1676; on the contrary, Robinet suggests that they could have been written much later, around 1685. The first hypothesis seems to be preferable.

¹⁴ A VI 3, 318-19 (= Robinet 74). Reference to the soul as the immediate cause of our thoughts has to be interpreted in terms of what will be the doctrine of the spontaneity of each individual substance (and to its counterpart at the conceptual level, the doctrine that all the predicates are derived from the complete concept of an individual). It is not by coincidence, I think, that one of the first references to the idea of the essence of a substance as the "law of the series" occurs just in these notes: "The essence of substances consists in the primitive force of acting, or in the law of the series of changes, as the nature of the *series* in the case of numbers" (A VI 3, 326).

rejection of ideas in our mind¹⁵; even though, as we have already seen, he will always find a way to defend Malebranche's thesis of the vision in God, insofar as the latter can be considered close to his own view that God is the only external and immediate object of our thought.¹⁶

A systematic account of ideas, their location (in the divine and/or human mind), and our knowledge thereof, will be eventually given in sections 23-29 of the *Discourse* (even though much of the material presented here is substantially drawn from the 1684 *Meditationes de cognitione, veritate, et ideis*, one of the few philosophical essays Leibniz ever published in his whole life). In his late writings, Leibniz will provide a defence of Malebranche's theory of ideas re-interpreting it according to his own (consolidate, by now) account of essences *qua* divine ideas. For instance, in a 1715 letter to Rémond, Leibniz says that there is no need to take literally Malebranche' s thesis that ideas are 'outside us'. He simply recognized that, as God is the source of possibilities, he is at the same time the source of ideas in us (in this sense, Leibniz adds, 'ideas' are referred to perfections which are in God and which are participated by us insofar as we depend on God).¹⁷

And in a letter to Bourguet, written at the beginning of 1714, he assimilates again Malebranche's view with the idea that God is the only immediate external object of knowledge, adding that eternal truths, even if their subjects do not exist (i.e. they do not have

¹⁷ Cf. Leibniz to Rémond, November 4, 1715, GP III, 659. On the other hand, however, there are texts, especially among those of the late Leibniz, where Malebranche's doctrine of the 'reality' of ideas will be deeply criticized. For instance, in the 1712 Conversation of Philarète and Ariste, he takes into account the thesis that ideas perceived by the soul are realities, and "that these ideas have an eternal and necessary existence, and that they are the archetype of the visible world [...]" (GP VI, 591/AG 266). Leibniz's spokesman, Philarète, replies: "I can be agreed that there are eternal truths; but not everyone will agree that eternal realities are present to our soul when it considers such truths. It will be said that it is enough for our thoughts to be related in this to those of God; in him alone are these eternal truths actualized" (GP VI, 592/AG 267). From the following of the dialogue, it is clear that what Leibniz has in mind is that it is enough for us to establish a relation of expression between thoughts in our minds and ideas in God, rather than assume that we are able to perceived ideas as eternally existing objects. Cf. in particular GP VI 592/AG 268, where he stresses that eternal truths concerning what is possible are something "whose reality is based in something actual, that is, in God", from which, however, it does not follow that, properly speaking, we do see things in God. Cf. also Leibniz's annotations on his copy of Malebranche's Entretiens sur la metaphysique, Robinet pp. 432-33: where Malebranche observes that, when one thinks of a circle or of a number, he is conscious of the reality of such things, Leibniz observes that one should properly say that these things exist as ideas; then, when Malebranche adds that, if the circle in itself were not something real, then, when thinking about that, one would think about nothing at all, Leibniz notes that this is just a sophism ("c'est une sophisme"). As I will show in Chapter 9 below, however, a similar sophism about the reality of truths and essences seems to be at work in certain texts of Leibniz himself.

¹⁵ Cf. *Meditationes de cognitione*, November 1684, A VI 4, 591-92. For other texts concerning the Arnauld-Malebranche controversy, see Robinet, *Malebranche et Leibniz*, p. 132 and ff.

¹⁶ Jolley, *The Light of the Soul*, esp. Chapter 8 (pp. 132-52), regards Leibniz's approval of Malebranche's thesis of the vision in God (as well as of the Augustinian thesis of divine illumination) just as a sign of his conciliatory attitude, whereas Leibniz's considered view would actually be much closer to Arnauld's. Of course, Leibniz's commitment to the theory of innate ideas is his main point of distance from Malebranche's theory, since divine illumination and innatism are considered by Malebranche (and not only by him) as impossible to conciliate. Notice also that Malebranche's interpretation of the theory of divine illumination was charged (by Arnauld and others) of blurring the distinction between natural knowledge and beatific vision (a point about which Leibniz was quite sensitive). After all, what is really significant for Leibniz is the notion of 'expression', which allows a sort of mapping between ideas in the human mind and the archetypes or essences of things in the divine mind. The claim that God is the only immediate external object of our minds, however, is essential to Leibniz's phenomenalism and his doctrine of harmony. For a more charitable reading of divine illumination in the context of Leibniz's epistemology of logic and mathematics, see Adams, *Leibniz*, pp. 186-91. On divine illumination from Augustine to Malebranche, see the remarks contained in M. Priarolo, *Visioni divine. La teoria della conoscenza di Malebranche tra Agostino e Descartes*, Pisa 2004, p. 167 and ff.

a referent in the actual world), nonetheless have their reality in God's understanding (or in his knowledge). The interesting point is that the example chosen by him this time is Malebranche's (controversial) doctrine of intelligible extension: "[...] the intelligible extension of father Malebranche might be taken as the ground of geometrical truths, which can be found in God's understanding".¹⁸

8.2 Real Essences as Ideal Entities. The case of mathematical objects

Coming back to the end of the 1670's, it is still not clear, however, if what I have showed in the preceding paragraph was just intended to ascribe an *objective being* to essences, insofar as they are the object of God's understanding or something stronger, as it probably was in the case of Malebranche.¹⁹ The same ambiguity, as we will see, will surface again in a series of texts from the period 1677-78 (discussed in Chapter 9 below).

For the moment, let me add that when Leibniz will come back to the question of the nature of ideas, in his 1677-78 *Quid sit idea*, an idea will be characterized as (a) something which is in our mind (however it has to be clearly distinguished from the traces impressed on our brain –a point already emphasized in the notes to Foucher), and (b) a disposition, i.e. it consists not in some act but in the faculty of thinking: "we are said to have an idea of a thing even if we do not think of it, if only, on a given occasion, we can think of it". Point (b) has to be furtherly qualified by adding that ideas are not remote but *proximate* faculties of thinking objects.²⁰

The introduction of the notion of *expression* makes possible for him to formulate in the clearest way the relation holding between ideas in the divine mind, ideas in the human mind, and things which exist in the world 'out there'.

In particular, the key point is that predictions about our future experiences with external objects are successful, and that our ideas (e.g. the idea we have of the circle and of its properties) can be applied to external objects in the world *just because* both of them (our ideas and the external objects) are effects of the same cause, i.e. expressions of ideas in God, which are the models of existing things as well as of ideas in our minds, since two different expressions of the same expressed thing (God or divine ideas) also express each other

¹⁸ Leibniz to Bourguet, January 1714, GP III, 562. A similar point had been already stated in the text of the *Meditationes*, cf. A VI 4, 592: "At in Deo non tantum necesse est actu esse ideam extensionis absolutae atque infinitae, sed et cujusque figurae, quae nihil aliud est quam extensionis absolutae modificatio".

¹⁹ A certain similarity between Malebranche's position and Bolzano's account of ideas and propositions has been noticed by M. Gueroult, *Malebranche*, 3 vols., Paris 1955-59, II, pp. 9-10.

²⁰ Cf. *Quid sit idea*, 1677 (?), A VI 4, 1370/L 207.

mutually.²¹ Leibniz is committed to the principle *quae eadem sunt eidem tertio sunt eadem inter se*.²²

This is nothing but another consequence of Leibniz's commitment to the principle that the effect expresses its full cause, re-interpreted in terms of expressive causation, or better, the involvement of the effect into the cause is now understood as a special case of the relation of expression: an effect involves its cause just in the sense that it expresses it.²³

8.2.1 Mathematical objects. From pragmatism to platonism?

This point needs to be stressed also because it provides us with a solution to an otherwise unresolved question concerning the status of mathematical entities (and abstract entities in general) in Leibniz's philosophy.

I have already hinted at the fact that the young Leibniz seems to have endorsed a sort of fictionalist theory of mathematical objects, perfectly in tune with his commitment to what I have called full-fledged nominalism: mathematical objects, *qua* abstracts, are to be counted among unreal, i.e. imaginary beings. Especially as far as geometrical figures are concerned, there is no perfect correspondence between ideal geometrical objects (like the circle) and material objects (physical instances of circular things), for the latter can only approximate the perfection of the former. In this sense, geometrical figures (such as perfect polygons) are interpreted as useful fictions that must be employed for the sake of calculation.

Such a view has been clearly expressed in a text of the Paris period, *Numeri infiniti*: "The circle –as a polygon greater than any assignable, as if that were possible –is a fictive entity, and so are other things of that kind [*Entia ficta*]". And, again: "Even though these entities are fictitious [*ficticia*], geometry nevertheless expresses real truths which can also be expressed in other ways without them. But these fictitious entities are excellent abbreviations for expressions, and for this reason extremely useful".²⁴

Then, Leibniz tries to show how we manage to obtain the idea of a perfect geometrical figure (like the circle) moving from sensible appearances to images in our mind:

"For entities of this kind, i. e. polygons whose sides do not appear distinctly [the idea is that of a series of polygons whose sides are always increasing in number], are made apparent to us by the imagination, whence there arises in us afterwards the suspicion of an entity having no sides. But what if that image does not

²¹ Cf. *Ibid*: "That the ideas of things are in us means therefore nothing but that God, the creator alike of the things and of the mind, has impressed a power of thinking upon the mind so that it can by its own operations derive what corresponds perfectly to the nature of things. Although, therefore, the idea of a circle is not similar to the circle, truths can be derived from it which would be confirmed beyond doubt by investigating a real circle" (A VI 4, 1371/L 208). The dispositional character of ideas in the human mind has to be contrasted with the non-dispositional character of divine ideas (i.e. God does actually conceive everything possible). On the latter, cf. Mondadori, "Modalities, Representations, and Exemplars".

²² A VI 4, 2341.

²³ A very clear passage occurs in Leibniz's letter to Foucher, 1686. GP I, 383-84. See also *Discourse*, # 26: "For our soul expresses God, the universe, and all essences, as well as existences" (A VI 4, 1570/AG 58), to be compared with what Leibniz says in # 29 against Malebranche (every substance "expresses God and, with him, all possible and actual beings, just as an effect expresses its cause", A VI 4, 1574/AG 60). This principle has been dubbed 'principle of cognitive equipollence', see Robinet, *Architectonique disjonctive*, p. 328. On the principle of equipollence in general, see A VI 3, 490-91 and 584. Cf. also *De aequipollentia causae et effectus*, 1677-78 (?), A VI 4, 1963-64.

²⁴ Numeri infiniti, April 1676, A VI 3, 499/LC 89-91.

represent any polygons at all? Then the image presented to the mind is a perfect circle. Here there is a surprising and subtle difficulty. For even if the image is false, the entity is nevertheless true; and so it follows that in the mind there is a perfect circle, or rather, there is a real image. Therefore everything else will also exist in the mind: and in it everything that I denied to be possible will now be possible. Instead, what must be said is that in the mind there is a thought of uniformity, yet not image of a perfect circle: instead we apply uniformity to this image afterwards, a uniformity we forget we have applied after sensing the irregularities".²⁵

Notice that one of the problems one has to deal with when endorsing a pragmatist (or conventionalist) account of mathematical objects is that of finding a justification for what has been called (after Eugen Wigner) the 'unreasonable effectiveness of mathematics in natural science'. Rather than into an empiricist (or Aristotelian) account of mathematics -one, roughly speaking, according to which geometrical figures are just the result of a process of abstraction from empirical objects –, however, Leibniz's theory evolves toward a sort of Platonic view, i.e. one in which the correspondence between ideas in our minds (our ideas of the circle and of other perfect figures) and what actually exists in the world is guaranteed by the fact that God is the author of both our minds and the world (according to the Augustinian reading of Platonic ideas as *rationes* in the mind of God, which are the models or the exemplars of created things).

This explains both the fact that the actual world is only an imperfect copy of the ideal models in God (there are no perfectly circular things in the world) and that ideas in our mind –which, in the case of numbers and other mathematical concepts, are particularly close to their models –enable us to dominate and rule the phenomena of the material world.

On this point, one can see for example what Leibniz writes in his 1702 reply to Bayle:

"It is true that perfectly uniform change, such as the mathematical idea of motion, is never found in nature any more then are actual figures which possess in full force the properties which we learn in geometry [...].Yet the actual phenomena of nature are arranged, and must be, in such a way that nothing ever happens which violates the law of continuity [...] or any of the other most exact rules of mathematics. On the contrary, things can be rendered intelligible only by these rules, for they alone are capable [...] of leading us to the reasons and intentions of the Author of things. [...] Although mathematical thinking is ideal, therefore, this does not diminish its utility, because actual things cannot escape its rules. In fact, we can say that the reality of phenomena, which distinguishes them from dreams, consist in this fact".²⁶

This passage makes clear how the 'ideal' nature of mathematical objects perfectly matches with Leibniz's phenomenalist account of the external world, since both mathematical thinking and physical objects (which "cannot escape its rules") are situated at the same level, i.e. that of coherent or well-grounded phenomena (which has to be carefully distinguished from that of simple substances).²⁷

²⁵ *Ibid.*, A VI 3, 499/LC 91. Imagination plays the role of making uniform and continuous what, in fact, is discontinuous, since, as Leibniz repeats several times, there are no perfect shapes in nature. On the connection between imagination and mathematics, see Pasini, *Corpo e funzioni cognitive in Leibniz*, pp. 169-204.

²⁶*Réponse aux réflexions contenues dans la seconde Édition du Dictionnaire Critique de M. Bayle*, 1702 (but published only in 1716) GP IV, 568-69/L 583, italics mine.

²⁷ Leibniz's final view is that there are three different levels of 'reality': (1) reality in proper sense, i.e. simple substances and their properties, (2) phenomena, i.e. material objects whose reality is derived from simple substances, and (3) ideal entities, i.e. mathematical things (like space and time). Cf. *Sur ce qui passe les senses et la matiere*, 1702, GP VI, 488-99, which shows very well as this partition corresponds to the epistemological partition of knowledge into understanding, imagination, and sensibility (worked out by Leibniz since the *New Essays*). On this point, see also the remarks in G. A. Hartz-J. Cover, "Space and Time in Leibnizian Metaphysics", *Nous*, 22, 4, 1988, pp. 493-519.

See also how the pragmatic move concerning the reality of phenomena is connected here with a Platonic account of mathematical objects as ideal entities through a reference to "the reasons and intentions of the Author of things", which are taken to ground the very same 'reality' of phenomena, and, thus, make possible for us to attain scientific knowledge of them. The claim that actual things (better: phenomena) cannot escape from mathematical rules will be repeated in a famous letter to Varignon, where he states that, although continuity is just an ideal thing which does not have place in nature, nonetheless "*le réel ne laisse pas de se gouverner parfaitement par l'idéal et l'abstrait*".²⁸ It is not by chance that Leibniz's most intriguing remarks on the ontology of mathematics are to be found in the writings of the last part of his life, because of the intensification of his discussion (and controversy) with other mathematicians on the reality (or unreality) of infinitesimal magnitudes to be employed in the calculus.²⁹ It is also interesting to observe that there are texts in which the very same idea of infinitesimal differences is employed by him in order to explain the possibility of bridging the gap between perfectly ideal mathematical entities and its (imperfect) real copy, i.e. nature, even though there can never be a perfect correspondence between these two fields.³⁰

8.2.2 Mathematical objects. Nominalism or platonism?

The point I want to stress now is that, for someone with nominalist sympathies (like the young Leibniz), such a commitment to a domain of purely ideal entities does not completely go without problems, especially if one focuses on the primacy of concrete notions over the abstract ones.

Even in his writings of the middle period, when his Platonic ontology of mathematical entities is a well-established one, it is still possible to find passages where a nominalist account of mathematical objects is plainly at work.³¹

For instance, in the *Characteristica verbalis*, a detailed study of the abstract/concrete distinction from the linguistic and grammatical point of view, Leibniz maintains that abstract terms "may be dispensed with in philosophical language"; even though, he immediately adds, when one is dealing with proportions and numbers it is not easy to do without abstract nouns at all.

All in all, however, he concludes that, as a sort of methodological principle (his provisional nominalism), abstracts should be avoided as far as it is possible:

[&]quot;Thus, in Geometry and in Arithmetic, by lines and numbers we do not mean abstractions, but rather things with them: a circle is certainly a golden, silvern or a wooden one; and number means "many things", e.g. 'square number' means "as many things as can be squarely set up [*ut possint dispone quadrate*]".³²

²⁸ Leibniz to Varignon, February 2, 1702, GM IV, 93.

²⁹ On these texts, cf. Robinet, Architectonique disjonctive, pp.283-94 and 306-18.

³⁰ Cf. *De organo sive arte magna cogitandi*, 1679 (?), A VI 4, 159: "Nam etiamsi non darentur in natura nec dari possent rectae aut circuli, sufficiet tamen dari posse figuras, quae a rectis et circularibus tam parum absit, ut error sit minor quolibet dato. Quod satis est ad certitudinem demonstrationis pariter et usus". But see also *Numeri infiniti*, A VI 3, 498/LC 89.

³¹On Leibniz's philosophy of mathematics in general, see E. Pasini, "La philosophie des mathématiques chez Leibniz. Lignes d'investigation", in *Nihil sine ratione, VII. Internationaler Leibniz-Kongress*, pp. 954-63.

The idea that lines and numbers do not refer to *abstracta*, i.e. abstract things (which, properly speaking, do not exist) but to "things with them" (*res cum ipsis*) is a move which one finds very often among Leibniz's reflections on abstract terms, and, especially, on what he calls attributive terms, which, contrary to substantive ones (like 'man'), implicitly presuppose reference to a concrete subject, or a thing, as if one were to say 'warm thing'. (The idea can be traced back to Ockham's distinction between connotation and denotation).³³

Analogously, Leibniz is saying here that the term *res* (i.e. a concrete subject) is implicit in the way in which one employs mathematical terms, as he explains by saying that 'square number' means "as many things as can be squarely set up". Commenting on this passage, Dascal noticed a "rather anti-platonic attitude", which may be contrasted with the Platonic attitude towards mathematical beings showed by Leibniz in other passages (some of which I have discussed above).³⁴

This is not just an isolated passage, however, since the same idea is repeated in one table of categories, provisionally dated around 1683-85, where he points out that "mathematical things, like space, time, sphere, hour, are just phenomena, which are conceived by us as if they were substances. And, therefore, there is no real substance unless the individual one". Moreover, "one can demonstrate that all those things which are divisible [*dividua*] [...] are not complete things, but are to be completed by something else, which involves all of those things which can be attributed to this space, this time, this quantity".³⁵ Reference to the example of the sphere makes us immediately think of the famous distinction, stated in the correspondence with Arnauld, between the ideal sphere and the concrete spherical object on the tomb of Archimedes.³⁶

The problem, as one can see, concerns the priority order between universals and particulars, or, better, between the abstract and the concrete. It already arises in the case of abstract general entities, like mathematical objects/concepts. Leibniz, indeed, quite often repeats that, because of the actual infinite division of matter, there is no actual and definite figure in concrete things (bodies).³⁷ This is the main reason why the perfect shape of geometrical figures is the result of a process of abstraction in which imagination plays a fundamental role.

³⁴ Cf. Dascal, *Leibniz*, p. 180, n. 28.

³⁵ Divisiones, 1683-85(?), A VI 4, 559-60.

³² Characteristica verbalis, 1679 (?), A VI 4, 337 (translated in Dascal, Leibniz, p. 177).

³³ See for instance A VI 4, 306-07; 558-59; 625-26. Cf. in particular *Divisiones*, 1683-85 (?), A VI 4, 574: "In concrete things [i.e. when abstract terms are left apart], therefore, every substantive refers to a substance, and every adjective refers to an accident. Thus, *circle* (taken as a substantive) refers to a circular thing or substance. An accident is always understood as referred by an adjective, unless a substantive is understood in an elliptical way [*per Ellipsin*]". Other times, this idea of an elliptical reference is characterized by Leibniz by saying that, whereas substantive terms directly refer to a *res*, adjective ones only implicitly presuppose (*subintelligunt*) it. Finally, in a text connected with the correspondence with Des Bosses, Leibniz explicitly speaks of a distinction between real and connotative terms: "Terms [...] are either real or connoting [*connotionales*]. Real terms are the things themselves, since nothing is expressed beside the thing; connoting terms are things with an addition" (GP II, 472/LDB 309). This is nothing but a recovery of Ockham's distinction between denotation and connotation.

³⁶ GP II, 39. See also A VI 4, 400, where mathematical things like space and time which are conceived "as if they were substances" (*ad instar substantiae*) are taken as *concreta incompleta*. Again, in a late table of definitions, there is a section devoted to *concreta mathematica*, where a mathematical concrete is defined as *Extensum sine resistentia* (Cout 438).

³⁷ See, for instance, A VI 4, 1648. This is just a consequence of his commitment to the view that reality is actually divided to infinity (and not just potentially divisible), cf. A VI 4, 1613: "Il n'y a point de figure precise et arrestee dans le corps à cause de la division actuelle des parties à l'infini".

As Leibniz makes clear in a late text, indeed:

"It is our imperfection and the shortcomings of our senses which make us conceive physical things as mathematical entities, in which there is indeterminacy. And it can be demonstrated that in nature there is no line or shape which reproduces exactly and preserves uniformly throughout the least space or time the properties of a straight of circular line, or of some other line whose definition can be grasped by a finite mind [...].However eternal truths based on limited mathematical ideas [fondées sur les idées mathematiques bornées] are still useful to us in practice, in as much as it is acceptable to set aside the inequalities too small to be able to cause significant errors in relation to the proposed purpose; [...]. It is obvious that time is not a substance, because an hour or any other part of time that we take never exists in its entirety and in all its parts together. It is only a principle of relations, a basis of the order in things insofar as they are conceived as existing successively, or not existing together. The same must be true of space, which is the basis of the relation of the order of things, but insofar as they are conceived as existing together. Both of these bases are true, although they are ideal. Uniformly ordered continuity, although it is only a supposition and an abstraction, forms the basis of eternal truths and necessary knowledge: as is the case with all truths, it is the object of the divine understanding, whose rays illuminate our understanding too. An imaginary possible participates in these bases of order as much as an actual thing, and it will be possible for a novel to be as well ordered with regard to places and times as a true history".³⁸

In this long passage, Leibniz summarizes the following ideas: 1) the whole is prior to the part in the field of the ideal or the possible, but not in that of the actual, and this is particularly true in the case of continuous wholes (like time and space); 2) there is nothing uniform (or continuous) in nature, for uniformity is obtained only through a process of *abstraction* which rests on the capacity of imagination and/or the shortcomings of our senses; 3) eternal truths based on limited mathematical ideas are still useful from the practical point of view, at least insofar as the error might be diminished as much as one wants and, thus, made insignificant; 4) time and space, as far as continuous magnitudes, are just ideal orders: ordered continuity is "only a supposition and an abstraction" but it also "forms the basis of eternal truths and necessary knowledge"; 5) insofar as they are among the eternal truths, space and time are the objects of divine understanding; 6) even imaginary possible things participate of these structures, for a novel might be as ordered as a true story as far as space and time are concerned.

Points (1)-(3) form the core of an abstractionist (and pragmatic) account of mathematical and ideal entities: uniformity and continuity is obtained only through abstraction, i.e. a process which leaves irregularities aside and preserves only the common and uniform aspects of reality. As Leibniz writes in the original draft of the letter (the passage quoted above is from the fair copy): "by concealing the small inequalities (which is required when abstracting, in order to be able to reason), the mind puts perfect uniformities into nature. For although they exist only in idea, we come across them enough in practice, the irregularities being insensible"³⁹.

Let me stress that emphasis on the distinction between the infinite and the finite is crucial here in order to understand the distance between the notion of abstract things (those of which

³⁸ Leibniz to Princess Sophie, October 31, 1705, GP VII, 563-64/LSS 337-38. The text published by Gerhardt reads *quelque chose de determine*, which, however, is just an error of transcription (cf. the apparatus at LSS 338), since, few lines above, Leibniz himself noted that it is only because of our imperfection that we can understand physical bodies as mathematical entities, i.e. as something undetermined under certain respects.

³⁹ LSS 338, which publishes both the draft (M1) and the fair copy (M2), whereas only the latter has been published in GP VII (notice that the transcription of M2 in LSS amends many errors in GP VII).

a finite mind can understand the definition) and those of concrete and individual things (which involve an infinity of determinations). Mathematical ideas, then, are the product of an act of abstraction, insofar as we are allowed "to make abstraction from those differences which are too small to cause any considerable error"; in this sense, they correspond to phenomena, which are the objects of a finite and limited mind (whereas, on the contrary, nature and God's wisdom act always in the most determined and perfect way).

Point (4), however, introduces a somewhat different point of view: space and time are still regarded as nothing else than suppositions and abstractions, but, at the same time, they are said to constitute "the basis of eternal truths and necessary knowledges". In this sense, Leibniz adds in (5) that they are the object of divine understanding. Now, it seems clear to me that the sense in which space and time are said to be 'abstract' in (1)-(3) is different from the sense of 'abstract' employed in (4) and (5). The first sense is that which results from a process of "making abstraction from", which cannot be regarded as the ground for necessary knowledge. The second sense, that in which space and time can be said to be the basis of eternal truths, indeed, is that according to which they are abstract objects in a Platonic sense.

This clearly emerges from the original draft of the letter, where, after having written that spatiotemporal continuity is the object of divine understanding, Leibniz adds: "It is no more a substance or an actual thing outside the mind than is an abstract and ideal number, and yet time and space ground sciences made up of truths which act as rules for existing things, since the divine understanding [...] is the source of existing things".⁴⁰

In the text quoted above, moreover, Leibniz refers to divine illumination, or, better, he says that our finite understanding is something which proceeds from the divine one through a process of emanation. What is particularly relevant, however, is that mathematical ideas, which are to be conceived as abstractions in the first sense (as something pertaining to finite minds, only, i.e. to the work of imagination) are also regarded as the ground of eternal truths and the objects of divine understanding (but this can be said only of them as abstractions in the second sense). How is it possible, however, that things which are conceived of as abstractions (in the first sense) can be also regarded as the objects of divine understanding, unless one does not want to ascribe to Leibniz the view that divine knowledge is a sort of knowledge by abstraction?

The very same essences which are said to be produced (in our minds) through an act of abstraction are also said to be placed in God's understanding (which is an intuitive one, however) and to constitute the reasons according to which God has created the world ("[...] sciences made up of truths [i.e. eternal truths] which act as rules for existing things"). Of course, Leibniz can find a way out by resorting to his theory of expression, i.e. saying that essences in the human mind are just an (imperfect) expression of ideas in God's understanding.

Furthermore, even though mathematical ideas (in our minds) are based on abstraction and, in this sense, they are connected with the essences of limited things, they are nonetheless what *grounds* eternal truths (*les verités eternelles* fondées *sur les idées mathematiques bornées*). Should we say that such a correspondence (between these two senses of 'abstraction') only if one presupposes the idea that divine knowledge also contains knowledge of finite minds and

⁴⁰ LSS 329.

their phenomena (the idea of *phenomena Dei* discussed at the end of the previous chapter)?⁴¹ The main problem, however, is that space and time (and all mathematical truths as well) are said to be absolutely necessary ones (space and time are the same in every possible world), and, therefore, are placed as the same level as general essences. At the same time, the relational character of space and time (and of all geometrical truths), which is also the reason why they are regarded as phenomena and not true realities, should place them at the level of God's knowledge of vision (since relations and phenomena are the objects of the latter according to Leibniz).⁴² The same problem, as I shall say in the following, can be generalized to the case of non-mathematical general notions as well.

8.3 Ideal entities.

From mathematical objects to general essences

The question, if I am not mistaken, can be framed in the following terms. As I have showed in Chapter 3 above, the young Leibniz's reflections on the topic of abstract terms have been influenced by the Hobbesian framework of *De corpore*. A point clearly stressed by Hobbes was that abstract terms should never be considered as things in their own because they are just the result or the product of a process of *abstraction*.⁴³ The young Leibniz clearly endorsed the Hobbesian view, as we can see from one of his notes to Nizolius, where he writes: "Hobbes has taught that 'to abstract', taken in a good sense [i.e. the only acceptable one for a nominalist thinker], means nothing but to consider one thing, without considering another one".⁴⁴

The same view will be put forth again in the correspondence with De Volder: "Individual things involve the infinite, while when forming universals the mind abstracts certain features only, leaving innumerably many others aside. Therefore there is a complete notion only in the case of individual things [...]".⁴⁵In other words, the only plausible sense in which abstract

⁴¹ This point seems to be suggested by Pasini, "La philosophie des mathématiques chez Leibniz", p. 958, where he writes: "Cependant les objets mathématiques existent en quelque façon en nous; et, bien sûr, ils auront quelque existence plus solide, à la manière des notions *in mente Dei*, puisque Dieu aura au moins les idées de nos idées, c'est-à-dire qu'il aura connaissance de la représentation de telle ou telle vérité sous telle ou telle forme en tel ou tel être rationnel fini".

⁴² The problem had been already noted by Heinekamp, *Das Problem des Guten bei Leibniz*, p. 72. In this sense, both the first and the second point raised above are connected with the tension between Platonism and nominalism (the question whether, even at the level of pure possibility, individuals are prior to general concepts or vice versa).

⁴³ This is just one way of characterizing abstract entities, and one based on *epistemic* criteria (in the case of the Hobbes-Leibniz style of nominalism, we can also talk of *linguistic* criteria). Other ways of capturing the distinction between the abstract and the concrete may rest on *ontological* criteria: abstract objects might be defined as those which do not occupy any determinate spatiotemporal position (have no spatiotemporal existence) or are not causally efficacious. Alternatively, one can characterize abstract objects as entities which have no mental or physical existence. As I will show in the next chapter, this way of presenting abstract entities will be (implicitly) employed by Leibniz in some texts of the end of 1670's.

⁴⁴ Notes to Nizolius, A VI 2, 464.

⁴⁵ Leibniz to De Volder, 1705, GP II, 277. In this case, Leibniz explains that the particular features which the mind makes abstraction from when producing universal notions are those of temporal and spatial ordering, or,

terms might be said to have a reality (if any at all), is the sense of their reality *post rem*, i.e. insofar as 'abstract' is meant as 'making abstraction from' concrete entities, isolating certain common features from a plurality of numerically different individuals.⁴⁶ This way of understanding abstract terms is still at work in Leibniz's texts on the analysis of categories.

8.3.1 Abstract Terms. Grammatical and Metaphysical Analysis

In a text probably draft in 1679, Leibniz resorts to the notion of a "complete term" in order to capture the idea of a singular substance (or, as he says, the notion of a "subsisting thing"):

"Thus, a subsistent thing is nothing but a complete term, that is one to which everything can be attributed which belong to it or which belong to the same thing to which it belongs. Therefore, if the same thing is B and C and D and E, etc., because it is A, A will be a substance or a complete term [*Leibniz is calling a substance what he should properly call the notion of a substance; anyway, the point is clear enough*]. Thus, nothing belongs to a complete term in an accidental way, or all its predicates can be derived from its own nature. It is clear, then, that this definition should be primarily understood as referred to singular substances, but since universal substances do not mean anything else that a singular substance whatsoever, the application to the latter would not be a problem. For when I say 'man', I mean any singular rational subsistent thing whatsoever. But when I say 'rational', I do not imply [*subintelligo*] a subsistent thing; therefore 'rational' will be an attribute, 'man' a substance'.⁴⁷

This nominalist position will be repeated few lines below in the same text: "the concept of a universal substance [...] can be the concept of any rational substance whatever, i.e. of what is common to Titius and Cajus insofar as they are persons".⁴⁸The same idea will be repeated in the *Notationes Generales*, where we read: "An universal substance means any singular substance having something in common, for when I say 'man' I understand whatever singular substance having an organic body and endowed with rationality".⁴⁹

Roughly speaking, the idea is that what the Aristotelian tradition called *secondary substances* (like 'man', 'dog', and so on), and designated general or specific essences, are nothing real in themselves, but are only employed to refer to any member whatsoever of a group of individuals sharing some general features in common (species).

It should be warned, however, that these remarks are to be placed in the context of a linguistic or grammatical analysis, so that it would not be correct to immediately draw

better, those concerning things which are contained in space and time: "Corpus sphaericum omnibus numeris absolutum in natura nuspiam est, animo formatur dissimulatis aberrationibus. [...] Singularium Essentialis ordinatio seu relation ad tempus et locum intelligenda est de relatione ad contenta in tempore et loco tam vicino quam remote, quae a quovis singulari exprimi necesse est [...]" (Ibid., 276-77). Cf. also Ibid., 271.

⁴⁶ For the suggestion that 'abstraction' and 'ideal' are not given by Leibniz an univocal sense, I am particularly indebted to Mondadori, *Nominalism*, pp. 175-76, who also stresses the distinction between the reality *post rem* and the reality of *ante rem* of abstractions (especially general essences) in Leibniz's texts. On the whole question of abstract entities, see also M. Bolton, "Universals, Essences, and Abstract Entities", in D. Garber-M. Ayers (eds.), *The Cambridge History of Seventeenth Century Philosophy*, Cambridge 1998, vol. I, 178-211. As she clearly points out (p. 184): "The simplest measure of 'reality' is based on the order of priority between universals and particulars. On some views, (1) the being of universals is independent of that of particulars under them, whereas on others, (2) universals presuppose particulars (at least in base cases)".

⁴⁷ Definitiones: Aliquid, Nihil, 1679 (?), A VI 4, 306.

⁴⁸ *Ibid.*, 307. The notion of an universal substance is explicitly contrasted with the notion of a singular substance. ⁴⁹ *Notationes generales*, 1683-85 (?), A VI 4, 554.
ontological consequences from them. For a philosophical discussion on the order of priority between universals and particulars one has to turn to what Leibniz will say in his discussion of Locke's ideas.⁵⁰

In the chapter of the *New Essays* devoted to general terms, indeed, Philaletes-Locke remarks that "what one calls *general* and *universal* does not belong to the existence of things, but is just the workmanship of the understanding", and, that, *therefore*, "the essences of the various species are only abstract ideas". Theophilus-Leibniz replies by pointing out that the premise (that general and universal notions do not belong to existent things) is correct, but it does not justify the conclusion, i.e. conventionalism about essences. For "generality consists in the resemblance of similar things to one another, and this resemblance is a reality".⁵¹ At the end of the chapter, when Locke repeats that a (general) essence is nothing but an abstract idea (otherwise it could not be unperishable), Leibniz replies: "I have already told you [...] that essences are eternal because we are dealing just with what is possible".⁵²

The topic will be touched again in the discussion on real essences in Chapter VI of the third Book, where Leibniz points out that the only sense in which one should refrain from ascribing reality to general essences is that of their substantiality, i.e. the idea that general essences or species are something subsisting in themselves. This in keeping with what we have read above, i.e. that nature and God's wisdom produce nothing undetermined in things. Therefore: "one never finds a number in which one can only observe a multiplicity in general, nor something extended in which there is extension only, nor a body in which there is solidity alone and no other qualities [...]". In this sense, but only in this sense, i.e. when they are somewhat hypostatized, real essences are nothing but chimeras, but this is also a position that no philosopher, not even the so-called realists about universals, has ever entertained.⁵³

Thus, in agreement with the nominalists, Leibniz accepts the idea that generality consists in 'resemblance', i.e. that general essences arise through abstraction of similar features from numerically different individuals. He also adds that resemblance itself is a *reality*, and this reality has to be equated with (or reduced to) that of what is purely possible. Furthermore, Leibniz observes that resemblance or similarity itself is something over and above singular things, i.e. that when one is conceiving of the similarity between these things he is conceiving of something more than singular things themselves, and this is what universality consists in.⁵⁴

As we already know, the possibles are said to have a certain 'reality' insofar as they are the internal objects of God's understanding. Therefore, the problem of abstract, general (and specific) essences can be rephrased in that of the reality of these ideas in the mind of God.

⁵⁰ On this point cf. Mugnai, *Astrazione e realtà*, pp. 113-25, which is perhaps the best discussion of abstractions and general essences in the *New Essays*. In what follows, I am greatly indebted to Mugnai's reconstruction.

⁵¹ New Essays, III, iii, 11-12, A VI 6, 292.

⁵² *Ibid.*, III, iii, 19, A VI 6, 295. The point is explained in details at A VI 6, 293, where Leibniz recalls the idea that a real definition shows the possibility of a thing, and, thus, corresponds to an essence (he also remarks that all essences are real, since essences or possibilities are just what does not involve a contradiction).

⁵³ Cf. *New Essays*, III, 6, 32, A VI 6, 323: "If you take real essences for those substantial models, which would be a body and nothing more, an animal and nothing more specific, a horse without individual qualities, then you are right to consider them as chimeras".

⁵⁴ "Autant que vous concevez la similitude des choses vous concevez quelque chose de plus, et l'universalité ne consiste qu'en cela" (*New Essays*, IV, xvii, 8, A VI 6, 485).

Shifting from the human to the divine mind, however, the question, and the very sense, of abstract concepts does somewhat change its meaning, since, as it has been correctly pointed out, the reality *ante rem* (i.e. *ante rem creatam*) of such concepts come from the fact that they are the object of divine understanding. From the point of view of God's understanding, however, the notion of 'abstraction' (as 'making abstraction from' empirical objects) makes no sense at all, since God's knowledge is an entirely *a priori* one.⁵⁵ In addition to that, divine knowledge is not only an entirely *a priori* one, but it is also intuitive (i.e. non-discursive). As Leibniz himself notes, indeed, "God, from the experience of his own intellect alone [*ex solis sui intellectus experimentis*] and without any perception of anything else, judges about the possibility of things".⁵⁶

8.3.2 Back to Suárez: universals as objective concepts

In order to understand Leibniz's point and establish in which sense –and to what an extent –he is overcoming a nominalist point of view, we have to add some preliminary remarks to locate Leibniz's brief observations in the *New Essays* in their correct historical context.⁵⁷

It will be very useful, at this point, to compare Leibniz's remarks on resemblance as a *reality* with Suárez's discussion of the problem of universal unity in his *DM VI*, where the Jesuit theologian aims at defending a conceptualist claim about universals against realism (in particular: Scotus' theory of formal distinction), and, at the same time, he tries to distance himself from extreme nominalism.⁵⁸

First of all, let me point out that Suárez himself hints at the question of distinguishing between the problem of universals in human minds (which he take to be the problem of universal in the proper sense) and the problem of ideas in the mind of God, because he needs to detach the latter from the former. When rejecting as completely absurd the Platonic thesis of universals as separate and autonomous entities, indeed, Suárez shows that it is possible to re-interpret Plato's original claim (following Augustine on this point) by talking of ideas in

⁵⁵ Cf. Mondadori, *Nominalism*, p. 176. The problematic point, however, is that "they can be ascribed, and were ascribed by Leibniz, a reality *ante rem* [...]. Like complete individual concepts, i.e. "individual essences", "specific concepts" clearly belong in the realm of the possible [...] Further, their reality *ante rem* comes precisely –and entirely –of the fact that each of them is an object in and of the divine understanding [...]".

 $^{^{56}}$ GI, # 70, A VI 4, 762/LP 65 (translation modified). Here 'perception' has to be understood in a restricted sense, i.e. as sense perception which necessarily requires the presence of an independent object (external to the perceiving subject) to be activated. Thus characterized, perception is incompatible with the absolute spontaneity of divine mind. Cf. also *De synthesi et analysi universali*, 1683-85 (?), A VI 4, 543: "omnia intelliguntur a Deo a priori et per modum aeternae veritatis, quia ipse experimentum non indiget" (from which it follows that 'experience' in the passage above has to be taken in a metaphorical way). At the origin of this idea, there is a tradition which goes back to Augustine's motto: *Deus nihil extra se intuetur*. Cf. *De diversis quaestionibus*, 83, q. 46, quoted in Schmutz, "Un Dieu indifferent", p. 186.

⁵⁷ For an useful introduction to the topic of universals in Second Scholasticism, see E. Caruso, *Pedro Hurtado de Mendoza e la rinascita del nominalismo nella Scolastica del Seicento*, Firenze 1979.

⁵⁸ On the relevance of Suárez's *DM VI* ("On Formal and Universal Unity"), see the remarks in Courtine, *Suárez*,pp. 190-94. For a detailed discussion of Suárez's theory of universals, see D. Heider, *Universals in Second Scholasticism*, Amsterdam/Philadelphia 2014, pp. 23-97. For a synthesis, see also Id., "Suárez on the Metaphysics and Epistemology of Universals", in V. Salas-R. Fastiggi (eds.), *A Companion to Francisco Suárez*, Leiden-Boston 2015, 164-91.He clearly shows that Suárez rejects the ultra-nominalist view that universality is just a matter of linguistic or conventional terms and nominal distinctions.

the divine mind. As he immediately adds, however, "ideas as they are in the mind of God contribute nothing to that [the problem of universal ideas as they are conceived by us], since we neither conceive nor define them; and if, *per impossible*, there were no such ideas, universals could be conceived and defined by us in the same way".⁵⁹

Concerning the problem of universals in the strict sense, Suárez's attitude towards nominalism can be regarded as a partially conciliatory one. On the one hand, indeed, he says that nominalists do not prohibit to hold the opinion he regards as true, i.e. that "the natures which are denominated universals should be in singulars and that the singulars themselves should have among themselves something in which they agree or are alike and something in which they differ or are distinguished". On the other hand, however, against the claim that demonstrative knowledge (*scientia*) pertains only to names and concepts in our minds (formal concepts), he maintains that the *Nominales* "falsely denies that demonstrations and definitions are given about things, since sciences are not concerned with names or our formal concepts, but directly with things or objective concepts [*scientiae non sunt de nominibus, et conceptibus formalibus nostris, sed directe de rebus seu conceptibus objectives*]".⁶⁰

What has to be highlighted here is the apparent nonchalance showed by Suárez in this identification of things (and the direct knowledge thereof) with knowledge of *objective concepts*, which seems to anticipate a similar tendency to weaken the distinction between concepts (especially complete concepts) and objects in Leibniz's thought. This, however, is just the direct consequence of Suárez's understanding of reality in an 'essential' rather than 'existential' sense.

Thus, trying to find a sort of middle-way between nominalism and realism, Suárez can conclude that knowledge is directed toward universals and not toward singular things, because the former are not names, but, rather, 'objective concepts', which, even though cannot be distinguished from singular things *in re ipsa*, are nonetheless distinguished from them by a distinction of reason with *fundamentum in re*:

"[...] it is answered that all those attributes [universal ones] express in some way a relation to the intellect; they are grounded in the things themselves, not insofar as the nature has any universality in the things, but insofar as there is in the individuals themselves agreement and similarity in essence and its properties and in the intrinsic connection which essence and properties have among themselves, by reason of which those common objective concepts are abstracted from which the universal predications of necessary and perpetual truth (insofar as they are abstracted from time) are made. And in this way science is said to be of universals and not of singulars [...] because it is concerned with common objective concepts, which, although in reality itself not distinguished from the individuals, are nevertheless distinguished by reason[...]".⁶¹

This solution, including reference to a conceptual distinction with a *fundamentum in re*, is nothing but a generalization of the solution Suárez has provided to the problem of the

⁵⁹ Suárez, DM VI, ii, 3/Ross 41. This *per impossibile* hypothesis makes the pair with the other one proposed by Suárez, i.e. that whereby possibles would still remain possible even though God did not exist. The question of ideas in God is connected by Suárez with the problem of universals "in causing" (i.e. the idea of God as the exemplar cause of things), to be carefully distinguished from that of "universal in being" or "universal in predication". The topic of exemplars in divine mind will be discussed by him in DM XXV (see the Appendix to this Chapter below).

⁶⁰ *Ibid.*, ii, 1/Ross 39-40.

⁶¹ *Ibid.*, v, 3/Ross 72-73.

distinction between the common nature and the individual unity in his discussion of the problem of individuation (I have discussed it in Chapter 1 above).

Therefore, Suárez's acceptance of a form of 'conceptualism' about universals in order to contrast the consequence of extreme nominalism might be regarded, in some sense, as a sort of anticipation of Leibniz's rediscovery of the 'reality' of essences in order to contrast Hobbesian (as well as Lockean) conventionalism. The very same terminology of *conceptus objectivi* will be sometimes employed by Leibniz himself, in order to stress, once again, the distinction between terms which stand for a thing and terms which stand for "concepts or notions, or (as some says) objective concepts"⁶²; even though, most of the times, Leibniz prefers to call them *formalitates*, although denying them any realistic connotation (as it was in the Scotist tradition).⁶³

8.3.3. Priority of the singular (possible or actual)

Another interesting aspect of Suárez's account, which has to be compared with the views put forth by Leibniz, concerns the fact that, while universal concepts are the product of an act of the understanding, what it requires at the level of things is just the holding of similarity between numerically different individuals.

As far as the problem of the so-called *formal unity* is concerned, Suárez is quite clear in pointing out that the formal nature can never be a general or universal one, but has to be placed at the level of individual essence only: "we have shown that any individual nature [individual essence] is in itself formally one by a proper and intrinsic formal unity distinct from that which is in another similar nature [...]".⁶⁴ In other words, to have "a distinct essence or formal unity only implies an entitative and real distinction, in the way in which, just as Peter has a distinct humanity from Paul, he has also a distinct essence and distinct formal unity although they are similar in these things".⁶⁵

This means that specific essential properties are to be regarded as abstract from individually essential ones, i.e. essential qualities or general features are not, properly speaking, something which is the same in many individuals, since at the individual level we have just something like the humanity of Peter or the humanity of Paul. Generality is obtained only through a comparison between particulars and is grounded on the similarity between them.

What is particularly interesting, however, is that this point, i.e. the priority of the individual, holds not only from the point of what is actual, but from the point of what is purely possible as well. Suárez is extremely clear on this point when he replies to the 'realist' objections put forth by Fonseca and others. Both the objectors and Suárez agree that an actually existing nature (or essence) is not distinguished from the individual *ex natura rei*, but, at this point, the objection is raised that a distinction between the common nature and the individual can occur

⁶² Inquirenda logico-metaphysica, 1689/90 (?), A VI 4, 999.

⁶³ On Leibniz's understanding of *formalitas*, see Nuchelmans, *Judgment and Proposition*, pp. 223-26. On the thing/terms polarity, cf. also M. Mugnai, "Alia est rerum alia est terminorum division. About an Unpublished Manuscript of Leibniz", in Lamarra-Palaia, *Unità e molteplicità nel pensiero filosofico e scientifico di Leibniz*, pp. 257-69; S. Di Bella, "Multum interest inter terminos et res. On Leibniz's Theory of Distinctions", in Carrara, Nunziante, Tomasi, *Individuals, Minds, and Bodies. Themes from Leibniz*, pp. 15-48.

⁶⁴*Ibid.*, ii, 10/Ross 45.

⁶⁵ *Ibid*, I, 14/Ross 37.

when they are taken as possible. Suárez, however, strongly rejects this claim, stating that "the common nature taken as possible or according to the being of its essence, is not distinguished *ex natura rei* from the individuals taken also as possible beings". Since, as he explains, "the relation of possible things among themselves is the same as that of existents among themselves because other things than what are possible do not exist or come into being" (or, as Leibniz will say to Arnauld, whatever is contained in the nature of an actual thing is already contained in it as merely possible).

In other words, the passage from possibility to actuality does change nothing as far as the nature of things is concerned (after all, as I have already showed in Chapter 1 above, Suárez is clearly committed to the view that things are made individual at the level of mere possibility).

Therefore, the case of relation between the possible and the actual can be applied to the case of general notions as well:

"Nor does possible humanity have an essence different from what it has when it exists; therefore, if humanity as such, when it actually exists, is not distinguished *ex natura rei* from this or that humanity, neither is humanity as possible distinguished *ex natura rei* from this or that possible humanity. Moreover, if we speak correctly, humanity is not possible except insofar as individual humanity exists. The inference is indeed proved by the same reason and relation since there is no humanity possible in reality and apart from the understanding other than this or that humanity [...]".⁶⁶

As this passage makes clear, even at the level of purely possible things (i.e. at the level of the being of essences) there are, properly speaking, only individuals, whereas, on the other hand, general notions are obtained always through abstraction ("there is no humanity possible in reality and apart from the understanding than this or that humanity", be it actual or merely possible).

As we will see in a moment (when analysing the discussion with Wagner and other texts), this very same perspective will clearly be adopted by Leibniz himself. At the same time, since, as we have read above, Suárez himself has sharply distinguished (and separated) the question of universals (in being or in predication) from that of ideas in the mind of God, our original question concerning the primacy of the individuals over general essences (and eternal truths) or vice versa cannot be considered as resolved yet (especially since Leibniz will ultimately equate essences and possibles with ideas in the minds of God).

8.4. Divine Ideas/1.

The Reality of Essences in Leibniz's Discussion with Wagner

8.4.1 The 'reality' of concepts and truths. From Suárez to Leibniz

The reality of universal notions, which for Suárez has to be grounded in his doctrine of the *real essence*, is substantially accepted by Leibniz and explicitly reformulated by him in terms of the reality of what is merely possible. At the same time, Leibniz's understanding of the

⁶⁶ Ibid., iii, 7/Ross 55.

notion of truth in terms of conceptual containment (which, however, always requires a ground *a parte rei*) makes full sense only if it is understood within this peculiar philosophical framework.

Even for Suárez, after all, truth involves a sort of concomitance or correspondence between knowledge and the object, i.e. it is explicitly stated as conformity of the former to the latter; but it does not require that this object be an actually existent one (*objectum actu existens*), for "we do not say that the real existence of the object is included in the concept of truth, but only that the object is in that condition in which it is represented and judged by our cognition, or, that it possesses that being [*esse*] which corresponds with the way in which it is known". He also specifies that this kind of being "is not always that of existence, but that which is sufficient for the truth of the statement [*sed quale sufficit ad veritatem enuntiationis*]".⁶⁷

Let me stress that reference to the kind of being which is sufficient for the truth of a statement corresponds to Suárez's essential (and non-temporal) reading of the copula in his DM 31.⁶⁸ A clear echo of Suárez's double reading of the copula, indeed, is present in Leibniz's final version of his account of the reality of essences in God's understanding as presented in the *New Essays*.

There, after having once again stated the conditional nature of eternal truths, he proceeds to explain the ground of the conditional in terms of connection between ideas:

"The Scholastics hotly debated the question *de constantia subjecti*: How can a proposition about a subject have a real truth if the subject does not [1] The answer is that its truth is a merely conditional one saying that if the subject ever does exist it will be found to be thus and so. But then the question arises: What is the basis for this connection? For it must have a basis, since the conditional proposition contains a reality that does not mislead. [2] The reply to this second question is that the connection is based on the linking together of ideas. Final question: Where would these ideas be if there were no mind? What would then become of the real foundation of this ? [...] This question brings us at last to [3] the ultimate foundation of truth, namely to God, the supreme and universal mind who cannot fail to exist and whose understanding is indeed the domain of eternal truths".⁶⁹

In this passage Leibniz treats two distinct (but interrelated) questions: the answers (1) and (2), indeed, concern the problem of the basis or the ground of truth; the last one (3), on the contrary, concerns the reality of truths ('eternal truths' are explicitly mentioned here; if this strategy can be extended to contingent truths is another question).⁷⁰ As I have said, Leibniz's strategy in (1) and (2) faithfully follows Suárez's two-steps solution to the problem of eternal truths I have already discussed in Chapter 2.5 above. With respect to what I have already said there, I shall add just a couple of remarks.

⁶⁷ Suárez, DM VIII, ii, 16.

⁶⁸ Cf. DM XXXI, ii, 8: "But for the knowledge to be true by which God knows from eternity that man is a rational animal, it was not necessary for the essence of man to have some real being in act from eternity, because that being does not signify an actual and real being but only the intrinsic connection between such extremes. [...] This being pertains to that third way in which being is sometimes said to signify the truth in a composition [quod esse pertinet ad illum tertium modum quo dicitur esse significare interdum veritatem compositionis]" (Wells 62). Reference is to the so-called interpretation de tertio adjacente of the copula. Cf. Rauzy, La doctrine leibnizienne de la verité, p. 81. See also what I say on the distinction between secundum and tertium adjacens in the following Chapter.

⁶⁹ New Essays, IV, xi, 13, A VI 6, 447, numbers added.

⁷⁰ Cf. Mugnai, "Leibniz's Nominalism", p. 157, for the distinction between the problem of the basis and that of the reality of truth.

First, both Suárez and Leibniz originally stress that the categorical proposition (like "All men are animal") has to be interpreted in a conditional way, i.e. as if the existence of something from which something else follows is presupposed. At the same time, however they hold the apparently opposite view as well, i.e. that the hypothetical proposition may be reduced to a categorical one, via the connection or the linking together of ideas, i.e. by re-interpreting it in an intensional way, which, in turn, presupposes an essential (and not existential) reading of it, i.e. one in which the subject-term do not range over a domain of actual beings, but of possible entities as well.

For Suárez, however, the passage from the extensional to the intensional reading is demanded by the fact that the conditional analysis is incapable of providing an explanation of the necessity of the connection between subject- and predicate-term. Notice that this point is closely related to the exigency of distinguishing between real beings and fictional ones, since also the latter (like chimeras) seem to pass the test of conditionalization.

The interesting point is that, at this point, Suárez strongly rejects the possibility of grounding the necessity of the connection between ideas or concepts in the divine exemplar, i.e. by resorting to their existence in the intellect of God, because, as he says, "this necessity arises from the object itself and not from the divine exemplar". This is why he ultimately resort to stating that "this connection is nothing else than the identity of the terms which are in essential and affirmative propositions".⁷¹

Only apparently does this conclusion contrast with what Leibniz says in (3), since what Leibniz grounds in the necessary existence of God (and in God's understanding) is not the necessity (or the logical status) of eternal truths, but only their ontological status, i.e. their reality.⁷² Concerning the question whether the primacy goes to the categorical over the hypothetical reading of propositions, or the other way round, as I will show in the next chapter, Leibniz's position seems to be not entirely clear (even though he will ultimately state the equivalence between the two readings, concluding that one can always pass from the hypothetical to the categorical form, and vice versa).

Finally, let me point out that Suárez maintains that "every truth of an affirmative proposition is founded on some identity or unity of the terms which, though conceived of by us in a complex way, and by way of joining a predicate with a subject [i.e. in a propositional way], is still in reality nothing but the very entity of the thing [*ipsammet rei entitatem*]".⁷³ In some sense, one might see in this passage a sort of anticipation of Leibniz's famous equivalence between propositions and concepts, stated in terms of the possibility of passing from a proposition *de tertio adjacente* (like "Man is an animal") to the corresponding formulation *de secundo adjacente* ("Man animal is"), which should be read, according to Leibniz's explicit remarks, as "Man animal is an entity", i.e. a possible thing. All these points will be expanded and discussed in the next chapter.

⁷¹ Suárez, DM XXXI, xii, 46/Wells 205-6.

⁷² This appears from what Leibniz says about the problem of contingent futures: Peter will not deny because God foreknows that he will deny (i.e. because Peter's notion is contained in God's understanding), but, rather, God foreknows that (i.e. the notion of Peter-the-denier is contained in his understanding) because the act of denying is contained in the essence of Peter. Cf. A VI 4, 1597.

⁷³ *Ibid.*, xii, 46/Wells 206. Cf. *Ibid.*, ii, 8: "[...] this identity [between 'man' and 'animal'] God knows most simply; we, however, by the composition which the word *is* signifies when we say that man, from eternity, is a rational animal" (Wells 62).

8.4.2 Leibniz on universals and ideas in God. A preliminary problem

Now, however, I want to focus expressly on Leibniz solution to the third question above, i.e. the foundation of the reality of truths in the mind of God, insofar as the latter can shed some light on the question of the foundation of abstract entities *ante rem* (if there are any of them).

Unfortunately, Leibniz seems not have paid too much attention to this point, at least as far as his texts are concerned. As one scholar has rightly pointed out, indeed, he "rarely addressed the problem of universals as such, and when he did, he thought it sufficient simply to say that 'universals' are founded on similarity" (reference goes to the passage from the *New Essays* I have mentioned above). At the same time, he also "said that essences are abstract (incomplete) concepts, which are in the first instance possessed by God".⁷⁴ How to conciliate these two views, however, is far from clear (without ascribing to God a sort of discursive knowledge, which no one could accept).

The question becomes more complex if one thinks that Leibniz is committed to a sort of combinatorial account of possible worlds, i.e. to the idea that possible individuals and possible worlds are the result of a sort of infinite combinatory in the mind of God. In this case, however, individual concepts should be regarded as made out of more general concepts. After all, if one accepts the idea that possible worlds (which cannot share the same individuals) must share the same general concepts, this seems to imply a sort of natural priority of the latter over the former.⁷⁵

⁷⁴ Bolton, "Universal, essences, and abstract entities", p. 189 and 199. Concerning the last point, one can refer to the discussion with Arnauld, GP II, 48-49, where, however, Leibniz only says that "full and comprehensive notions", i.e. complete concepts of individuals, "are represented in the divine understanding as they are in themselves" (p. 49), leaving undecided whether the divine understanding contains also general and abstract notions over and above the individual ones or not. His remarks at GP II 19, where he explains that God cannot choice a "vague Adam" but only "such an Adam whose perfect representation is found among the possible beings in God's ideas", might be a clue to the conclusion that divine ideas are, properly speaking, only ideas of individual concepts.

⁷⁵ In his seminal account of Lebnizian possible worlds, Benson Mates notes that there is an asymmetry between the ways in which individuals and attribute of individuals (i.e. general concepts) are treated as far as the question of trans-world identity is concerned: "According to Leibniz it is not possible that a given individual should have had attributes other than the ones he does have. But it is possible that a given attribute should have characterized individuals other than the ones it does characterize. Thus, although no individual concept is part of two possible worlds, the attributes that constitute concepts are the same from one world to another" (B. Mates, "Leibniz on Possible Worlds", in Frankfurt, Leibniz, p. 343). However, if we stick at what Leibniz says about general concepts, we should say that, properly speaking, the attributes that constitute (complete) concepts are not the same, but only extremely similar ones, since an attribute can be regarded as general only insofar as it is abstracted from the many numerically different singular attributes of every individual. Mates seems to take Leibniz as claiming that "an attribute may characterize an individual or belong to his concept without itself having the (an) attribute of characterizing that individual or belonging to his concept" (Ivi), but this, properly speaking, holds only when the attribute at stake is an abstract one, like the abstraction 'manhood'; on the contrary, from the ontological point of view, one should say that the attribute 'manhood', insofar as it is the 'manhood-of-Adam' (numerically different from the 'manhood of Socrates' and so on) has to be involved in the individual concept of Adam (this seems to be implied by the idea of the universal connection of all things). Of course, as Mates himself remarks, this seems to imply a problem for Leibniz's account of counterfactuals (for, then, manhood would not be properly the same in any possible world to which the concept of Adam does not belong). The problem is connected also with the question of how to understand the time indexing of all the attributes which are contained into a complete individual concept. As Mates acknowledges in another place, indeed, if we suppose that reference to specific time is always eliminable in terms of reference to simple attributes of individuals, then it seems to be impossible for the concepts of individuals in different worlds to have

8.4.3 Leibniz against Gabriel Wagner (1698)

Some further elucidations on this point, however, are to be found in the context of Leibniz's discussion with Gabriel Wagner, which took place in March 1698. This discussion is interesting, among many other things, because Wagner expresses a full-fledged nominalist view, together with a strong physicalist and materialist position, against which Leibniz forcefully reacted.⁷⁶

In particular, it is interesting to show that, to contrast Wagner's physicalism, Leibniz is lead to emphasize the Platonic strand of his philosophy. For instance, Wagner objects to him that "[t]he existence of the world is prior to our concepts; therefore, the latter follow from the former, not the contrary", where it is clear that, with 'concepts', Wagner is referring to concepts in our minds. Against this objection, Leibniz replies that "the very same possibility of them [our concepts] is prior to it [the existence of the world] by nature or reason, because it is the reason or the origin of the world".

In other words, he states that "the possibility of both our concepts and the very same things is originally or naturally prior to the existence of the world", because essences (possibilities) are naturally prior to existence, and existences (or "physical truths" or "temporal" ones) follow from "the laws of essence, i.e. metaphysical or geometrical truths", i.e. eternal truths. (About the way in which temporal truths concerning existences follow from metaphysical or geometrical truths (*leges essentiae*), however, Leibniz does not say anything more specific). Therefore, "[e]ven though our concepts [i.e. concepts in our mind] are posterior to the existence of things, nonetheless the objects of our concepts or the possibility of things [are prior to them]".⁷⁷

One of Wagner's objections is directed against the notion of 'metaphysical possibility', which he took as synonym of a merely mental possibility, and, thus, one which nothing real corresponds to.

Wagner's objection runs as follows:

"Things and the possibility of things are simultaneous, since things are eternal, and there can be nothing having a genuine possibility before what is eternal. However, the possibility of our concepts is by far posterior to them [things], because it depends on things by itself and metaphysically; for our concepts are modelled on things from which they flow, or, at least, must be modelled on them. The connection between concepts arises from the connection between things which are perceived. [...] Metaphysical possibility, except that which posits something physical, is a bare fiction, which can exist only in the concept, not in act or in reality. [...]

any attribute in common. Among other things, this is just a confirmation that the idea of a complete concept as a set of attributes is just an oversimplification: "a Leibnizian individual concept should not be thought of as a set of attributes, but as a more complex structure involving time or some other relation as a parameter" (Id., "Individuals and Modality in the Philosophy of Leibniz", *Studia Leibnitiana*, 4/2, 1972, 81-118, p. 109). The point to stress here is that general concepts *qua* general just make abstraction from this more complex structure (since they make abstraction from time). Cf. what Leibniz says about the 'wisdom-of-Seneca' (which implies a relation to all the other determinations of Seneca) and the abstract form 'wisdom', in *De abstracto et concreto*, A VI 4, 991.

⁷⁶ On the correspondence between Leibniz and Wagner, one can see Gerhardt's remarks in GP VII, 512-14. On Wagner's radical views, see J. I. Israel, *Englightment Contested. Philosophy, Modernity, and the Emancipation of Man 1670-1752*, Oxford 2006, 173-75.

⁷⁷ Discussion avec Gabriel Wagner, March 1698, Grua 390. The same point of view had been already expressed by Leibniz in *De rerum originatione radicali*, dated November 23, 1697, GP VII 302-8, see esp. p. 303.

Essence is not prior to existence, nor is the essence of something the origin of its own existence, but is a concept of already existing things, and, therefore, is posterior or, at least, simultaneous to existent things, and both of them are eternal".⁷⁸

In his marginal remarks, Leibniz notes that things are not eternal (thus restating the creationist point of view), but the possibilities of them are eternal, at least if we understand their metaphysical possibilities (which might be plausibly taken as a reference to complete concepts *qua* standing for individual essences). He also notes that the possibility of concepts has to be taken in an objective sense, as in the case of numbers. And, against Wagner's claim that the connection of concepts arises from the connection of perceptorum), Leibniz answers: "The connection of concepts arises from the concepts arises from the connection anong possible objects, i.e. ideas".

The most extensive remark, however, is dedicated to rebut Wagner's claim that concepts are in every case posterior to things. To this, Leibniz replies (in a very Platonic way) that, on the contrary, "mutable things receive their rule of existence from eternal essences [*res mutabiles legem existendi ab essentiis aeternis accipiunt*], as natural phenomena follow geometrical and mechanical laws".

This, he says, is a clue to the conclusion that essences are (naturally) prior to existences:

"For eternal or necessary truths, such as those of metaphysics and geometry, do not arise from the observation of things or from experiments, otherwise they would be proved through induction and not through demonstration; on the contrary, they depend on ideas alone, i.e. on definitions and identical axioms [i.e. identities]. And, nonetheless, existing things follow these laws everywhere. The status of things changes continually, but the laws of change are eternal and depend on an immutable thing".⁷⁹

If I interpret Leibniz correctly, he is putting forth a parallelism between his account of mathematical entities and the correspondence between these and physical phenomena (the latter follow mechanical and mathematical laws) on one hand, and the correspondence between complete individual concepts (interpreted as "laws of change", which, in themselves, are not mutable but eternal) and the corresponding (actual) individual things, which are taken as mutable and undergone to temporal change.⁸⁰ As I will show in a moment (see the next paragraphs), this parallelism is not a perfect one, and it breaks down when he tries to apply this exemplarist model (which he holds in the case of mathematical objects and phenomena)

⁷⁸ Grua 392.

⁷⁹ *Ivi*. The pretence of grounding metaphysical truths on induction had been already contested in the preface to Nizolius, see A VI 2, 431: "Nam si universalia nihil aliud sunt quam singularium collectiones, sequetur, scientiam nullam haberi per demonstrationem [...], sed collectionem singularium, sed inductionem". In particular, Leibniz is thinking of the principles of syllogistic reasoning, as the *dictum de omni et de nullo*, as it is clearly stated in GP VII, 212. At GP VII, 215, moreover, he clearly associates the extensional interpretation of syllogism with an inductive way of validating it (cf. my discussion in Chapter 3 above).

⁸⁰Another possibility, however, is that Leibniz is referring here to God's mind only, as it seems to be in the case of the passage at Grua 397: "Who would ever say that the world is an immutable thing, when its status is perpetually changing into another one? However, between those things which change the laws [of change] remain always the same. Therefore, there is a certain eternal law which is the rule of the universe, which is nothing else than the nature of the perfect or necessary substance...It is true that many things are in the understanding which have not been in sense, and that nothing is in sense which has not already been in the understanding, i.e. in the divine one, or in the ideas".

to the case of individual concepts (which can be said to be exemplars of the corresponding things only in a very inappropriate way).

Now, however, let me stress that in this passage the nomological or normative reading of the complete concept is clearly preponderant with respect to the descriptive one; furthermore, the eternal and immutable character of this 'individual law' is said to depend on an immutable thing (which might be the complete concept itself or, as more probable, God, see below). The contraposition between the nomological and the descriptive function of the complete concepts will correspond (in the passages I will take into account in the following paragraph) to that between the exemplarist and the representative functions of divine ideas (divine ideas taken as rationes of created things vs. divine ideas as representations of individuals).

The most interesting passage, however, is to be found few lines below, when Wagner, attacking again the idea of metaphysical possibility, asserts: "General and abstract things derive from individuals, not the other way around..., and metaphysics is thus posterior to physics [...]". Following the terminology I have adopted in Section I, we could say that Wagner is endorsing here a full-fledged nominalist position: there is nothing over and above individuals (i.e. actual ones), therefore abstract things derivate from individuals through a process of abstraction.

Leibniz's reply is a quite articulate one, and deserves to be quoted at length:

"I acknowledge that abstract, general entities [generalia], and possibles arise from the singular complete and actual things. And, nonetheless, it remains true that actual and complete individual things, i.e. those physically possible, derive from the law of possibilities, i.e. the general, abstract or metaphysicalmathematical ones, or, which is the same, from the eternal truths or ideas. For these abstract things are rooted in the primary actual substance, i.e. God, from which all the other flow according to those laws of ideas. God and the world are completely different. God is a monad, i.e. something indivisible, and not only actual things but also possibilities emanate from him. The world is an aggregate of many substances, and only one series of possible things takes place in it.[...] Ideas or possibilities which exist in God are prior by nature to the world, as the art of the artist is prior to his work. Therefore, possibilities are not abstract by the mind from an already constituted world, but, rather, they are overflowing from the mind in the constitution of the world [non sunt mente abstractae a mundo constituto, sed potius ex mente prorumpentes in mundum constituendum]".⁸¹

As far as actual things are concerned, Leibniz shares Wagner's nominalist or particularist claim: the only actually existing things are individuals (i.e. complete beings), and both abstract entities (general, incomplete, etc.) and possibilities are obtained by abstraction from the individual ones. In a sense, this point has already been envisaged in the correspondence with Arnauld, where Leibniz seems to subscribe the latter's view that "we never conceive of any merely possible thing but from the idea of one of them (or from the ideas contained in one of them) which God has created", i.e. possibles are grounded on actually created things.⁸²

However, when moving from the point of view of the actual world to that, so to say, of God before the creation of the world, Leibniz's opinion is an altogether different one: possibilities are not abstracted from the created world, but, on the contrary flow out from the (divine mind) in the very same process of creating the world.

⁸¹ Grua 396-97. ⁸² GP II, 55.

8.4.4 Priority of the intelligible world: A Platonic model?

A point which is not entirely clear to me is what Leibniz has in mind when he says that complete and actual individual things (i.e. physically possible things)⁸³ are derived from "the laws of possibilities which are general and abstract or metaphysical-mathematical, i.e. from eternal truths or ideas". The ambiguity concerns the scope of eternal truths or ideas (or, which is the same, metaphysical-mathematical laws). If we take ideas as covering also ideas of individuals (i.e. individual concepts), then eternal truths and metaphysical-mathematical laws cannot be restricted to necessary truths only; since, according to Leibniz, both necessary and contingent properties are contained in the concept of an individual.⁸⁴ In this sense, notice, laws of possibilities can be said to be 'general and abstract' in an improper way only, since a complete individual concept is not general and makes abstraction from existence only.⁸⁵

Therefore, it seems more natural to read reference to "laws of possibilities *etc.*" in a more restricted sense, i.e. as referred to general and abstract laws concerning (general) essences, to be contraposed with individual and concrete laws concerning existent things. In this case, however, the point to be clarified is how *abstracta, generalia et possibilitates*, which Leibniz has said to arise from the actual and complete individual, can, at the same time, be that from which *individualia actualia et completa* are said to metaphysically depend. Some circularity seems to be at work here. A possible solution (which can be extrapolated from what Leibniz says in the whole passage) is that the individual from which abstracts are said to be derived and the individual which abstracts are said to ground are *not* one and the same individual.

In other words, Leibniz does not want to maintain that possibilities (as well as abstract entities) are totally independent of any actually existing thing. He wants to maintain, however, that they are independent from (or, better, prior to) actually existing created beings. When saying that they are derived from eternal truths, then, Leibniz means that they are grounded in "the primary actual singular substance", i.e. in God, the one and only necessarily existing being. In this way, the *reality* (the ontological status) of possibilities and abstract entities (interpreted as ideal ones) is prior to the actual world, but not prior to God himself; their very reality, indeed, is grounded in (and dependent on) the actual existence of God's mind, i.e. in their being the object of God's eternal act of thinking them (and, in so doing, of 'realizing' them).⁸⁶

⁸³ Leibniz was well aware of the different varieties of modality, especially as far as the relativization of the 'possible' is concerned. Cf. the following fragment, published in Cout 182: "*Possible intellectuel, polygone de 1000 costés. Possible naturel dont les causes sont dans la nature. Possible selon l'ordre de la nature, ce qui arrive effectivement dans la suite des causes. Possible naturel est celuy dont un semblable a esté fait ».*

⁸⁴ Once again, the idea that an individual concept contains both necessary and contingent properties is not to be understood in terms of truths at possible worlds. From the point of view of the latter, indeed, there is no sense in which what is contained in a complete individual concept can be said to be contingent. Contingency (in the latter sense) finds no place within a complete concept, but it concerns only the possible actualization (or nonactualization) of that concept itself.

⁸⁵ On this different sense of 'abstraction' (as making abstraction from existence), see 8.9 below.

⁸⁶ The latter point will be furtherly explained through reference to Leibniz's doctrine of the tendency of possibles toward existence. The realization that God's thought confers to purely (logically) possibles, indeed, consists in the fact that God confers them a sort of tendency or *conatus* towards existence, from which actual existence follows only secondarily (i.e. only once that the most real or most perfect group of compossible things has been chosen). The tendency toward existence, however, is something that possible things do not have from themselves, and this explains why the combat among possibles has to be interpreted as something occurring only within God's understanding (ultimately, Leibniz will describe it as a sort of conflict between God's antecedent

This seems to be the sense in which, in the last line of the quotation above, Leibniz writes that "possibilities are not abstracted by the mind from an already constituted world, but, rather they are overflowing from the [divine] mind in the constitution of the world". Notice that Leibniz does not ascribe to God any knowledge by abstraction, since possibilities (and the same should hold also in the case of general notions) are not abstracted from the created world, but, in some sense –not very clear, to be honest –they are said to flow with force (*prorumpere*) from the divine mind with and by the same act by means of which the world is constituted.

The Platonic flavour of this solution can be detected from two textual elements.

One is reference to the doctrine of 'emanative causation', according to which both actual and possible things emanate from the essence of God, even though the difference between the two has not to be overlooked: "This series of actualized possibilities, or the world, emanates from God not in a necessary way, otherwise other series would not be possible, but, nevertheless, by a certain and determinate reason, i.e. that of the greater good".⁸⁷

The second is the comparison between God and an artist (or, also, an architect), and, in particular, between the priority of the essence(s) over existence(s) with the priority of the artist's art over his product, the work of art, where the former operates as a sort of *ideal model* for the production of the second. This metaphor, which dates back to Plato's *Timaeus*, has been employed several times by Leibniz.⁸⁸ Moreover, as I will say in a moment, reference to the sphere of art was typical of the theological debates over God as exemplar cause (where ideas as exemplars in God are the way in which Platonic ideas were transposed into Christian theology).

That said, however, it is still not entirely clear in which way Leibniz understands the claim that possibilities as well as general and abstract entities are derived from God's understanding, or, insofar as they are regarded as ideas, they are to be placed within divine understanding.

8.5 Divine Ideas/2.

Exemplars or Representations?

8.5.1 Leibniz's remarks on Twisse (1695)

In one of his remarks on Twisse, he says something more on this relatively obscure point. Leibniz is commenting a passage in which Twisse discusses the Schoolmen' divergent

and consequent will). Notice also that the tendency toward existence is the way in which Leibniz re-interprets the Scholastic idea of *aptitudo ad existendum*, which is what makes the difference between something genuinely possible and a mere fictional entity (both can be thought by God, but only the former can be actualized). ⁸⁷ Grua 396.

⁸⁸ Cf. *Definitiones cogitationesque metaphysicae*, A VI 4, 1395, where, in order to make the principle of perfection ("the world is made by God in the most perfect way") understandable, Leibniz compares God to the wisest architect and the most excellent geometer. Cf. also *Discourse*, # 5, A VI 4, 1536. The parallel with the geometer comes back in the *Specimen inventorum*, A VI 4 1616, note 1, as well as in other texts (like the *Theodicy*).

opinions on the way in which created things are to be regarded as contained in God. For instance, modern Thomists (like Capreolus) maintain that they are not just contained eminently or virtually in God, but that something more is required, i.e. creatures must be formally contained in God's essence (otherwise they could not be contained in God objectively, i.e. as the objects of divine ideas). Another Thomist, Sylvester of Ferrara, explains this point by saying that God is the formal principle of created things. On the other hand, Durandus of Saint-Pourçain endorses the view that things themselves are ideas, at least insofar as they are objectively contained in God.

To this list of opinions, Leibniz adds his own view in a long remark:

"In the divine essence things are [contained] in an eminent way [*eminenter*]. In the understanding they are contained somewhat more widely, but in a representative way [*repraesentative*], for the divine understanding also represents the imperfections or the limitations of things.⁸⁹ Who knows positive things, indeed, also perfectly knows all relations, and, therefore, all limitations; this is what the cognition of created things in God, even of singular ones, consists in. Position or act, and restriction or privation are correlated in beings as metaphysical form and metaphysical matter. And, thus, the matter of things is nothing, i.e. limitation; the form is perfection. It appears from this that everything is in God. That is, a creature originated from whatever perfection which can constitute something complete with the exclusion of another perfection. Complete perfection is that which involves the totality of all things which can exist together [*universum coexistibilium*]".⁹⁰

In the first line Leibniz draws a distinction (a purely conceptual one, of course) between God's essence and his understanding. When considered apart from his understanding (*praecise*, as the Schoolmen would say), the essence of God is composed by a series of attributes which are said to be formally contained in it. These attributes, however, are not the same thing as the ideas of created things. Nonetheless, all things, i.e. all created ones are said to be contained in God's essence in an *eminent* way, rather than in a formal one. The claim that God contains eminently everything, i.e. every reality or perfection that is formally contained in created things is a traditional one in the theological tradition.⁹¹

What is contained eminently in God is explicitly contrasted with what is contained formally in him. Truth to be told, according to Scholastic theologian something could be said to be

⁸⁹ These first lines are marked by Leibniz himself with a *nota bene*.

⁹⁰ Extraits de Twisse, 1695 (?), Grua 355-56.

⁹¹ Insofar as there is some reality or perfection in it, every contingent thing (be it actual or purely possible) is said to be contained eminently in God, which is the most perfect being and the source of all perfections. Cf. Leibniz's statement in PNG, # 9, GP VI, 602/AG 210: "This simple primitive substance [God] must eminently include the perfection contained in the derivative substances which are its effects". The locution eminentia comes from the verb eminere (to surpass) and means that God's perfection surpasses every perfection that can be found into a created thing, and has been employed by theologians in order to isolate the particular sense in which God is the cause of the perfections in all creatures. Cf. Aquinas, Summa theologiae, I, q.4, arg. 2: "whatever perfection is in the effect, it must be found in its effective cause, or according to the same reason, if the agent is univocal (like the man generates another man), or in a most eminent way, if the agent is equivocal, like in the sun there is a similarity with those things which are generated by the sun [...]. Since God is the primary effective cause of things, it must be that all the perfections of things pre-exist in God in the most eminent way". This doctrine is generally accepted by early modern authors, like Descartes (cf. Sixth Meditation, AT VII, 79). Cf. also Spinoza, Cogitata metaphysica, I, 2; note that in the correspondence with Oldenburg, Spinoza will employ the Pauline thesis that everything is in God to defend his view of God as the only existing substance. Cf. Leibniz's discussion of this passage in 1676, A VI 3, 370 and note 25, and, many years later (around 1707), in his commentary of Wachter, see Beeley 8/AG 275-76. For the thesis that everything is eminently contained in God, see also Leibniz to Bayle, 1702, GP III, 72.

contained in something else both *eminenter formaliter* and *eminenter virtualiter*. Eminence has to do with the fact that the perfection of the container (i.e. God) surpasses the perfection of what is contained (i.e. the creature); to be contained *formaliter* means that something is contained in its proper form and according to its own nature, *virtualiter* when the presence of what is contained in the container is a merely potential one.⁹²

The distinction is intended to state that while God's attributes or his perfections are contained in him *eminenter formaliter*, the creatures, insofar as their perfection is a limited one, are not contained in God formally but only *eminenter virtualiter*.⁹³ However, Leibniz's terminology is not imprecise, since other theologians preferred to say just that absolute perfections are in God formally, while all the creatures are in God eminently (where 'eminently' is taken as a synonym of 'virtually', as in the passage of Twisse which Leibniz is commenting).

When the divine understanding is taken into account, however, something more (*amplius*) is added to what is contained in divine essence as taken in itself, and this something more is expressed with the adverb *repraentative*, "for the divine understanding represents also the imperfections or the limitations of things". In representing something to himself, indeed, God represents not only his own essence (which is unlimited and absolutely perfect), but also the ideas of finite things, which derive from the essence of God, even though in a limited and imperfect way.

Notice that the relational status of ideas in God is explicitly stated here: God, who knowns everything positive (his own perfections), also knowns all relations, and, therefore all limitations in which the cognition of creatures consists of. The relational aspect of divine ideas taken *repraesentative*, then, is explicitly stated by Leibniz.⁹⁴

The idea is that God's cognition of creatures (be they possible or actual) follows from his cognition of his own essence as limited in infinitely many different ways, by a sort of metaphysical composition of *perfection*, which acts as a form, and *privation*, which acts as matter; whereas, on the other hand, divine essence in itself is without any imperfection at all.⁹⁵ These limitations and imperfections are not formally contained in God's essences (as

⁹² Cf. the passages of Dominicus de Marinis, *Expositio Commentaria In Totam Primam Partem Angelici Doctoris Sancti Thomae*, Lyon 1662, p. 58, quoted in M. R. Antognazza, "The Hypercategorematic Infinite", *The Leibniz Review*, 25, 2015, pp. 5-30.

⁹³ As Antognazza, "The Hypercategorematic Infinite", has shown, these distinctions "provided scholastic philosophy with the tools for dealing with the claim that all things are in God without sliding into pantheism. All things are in God, not in the sense that God is a lion, a stone, and so on, but in the sense that in God are found *eminenter virtualiter* all the positive qualities or 'perfections' of creatures". This topic is widely discussed by Leibniz in the correspondence with Eckhard, see A II 1, 323, 329, 332, 336.

⁹⁴ This is confirmed by a passage from his discussion of Locke's critique of Malebranche' s doctrine of ideas: "When the Father [Malebranche] says that ideas are representative entities [*des estres representatifs*], Locke is entitled [...] to ask if these beings are substances, modes or relations. I believe that one may say that they are just relations that result from the attributes of God" (A VI 6, 556= GP VI 576). Cf. also

⁹⁵ On the identification of matter with privation, see Antognazza, "Primary Matter, Primitive Passive Power, and Creaturely Limitation in Leibniz", *Studia Leibnitiana*, 46, 2, 2014, pp. 167-86. The identification of metaphysical matter with privation and *nihil privativum* (cf. Grua 356: "et ita materia rerum est nihilum") is at the basis of Leibniz's analogy between his dyadic arithmetic (where every number can be expressed by employing only 1 and 0) and the creation of all things from nothing, which is pervasive in Leibniz's writings of this period (end of 1690's). The most extensive text that dwells on this topic is the *Dialogue with Dobrzensky* on the freedom of man and the origin of evil (January 25, 1695), published in Grua 361-69. The Platonic/Augustinian root of this interpretation of evil as privation is explicitly acknowledged by Leibniz at Grua 364. On the analogy between God/nothing and 1/0, see Leibniz to Morell, 1698, Grua 126; but the idea dates back to 1679, cf. *De organo sive de arte magna cogitandi*, A VI 4, 158: "Fieri potest, ut non nisi unicum sit quod

taken in itself), but are nonetheless contained in his understanding, since they are represented by it.

This account is clearly based on Leibniz's idea of an original limitation of creatures at the level of bare possibility (which I have already hinted at in Chapter 7 above). As I have already said, this is the aspect of his theory on which Leibniz relies most heavily on the tradition of Christian (Neo) Platonism.⁹⁶ In this sense, it is particularly striking Leibniz's claim that, since God knows everything positive (in himself), he is also able to know everything which derives from this primary perfection by way of limitation or privation (which also recalls the primacy of the infinite, in a positive sense, over the finite).⁹⁷

A point on which Leibniz seems to depart from the Neoplatonic tradition, however, is the fact that he does not accept the latter's idea of many degrees of existence (i.e. actual existence), being always committed to the idea that existence is univocal and that whatever is actual exists absolutely and not in degrees. Therefore, the idea of degrees of being is shifted from the level of actuality to that of pure possibility (at the level of possible worlds, if you prefer).

8.5.2 Representationalism versus Exemplarism: The Scholastic debate

Of course, Leibniz is commenting Twisse's treatise on middle knowledge and, therefore, he is led to look at the topic from the point of view of the Scholastic and late Scholastic debates. In particular, reference to all things' being contained *eminenter* in God's essence might lead us to think that Leibniz was sticking at Aquinas' exemplarism, according to which God's knows the essences of things *in seipso* and not *in seipsis*. Things, however, are much more complicated, since Aquinas' original stance had been almost entirely overturned by modern Schoolmen, who, on the contrary, made a place for God's knowledge of creatures in themselves and not only in himself. I have already discussed this point in Chapter 2 above; some further discussion is required here, however, in order to understand Leibniz's emphasis on the *representative* character of ideas in the understanding of God.

If I am not mistaken, indeed, on this point Leibniz sides with modern Schoolmen (like Suárez) more than with Aquinas, even though on certain points his positions are somewhat original.

When discussing Aquinas' dismissive way of talking of essences before creation, I have recalled how the essences of things were regarded as the result of God's act of reflection on himself, i.e. on his own perfections. After Aquinas, Henry of Ghent maintained that the primary object of God's knowledge is himself *sub ratione essentiae*, and, that, furthermore,

per se concipitur, nimirum Deus ipse, et praeterea nihilum seu privation, quod admirabili similitudine declarabo". Leibniz's texts on binary arithmetic are presented and discussed in *Die Hauptschriften zur Dyadik von G. W. Leibniz. Ein Beitrag zur Geschichte des binären Zahlsystems*, hrsg. von H. Zacher, Frankfurt a. M. 1973.

⁹⁶ For a remarkable synthesis on those Neoplatonic elements which are contained in Leibniz's philosophy, see M. R. Antognazza, "God, Creatures, and Neoplatonism in Leibniz", in *Vorträge des X. Internationalen Leibniz-Kongresses*, vol. III, pp. 351-64.

⁹⁷ On this point, see also R. M. Adams, "The Priority of the Perfect in the Philosophical Theology of the Continental Rationalists", in M. Ayers (ed.), *Rationalism, Platonism and God*, Oxford 2007, pp. 91-116.

he also knows his own essence *sub ratione imitabilitatis*, i.e. as something which can be imitated in infinitely many ways (or 'respects') by the essences of singular things. Leibniz's account of divine ideas as relations, especially as the topic of the essential limitation of creatures is concerned, seems to be reminiscent of these old Scholastic views. However, one should not forget that Henry's views on ideas as exemplars in God were the main target of the critique of nominalists like Ockham, who rejected the very existence of something like divine ideas in favour of the direct knowledge of creatures in themselves.

In late Scholasticism, even those who accepted the idea that divine knowledge is referred to the ideas of creatures (and not to creatures themselves), were committed to the view that God's knowledge has to be understood as knowledge of essences having some kind of being in themselves (following the idea that the relation of imitability could not work if things which are said to imitate divine essence are nothing in themselves). The latter view, together with the nominalist tradition (strongly present in Suárez himself), is at the origin of Leibniz's theory of complete concepts (as standing for individual essences).⁹⁸

The contrast between Aquinas' point of view and that of modern Schoolmen can be understood if one acknowledges that the first is a model based on the idea of *participation*, the second one based on the idea of *representation*. According to Aquinas, indeed, in knowing the essences of finite things in himself, God knows them in their own cause (they participate of God's essence as of their cause), which is God's omnipotence. Before the creation, indeed, there is only God's *creatrix essentia* which can be thought of as participable in infinitely many ways (whereas participation as an actual relationship involves only the causal connection between God's omnipotence and actually existing things). The point defended by Suárez and other late Schoolmen, on the contrary, is based on the view that what God knows are creatures as *possible* in themselves (not in their cause), and, that, therefore, they are *represented* by his own ideas which are placed in the understanding.

On this point, notice, Leibniz clearly sides with the representative view, as he explicitly states in one of his annotations to G. Burnet's treatise on predestination:

"God cannot intuit himself, and relate all things to the manifestation of his perfections, without at the same time having an intuition of the nature of things, which He possesses eminently in His own ideas, and in whose production he manifests his own attributes. Therefore, it must not be said God has an intuition of himself alone *only*".⁹⁹

This passage is meant as a further explanation of a point Leibniz has already raised before, i.e. that "God decrees nothing without having inspected the natures of things", for, as he makes clear, God's actual decree is the cause of things, but the decree (the act of will) is not reason

⁹⁸ On Henry of Ghent, see Mondadori, "Quid sit essentia creaturae", pp. 194-99; On Scotus' position, see Ibid., pp. 199-208. On the nominalist tradition, see M. J. F. Hoenen, *Marsilius of Inghen. Divine Knowledge in Late Medieval Thought*, Leyden-New York-Köln, 1993, *passim*. On the theological roots of Leibniz's doctrine of complete concepts, see W. Hübener, "Notio Completa. Die theologischen Voraussetzungen von Leibniz's Postulat der Unbeweisbarkeit der Existentialsätze und die Idee des Logischen Formalismus" in A. Heinekamp (ed.), *Leibniz.Questions de logique*, Studia Leibnitiana Sonderheft 15, Stuttgart 1988, pp. 107-16.

⁹⁹ "Deum non potest se ipsum intueri, et omnia ad perfectionum suarum manifestationem referre, quin simul intueatur rerum naturas, quas in suis ideis eminenter habet, et in quibus producendis attributa sua manifestat. Itaque dicendum non est, Deum se ipsum *solummodo* hic intueri". Leibniz's annotations on Burnet's *De praedestinatione et gratia*, 1701-06 (?), # 7 (g). Those notes had been only partially printed in Grua 453-73, for the complete text and translation see DPG, 53 (translation modified)/Lalanne30.

of itself, rather its reasons are located in the nature of what is merely possible (*pro parte ex ideis rerum in divino intellectu spectates*).¹⁰⁰

What is remarkably is that, even if Leibniz says that the natures of things are contained *eminenter* in God (which I take as another way of saying that possible things are just ideas or concepts, and things in formal sense), nonetheless what is primary is not God's intuition of his own essence. In other words, God's knowledge of himself is paired with his knowledge of possibles as they are in themselves.¹⁰¹ What Leibniz seems to say, in other words, is that there is no order of (natural) priority between these two aspects of divine knowledge.

These two aspects of divine knowledge, then, are regarded as inseparable and reciprocally intertwined, as Leibniz says in other annotations to the same text:

"But while God reflects on himself, it is impossible for him not to reflect on the possible ideas of things; and while he directs all things to his glory, he, at the same time, considers the perfections of things, whose production is worthy of his wisdom and power. It is true that the possibilities of things flow from the divine essence because they are eternal truths; and the actual perfections of these things because they come about in time, arise out of the divine will, and are conformed to the rules of highest wisdom. [...] Still, God considers the creatures as possibles in their series before he decrees their creation; and so God is not reduced to a dependence on man, but the divine will is accommodated to the divine intellect, in which the ideas of creatures are found, and, therefore, also the possibilities of things are comprehended".¹⁰²

As the contraposition between the way God *seipsum considerat*, on one hand, and the way in which God *considerat creaturas tanquam possibiles in serie sua*, on the other hand, makes clear, Leibniz is committed to the view that God takes cognizance of possible creatures *in seipsis* rather than *in seipso*. This is another way of saying that he propends for the representative interpretation more than for the exemplarist one.¹⁰³Once again, a comparison between Leibniz and Suárez will be useful to understand the whole question better.

8.5.3 Suárez and Leibniz. Divine ideas and knowledge of individuals

First of all, notice that, as was typical in the Jesuit tradition, Suárez never directly attacks the letter of the Thomist doctrine (the primacy of God's *potentia* over the possibles), even though he clearly endorses the opposite view, i.e. a sort of primacy of the being (possible)-of-the-possible over God's intellection thereof. At the same time, however, Suárez also aims at

¹⁰⁰ *Ibid.*, # 7 (b), DPG 51/Lalanne 27-28.

¹⁰¹ In a passage of his comments on Spinoza (quoted by Wachter), which I have already mentioned, Leibniz maintains that: "Essences can, in some sense, be conceived without God, but existences involve God. [...] The essences of things are coeternal with God, and the very essence of God comprehends all other essences, to the extent that God cannot perfectly be conceived without them" (Beeley 5/AG 273). Whereas the possibility of the essences (i.e. the possibility of the possible, not its ontological status) is independent from God, the very essence God cannot be *perfectly* conceived without them, where 'perfectly' should be taken as referred to the level of God's understanding (as clarified in the passage from the remarks on Twisse quoted above). ¹⁰² *Ibid.*, # 24 (a)-(b). DPG 85/Lalanne 77-78.

¹⁰³ The representative account is stressed in many paragraphs of the *Theodicy*, cf. # 42 and # 84, which are discussed and commented in Mondadori, "Modalities, Representations and Exemplars", p. 183. Mondadori's discussion at pp. 179-83 provides the best account of how divine ideas can be said to represent individual essences and possible things.

defending the letter (if not the spirit) of the old doctrine, by insisting that the contrast between the two is only a nominal one.

God's knowledge of the possible is discussed by Suárez in his DM XXX (as well as in the part of his *De divina substantia* devoted to the topic of *Scientia Dei*). Section 15 of DM XXX, indeed, is devoted to *scientia Dei circa creaturas possibiles*.

After having justified that God knows not only what is actual, but what is possible as well, the Jesuit theologian maintains that "God does not only know or understand those things which can be created according to the being they have in God himself, but also according to that proper and formal being which they can have in themselves.¹⁰⁴

Thus, Suárez concludes that divine knowledge does not terminate only to divine essence alone, but also *ad ipsas res creabiles*, which are not formally contained in God but only in an eminent way. In so doing, God does not cognize creatures other from himself, but only his own essence, "since creatures, as they are in God, are not creatures, but God's creative essence [*ipsa creatrix essentia*]". Notice that the claim that creatures in God are nothing but God's *creatrix essentia* was the main reason why Aquinas rejected the view that God knows creatures in themselves.

Immediately after this concession to the old view, however Suárez adds that that

"[...] since creatures are not to be grounded according to the eminent being they have in God, but according to the formal being they receive in themselves, the cognition of them according to the first kind of being [i.e. divine essence], if it [...] were never to pass to the second one [being of creatures qua creatures], would not contribute at all to their production; therefore, God knows possible creatures in a formal way and in themselves".¹⁰⁵

The *primary object* of divine knowledge is the very same essence of God, the *secondary object* is constituted by possible creatures. What Suárez calls the transition from the eminent way of being of creatures in God's essence to their formal being (as merely possible ones) corresponds, in Leibniz's text above, to the transition from God's absolute essence to the consideration of his understanding, which represents creatures as limited ones to himself.

Also Suárez, note, characterizes God's knowledge of possible creatures in terms of a purely representative knowledge. Against the objection that, in knowing the creatures, which are imperfect with respect to the absolute perfection of divine essence, an imperfection in divine science would follow, Suárez replies that no imperfection at all in divine science follows from the fact that God knows creatures in themselves, for this kind of knowledge "does not posit any dependence of such a science on the creature, but only an eminent and intellectual representation, in which we ground a denomination or a relation of reason, according to which we say that that knowledge is directed to that object".¹⁰⁶

¹⁰⁴ Suárez, DM XXX, xv, 23.

¹⁰⁵ *Ivi*. The view that God knows creatures only *in seipso* is presented by him as an objection in section 24, and rejected in the following sections 25-27. In *De divina substantia*, III, ii, 2, discussing Aquinas' view, Suárez explains that he agrees with that as far as what Aquinas affirms is concerned, but disagrees about what he denies, i.e. knowledge of possibles in themselves). Remember that the Jesuits' *ratio studiorum* prescribed to the authors to be in agreement (as far as possible) with the teaching of Thomas Aquinas, and, when it is necessary to depart from that, to do it in the most reverent way. Cf. Caruso, *Hurtado de Mendoza*, p. 5.

¹⁰⁶ *Ibid*, xv, 26.

What is particularly interesting is also the claim that God knows all creatures, i.e. even the singular ones, or, which is the same, both possible and actual *individuals*. This point is particularly stressed in the discussion of God's knowledge of the possible in *De divina substantia*. There, indeed, not only does Suárez make a claim which will be (almost literally) repeated by Leibniz, i.e. that "in a thing actually existing there is nothing real which had not already been possible [*in re actu existente revera nihil reale est quod non prius fuerit possible*]";¹⁰⁷ he also explicitly defends the claim that God has ideas of all things, including singular ones. The notion of 'divine idea' is equated by Suárez to that of 'exemplar', according to an analogy with art (or craftsmanship), which we have already seen at work in the passage of Leibniz's conversation with Wagner. Therefore, Suárez maintains that "God has ideas of singular things, i.e. Peter, Paul, and all the others"; after that, he posits the question whether in God there are universal rations (genera and species) or not.

Coherently with what we have said about his discussion of universals, Suárez rejects the subsistence of ideas not only of genera but of species as well: given the parallelism between the possible and the actual, indeed, as in the case of actual things there are no species separated from individuals, also in the case of ideas there is no need of posing the ideas of species as well. Furthermore, he says that "God does not have confused concepts of universal objects, but he knows all things in the most distinct way as they are". Although one cannot doubt that, in knowing singulars God does also know their formal unity, i.e. the specific similarity holding among them. It does not follow, however, that in God there are two concepts, one of the singular (say "Peter") and one of the species ("man"), which are only distinct by a rational distinction, since the latter (the concept of species) is known by us only in a confused way (and we cannot ascribe confused knowledge to God).

Therefore, he can conclude that:

[&]quot;Therefore, conceiving singulars as they are, he [God] sees also the similarity between each other in them, which can be either integral and specific, or imperfect and generic, and, in the same way, as he does not produce genera and species (if not in individual things), he also produces them through the ideas of those [individuals]".¹⁰⁸

¹⁰⁷ De divina substantia, III, ii, 19 (Vivès I, 201 b)

¹⁰⁸ De divina substantia, III, v, 11 (Vivès I, 212 b). And in v, 12, he further specifies that there are in God the ideas of singular substances, i.e. of complete entities or supposita. The same account is defended in Fabri, Summula theologica, tract. I, cap. III, 9, p. 25: "Hinc Deus, proprie loquendo, non attingit objecta universalia, quia haec dicunt aliquid confuse; sed omnia singularia simul: scientia Dei non est abstractive, propter eandam rationem". The non-abstractive character of divine knowledge has to be taken in the sense that God does not know per discursum. God's knowledge has to be said abstractive insofar as it makes abstraction from the existence of creatures (see below). The idea that concepts of universals are *confused* has not to be immediately taken in a psychological way, but, rather, has to be connected with the doctrine of 'confused supposition' (suppositio confusa), which was taken as a form of 'personal supposition' (terms have personal supposition when they refer to individuals and not to universals, and when they are used and not mentioned). An universal concept is formed through a particular kind of knowledge, which is called 'confused', and is contrasted with 'distinct' knowledge, i.e. knowledge of the individual thing. Plato, when conceived of as an individual, is distinctly known, but when conceived of as a man (i.e. as similar to many other individuals having his same features) is known confusedly, i.e. a confused knowledge of both Plato and all the other individuals similar to Plato. On this point, the doctrine of confused knowledge is connected with that of 'objective concepts': human understanding cannot grasp the reality of an individual by means of a simple concept, but express it by means of a series of inadequate concepts, since every one of them expresses only an essence or a form (formality) which are present in the individual essence. Objective concepts are formed by the understanding but have a foundation in the formalities which are present in the individual. This complex epistemological account is described in the

Also in the remark on Twisse, quoted above, Leibniz explicitly stated that God knows individual creatures in his understanding. Unfortunately, he does not describe the way in which divine knowledge of individual things can be obtained from the operations of (metaphysical) composition of form and matter, or perfection and privation. He only hints at the fact that a possible creature (an individual) is a perfection which constitutes something complete *cum seclusione alterius perfectionis*; which I take as a reference to compossibility and incompossibility relations. A complete perfection (i.e. that contained in the notion of an individual), concluded Leibniz, is that which involves *universum coexistibilium*, which has to be interpreted as a reference to the idea of a one-to-one correspondence between each individual and its world.

With respect to Suárez, however, Leibniz's position seems to be a more nuanced, or, if you want, a more ambiguous one. In the Appendix attached to this Chapter, indeed, I shall show how Suárez distinguishes between talking of possibles, i.e. of possible creatures, from talking of divine ideas as exemplars. This is just a consequence of his stressing the difference between the representational and the exemplarist account of ideas.

Quite the contrary, in Leibniz's notes to Wagner, quoted above, the exemplarist view was clearly mentioned as it appears from Leibniz's reference to the ideal models followed by the artist ("Ideas or possibilities which exist in God are prior by nature to the world, as the art of the artist is prior to his work"). The parallel with art is a clear mark that what is at stake here is the roles of divine ideas as *exemplars*, not as *representations*, i.e. as models of created things (in a Platonic fashion) not as perfect copies of the actual individual *sub ratione possibilitatis*.

The role of ideas as Platonic models is explicitly employed by Leibniz in his discussion of mathematical concepts (see above), where the normative aspect of the concept prevails on the descriptive one. The same role of ideas as Platonic models is sometimes employed by Leibniz also with reference to ideas of individuals (i.e. complete concepts). In this case, however, reference to them as exemplars is an extremely awkward one, for the complete concept is just the copy of the individual at the level of what is possible, and there is no sense in which he could say that the actual individual is an imperfect copy of its ideal model.¹⁰⁹ This tension (analogous to that between Platonic and nominalistic strands in Leibniz's philosophy) will constitute a sort of leading tread for the discussion in the following paragraphs.

Commentary to Porphyry's *Isagoge* written by the Jesuits at the College of Coimbra, cf. *Commentarii Collegii Conimbricensis S. J., in Universalem Dialecticam Aristotelis Stagiritae*, Lugduni 1610, especially *In Porphirii Isagogen*, q. IV, art II. This text is discussed by Caruso, *Hurtado da Mendoza e la rinascita del nominalismo*, pp. 36-9. On the theory of confused supposition, see also Maierù, *Terminologia logica*, pp. 217-305; Ashworth, *Language and Logic in the Post-Medieval Period*, Chapter IV ("Supposition Theory and Quantification"), especially pp. 207-13.

¹⁰⁹ The view of possibles as exemplars is stressed by Leibniz in many passages, cf. GP VI, 422: "When God acts according to his wisdom, he is guided by the ideas of the possibles which are its objects". Cf. also # 192 of the *Theodicy* (GP VI, 230-1). Cf. Mondadori, "Modalities, Representations, and Exemplars", especially pp. 171-72, where he stresses that this cannot be taken as a standard sense of the notion of exemplar: "For there is no question, in Leibniz's metaphysical system, either of a given exemplar's having more than one copy, or of a copy's possibly having differently exemplified its exemplar, or of a copy's failing to measure up to its exemplar: the copy –a temporally ordered sequence of states –just *is* the temporal development of its own –eternal-exemplar". With respect to Mondadori's reading, I find Leibniz's attempt to conciliate the representative and the exemplarist account of complete concepts (or divine ideas) as a problematic one.

8.5.4 Summary

That said, one might conclude that there is some textual support to the view that, since God has knowledge of both possible and actual individuals (where possible individuals are just complete concepts), then general concepts (genera and species) are known not in themselves, but as contained in the complete concepts of all individuals, i.e. of possible ones (and of actual ones, insofar as they are possible).

In the text of the discussion of Wagner, he clearly acknowledges that "abstract, general things, and possibles arise from the singular complete and actual thing". The primacy of individuals, in this way, would not be in tension with Leibniz's claim that incomplete concepts (as they are in God) are prior to actual individuals; even though, perhaps, they cannot be said prior to possible ones either.¹¹⁰ One could reason in this way: since individuals, taken as possible, are prior to actual particulars, the same could be said, *a fortiori*, also for incomplete concepts (which hold only as ideal beings at the level of what is possible).

8.5.5 *Addendum* : « de la reflexion naissent les Abstractions et le Verités Universelles et necessaires ». Reflexive knowledge in God and in the human minds.

Before moving to Leibniz's reasons for embracing the view that possible individuals (i.e. possible creatures) are nothing but divine ideas (which is not Suárez's view, cf. the Appendix to this Chapter), we must say something about God's reflexive knowledge. Since, even though Leibniz does not say anything about the way in which necessary truths (grounded on general essences) are known by God, he usually says that the understanding knows necessary truths trough *reflection*. For instance, in a text from 1704, he says (*en passant*) that "abstractions and universal and necessary truths arise from reflection".¹¹¹

This point is one on which Leibniz usually insists in his writings of the late period, when he presents his account of the distinction between perception, (animal) sensation, and rational reasoning, where the latter is typical of human beings *and* of all rational minds in general. For instance, in the *Principles of Nature and Grace*, he writes that "*true reasoning* depends on necessary or eternal truths, such as those of logic, numbers, and geometry, which bring about an indubitable connection of ideas and infallible consequences". He also says that "those who know these necessary truths are those that are properly called *rational animals*, and their souls are called *minds*. These souls are capable of performing reflective acts [...]. And that is what makes us capable of the sciences or of demonstrative knowledge".¹¹²

Reflection, for Leibniz, is inseparably connected with the apperception of the *ego*, i.e. with the self-conscious character of our intellective acts. Notice, however, that the apperception of the *ego* cannot be entirely reduced to an act of self-consciousness in the modern, Kantian sense, since Leibniz explicitly states that minds are capable of performing acts of reflection

¹¹⁰ Cf. Bolton, "Universals, essences, and abstract entities", p. 189.

¹¹¹ "[...] de la reflexion naissent les Abstractions et le Verités Universelles et necessaires [...]" (Leibniz to LadyMasham, May 1704, GP III, 339).

¹¹² PNG, 1714, # 5, GP VI 600-01/AG 209. Cf. also the parallel account in the *Monadology*, ## 29-30.

and, *therefore*, "of considering what is called 'I', substance, soul, mind […]", where a more substantial and traditional account of the soul seems to be implied.¹¹³

As it has been suggested, then, "in being conscious of itself, the *ego* is, for Leibniz, necessarily conscious thereby, however obscurely, of being, substance, duration, action, etc., and thus will necessarily acquire the ideas of these and become capable of knowing the eternal truths contained in them".¹¹⁴ In other words, as this scholar suggests, what the *ego* is conscious of, in order to become a mind or a rational soul, is to be a soul or a monad.

Now, what takes place only obscurely in the human understanding, must take place in the most clear and distinct way in the divine understanding as well.¹¹⁵ And remember that, as Leibniz pointed out in his conversation with Wagner, God is the primary monad ("*Deus est Monas seu indivisibile quiddam, nec tantum actualia ex ipso, sed et possibilitates promanant*"). Therefore, even though Leibniz never explicitly says that, he would have the conceptual resource to ascribe a reflexive knowledge of eternal and necessary truths to God as well. And since necessary truths are grounded on essences, one should ascribe to God also a knowledge of essences in the traditional sense: in directly knowing his own essence and the essences of creatures, then, God simultaneously know himself as knowing them¹¹⁶; in this sense, even if ideas in God are only ideas of individuals (possible or actual), God may, so to say, extract knowledge of essences and eternal truths by reflecting on his own essence (the 'primary object' of divine knowledge, according to the Suárezian account).¹¹⁷

¹¹³ On this point, in particular the impossibility of reducing the soul (and its essence) to consciousness, one has to take into account Leibniz's discussion of the difference between real and moral identity in the *New Essays*, II, xxvii, in particular #9, where he distinguishes between the "self" and the "appearance of the self". This point has been correctly emphasized by Jalabert, *La théorie leibnizienne de la substance*, pp. 99-109.

¹¹⁴ Mc Rae, *Leibniz*, p. 97. Reference is to what Leibniz says in NE, I, iii, 3, A VI 6, 101-2. On reflection, see also M. Kulstad, "Consciousness and Reflection in Leibniz", *Southern Journal of Philosophy*, 21, 1983, pp. 39-66, as well as N. Jolley, "Mark Kulstad: Leibniz on Consciousness and Reflection: The Early Years and the Late Years" in the same issue, pp. 67-70. Cf. also Jolley, *The Light of the Soul*, p. 165 and ff., where the connection between eternal truths and innate ideas is discussed in details.

¹¹⁵ The notion of truth, after all, is explicitly understood as univocal in the case of both God and finite creatures, for, as Leibniz points out, although between God's mind and the finite ones there is an infinite difference in extension and perfection, they amount to the same as far as the relation of expression is taken into account. Cf. *New Essays*, IV, v, 1, A VI 6, 397.

¹¹⁶ On this topic, one can usefully consult Y. Belaval, "La reflexion", in Id., *Études leibniziennes*, pp. 122-41, especially p. 128 and ff., where he focuses on Leibniz's account of reflection as *agere in se ipsum*, and this activity is strictly connected not with God's theoretical as much as with his practical knowledge, i.e. with God's creative and conservative action (i.e. the idea of conservation as continuous creation). In particular, he refers to a passage from Leibniz's correspondence with Clarke, cf. Leibniz's second letter, # 5: "The reason why God perceives everything consciously is not his bare presence, but also his operation. It is because he preserves things by an action which continually produces whatever is good and perfect in them" (GP VII, 357/AG 322). Cf. also Leibniz's fourth letter to Clarke,# 30, GP VII 375: "The soul knows things because God has put into it a principle representative of things without. But God knows things because he continually produces them" (AG 330). Belaval remarks that *se sentire*, in the case of God's self-knowledge, is the same as *agere in seipsum*, and involves a reference to God's practical knowledge. On the connection between reflection and practical knowledge, see also the Appendix to this Chapter below.

¹¹⁷ Cf. the untitled text known as "24 theses" (or, according to Couturat, *Résumé de métaphysique*), # 22, GP VII, 291= Cout. 535: "And it may be said that minds are the primary units of the world, and the most proximate images [*simulacra*] of the first being, for they distinctly perceive reasons [and ?] necessary truths, i.e. the reasons which moved the primary being and were intended to give form to the universe [*rationes quae movere Ens primum et universum formare debuerunt*]". Cf. Leibniz's remark to Wagner that possibilities in God are *ex mente prorumpentes in mundum constituendum* (Grua 397). The Platonic flavour of these passages is undeniable; furthermore, the connection between God's mind and the created minds as *simulacra* of the former has to be connected with Leibniz's theory of (continuous) creation as emanation.

Some hints in this direction can be found also in a passage from the *New Essays*, which I have partially quoted above, i.e. the famous *locus* where Leibniz distinguishes the three steps of his solution to the problem of eternal truths: (1) conditional reading, (2) connection between ideas, and (3) ultimate ground of (2) in the divine understanding. Concerning (3), however, the full passage sounds:

"This question brings us at last to the ultimate foundation of truth, namely to God, the supreme and universal mind who cannot fail to exist and whose understanding is indeed the domain of eternal truths, as St. Augustine acknowledged and expressed in a very vivid way. If you are tempted to think that there is no need to bring God's mind into the story, bear in mind that *these necessary truths contain the determining reason and regulating principle of existent things* –the laws of the universe, in short. Thus, *these necessary truths are prior to the existence of contingent things, and, therefore, cannot be in any way grounded on such beings; so they must be grounded on the existence of a necessary substance*. That is where I find the original [*one would tempted to translate* 'the exemplar'] of the ideas and truths that are engraved in our souls. They are engraved there not in form of propositions, but rather as sources which, by being employed in particular circumstances, will give rise to actual assertions".¹¹⁸

The parts I have italicized show a clear similarity with what Leibniz said in his conversation with Wagner, and, therefore, share the Platonist background we have found there. Furthermore, one has to stress the relevant fact that necessary and eternal truths, which we discover in our souls, have their "original" or archetype in God; even though, the main difference is that they are not known by God in a propositional form. A point that shall be developed below (cf. Chapter 9), when I will take into account the distinction between terms and propositions.

Finally, let me stress that the fact that Leibniz explicitly considers God as the archetype or the exemplar of the ideas and truths that are in our souls (and, accordingly, his understanding as the archetype of our understanding as well), might be a clue to the conclusion that the status of essences (individual and/or general ones) was not a particular problem for him. Essences, indeed, are explicitly reduced to divine ideas, and divine ideas are, in turn, treated as exemplars in the Platonic sense (see the passage above): so they are individual ideas *insofar* as they are in God¹¹⁹, and, at the same time, general and abstract *insofar* as they work as the archetype on the basis of which created things are modelled (note that both 'exemplar' and 'model' are rather ambiguous terms, for they stand for something which, in itself, is individual, but works as a sort of general 'blueprint' for many individual things).¹²⁰

¹¹⁸ NE, IV, xi, 13, A VI 6, 447(italics mine).

¹¹⁹ In the Appendix to this Chapter, I will show that for Suárez exemplars must be taken as formal concepts inhering in God, and not as objective concepts. From this point of view, however, Leibniz's talking of possibles might be ambiguous since he does not always distinguish between (a) possibilities as general concepts and (b) possible individuals, and also between (c) possibles as divine exemplars (formal concepts) and (d) possibles as the objects of God's understanding (objective concepts). From what Leibniz says, it is clear that he consider possible individuals (b) as reducible to (d), i.e. to the objects of God's understanding. As always, the question is less clear when one comes to the possibility of general concepts.

¹²⁰ In the *Critique of the Pure Reason*, Kant will explicitly distinguish between the *idea* and the *ideal*, where by the term 'ideal' it is understood the idea not just *in concreto* but *in individuo*: "Humanity in its entire perfection contains not only the extension of those properties belonging essentially to this nature and constituting our concept of it [...], but also everything besides this concept that belongs to the thoroughgoing determination of the idea [...]. What is an idea for us, was to Plato an idea in the divine understanding, an individual object in that understanding's pure intuition, the most perfect thing of each species of possible beings and the original ground of all its copies in appearance"(A 568/B 596, p. 551). The connection between the notion of *ideal* and the of

8.6 The Puzzle of Existence Revisited

Leibniz's identification of possible individuals with divine ideas *tout court* might respond to an actualist worry concerning the eventuality of talking of merely possible objects, i.e. objects that are not grounded on something actually existing. In this sense, ideas are a good candidate, since they require the actual existence of an intellect (the divine one) which contains and contemplate them.

The risk of conflating divine ideas (the models followed by God in the creation of actual things) and individual essences (creatable things) can be weakened, since the very idea of a 'complete concept' seems to reduce the distance between these two levels, because the divine idea of an individual can be said to be a *model* only in a very awkward sense, given that the model ultimately reduces to a perfect copy of the modelled.¹²¹

From the ontological point of view, furthermore, one can solve the question by stating that the complete concept is not, properly speaking, an individual essence, but stands for it, i.e. *represents* something which *would be* an individual essence were it to be realized (this is also in keeping with the claim that there is no real distinction between existence and essence).

The impossibility of distinguishing (at the level of properties or conceptual determinations) between, say, the concept of Adam and the actual Adam is at the basis of Leibniz's formulation of what I have called the 'puzzle of existence'. For instance, in a series of scattered notes on metaphysics probably written at the end of 1677, he wrote: "If essence were the same thing as existence, then it would change nothing in any series. Therefore, since existence is added to essence, it follows that not all the things which have essence have also existence, but that there is a peculiar reason for existence".

8.6.1. The correspondence with Eckhard (1677)

The clearest formulation of this puzzle, however, occurs in the correspondence with Eckhard, which takes place in the middle of 1677. The discussion between the two concerns the reliability of the Cartesian version of the ontological proof, which is questioned by Leibniz and defended by Eckhard. In particular, Leibniz stresses two critical points: (a) the possibility, i.e. the logical consistency of the concept of a most perfect being; (b) the question whether existence can be regarded as a 'perfection' or not. Point (b) focuses on the puzzle of existence, i.e. on the fact that, although it seems that there is an absolute difference between a

exemplar is stressed by Kant in the *Critique of the Power of Judgment*, where the distinction between 'idea' and 'ideal' will be presented as one between a concept of reason and the representation of an individual object as being adequate to the idea. Cf. #17, Ak. 05: 231-36.

¹²¹ In this sense Belaval (*Études leibniziennes*, p. 211) noted that one is well entitled to ask if Leibniz is not just blurring together Plato's world of ideas (God's understanding before creation) and Aristotle's world of individual substances (individual substances or monads).

¹²² Notae plerumque metaphysicae, end of 1677 (?), A VI 4, 1349. The first line seems to question the correctness of the claim that there cannot be any real distinction between essence and existence. This is not a coincidence, for, as I will show in what follows, the puzzle of existence was an argument typically employed by the defenders of real distinction (i.e. the Thomists).

possible thing (with all its perfections or *realitates*) and actual existence, nonetheless existence might be regarded as being a perfection (or a *realitas*), for in every actual thing it seems to be contained something more than in every corresponding possible things; This is exactly the point stressed by Leibniz in his letter to Eckhard of Summer 1677:

"Several of my objections have ended since you have explained that in your usage, perfection is being *[Entitas]* insofar as it is understood to differ from non-being, or, as I should prefer to define it, that *perfection* is the degree or quantity of reality or essence [...]. It is clear, also, that existence is a perfection or increases reality, that is: when A is thought of as *existing*, more reality is thought of than when A is conceived as *possible*".¹²³

After having doubted that existence could be regarded as a perfection (as it happens in the first exchanges with Eckhard), Leibniz seems to accept the point of view of his correspondent, when the term 'perfection' is understood as synonym of 'degree of reality' or 'degree of essence'.¹²⁴

Notice, however, that, from the very beginning, the concept of 'perfection' seems to involve a certain ambiguity. From the linguistic point of view, indeed, it should be pointed out that Latin does not use determinative or indefinite articles, so, when one employs the term *perfectio*, it is not always easy to understand if he has in mind *a* perfection (as when one says, as in the text quoted in the note above, that 'Existence is a certain reality', i.e. one among the perfections a determinate entity possesses) or *the* perfection, i.e., as Leibniz says, the degree or quantity of reality of a determinate essence. This point should be always kept in mind in order to understand the apparent oscillations concerning the claim (stated in the passage above) that "existence is [a] perfection".¹²⁵ I will come back to this point at the end of this paragraph. For the moment, indeed, I want to take into account other passages where the puzzle of existence is discussed by Leibniz.

Unfortunately, it is impossible to say if the following passage, in which the puzzle of existence is clearly stated, has been written before or after the passage to Eckhard quoted above:

"It can be doubted whether existence is a perfection, i.e. a degree of reality, or not; for it can be doubted if existence is among the number of things which can be conceived or which are among the parts of essence; or, on the contrary, if it is just a sort of imaginary concept, such as that of *heat* and *cold*, which are nothing but a denomination of our perception, not of something in the nature of things. However, if we carefully consider that we do conceive something more when we conceive that a thing A exists than when we say that is possible, therefore it seems that it is true that existence is a certain degree of reality; or, at least that it is a certain relation to a degree of reality. However, existence is not a degree of reality, for of every degree of

¹²³ Leibniz to Eckhard, Summer 1677, A II 1, 363 (L 177).

¹²⁴ Cf. also Leibniz's notes to Eckhard's long letter of May 1677, A II 1, 329, esp. nn. 4 ("Existentia est quaedam realitas") and 5 ("Existens plus habet realitatis quam idem non existens"). Interestingly enough, Leibniz also remarks that a distinction (a conceptual one, at least) between existence and perfection has to be posited, because existence is absolute whereas there are degrees of perfection: "[...] dum scilicet Ens vel res est absolutum, perfecti notio est comparativa cum non ente, aut minori ente, quod non enti magis accedit"(A II 1, 330 n. 9). ¹²⁵ Eckhard himself, in his letter to Leibniz of April 19, 1677 (A II 1, 321), concludes in this way: "Existence,

¹²⁵ Eckhard himself, in his letter to Leibniz of April 19, 1677 (A II 1, 321), concludes in this way: "Existence, however, is not only a perfection, but the basis and the foundation of every perfection, so that, when existence is denied, perfection is denied as well". As I have already remarked in Section I (cf. 4.3 below), the sense of this claim is that existence is that without which no perfection at all can be present in a thing. This conclusion, however, cannot be accepted by Leibniz, for he would not subscribe the view that things which do not exist have no perfection at all (they are just less perfect than those which God has chosen to actualize).

reality one can understand possibility as well as existence. Therefore, existence will be the exceedance [excessus] of the degree of reality of a thing upon the degree of reality of the opposite thing, i.e. that which is more perfect than all the other things which are incompatible with each other, it exists; and, conversely, what exists is more perfect than the others. Therefore, it is true that what exists is more perfect than that which does not exist, but it is not true that existence itself is a perfection, for it is just a certain comparison among perfections".¹²⁶

These two texts are clearly connected; the second one, however, is not just longer, but it puts forth a more reasoned account than the one Leibniz has shared with Eckhard. First of all, indeed, it provides a full account of both the horns of the dilemma. According to the first one, (1) existence is a perfection (or, as Leibniz specifies, a component of the essence of a thing), because we do conceive something more in *A* taken as *existing* than in the very same *A* taken as *merely possible*; on the contrary, (2) existence is not a perfection, or a degree of essence, because every degree of essence can be understood as possible as well as existent.

Point (2) is not immediately clear, but can be enlightened by what Leibniz notes elsewhere, i.e. that

"If existence were something other than an exigency of essence, it would follow that it has a certain essence or adds something new to things, concerning which it could be asked in turn whether this essence exists, and why it rather than another".¹²⁷

Assume, for instance, that the essence of A, taken as merely possible, is composed by the concepts B, C, and D. Now, if existence were to be considered as a part of essence, or, equivalently, it added something new to it, let say E, we would obtain that the concept of A existent is composed by B, C, D, and E. Accordingly, however, the concept of A existent would be different from that of A, and, for this reason, one could ask again whether the concept of A existent (i.e. B, C, D, E) exists or not. The possibility of an infinite regress seems to be involved here, as soon as we assume that existence is a conceptual determination of a(ny) thing. But this seems to be absurd; therefore, there are no reasons why the regress should be blocked at a certain point and not right from the beginning. Thus, existence cannot be regarded as part of the essence of A.

Furthermore, as we will see in a moment, Leibniz rejects the idea that existence (= actuality) might be regarded as something which can be possible as well as existent, for the very simple reason that the idea of an existent thing which does not exist involves a contradiction in terms.

8.6.2 Two versions of the puzzle

Coming back to the long quotation above, we can note something more. For instance, the problem if existence should be regarded as a perfection shifts from the original formulation in which the same individual *A* is considered twice, i.e. as existing and as merely possible as well, to a somewhat different one, in which the existence of an individual is contrasted not with the mere possibility of that same individual, but with the non-existence (or the mere possibility) of other individuals, which are said to be opposite or incompatible with the first.

¹²⁶ Existentia. An sit perfectio, 1677 (?), A VI 4, 1354.

¹²⁷ De veritatibus primis, 1680 (?), A VI 4, 1443, note 3. (translated by Curley, "The Root of Contingency", p. 85).

In the first case, notice, the dilemma seems to be a genuine one, since, given that *A-possible* and *A-existent* are the same, they should also be indiscernible (and, indeed, every property of *A-possible* is also a property of *A-existent*, and vice versa); but, in this case, the distinction between possibility and actuality seems to have been obliterated. On the other hand, if we assume that there is something in *A-existent* which is not contained in *A-possible* (this is what Leibniz calls the fact that existence adds some reality to a thing), the two are no longer indiscernible; therefore, one does not see any reason why the two are to be taken as two concepts of the same thing and not as two concepts altogether different.¹²⁸

The second formulation of the problem, on the contrary, allows Leibniz to find a solution to the puzzle, by showing that a third position is available, i.e. that existence itself is not a perfection, even though, nonetheless, that (i.e. the thing) which exists is more perfect than any other possible thing which is incompossible with it. This solution, notice, involves the idea that existence has a relational (or, better, comparative) nature, as it is suggested by the remark that it cannot be considered a degree of reality but only a "certain relation to a degree of reality".

This leads Leibniz to formulate what seems to be a definition of existence, or, better, of what is to be existence-worth. The double implication is explicitly remarked by Leibniz himself: something exists *if and only if* it is more perfect than all the other things which are mutually incompatible. In this sense, he can draw the conclusion that existence is a certain comparison between perfections (*quaedam perfectionum inter se comparatio*).¹²⁹

Among the virtues of this 'definition', one has to count that it is applicable to the case of God as well as that of contingent creatures.¹³⁰ Another thing to observe is that, since what is properly defined here is not 'existence' as such, but, rather, the reason why an individual (a world) is chosen by God to be actualized, this account can be properly regarded as an

¹²⁸The idea that everything that can be said of the actual Adam has to be regarded as already contained in its purely possible notion is clearly stated in the *Specimen inventorum*: "In the perfect notion [i.e. complete concept] of an individual substance considered by God in the state of pure possibility, prior to every actual decree for existence, it is already contained [*inest*] whatever would happen to it if it were to exist, and also the whole series of things to which it belongs" (A VI 4, 1619). And in *De natura veritatis, contingentiae et indifferentiae*, written around 1685-86, when talking of God's talking into consideration the notion of a mind taken as possible, he stresses that: "The possibility [...] or the notion of a created mind does not involve existence. When God considers that notion as possible and perfectly knows in it every future events as possible, [...]he understands now, i.e. perfectly knows everything which would follow from the existence of that thing" (A VI 4, 1523). In both cases, but especially in the latter passage, where he mentions *omnia quae sint ipsius existentiam consecutura*, there is an implicit reference to the conditional reading of propositions.

¹²⁹ That this might have been regarded by Leibniz as a definition of existence seems to be confirmed by another marginal note to *De veritatibus primis*, A VI 4, 1443, note 4, where he writes that "the *real definition* of existence consists in this, that what is maximally perfect among those which could exist in their place [*alioqui*], or that which involves more essence, it exists". However, this cannot be a 'real definition' of existence, at least unless one has already demonstrated that "what is maximally perfect" (i.e. the best possible world) is a consistent concept. The definition of existence in terms of the maximum of perfection, therefore, should be taken as a 'nominal' rather than a 'real' one. This might explain why, in other places, Leibniz writes that 'existence' is a concept which cannot be defined.

¹³⁰ Cf. *Elementa verae pietatis*, A VI 4, 1358 and 1362-63; *Definitiones cogitationesque metaphysicae*, A VI 4, 1395.

axiological theory of existence.¹³¹ Finally, something more has to be said about the 'relational' or 'comparative' character of existence.

The sense of this comparison is clearly exposed by Leibniz in De libertate et necessitate:

"Except for the existence of God alone, all existences are contingent. Moreover, the reason [*causa*] why some particular contingent thing exists, rather than others, should not be sought in its definition alone, but in a comparison with other things. for, since there are an infinity of possible things which, nevertheless, do not exist, the reason [*ratio*] why these exist rather than those should not be sought in their definition (for then non-existence would imply a contradiction, and those others would not be possible, contrary to our hypothesis), but from an extrinsic source, namely, from the fact that the ones that do exist are more perfect than the others".¹³²

Here the claim that existence cannot be regarded as a component of the essence of a thing is stated in terms of the claim that existence is not contained in the definition of a thing, otherwise the existence of that thing would be necessary (which turns out to be true in the case of God, but false in that of all the other creatures), and, moreover, the non-existence of all the non-actualized things (i.e. those which do not belong to the actual world) would be necessary, and, thus, they could not be said to be 'possible' in themselves.

It should be noted that, after the passage: "the reason why some particular contingent thing exists, rather than others, should not be sought in its definition alone", Leibniz had originally drafted "but from some further reason [*ratio*]. Indeed, there was a reason for it to exist rather than not to exist". The last sentence, however, has been cancelled and substituted with a reference to the comparison with all other things. Such a comparison does presuppose the system of possible worlds, i.e. the idea that there are alternative and mutually exclusive sets of possible things (complete concepts), only one of which can be actually created by God. The idea of mutually excluding alternatives is also implicit in Leibniz's reference to the idea that certain things have been created rather than others (and the necessity of providing a reason for this exclusion).

In the continuation of *De libertate et necessitate*, the idea that "only the most perfect exists" is explained in the following way:

"Let there be two possible things, A and B, one of which is such that it is necessary that it exists, and let us assume that there is more perfection in A than in B. Then, at least, we can explain why A should exist rather than B and can foresee which of them will exist; indeed, this can be demonstrated, that is, rendered certain from the nature of the thing. And, if being certain were the same as being necessary, then, I admit, it would also be necessary for A to exist. But I call such necessity hypothetical [...]. And so we must hold that everything having some degree of perfection is possible and, moreover, that the possible that occurs is the one more perfect than its opposite, and that this happens not because of its nature but because of God's general resolve to create that which is more perfect. Perfection, or essence, is an urge for existence [*exigentia existentiae*] from which existence indeed follows *per se*, not necessarily, but from the denial that another thing more perfect prevents it from existing. All truths of physics are of this sort; for example, when we say that some body persists in the speed with which it begins, we mean it does so if nothing prevents it".¹³³

¹³¹ Cf. Schneider, *Analysis und Synthesis bei Leibniz*, pp. 212-13. He particularly stresses that, contrary to compossibility relations, which are internal to each possible world, the comparison between the degrees of perfections of different individuals at different worlds are necessarily inter-mundane ones. This is why Leibniz speaks of an 'extrinsic' principle when talking of the principle of perfection.

¹³² *De libertate et necessitate*, 1680-84 (?), A VI 4, 1445/AG 19.

¹³³ *Ibid.* A VI 4, 1446-47/AG 20.

This quotation is taken from a theological text, where Leibniz is primarily concerned with the topic of freedom from necessity and the rejection of necessitarianism. This justifies emphasis (in the first part of the quotation) on the sense in which one may say that the necessity of 'A *exists*' does not follow from the nature of A alone, but also from the hypothesis of (the choice of) the best. Another point to be highlighted is that Leibniz's toy model, so to say, is based on the comparison between two individuals, A and B, whereas, from the point of view of God, the comparison is between an infinity of individuals.

Again, when *A* and *B* are taken as standing for two possible worlds, it is quite easy to make sense of the idea that "the possible that occurs is the one more perfect than its opposite", i.e., since our toy model is composed of just two possible worlds, and only one of them can be actualized, the meaning of this 'opposition' is clear enough. When moving from worlds to individuals, however, things become a little bit more complicate. It is not difficult to understand the sense in which an individual *A* (belonging to the world W_A) can be said to be 'opposite' to the individual *B* (belonging to the world W_B), given that they are mutually incompossible (they do not belong to the same world).¹³⁴ What is difficult (and, perhaps, this is what Leibniz leaves unexplained), however, is the way in which one has to choose the individuals (belonging to these two worlds) to be compared:

which individual in W_A has to be compared with which other individual in W_B in order to say that A is more perfect than B, and, thus, that the world that contains A has to be preferred?¹³⁵

The problem is of no easy solution, for, as Leibniz himself acknowledges many times, as far as 'perfection' is concerned, the one-to-one correspondence between worlds and individuals breaks down. Perfection is a *global* and not a local feature of a(ny) world, for the fact that something exists in the most perfect world (globally taken) does not mean that that very same thing is, for this reason, the most perfect one (at the local level); for this is the only sense in which Leibniz's theodicy can make room for the presence of 'evil' in the world.¹³⁶ Contrary

¹³⁴ At the beginning of the GI (A VI 4, 744), Leibniz says that *existens* can be defined as "that which is compatible with most things than anything else incompatible with itself [*quod cum pluribus compatibile est quam quodlibet aliud incompatibile cum ipso*]". Assuming that, here, 'compatibility' is a synonym of 'compossible things (i.e. that the group of things which is compossible with *A* is most perfect than every group of compossible things which are compossible with any individual *B*, with *B* incompossible with *A*). Or, as Leibniz says in # 73 of GI, "Existent is a Being which is compatible" (from the logical point of view, indeed, all possible things are equally possible). This idea had been already envisaged in a text from December 1676, *Principium meum*, A VI 3, 582: "whatever can exist and is compatible with others, exist" (DSR 105). In this passage, however, Leibniz wants to prove that something (in this case, the immortality of the soul) is possible in itself and is compossible with all other things, or, it does not impair the course of things" (Ivi). Reference to the "course of things" makes clear that here existence is understood in terms of compossibility with the actual world I have distinguished above, cf. Chapter 7.1.3, note 284).

¹³⁵ The difficulty seems to have been envisaged by Leibniz in a note to Eckhard's letter of May 1677, A II, 1, 329, note 5: "Quaeritur an plus sit realitatis in idea seu conceptu lapidis existentis, quam in conceptu hominis non existentis"). Cf. also A II 1, 322-23.

¹³⁶ Cf. ## 211/14 of the *Theodicy*, where Leibniz contrasts the idea that "what is the best in the whole is also the best possible in each part" (# 212, GP VI, 245/H 264). The argument works well in geometry when one dwells with problems *de maximis et minimis*, i.e. in the field of quantity, but it fails when one moves from quantity to quality (or, which is the same, from metaphysical perfection to the moral one: "The part of the shortest way between two extreme points is also the shortest way between the extreme points of this part; but the part of the

to the perfection of a world (taken as a whole), the perfection of a single individual cannot be accounted in terms of its isolated presence, but is, in some sense, a function of the degree of reality of the world itself (taken as a whole).

As always, the difficulty can be weakened if we shift from the individual to the complete concept corresponding to it, since the latter mirrors the entire world to which it belongs. At this point, however, the parallelism between individuals and worlds is restored, but the question of which individual has to be chosen in a world W_A to be compared with an individual in another world W_B becomes a pointless one (for the degree of reality to be taken into account is that of the whole world that the individual mirrors, not that of the individual itself, which can be sub-optimal even in the case of the optimal world).

Thus, when Leibniz observes that "the possible that occurs [exists] is the one more perfect than its opposite", it would be better to understand 'possible' as referred to a 'possible world' globally taken rather than to a possible individual. Otherwise, one must resort to a perspective like that adopted by Leibniz in his Paris notes (see 5.1 above), where the *series rerum* corresponds to the actual world only: in this sense, notice, for a possible thing to be opposite to another one (which actually exists) means just to be incompossible with the actual world, but, in this case, the definition of existence would turn out to be a circular one, since its very same formulation would involve a reference to the actual world (or, at least, it would be an impredicative definition).¹³⁷

8.6.3 "Existurientia": an existential account of possibility

The other important element in this text is that 'perfection' is not defined in terms of 'degree of reality', but, rather, is considered as synonym of 'essence' and defined in terms of an *exigentia existentiae*. The curious thing is that, in the note quoted above, Leibniz said that it is existence that has to be understood as an *exigentia essentiae*. Of course, if one assumes that there is no real distinction between essence and existence, no serious difficulty is involved

best Whole is not of necessity the best that one could have made of this part" (# 213, GP VI 245/H 264-5). In the first case, indeed, the part is homogeneous to the whole (and this why Leibniz normally restricts the term 'part' to quantitative parts alone, since homogeneity is an essential features of the notion of parthood). But goodness and beauty are global properties, i.e. they result not from uniformity and homogeneity, but from the harmony between identity and diversity (or, also, between homogeneity and non-homogeneity). Cf. also the geometrical example discussed in # 214 (GP VI, 246), where he refers to Aquinas as well (cf. my discussion of harmony in Aquinas in the Introduction to Section II and Chapter 7.4).

¹³⁷ Cf. R. De Monticelli, "Esistenza e mondi possibili. Leibniz e i moderni", in R. De Monticelli-M. Di Francesco, *Il problema dell'individuazione. Leibniz, Kant e la logica modale*, Milano 1983, pp. 9-95, esp. pp. 71-76. She notes that, in order to avoid circularity, the definition of an existing individual has to be referred to the degree of essence of the complete notion of that individual; that degree of essence (or reality), however, can be determined only through a comparison with all the possible ones. Once again, the easiest solution is to understand such a comparison as a comparison between infinitely many possible worlds (each one taken a whole). If one wants to start with the definition of (what is to be) an existing individual (without resorting to the notion of the actual world), however, things become more complicate, given that the notion of 'possible world' seems to be metaphysically primary with respect to that of 'possible individual'. This part-whole problem is discussed by Mondadori, "A Harmony of One's Own", pp. 155-61. (The idea of constructing a series, i.e. a determinate possible world, by a step-by-step process of comparison between possibles, i.e. possible individuals, however, seems to me to be in contrast with the holistic intuition that possible worlds are all already 'there', i.e. in God's understanding, and that the notion of a possible individual which is not part of a determinate world makes no sense at all). Cf. also my remarks in 8.9 below, as well as the Introduction above.

here. Although Leibniz's terminology may be a little bit uncertain, the point is clear enough. It becomes even clearer when the last part of the quotation above is taken into account. In a table of definitions, indeed, Leibniz wrote: "*Exigi dicitur quod ex positis sequitur, si nihil aliud praeterea ponatur*".¹³⁸

This is in tune with the claim that, from an exigency to exist, existence follows *per se*, if there is no obstacle or impediment which prevents it from existing. And the only kind of impediment could be represented by another, more perfect thing (which, in the case of what is maximally perfect, must be excluded). This might remind us of Leibniz's early working on the notion of *causa plena*, i.e. that whose effects follow from it unless it is impeded by something external (i.e. an impediment). This parallel is implicitly evoked by Leibniz himself, since he chooses the laws of physics as example.¹³⁹

This parallel is not wrong, since for him the laws of physics are to be counted among existential propositions. But it is interesting that the example he chooses is that of a body which persists in its own state (or with its own speed) unless something else prevents it from doing that. If one looks at Leibniz's intense work in the series of drafts *De affectibus*, he will see how the old model of the 'full cause' has been widely employed in the passage from his original analysis of the 'series of thought' (*series cogitandi*) to the ontological framework of the *series rerum*.

The notion of perfection is already at work in the first phase, when Leibniz was discussing of the series of thoughts and the notion of 'determination', explaining that the cause which determines "toward one series of thought rather than to another one, is that the thoughts of one series involve more reality than the thoughts of the other one". And the general rule is formulated in this way: "*semper id fieri quod plus involvit realitatis, seu quod est perfectius*". What Leibniz calls "determination" here is just one state from which something else follows if there is nothing to prevent it: "From one [status] it also follows the maximum of what can follow from that, i.e. everything which can follow from that and is not impeded".¹⁴⁰ The same distinction between following *per se* and being impeded, which is at work in the passage above, has been introduced by Leibniz in order to explain his concept of 'determination'.¹⁴¹

In another passage, the connection between Leibniz's early theory of causation and his new ontological approach appears quite clearly. He himself adds a note in which says that the following passage contains what he calls a *"wonderful passage from power to act"* [admirabilis transitus e potentia ad actum]: "All things which, considered in themselves [per

¹³⁸ Definitiones notionum metaphysicarum atque logicarum, 1685 (?) A VI 4, 630. In a letter to Des Bosses (February 2, 1706), Leibniz writes: "[...] for I maintain that in an active power there is an exigency (as your schools say) for action and hence for divine concurrence for action, albeit an exigency that can be resisted, which is grounded in the laws of nature established through divine wisdom [...]" (GP II, 295/LDB 11). The editors of LDB explains that 'exigency' is a technical term of Scholastic philosophy, which signifies "a natural, as opposed to an absolute or metaphysical necessity" (LDB 403 note 11). They refer to Aquinas I, q. 46, art. 1 ad 10: "[...] posita actione, sequitur effectus secundum exigentiam formae quae est principium actionis".

¹³⁹ Cf. A VI 4, 1518: "One should not be worried by the fact that I have said that there are certain laws which are essential to this series of things, for, however, we have already said above that these laws are not necessary and essential, but contingent and existential. For, since the existence of this very same series of things is contingent, and it depends from the free decree of God, its own laws will be absolutely contingent as well; however, they will be only hypothetically necessary, and essential only once this series of things has been posited".

¹⁴⁰ De affectibus, April 10, 1679, A VI 4, 1428.

¹⁴¹ Cf. A VI 4 1429 and 1430. See also 1431: "Ex unoquoque sequitur id quod per se spectatum perfectissimum est eorum quae ex ipso sequi possunt".

se spectata], can follow from something considered in itself [*per se spectato*], they will follow as much as they can". The proof is the following:

"For, assume that it does actually follow what we have said that can follow. It is necessary that the only reason why it followed is the mere absence of an impediment. For, if there were another one [reason], it would not follow only from the one which we have said to follow from, but some other thing should be posited. Against the hypothesis".¹⁴²

The argument is the same Leibniz had employed in order to argue that an effect must necessarily follow from its full cause, for, otherwise, something else would be required for it in order to follow, against the hypothesis that the cause is a 'full' one. Note, however, that in his mature formulation (as in the passage from *De libertate et necessitate*) the idea of *per se* following is distinguished from what follows in a necessary way, where the latter has to be understood in terms of natural necessity. What follows in itself but not necessarily, since it can be impeded by something else, constitutes a sort of intermediate level between what is absolutely necessary and what is purely accidental (for what is *per se* is explicitly contrasted with what is *per accidens*); this sense of *per se* following constitutes what Leibniz also calls *nature* (or *natural predicates*), in contrast with a narrower sense of essence, and is employed to enlighten the sense in which one has to say that everything which can be ascribed to a determinate individual (or, also, everything which happens to it) follows from its own nature (and, thus, the sense in which, properly speaking, there is nothing accidental from the point of view of an individual nature, but only from the point of view of a general species).¹⁴³

Coming back to *De affectibus*, we can see that, finally, the the principle is stated that: "Existence follows from every possibility, if nothing impedes that".¹⁴⁴ The main difference with the physical model is that, while in the former the (potential) presence of an impediment was regarded as something external, in the case of what is purely possible the nature of the impediment has become a purely internal one, i.e. the relation of incompossibility between different sets of possible things.¹⁴⁵(This internalization of the impediment corresponds to the idea that the 'conflict' among the possibles occurs only ideally, i.e. *in mente Dei*). What still

¹⁴² A VI 4, 1432.

¹⁴³ Cf. *De natura sive analogo animae*, 1683-88 (?), A VI 4, 1505: "Verum est natura cujusque rei individuali omnia consequi etiam quae ipsi accidunt, seu individuo nihil evenire per accidens, specie tamen aliquid per accidens evenit, ut homini esse Musicum, non Petro". Cf. also LH IV 7C, Bl. 82 (quoted in the previous Chapter), and, in general, those passages where Leibniz distinguishes between what is essential and what is natural. This understanding of natural predicates as dispositions which are to be realized certainly but not necessarily is to be connected also with Leibniz's polemics against the bare faculties or bare potencies of the Schools, which are understood as faculties or dispositions which will never be realized, cf. *New Essays*, II, i, 2, A VI 6, 110, and the short text *De primae philosophiae emendation, et de notione substantiae*, 1694, GP IV, 468-70, esp. p. 469. Cf. also the connection with the sense of 'power' captured by Leibniz's dynamics, as it appears in the 1690 *Systeme nouveau*, GP IV, 472: "[...] et par la Force ou Puissance je n'entends pas le poivoir ou la simple faculté qui n'est qu'une possibilité prochaine pour agir [...], mais j'entends un milieu entre le pouvoir et l'action, qui enveloppe un effort, un acte, une entelechie, car la force passe d'elle-même à l'action en tant que rien ne l'empeche ».

¹⁴⁴ A VI 4, 1434.

¹⁴⁵ On this point, see Di Bella, *The Science of the Individual*, p.108. But see *Ibid*. 99-111, for a comprehensive analysis of *De affectibus*. See also Schepers, "De affectibus".

lacks is the new terminology of *existurientia*, which will be extensively employed by Leibniz from the 1680's onwards.¹⁴⁶

The upshot of this intense work of rethinking will be condensed in a text written between March and August 1689, where the metaphysical question "why those things exist rather than others ?" is directly dealt with. Leibniz explains that, once one has provided an answer to the former question, he has also provided one to the other question "why something rather than nothing?":

"This reason is to be found in the prevalence of reasons for existence compared with the reasons for nonexistence, that is to say it in a word, in the *Existurientia* of essences, so that those things will exist which are not impeded. For indeed, if nothing demands existence [*si nihil existuriret*], there would be no reason for existence. But assuming that all things demand existence, the existence of some things follows, for, because not all things can coexist together, the existence of those things follows through which most things coexist. [...] From this it is evident that every possible tends to exist in itself [*ex se*], but that it is impeded by accident, and that there are no other reasons for not existing, unless they do not arise from the conjunction of these very same reasons for existence. However, there must be *a parte rei* an existing root of the *Existurientia* of essences; otherwise there will be nothing in essences except a figment of the mind [...]. But this root cannot be anything other than the necessary being, the foundation of essences and the origin of existences, i.e. God [...]".¹⁴⁷

The apparently exoteric term *existurientia*, which Leibniz coins as shorthand for *praevalentia rationum ad existendum* (or as he says in another text, *praevalentia existendiandi*)¹⁴⁸ is a substantive derived from *existiturus sum* (in the same way as *existentia* is derived from *existo*). Such a nominalization of the future form of the participle characterizes a sort of existential possibility which is ascribed to purely possible individuals, and stands for 'what would exist' if nothing impedes it (or, in the case of non-actualized possibilities, 'what would have existed').

It is interesting to observe how this very same notion of *existurientia* originates from Leibniz's reflections on the so called *lingua philosophica*, where he notes that the future participle *locuturus* does not just mean "he who will talk" (*eum qui loquetur*), but, rather, "he

¹⁴⁶ Cf. also *Enumeratio terminorum sempliciorum*, 1680/1684-5 (?), A VI 4, 393, where Leibniz introduces the notion of *Acturiens*, defined as "quod per se spectatum agit, si scilicet nihil impediat" (and in a marginal note, he will add that *acturiens* is the same as *conans*); this point is connected to the theory of existence based on the notions of *conatus* and *statuere*, discussed in the Appendix to Chapter 4. From the linguistic point of view, *Existuriens* has the same form as *Acturiens*; from the metaphysical point of view, however, *Existuriens* is a sort of (ideal and, perhaps, metaphorical) translation of *Acturiens* at the level of possibility, with a main difference: the *Acturiens* is what is actually efficacious in the context of the actual series of things, where the *Existuriens* represents what would exist/have existed if there series of things to which it belongs had been actualized by God. In other words, within the notion of *Existuriens* Leibniz include the idea of being a possible individual, i.e. something which could be (or have been) actualized, where to be stressed is the relevance of what Leibniz calls the *admirabilis transitus* from possibility to actuality. This makes me think that, after all, the whole theory of *Existurientia* is Leibniz's imaginative (and, perhaps, misleading) way of talking of 'possible individuals'.

¹⁴⁷ De ratione cur haec existant potius quam alia, March-August 1689 (?), A VI 4, 1634-35 (LST, 30-31, translation modified).

¹⁴⁸ Cf. LH IV, iii, 5e, Bl. 30r (around 1700): "Furthermore, the very same cause which makes something to be rather than nothing also makes the more to be rather than the less, and indeed the reason is the act or predominance of the existifying in the cause or principle of the existing beings [*praevalentia existentiandi in causa seu principio existentiarum*]" (translated by V. De Risi, "Leibniz around 1700: Three Texts on Metaphysics", *The Leibniz Review*, 16, 2006, 55-69, p. 59).

who would speak if nothing impedes it (*qui loquetur si nihil impediat*)".¹⁴⁹In a similar vein, the neologism *existurientia* refers to those things which are said to be *existiturae*, i.e. that will actually exist if nothing prevents it.¹⁵⁰

As one can understand from the passage above, especially from the remark that, without the existence of God, essences would not receive such a tendency toward existence and, therefore, they would be just a "fiction of the mind", the notion of *existurientia* characterizes an existential sense of possibility, reminiscent of the Scholastic idea of *aptitudo ad existentiam*. Also in that case, indeed, the difference between real possibilities and mere fictional entities (chimeras and other *entia rationis*) could not just be expressed in terms of their being the object of knowledge (since the *esse cognitum* can be ascribed to fictional being as well). Something more was required, i.e. the fact that a real possibility is something which can be (but not necessarily is) created by God, since it possesses an *aptitudo* toward existence.

Finally, Leibniz repeats what we have already seen in other passages above, i.e. this tendency toward existence is something which pertains to the possible *in* themselves, *but* is not something that possible things derive *from* themselves, for it is rooted in a necessary being (which, for this reason, is said to be *existentificans*).¹⁵¹ In the last line of the text, from which the passage above is taken, Leibniz remarks: "For essences do not make their way to existence except in God and through God, so that there is in God the reality of essences, or of eternal truths, and the production of existents, or of contingent truths".¹⁵²The metaphor of the possibles striving toward existence (which Leibniz develops in *De rerum originatione radicali*) has to be properly understood in terms of a contrast between God's antecedent and his consequent will, as Leibniz himself will explain in the *Theodicy*.¹⁵³

¹⁴⁹ De lingua philosophica, 1687-88 (?), A VI 4, 902. This point, Leibniz says, is useful from the point of view of "philosophical grammar", since it allows us to distinguish between two kinds of futures, *loquar* and *locuturus sum*: "Thus, *loquar* means that there is a certain time in which this proposition will be true: "I speak" [*ego loquor*]. But *locuturus sum* means the will or the tendency [*conatum*] to speak, i.e. that *the act of speaking will follow if nothing impedes it* [*secuturam loquelam si nihil impediat*]" (*Ibid.* 903). ¹⁵⁰ The idea of the tendency toward existence is, implicitly or explicitly, at work in many passages of the

¹⁵⁰ The idea of the tendency toward existence is, implicitly or explicitly, at work in many passages of the writings of Leibniz's middle period. See A VI 4, 557, 568, 626, 631, 864, 871, 875, 1442-43, 1460, 1634-35. See also *De rerum originatione radicali*, GP VII, 302-08, and the 24 theses, GP VII, 289-91(=Cout 533-35). Furthermore, Leibniz is re-stating here his old idea that there is a bias in favour of existence over non-existence. The kind of existential possibility involved in this notion has been concisely discussed by M. De Gaudemar, *Leibniz. De la puissance au sujet*, Paris 1994, passim. Cf. also E. Pasini, « Existurientia and Other Ex-Words » forthcoming in in Actas del Congreso internacional 2013 «Conocer, dialogar, inventar y transformar con Leibniz» de la Sociedad española Leibniz para Estudios del Barroco y la Ilustración.

¹⁵¹ Cf. GP VII, 289, # 4: "Est ergo causa cur Existentia praevaleat non-Existentiae, seu Ens necessarium est **Existentificans**". In the following theses, Leibniz explains that what makes it that something exists is also what provides every possible with a tendency or *conatus* toward existence, i.e. *existurientia*. From the fact that every possible thing has such a tendency, however, it does not follow that every possible exists. ¹⁵² A VI 4, 1635/LST 31.

¹⁵³ Cf. *Theodicy*, # 22 and # 201,GP VI,115-16 and 236. The point, however, had been already assessed in a theological dialogue written in 1679, where Leibniz's spokesman, Theophilus, first introduces the 'metaphysical mechanism' between the possibles as if it were a sort of automatic decision procedure for the determination of the world to create ("Therefore, if there were some power in purely possible things in order to be actualized, and to prevail on the others [...], in this combat necessity itself will produce the best possible choice, as we see in the machines") –which is nothing but the necessitarian reading adopted by Russell. Immediately afterwards, however, Theophilus corrects what is wrong with the idea of such a mechanism: "However, possible things have no existence at all nor do they have any power to exist, and, accordingly, one has to look for the choice and the cause of their existence in a being whose existence has already been established and, therefore, is necessary in itself". This being, i.e. God, "contains in himself the ideas of perfections of possible things, in order to choose and produce them" (*Dialogue entre Theophile et Polidore*, 1679, A VI 4, 2232). Note that the whole dialogue is

There is a question which, however, requires to be discussed at length in what follows, i.e. how this kind of existential or post-existential notion of possibility is connected with Leibniz's idea of purely logical possibility. In the preceding section, indeed, we have seen how, at the end of his Paris period, Leibniz managed to keep the notion of logical possibility (i.e. the idea of things 'possible in themselves') sharply distinct from the causal or temporal notion of possibility. Such a distinction is of primary importance to safeguard a sense of contingency (albeit a minimal one), i.e. the idea that things remain possible even though they will never be realized (they would never be possible in the causal/temporal sense).

At this point, however, it seems that Leibniz risks of blurring together these two notions once again, for he is assuming that things, insofar as they as possible (i.e. purely logical possible), possess a sort of quasi-causal possibility, i.e. a tendency toward existence which would be necessarily realized if nothing prevents it (although, as we have already said, the very same idea of an 'impediment' has been reduced to something holding at a purely ideal level).¹⁵⁴

8.6.4 The 'extrinsic' character of existence

Before going on, however, we must conclude the short discussion of Leibniz's solution of the puzzle of existence started at the beginning of this paragraph. If we come back to what Leibniz says in *De libertate et necessitate*, we can see that, since the reason why actual individuals exist is not contained in their definition, it must be something 'extrinsic' to it [*ex principio extrinseco*], or, in other words, it consists in the fact that the set of things which constitute the actual worlds is more perfect than any other one.

Both reference to God's comparing all possible worlds and the relational character of existence speak in favour of Edwin Curley's hypothesis, that to say that existence does not pertain to the definition of a thing means that existence is something like an *extrinsic denomination*; and, since for Leibniz there are *no* purely extrinsic denominations, this also means that "there must be some basis in the nature [or essence] of a thing for its existence".¹⁵⁵

Another interesting element noted by Curley is that, in one important text of 1689, *De contingentia*, Leibniz initially repeats the claim (we have already discussed in the texts of 1677) that existence adds nothing new to the essence of a thing, but, afterwards, he chose to cancel and replace it with a different formulation. This change occurs two times in the text.

conceived of as a rejection of Spinozism. On the 'metaphorical' character of the idea of this conflict among possibles, cf. Poser, *Zur Theorie der Modalbegriffe*, pp. 86-98; D. Blumenfeld, "Leibniz's Theory of the Striving Possibles", *Studia Leibnitiana* 5, 2, 1973, pp. 163-77.

¹⁵⁴ The idea of the striving possibles seems to be connected also with Leibniz's favourite way of rejecting necessitarianism, i.e. the distinction between necessitating and merely inclining reasons. In *De veritatibus primis*, indeed, the idea of a 'tendency' toward existence of purely possible things is interpreted in terms of their *inclinatio*: "Nothing would exist if there were not a certain inclination toward existence in the very nature of essence" (A VI 4, 1443). On the idea of reasons that incline without necessitating, see G. H. R. Parkinson, *Leibniz on Human Freedom*, Steiner 1970, pp. 50-55, and esp. 52 note 38, where he sketches a brief history of the dictum: *astra inclinant, non necessitant*.

¹⁵⁵ Curley, "The Root of Contingency", p. 86. He also writes: "Things which differ in respect of existence cannot differ only in that respect, there must be some further difference on which that difference is based" (p. 87). The idea that existence cannot be a 'brute fact', but that a reason for it has to be provided, further clarifies that Leibniz has in mind an axiological theory of existence, i.e. an explanation of what is for something to be 'existence-worthy' more than 'existent' in the proper sense.
The first time, he has originally written: "*Et cum Existentia Essentiae non addat novam formam, alioqui Essentiam…*", then the sentence breaks down; but the definitive version is completely different: "*Et Existentibus tam necessariis quam contingentibus hoc commune esse videtur, ut plus habeant rationis quam alia quae ipsorum loco ponerentur*".¹⁵⁶

Some paragraphs below, Leibniz replaces what he had originally written (*Illud certum est, quod existit non accipere novam formam existendo*) with the following:

"It is certain that there is a connection between the subject and the predicate in every truth. Therefore, when one says "Adam who sins exists", it is necessary that there be something in this possible notion, "Adam who sins", by virtue of which he is said to exist".¹⁵⁷

The second change is particularly interesting, since, at first sight, it seems to be a complete reversal of what Leibniz originally meant. Saying that existence adds nothing new to the essence of a thing, indeed, amounts to say that the complete notion of an individual does not contain 'existence' in itself. This has been taken by many commentators (from Russell to Mates) as a clue to the conclusion that 'existence' constituted an exception to the theory of truth as conceptual containment.

However, the definitive text seems to say the contrary: what is certain, now, is not that "what exists does not receive any new form when it exists", but, rather, that there is a connection between subject and predicate "in every truth", even in existential propositions. The English translation, perhaps, conceals the fact that, in the proposition *Adamus peccans existit*, the notion of 'Adam-the-sinner' (taken as possible, as Leibniz remarks) is the subject, and 'exists' is the predicate. Therefore, he seems to say that the conceptual containment account of truth holds in the case of existential propositions as well. But, one may ask, is this not just another way of saying that 'existence' is a predicate or a notion that must be added to that of a purely possible Adam (or Adam-the-sinner)?

First of all, let me say that this contrast is more apparent than real. Of course, I believe that Leibniz did not envisage any exception to his account of truth in terms of conceptual containment¹⁵⁸, *pace* Russell and Mates; this does not mean, however, that he must assume

¹⁵⁶ *De contingentia*, 1689 (?), A VI 4, 1650. The critical edition prints the sentences that Leibniz cancelled in the apparatus. However, they can be read quite easily in Grua 303 (which puts them in the main text between square brackets).

¹⁵⁷ *Ibid.*, A VI 4, 1651= Grua 304/AG 29.

¹⁵⁸ Few lines above in the same text, indeed, Leibniz wrote: "since we say that both God and creatures exist and we say that necessary propositions are true no less than contingent ones, it is necessary that there be some common notion, both of <contingent> existence and <essential> truth" (A VI 4, 1650= Grua 303/AG 28). Words between brackets have been added by Leibniz only later on. The added parts, however, seems to be a source of confusion with what he says in the following lines. (as noted by AG 28, note). There, indeed, he says that the notion of truth common to both necessary and contingent propositions is that there is a reason for the connection between the subject and the predicate (at least in the case of non-identical propositions). What is common to all existing things, both necessary and contingent, is that "they have more reason for existing than others would, were they put in their place" (Ivi). The addition of 'contingent' to the passage above, then, is too restrictive, since Leibniz talks of a notion of existence common to both necessary and contingent beings. Two things are to be noted here. First, the parallelism between PSR as applied to the case of truth and propositions (which gives rise to the principle of inherence of predicate in the subject) and PSR as applied to the case of existent things. Second, in the case of the latter, the distinction is that between the sense in which a necessary being is said to have "more reason for existing than the others" and the sense in which this holds in the case of contingent things. In the first case, the reason is a necessitating one, since God is the most perfect thing in the absolute sense; in the second case, it is only an inclining one, since the actual world is the most perfect only in a relative sense, i.e. the

'existence' as a property, especially if we take 'existence' as a synonym of 'actuality'. Truth to be told, as I will show in the next chapter (where I will discuss the role of 'existence' in some logical papers), there is at least one attempt by Leibniz to treat 'existence' as a term that can be shifted into the very same notion of the subject (like 'Adam-the-existent-sinner').¹⁵⁹ As I will say, however, that exceptional attempt is also one of the most problematic one (and I think that Leibniz will ultimately reject it).

This is not the case of our *De contingentia*, however, where Leibniz does not say that 'existence' is contained in the notion of 'Adam-the-sinner', but, rather, that there is *something* in this notion ('Adam-the-sinner', as merely possible), because of which one can say that it exists (cf. the original text: *ut sit aliquid in hac notione possibili* Adamus peccans, *propter quod existere dicatur*).

That 'something' might be presumably the fact that the notion of that individual (together with all his properties, sin included) belongs to the more perfect set of possible things. It is only because of the latter that one can say that such an individual notion has been instantiated. This is the sense in which 'existence' can be regarded as a 'consequential' property (according to Curley's reading), i.e. as a property that an individual instantiates as a consequence of having other properties (in this case, those which determine that that individual belongs to the most perfect series of things).¹⁶⁰

That said, however, I suspect that a modification occurred in Leibniz's mind, and it consists in the fact that, thanks to the stress on the essences' having a tendency toward existence *in*

most perfect among many other beings which are still possible in themselves. This point is stressed by Leibniz in the following passage: "*Existent* cannot be defined, [...] that is so that some clearer notion might be exhibited to us; it should be known, however, that everything possible would be existing [*extiturum esse*] if it can, but, since not all possibles can exist [...], those which are more perfect will exist. Therefore, it is certainly clear that what is the most perfect exists. There is, therefore, a most perfect being, or the most perfect being is possible, because it is nothing else than what is purely positive" (*Definitiones notionum metaphysicarum atque logicarum*, 1685 (?), A VI 5, 626). The 'opposite' of the most perfect being is nothing at all. Notice that the sense in which the most perfect being is said to be 'possible' here differs from the pure logical possibility that seems to be required by the compatibility proof. On the connection between the ontological argument and the striving possibles, see Griffin, *Leibniz, God and Necessity*, pp. 47-57; in particular, p. 50, where he suggests to distinguish an 'ontological' sense of possibility (essence) from the purely 'logical' one.

¹⁵⁹ See 9.5 and 9.6 below. That 'existence' is regarded a predicate is confirmed by the following passage from the *New Essays*, IV, i, 3: "But when it is said that something exists or possesses real existence, this existence itself is the predicate, i.e. it is a notion related to the idea which one is talking of, and there is a connection between these two notions". Notice that this passage occurs in a discussion of relations of connection (or concurrence). Existence as a predicate is related to the idea of a connection between two notions (i.e. one between ideas only), whereas "one can also conceive the existence of the object of an idea as the concurrence of this object with me" (*Ivi*). On existence as a predicate, cf. A. Wilkins, "A Leibnizian Dilemma Concerning Existence", in *Einheit in der Vielheit: Vorträge, 8te Internationaler Leibniz-Kongress*, Hannover 2006, vol. II, pp. 1149-1156.

pp. 1149-1156. ¹⁶⁰ Another point rightly stressed by Curley ("The Root of Contingency", p. 90), is that the fact that an individual belongs to the best possible world is not sufficient to conclude that such an individual exists: "It follows only given the further fact that God chooses to create the best possible world", i.e. from what has been called the principle of perfection. Cf. *De libertate a necessitate in eligendo*, 1680-84 (?), A VI 4, 1454: "The first principle concerning existences is this proposition: *God wills that which is the most perfect*". Such a proposition, says Leibniz, "is the origin of the passage from the possibility to the existence of creatures". Cf. also what he writes concerning contingent futures in the annotations to Twisse (around 1695), Grua 351, where he explains that the *ratio scibilitatis* of contingent futures is partly given by the *cohaerentia terminorum* (the containment of the predicate in the subject), and partly from *optimitas generalis et decretum Dei optimum eligendi*. Cf. also Parkinson, *Logic and Reality*, p. 107.

themselves (even though not *from* themselves), he is more and more willing to accept the idea that existence has to be regarded as a perfection or, at least, as something resulting from perfection.

This seems to be the position he holds in a late text:

"Just as existence is conceived by us as if it were a thing having nothing in common with essence, which nevertheless cannot be the case, because there must be more in the concept of the existent than in that of the non-existent, i.e., existence is a perfection, since there is really nothing else explicable in existence than it enters into the most perfect series of things; so, in the same way we conceive position as something extrinsic, which adds nothing to the thing placed, though it does nevertheless add the way in which the thing is affected by other things".¹⁶¹

This text which, as far as we know (until papers which are still unpublished will be edited), represents one of Leibniz's most mature formulation on the topic, seems to explicitly contradict what Leibniz said in 1677 (even though not what he says in his letter to Eckhard): existence is explicitly counted among perfections, and, moreover, "there must be more in the concept of the existent than in that of the non-existent". The ironical aspect is that such an anti-Kantian claim makes the pair with another one which, at first sight, seems very close to Kant's view, i.e. the idea that existence is nothing but the "position" of a thing with all its predicates.¹⁶²

However, the parallel with *positio*, here, serves to explain that both existence and position are conceived as "something extrinsic, which adds nothing to the thing", i.e. as extrinsic denominations (or relations). It is worth noticing that the paper from which this passage is taken is explicitly concerned with the thesis that "there are no purely extrinsic denominations, because of the mutual connection of things with each other". More specifically, Leibniz explains that "place, position, quantity, as well as number and proportion, are nothing else than relations, which result from other things [...]". Quantity and position, in particular, when they are taken in themselves, i.e. isolate from their intrinsic ground, "are nothing but mere results [*resultationes*], which, in themselves, do not constitute any intrinsic denomination, and, therefore, are just relations which need a foundation derived from a quality or an accidental intrinsic denomination".¹⁶³

This is the context in which the digression on existence is placed. It explains why Leibniz promptly rejects the view that existence has nothing in common with essence, even though this is the way in which it is commonly conceived by us. Since there must be something more in the concept of an existing thing than in that of a non-existing one, and since this difference cannot consist just in a difference between 'existence' and 'non-existence' (granted that

¹⁶¹ Cout 9 (translated by Curley, "The Root of Contingency", p. 86). This text is not dated, but, according to Adams, it has been assigned a preliminary date around 1700, cf. Adams, *Leibniz*, p. 166, note.

¹⁶² Cf. O. Nachtomy, "Leibniz and Kant on Possibility and Existence", *British Journal for the History of Philosophy*, 20, 5, 2012, pp. 953-72.

¹⁶³ Ibid., 8-9. This point has been already stated by Leibniz in an earlier text, cf. *Definitiones*, 1687-96 (?), A VI 4, 870: "*Qualitas* est discrimen in cogitando ex re. *Relatio* est discrimen in cogitando ex alio. *Quantitas* est discrimen in percipiendo ex re. *Positio* est discrimen in percipiendo ex alio. Huc locus et tempus. Omne discrimen ab externo fundatur in discrimine interno, et omne discrimen perceptibile, fundatur in cogitabili". One is not forced to take this notion of 'foundation' or 'grounding' as a necessarily reductionist one (see 9.7 below). On the notion of the *fundamentum relationis*, see Mugnai, *Leibniz's Theory of Relations*, pp. 49-55.

'existence' is a merely extrinsic denomination), it follows that this 'something more' has to be found at the level of essence, i.e. in terms of perfection (maximal degree of essence).

Notice, also, that a certain ambiguity is at work in the way in which the term 'perfection' is employed by Leibniz (as I have remarked above). More specifically, one should explicitly distinguish between *perfection*, as a singular term, and *perfections*, as a plurality of notes or determinations a thing can have. When Leibniz remarks that existence could not be a perfection, indeed, he is claiming that existence cannot be regarded as one among the perfections a thing has (since each of them can be regarded either as possible or as existent). Of course, the same criticism can be applied to the characterization of perfection as a 'degree of reality'; in this case, however, the supposition of a fullest degree of essence –an absolute one, in the case of the most perfect being; a relative one, in the case of the most perfect world –, allows Leibniz to conclude that "that which *exists* is also what is *the most perfect*", even though, properly speaking, the latter cannot be taken as an explanatory definition of the former (as he himself observes, "there is really nothing else explicable in existence than it enters into the most perfect series of things"; this does not mean that the two concepts are one and the same).¹⁶⁴

8.6.5 Existence, perfection, and harmony.

Leibniz's notion of perfection, however, is a multi-faceted one, for he does not refrain to characterize it in terms of harmony as well. Actually, the characterization of perfection in terms of harmony (i.e. *universal harmony*) is the first one to appear from a chronological point of view, as we can see from Leibniz's metaphysical texts of the Paris period.

This is the great discovery announced by Leibniz at the very beginning of a paper dated February 1676:

"After due consideration I take as principle the harmony of things: that is, that the greatest amount of essence that can exist, does exist. It follows that there is more reason for existing than for not existing, and that all things will exist, if that can come about. For since something exists, and all possibles cannot exist, it follows that those things exist which contain the most essence, for there is no other reason for choosing some and excluding the rest. Therefore there exists first of all the being which is the most perfect of all possibles".¹⁶⁵

¹⁶⁴ On Leibniz's different characterizations of 'perfection', the most complete account is provided by Heinekamp, *Das Problem des Guten bei Leibniz*, p. 135 and ff., especially 146-51. See also D. Blumenfeld, "Perfection and Happiness in the Best Possible World", in N. Jolley (ed.), *The Cambridge Companion to Leibniz*, Cambridge 1995, pp. 382-410. At the beginning of the *Discourse*, Leibniz emphasizes that a "fairly sure test for being a perfection is that forms or natures that are not capable of a highest degree are not perfections, as for example, the nature of numbers or figures. For the greatest of all numbers [...], as well as the greatest of all figures, imply a contradiction, but the greatest knowledge and omnipotence do not involve any impossibility" (A VI 4, 1531/AG 35). In a Paris text, where he was working on the idea of God as "the subject of all absolute simple forms", Leibniz equates God's being "absolutely existent" and his being "perfect": "That to which existence is ascribed absolutely, i.e. existence without some determining addition, has ascribed to it as much existence as can be ascribed, i.e. the great existence" (A VI 3,520/DSR 79). As I have already stressed above, however, this idea of different degrees of existence is incompatible with Leibniz's claim that existence is something absolute.

¹⁶⁵ De arcanis sublimium, February 11, 1676, A VI 3, 472/DSR 21. And in a marginal note he repeats: "Further, since some things exist and some do not exist, it follows that there exist the most perfect". The date of 11

What Leibniz will call the *a posteriori* argument for the conclusion that what exists is the more perfect has been presented for the first time in this paper. Its *a posteriori* nature is due to the fact that it moves from the fact that something exists (and that all the possibles cannot coexist together).¹⁶⁶

In the previous chapter, I have discussed the distinction between an *a posteriori* and an *a priori* account of existence (announced by Leibniz himself in his letter to Foucher and elsewhere), i.e. between one which moves from the fact of existence and another which should move from essence alone. There, I have stressed the impossibility of proving the equivalence between these two accounts (which rests on the impossibility of proving that *this* world, which we live in, is the *best possible world*; a proposition which is true but not demonstrable).

That said, however, we can see now as Leibniz's two accounts of existence, i.e. that based on *distinct perceivability* (the regularity of our perceptions) and that based on *maximal perfection*, can be regarded as two sides of the same coin. The key to understand the link between the two is the consideration that harmony among perceptions (both the perception of a single mind at different times and the perceptions of different minds at the same time) is nothing but a consequence on the epistemic level of the notion of harmony as perfection on the metaphysical level. This point will be clearly explained by Leibniz in his late correspondence with Christian Wolff, where the notion of perfection as harmony assumes a dominant role over all the other characterizations of the same concept.

Asked by Wolff to provide a comprehensive definition of 'perfection', Leibniz will reply that it is "the degree of positive reality, or, what comes to the same thing, the degree of affirmative intelligibility, so that something more perfect is something in which more things worthy of observation [*notatu digna*] are found".¹⁶⁷ The idea that a thing is more perfect (than any other) if there are more things in it which are *notatu digna*, or, also, more *observabilia*, is further clarified by Leibniz in the sense that things to be observed must be regular or ordered ones: "the more order there is, the more things worthy of observation there are", which means that exceptions to general rules are imperfections and should be minimized, since as he

February has been added by Leibniz only after having drafted the text. Moreover, as the editors of the Academy explain, the text has not been written all at once, as testified by changes of ink and in the *ductus*. ¹⁶⁶ Cf. *De veritatibus primis*, A VI 4, 1443: "This proposition "Everything possible has an exigency to exist" can

¹⁶⁶ Cf. *De veritatibus primis*, A VI 4, 1443: "This proposition "Everything possible has an exigency to exist" can be proved *a posteriori*, once the existence of something has been posited; for either everything exists, and, therefore, everything possible has an exigency to exist, and it actually exist; or there are some possibles which do not exist, and, therefore, there must be a reason why some exist rather than others". Cf. also LH IV, III, 5e, Bl. 30r: "In philosophando assumo aliquid existere, unde cum nihil sit sine ratione, oportet rationem esse cur aliquid potius existat quam nihil".

¹⁶⁷Leibniz to Wolff, Winter 1714-15, LW 161/AG 230. That the degree of reality had to be understood in terms of degree of "affirmative intelligibility" had been already affirmed by Leibniz as early as 1678, cf. *Elementa verae pietatis*, A VI 4, 1359: "Harmonia est perfectio cogitabilium quatenus cogitabilia sunt". The affirmation that harmony is perfection of intelligibility is immediately related to the claim that the most perfect is that in which more reality is contained: "But thinking [*cogitatio*] is also a kind of reality, and so much the greater because things are multiplied in a certain way by thought, for individual minds contain some representation of the whole world". The most interesting point is the explicit relational character of this notion of harmony (and reality as well): "Hence a more perfect manner of thinking is where one act of thinking extends to many things simultaneously, for in this way there is more reality in that thought. This is done, however, with the help of relations [...]. Therefore, the more relations (the aggregate of which is harmony) there are in a thinkable object, the more perfection there is in the thought" (*Ibid.*, 1359-60/LST 191).

immediately remarks, "[i]f there were many exceptions to a rule, there would be nothing worthy of observation, but only chaos". This claim is immediately connected with the idea that divine wisdom always acts through general rules and never through exceptions (exceptions arise only when some general rules interfere with other general ones). Therefore, Leibniz concludes that "one can also say that which is *more perfect* is that which is more regular, that is, that which admits of more observations, namely, more general observations".¹⁶⁸

Now, this notion of 'regularity' is the same we have encountered in the Paris texts, i.e. regularity of phenomena as the main and most reliable criterion of existence. The connection between this epistemic side and the metaphysical one is to be sought, as usual, in the divine understanding, as Leibniz does in his next letter to Wolff: "Nothing is more regular than the divine intellect, which is the source of all rules, and produces the most regular, that is, the most perfect system of the world, the system that is as harmonious as possible and thus contain the greatest number of general observations".¹⁶⁹ Remember early passages where Leibniz has characterized what exists as what is the most harmonious.

Harmony is also connected with pleasure, since pleasure is defined as "the sensation of perfection". Also in this case, one can find a connection with Leibniz's attempt at providing a definition of existence; this time reference goes to section 73 of the GI, where existence is initially characterized as maximal compossibility ("an existent entity is that which is compatible with most things"), but this characterization is said to be equivalent to the following: " 'existent' is what pleases something intelligent and powerful", or, better, " 'existent' is what would please some mind, and would not displease another more powerful mind, if minds of any kind were assured to exist". The conclusion is that what exists from the absolute point of view is what would not displease the most powerful mind (i.e. the divine mind), whereas what exists from the point of view of our experience is what pleases some (existent) mind, and does not displease the most powerful one.¹⁷⁰

Harmony is not explicitly mentioned in the GI, but reference to 'pleasure' is an indirect reference to it. In any case, it is evident that what pleases (or not displeases) the most perfect mind is what is the most perfect, given the definition of pleasure as "the sensation of perfection".

All these views are summarized in the close of the letter to Wolff quoted above:

"Perfection is the harmony of things, or the state where everything is worthy of being observed, that is, the state of agreement [consensus] or identity in variety; you can even say that it is a degree of contemplability [considerabilitas]. Indeed, order, regularity, and harmony come to the same thing. You can even say that it is the degree of essence, if essence is calculated from harmonizing properties, which give essence weight and momentum, so to speak. Hence, it also follows quite nicely that God, that is, the supreme mind, is endowed with perception, indeed to the greatest degree; otherwise he would not care about the harmonies".¹⁷¹

¹⁶⁸ Leibniz to Wolff, April 2, 1715, LW 163/AG 231. Cf. also LW 170:"The more there is worthy of observation in a thing, the more general properties, the more harmony it contains; therefore, it is the same too look for perfection in an essence and in the properties that flow from the essence" (AG 233). ¹⁶⁹ Leibniz to Wolff, May 18, 1715, LW 171/AG 233.

¹⁷⁰ GI # 73, A VI 4, 762-63/LP 64-5.

¹⁷¹ LW 172/AG 233-34. Similar account in ## 8 and 15-17 of the 24 theses, Cout. 534-35. See also LH IV, III, 5e, Bl. 30 r: "In effect, reality should be evaluated according to the multitude and variety and order of things and thus, in a word, according to the quantity of intelligibility (which also shows that everything is for the intelligent

8.7 Possible Existence. Modality vs. Ontology?

At this point, I need to come back to the original case discussed by Leibniz in the first version of the puzzle of existence, i.e. that of the alleged indiscernibility between an individual *A* taken as existent and the same individual *A* as merely possible. This argument has not been invented by Leibniz. Quite the contrary, it was a traditional argument employed by the Thomists in order to support the real distinction between essence and existence.

8.7.1. "Existentia exercita" and "Existentia in actu signato"

Suárez mentions it among the objections against his own thesis (of a merely conceptual distinction) that he regards as of "a little weight": the idea is that essence and existence cannot be distinguished only conceptually because "created things in terms of essential being are arranged under a definite genus and species; thus [...] the humanity of the created Peter and of the creatable Peter is numerically the same essence. Hence, in both states it retains some essential entity".¹⁷²

He rejects it by observing that "when a possible thing and a created thing are said to be the same numerically or specifically, if the discussion concerns real or positive identity, it is false [...]", because the identity at stake here would hold only between two real and positive elements, but essences before creation (the mere possible Peter) are nothing, and after creation they are just the same thing as the existent things (the actual Peter). However, he concedes that the possible and the actual Peter can be said to be one thing only in a negative sense, "because a producible thing and one produced are not two things, but one"; but "this negative unity or identity is apprehended by us in the manner of a positive type, because we compare a positive thing objectively existing in the intellect [the possible Peter] to the thing existing in act [the actual Peter] as if they were two positive extremes", whereas they are only one.¹⁷³

A more detailed discussion of the last point, however, is postponed to the following section, where Suárez answers the question of what existence adds to essence. The question is answered from the very beginning, where Suárez states that the distinction between an entity in act and one in potency corresponds to that between an entity and a non-entity, since the being in potency (what Suárez properly calls *potentia objectiva*) is not something real and positive, since "there is no reality (speaking properly of a positive and actual thing) in the

beings)" (transl. in De Risi, "Leibniz around 1700", p. 59). The latter phrase (*quod etiam indicat omnia esse propter intelligentes*), which has been added later, hints at the idea that the quantity of reality (perfection) is multiplied because of the presence of a plurality of minds, which mirrors in themselves the same universe. It is also connected to the view that more reality is contained in the act in thinking together a plurality of things. Cf. M. Favaretti Camposampiero, "Perfection as Harmony: Leibniz's 1715 Doctrine and Wolff's Teleological Reformulation", Vorträge des X. Internationalen Leibniz Kongresses, vol. IV, pp. 465-77. On the philosophical themes in the correspondence between Leibniz and Wolff, see D. Rutherford, "Idealism Declined. Leibniz and Christian Wolff", in Lodge (ed.), *Leibniz and His Correspondents*, pp. 214-37.

¹⁷² DM XXXI, ii, 6/Wells 60-61.

¹⁷³ *Ibid.*, ii, 9/Wells 62-63.

possible essence before it is made".¹⁷⁴ On the part of creatures, or, if you prefer, *a parte rei*, there is only the creatures' non-repugnance to be made in such-and-such a way, i.e. the pure being of the possible *qua* possible is just given by the absence of contradiction.

The main task of Suárez, then, is to provide a sort of *reductio ad absurdum* of the thesis of a real distinction, and the argument is very similar to that adopted by Leibniz, i.e. that if one assumes that existence adds something real to a mere possible entity (i.e. existence is a *reality*), then one should distinguish also between a mere possible and an actual existence.¹⁷⁵

In a sense, then, Suárez should properly reject the possibility of talking of something like mere potential existence, since 'existence' refers to what is actual only. However, paradoxically as it might be, he does not refrain from explicitly talking of both existence *in actu exercito* and existence *in actu signato*, i.e. potential existence.¹⁷⁶

8.7.2 The rejection of existentia possibilis. From the correspondence with Eckhard to the GI

As I will show in this paragraph, the same (apparent) ambiguity can be found in Leibniz.

The point of departure will be, once again, Leibniz's discussion with Eckhard in 1677. In his first letter to Leibniz (dated April 1677), indeed, Eckhard defended the idea that existence is a perfection by insisting on the impossibility of a real distinction between essence and existence; which, however, seems to be interpreted by him in a very strong way, i.e. as a sort of quasi-identity between the two ("But who conceives of essence, in that very same act [of thought], he cannot but conceive of existence as well; and vice versa"). At this point, he introduces a distinction between possible and actual *essence* on one hand, and possible and actual *existence* on the other hand.

Essence and existence can be distinguished only when one compares possible essence with actual existence, and, in this, sense, also Eckhard admits that essence and existence are really different. But just as actual essence and actual existence, so also possible essence and possible existence amount to one and the same thing. Therefore, he can conclude that "possible essence is possible existence itself, not a certain portion or specification thereof. For the same reason, also actual existence, which is the very same actual essence, is not a portion or a

¹⁷⁴ DM XXXI, iii, 3/Wells 68. The specification between parenthesis is relevant, since, as we know, Suárez ultimately maintains that pure possibles are nothing from the existential but not from the essential point of view (therefore, their reality is nothing, when reality is equated with actual existence).

¹⁷⁵ Cf. DM XXXI, iii, 7/Wells 71.

¹⁷⁶ See DM XXXI, vii, 4-5, where he argues against the view that existence is a predicament: "But I think that existence as exercised in act is not properly located in a predicament, not on account of his excellence [...], but because such an existence is not properly other than potential existence or existence conceived of in a designated act which is located in a predicament". Therefore, he concludes that one must say existence to be "located [in a predicament] insofar as it is something existing in designated act or as existing possibly [*collocari tamen nihilominus prout quod existens est in actu signato, seu ut possibiliter existens*]". From this, he draws the conclusion that a thing as existing in act "does not add a new thing or a new mode beyond that whole substance as possibly existing [...]. But rather it adds (so to speak) the whole substance itself [*seipsam totam*]. For, when it was only in potency it was nothing and when it is in act the whole substance is something" (Wells 108-9). As one can see, this 'doubling' of existence corresponds to Leibniz's dilemma concerning the question whether existence is a determination of a thing (in the Scholastic jargon: whether existence can be located in a predicament) or not.

specification of that [this was Leibniz's original objection: existence cannot be a perfection since it is not a portion of essence]".¹⁷⁷

However expressed in a sort of Scholastic jargon, the roots of Eckhard's position have to be found in Descartes, who, in his discussion of the ontological argument, stated that every essence involves existence, i.e. possible existence in the case of the essence of creatures, necessary existence in the case of the most perfect being.¹⁷⁸ This point will be repeated by Eckhard in his second letter to Leibniz (the great letter of May 1677), in a passage where he, once again, defends the claim that actual existence is a perfection, maintaining that, as possible existence is a perfection (since it does not differ from possible being), actual existence must be a perfection as well, since it does not differ from actual being; furthermore, given that an actual being is more perfect than a possible one, also actual existence will be more perfect than mere possible existence.¹⁷⁹

Interestingly enough, in his marginal annotations on Eckhard's letter, Leibniz does not discuss the alleged validity of the argument, but focus his criticism on the very same plausibility of the notion of *existentia possibilis*:

"When I speak of existence, I speak of what is actual. For existence is opposed to essence, or the possibility of existing [Quando de existentia loquor, loquor de actuali, opponitur enim essentiae, seu possibilitati existendi]".¹⁸⁰

If existence refers to actuality, and only to that, then talking of 'possible existence' would be as absurd as talking of actuality-without-actuality. This criticism will be repeated, almost ten years later, in the context of Leibniz's discussion of 'existence' in the GI:

"But it is asked what 'existent' means: for an existent is an entity, i.e. a possible, and something else. All things considered, I do not see what is conceived in 'existent' other than some degree of entity, since it can be applied to various entities. Though, I would not wish to say that 'that something exists' is possible, i.e. possible existence. For this is simply essence itself; we, on the other hand, understand actual existence, i.e. something added to possibility or essence, so that in that sense possible existence would be the same as actuality abstracting from actuality, which is absurd".¹⁸¹

¹⁷⁷ Eckhard to Leibniz, April 9, 1677, A II 1, 318.

¹⁷⁸ Cf. the *Rationes* appendend to the *Second Replies*, AT VII, 166: "Existence is contained in the idea or concept of every single thing, since we cannot conceive of anything except as existing. Possible or contingent existence is contained in the concept of a limited thing, whereas necessary and perfect existence is contained in the concept of a supremely perfect being" (DPW II, 117). This notion of 'possible existence' is tightly connected with that of the 'objective reality' of a concept or idea, i.e. the objective reality of an idea is nothing but the possible existence thereof. Cf. C. Normore, "Descartes' Possibilities", in J. D. Moyal (ed.), *René Descartes : Critical Assessments*, vol. III, London and New York 1991, pp. 68-83.

¹⁷⁹ Eckhard to Leibniz, May 1677, A II 1, 331.

¹⁸⁰ A II 1, 331, note 12. Same idea in Leibniz's later remarks on Spinoza's *Principia philosophiae*, probably draft around 1691, available in the *Vorausedition* of A VI 5: "existentiam omnes intelligimus de actuali". And, in another marginal note: "existentiae nomine philosophi intelligunt actum, essentiae nomine possibilitatem. Hic vero existentia tam late sumitur quam entitas, non necessaria mutatione usus vocum". Also in this case, notice, Leibniz is commenting the Cartesian axiom that in the idea or the concept of everything existence is contained (be it possible or necessary). The remarks, indeed, are attached to the axioms following the fourth proposition of the first part of Spinoza's exposition of Descartes.

¹⁸¹ GI # 73, A VI 4, 762-63/LP 65.

This criticism moves from the point of view of what, at the end of the previous chapter, I have called 'Leibnizian actualism', i.e. the principle that, properly speaking, everything there is, is actual (or can be ultimately reduced to something actual). The question, however, cannot be resolved in such a simple way, because Leibniz himself will refer several times (in an explicit or implicit manner) to something like 'possible existence'.

The most striking case occurs in a paper written less than one year later than the note to Eckhard quoted above. In a text devoted to a reformulation of the ontological argument moving from the concept of 'necessary being', Leibniz writes: "Possible existence, or the possibility of a certain thing, and the essence of that very same thing are inseparable [Existentia possibilis seu Possibilitas rei alicujus , et ejusdem rei essentia sunt inseparabiles]".¹⁸²

Here, notice, the possibility of a certain thing is said to be identical with its possible existence, and this possibility/possible existence is also said to be inseparable with an essence. Leibniz explains this inseparability as follows: when the first thing (possible existence) is given in the regio idearum seu veritatum, seu realitatum, also the second thing (essence) will be given therein. This point will be discussed in details in the next chapter; for the moment let me say that this text (together with a couple of drafts written in August 1677) represents the point where Leibniz comes closer to a platonist ontology of abstract entities, which are taken to be existent.

At the same time, this notion of 'possible existence', however problematic, seems to have something to do with Leibniz's account of the possibles' exigentia existentiae, which I have already introduced in the previous paragraph. According to Wolfang Janke, indeed, Leibniz's criticism of the notion of 'possible existence' (in the annotation to Eckhard) has to be interpreted as the claim that one cannot immediately establish that 'existentia possibilis' constitutes the same as the 'possibilitas existendi', but a connection between these two notions must be looked for; and Leibniz's account of the possibles as having a tendency toward existence has to be understood as his own way to provide such a connection.¹⁸³ Other passages speak in favour of Leibniz's being keen to interpret the distinction between essence and existence as one between potency and actuality.¹⁸⁴

8.7.3 The modal and the ontological sense of existence

Such a situation, however, is not limited to this particular (and, under many aspects, eccentric) text only, since, as we have seen when studying the internal structure of the world as a series rerum, Leibniz continuously refers to elements which belong to the domain of what exists (existentialia, spatiotemporal relations, causal connections, relations of connection, positional differences, and so on), and do not pertain to the field of general essences (essentialia); but, nonetheless, are not just a prerogative of the actual world alone,

¹⁸² Probatio existentiae Dei ex ejus essentia, January 1678, A II 1, 390.

¹⁸³ W. Janke, "Das ontologische Argument in der Frühzeit des Leibnizischen Denkens (1676-78)", Kant-Studien, 54, 1963, 259-87, esp. pp. 280-81. Janke has been the first to publish (in the appendix to his paper) a partial version of the text of Leibniz's Probatio. For my discussion of this text, see the next Chapter.

but of every possible one. The very same notion of a 'possible individual', indeed, seems to refer to (and to involve) that of 'possible existence'.

Leibniz himself, indeed, cannot refrain from employing the notion of 'possible existence' in this sense, as one can see from the following passage of the *New Essays*, where the notion of 'truth' is taken into account:

"It is true that I have also attributed truth to ideas, by saying that ideas are either true or false; but what I mean by that is the truth of the proposition which affirms that the object of the idea is possible. *And in that sense one could also say that an entity is true, i.e. [attribute truth to] the proposition which affirms its actual or at least possible existence*".¹⁸⁵

Therefore, one can point out a certain tension, within Leibniz's system, between (1) the actualist strand defended in the passages I have discussed in the previous Chapter (especially those concerning the rejection of the plurality of worlds), which grounds Leibniz's harsh rejection of 'possible existence' in his notes to Eckhard and in the *GI*; and (2) the necessity of an enriched ontology, one which takes into account not only actual individuals and general essences, but possible individuals as well (i.e. possible existence).¹⁸⁶

Its relevance nonetheless, this tension between (1) and (2) has been scarcely discussed by Leibnizian scholars (in an explicit way, at least). The only attempt to solve it I am aware of has been provided by Martin Schneider, by resorting to an ingenious distinction between a modal and an ontological account of existence.¹⁸⁷ Schneider's reflection moves from the way in which Leibniz distinguishes between concrete and abstract entities (*entia concreta* and *abstracta*). According to him, indeed, the distinction between the concrete and abstract according to their *ontological status* should not be confused with their distinction according their *modal status*.

From the ontological point of view (O), indeed, the relevant distinction is that between the *concrete* and the *abstract*, which is not a modal one, and that, moreover, makes abstraction from the modal status, i.e. from the fact whether a concrete thing is an actual or a merely possible one. Only concrete things, i.e. individuals with their individual accidents can be ascribed absolute reality (they are *res* in a proper sense), whereas abstract entities are just *rerum modi*.

This is the core of Leibniz's particularism since his very early years. Compared to the autonomous existence (or way of being) of concrete entities, abstracts have a different and weaker ontological status, i.e. they can be regarded either as modifications of the concrete (we are taking them as individual accidents), or, when considered apart from the concrete, they are just ideal entities (we are talking of abstractions in a proper sense, like specific essences, and so on). This is the first sense in which, according to Schneider, one has to understand the contraposition between existence and possibility: "In contrast to the real existence [*wirklichen*]

¹⁸⁵ NE, IV, v, 1, A VI 6, 398.

¹⁸⁶ This tension has been clearly detected by Rauzy, *La doctrine leibnizienne de la vérité*, pp. 120-25. In particular, he stresses the contrast between what he calls the univocity of the term 'existence' defended at the end of 1676 (Leibnizian actualism) with the commitment to the existence of *entia necessaria*, like eternal truths and propositions, in the texts of August 1677. The latter (and the question of Leibniz's platonism) will be discussed in the following Chapter.

¹⁸⁷ Cf. Schneider, Analysis und Synthesis bei Leibniz, pp. 168-69.

Existenz] of the *entia concreta*, the way of being of the *entia abstracta* is only that of reality in the sense of possibility or essentiality".¹⁸⁸

However, the ontological status of concrete entities has not to be confused with their modal status (M), i.e. with actual existence in the (actual) world, but it stands for their autonomous, i.e. independent existence (vs. the dependent way of being of accidents). The ontological status of concrete vs. abstract entities is the same in every possible world. Therefore, what is characteristic of concrete entities (but not of abstract ones) is that they are endowed with a possibility for independent existence, which, however, does not immediately correspond with their actual existence in the (actual) world, since it is sufficient that they have possible existence only, i.e. that they exist in a sub-optimal possible world (better: they would have existed, had God chosen to actualize that world).

In this sense, there is a sort of mismatch between the notion of existence in the ontological sense (O) and in the modal sense (M), since the first stands for substantiality (what the Schoolmen properly called *subsistentia*), whereas the latter stands for actuality (*actualitas*).¹⁸⁹ Therefore, the distinction between concrete and abstract entities according to (O) must not be confused with the modal distinction (M) between actual and merely possible concrete entities (individuals).

According to (O), both actual and possible individuals are *real* (= concrete) entities, whereas general essences, taken in themselves (isolated from primary substances) are just *ideal* (=abstract) entities. Note that this is the main reason why Leibniz understands the latter as if they were the same in (or at) every possible world (according to his Platonist reading; in Chapter 7 I have showed that this was the case with mathematical space and time). According to (M), on the contrary, only actual contingent individuals exist at the actual world, whereas merely possible individuals seem to have the same modal status of general essence, i.e. they are simply possible. I shall come back to the last point in the next paragraph, where a certain ambiguity in Leibniz's way of talking of possibilities (specific essences vs. individual essences) will be taken into account.

For the moment, let me stress that, when coming to Leibniz's rejection of 'possible existence' in section 73 of the *GI*, Schneider's reading seems to be an extremely limitative one: Leibniz himself, according to him, would be confused, i.e. he would not distinguish too clearly between (O) and (M). When, as in the *GI* (or in the notes to Eckhard), he distinguishes between *possible* and *actual existence*, it seems that he is referring to the modal difference between a concrete thing existing in the actual world and a concrete thing existing in a mere possible one; but, at the same time, concrete existence in a mere possible world is immediately equated with the abstract way of being of an essence, which, as Schneider remarks, is true only in a modal but not in an ontological sense (true according to M but not to O).¹⁹⁰

¹⁸⁸ *Ibid.*, p. 168.

¹⁸⁹ Cf. *Ibid*, p. 169: "One can also say: *entia concreta* are independent entities, which have either actual existence or possible existence in one of the possible worlds. *Entia abstracta*, on the contrary, have not the possibility of an independent existence in the sense of their absolute reality. Furthermore, they can exist as independent entities neither in the actual world nor in any of the possible worlds. [...] Their reality, indeed, is always derivative and dependent on the actual or possible existence of independent entities". In the next paragraph, I will argue that for Leibniz abstract entities are necessarily abstract.

¹⁹⁰ Cf. Schneider, Analysis und Synthesis, 169-70, note 13.

As I will show in the next paragraph, the confusion denounced by Schneider can be made sense of by taking into account that Leibniz sometimes seems to employ (confusedly? It is difficult to say it with precision) two different notions of *abstraction* as well; for, according to that which the Schoolmen called *cognitio abstractiva*, also possible individuals could be regarded as abstract entities, where abstraction is only abstraction-from-existence.

8.7.4 A problem concerning the development of Leibniz's thought

I think that Schneider's extremely sharp diagnosis of the problem can be usefully integrated within the considerations concerning the development of Leibniz's ideas I have put forth in the two previous Sections. It fits very well, indeed, with the reconstruction of Leibniz's thought as I have presented it so far.

As one can immediately see, indeed, the distinction between (O) and (M) is very close to the one

I have proposed in Section I in order to distinguish between the young Leibniz's point of view on existence and his views after the Paris period, where the main difference was the introduction of a 'possible worlds' ontology. For the early Leibniz, indeed, (M) is not a prominent problem, because, given his commitment to full-fledged nominalism, the distinction between purely possible and actual individuals amounts to a distinction between merely imaginary entities and real ones.

This intuition is at the basis of Leibniz's novel argument and is preserved at the beginning of his Paris period, where, as I have argued above, merely possible entities (*possibilia*) are equated with relations and numbers, and conceived of as abstract entities: they are all taken as merely imaginary ones (see 5.1 above). In that case, then, one could say that (M) collapsed on (O), or, rather, that, since purely possible entities had, properly speaking, no ontological status at all, the question of actual existence and that of the existence of *subsistentia* (concrete and independent entities) amounted to one and the same thing. In other terms, the notion of the concrete and that of the actual were coextensive one, and it seems that Leibniz was not too worried about the question whether this coextensiveness amounted to identity or not. According to Leibniz pre-possible worlds view, so to speak, the catalogue of the world was composed by actual entities (substances with their individual accidents) and abstract ones. Reduction of *possibilia* to abstracts was made easier by the fact that, as I suspect, Leibniz had not yet in mind the idea of merely possible individuals.¹⁹¹

The notion of a 'possible individual' (complete individual concept), indeed, brings with itself the idea of the possible worlds which it inhabits, i.e. of a *series of things* alternative to the actual one. In his earlier Paris notes, however, Leibniz was very clear about the fact that there is one , and only one, completely ordered and compact series of things, i.e. the actual world, whereas possible entities are just 'scattered things' (they are simply possible because they are 1) non-contradictory and 2) incompossible with the actual series).

¹⁹¹ As I have showed at the beginning of this chapter, even in his early attempts at developing a 'Platonic' ontology of ideal entities, like in the letter to Foucher, possibles which are said to be real are general essences (mathematical entities, especially geometrical figures), not possible individuals. The contrast between these two sense of 'possibles' will be discussed below, see 8.9.

Leibniz's insistence on the novel-argument is particularly interesting in this sense. The favourite example for a merely possible thing, indeed, is a fictional entity. However, as I have said, the novel argument will be retained by Leibniz even in his mature period (when possible worlds have already been introduced). Fictional entities, however, typically represent incomplete beings, i.e. objects (bearers of properties) which are undetermined under many respects. On the contrary, possible worlds are supposed to be made out of complete individual concepts, which are *omnimode determinati*, i.e. a possible world (or a possible individual as well) represents a complete history of the world (not just a partial representation of it). Partial representations, indeed, can overlap, whereas possible worlds cannot (as Leibniz himself acknowledged).

Perhaps, the best way to fill the gap is to assume that fictional entities, insofar as they are (necessarily?) incomplete entities, are the best sample of the kind of modal thinking that can be entertained by a finite understanding, such as the human one. On the contrary, possible worlds are to be conceived as the object of God's infinite understanding. In this sense, whereas for God's mind there is no difference between the epistemology and the ontology of modality, the two have to be carefully distinguished in the case of human minds.¹⁹² Let me say, *en passant*, that this view would be in keeping with an account of possible worlds in terms of complete *world-books*, which, in some sense, represent what would happen in that world, had it to be created or actualized by God.¹⁹³

In the case of the 'novel argument', then, the fusion between Leibniz's early views and his mature ones seems to be a harmonic one, because that which was the whole of the young Leibniz's view on the topic (the fictional account of possibilities) became only a part of his mature account (it corresponds to the epistemic, finite point of view). When coming to the notion of 'existence', however, the fusion between the old and the new view (or, if you prefer, between (O) and (M)), seems to be a much more problematic one. This is why I have presented it as a lack of pre-established harmony.

According to the young Leibniz's approach (remember section 83 of the DAC), indeed, existence (which was clearly equated with 'actuality') has been extruded from the domain of demonstrative knowledge based on definitions and demonstrations, i.e. on concepts and propositions. Existence, however, regarded only singular and concrete entities, while

¹⁹² Leibniz, unfortunately, does not say too much about this point, in particular about the question if, when we refer to a fictional character, like King Arthur, by means of an incomplete description, we are also picking out a 'real' inhabitant in the domain of a possible world (in the mind of God) or not (this problem, of course, is connected with Leibniz's account of counterfactuals). In a list of definitions written around 1683-85, Leibniz writes: "A *fiction* is the thought of an impossible thing like the fastest motion, but sometimes it can also be taken as referring to a thing which never exists, like 'Argenis'" (A VI 4, 570). The same problem can be extended to cover the cases of the relation between our way of fixing the reference of a proper name by means of a description (necessarily undetermined under many aspects) and God's acquaintance with the complete concept of that individual. Cf. Poser, *Zur Theorie der Modalbegriffe*, p. 11 1 and ff.

¹⁹³ In contemporary terms, one would think of R. Adams' characterization of possible worlds as 'world-books' or, perhaps, of R. Jeffrey's talking of possible worlds as complete and consistent novels (where a 'novel' is a non-empty set of sentences). Cf. R. Jeffrey, *The Logic of Decision*, second edition, Chicago and London 1983, p. 208. Cf. Leibniz to Bourguet, 1713, GP III, 558: "When I say that there is an infinity of possible worlds, it mean those which do not imply a contradiction, as one can write novels which will never exist but are nevertheless possible". Cf. also E. Pasini, "Complete Concepts as Histories", *Studia Leibnitiana*, 42, 2, 2010, pp. 229-43. Of course, the metaphor of the book is pervasive in Leibniz's writings, not only in the final part the *Theodicy*, but also in late text on *Apokatastasis* (see Fichant's commentary to the latter, *De l'horizon de la doctrine humaine*, pp. 125 and ff.

demonstrations regarded only abstract and general essences, or, better, connections between general essences. Consequently, existential statements could not be derived 'analytically' from the nature of things.

On the contrary, contingent and individual features of things originally excluded from the domain of analytical knowledge, will be included in Leibniz's account of substance in terms of complete concepts, for a complete concept involves not only *essentialia* but also *existentialia* (see my account of universal connection in Chapter 6 above).¹⁹⁴ In this case, then, the complete concept is not only the (theological) counterpart of the ontological subject of the DAC, but it is also an *individual essence*. Furthermore, as I have pointed out in the previous paragraphs of this chapter, there are times when Leibniz stresses the representative (or descriptive) function of the complete concept, and other times when he stresses its exemplar (or normative) function.

The problems connected with the notion of 'existence' (whether it has to be placed inside or outside the complete concept of an individual), therefore, can be, if not resolved, at least made understandable in terms of Leibniz's trouble at finding a perfect match between the ontological and the modal account. Perhaps, this is the reason why, in his account of existence, Leibniz shifts from actuality in the proper sense (the domain of 'distinct perceivability') to what makes an individual (a world) existence-worth, i.e. its degree of perfection. The latter, but not the former, indeed, can be said to result from the qualities and determinations of a thing contained in the latter's complete concept.

8.7.5 From De Cogitationum Analysis to the Remarks on Stegmann

This point can be confirmed by the analysis of an important text, which is placed right at the beginning of the Hannoverian period, thus in a period when the transition described above is still ongoing. It is a table of definitions, which the editors have entitled *De cogitationum analysi*, where, at a certain point, Leibniz adds some further reflections on the notion of an (ontological) subject. The notion of the ultimate subject is derived in a practical (or operative) way, i.e. by showing the difference between it and the notion of an attribute. According to the example chosen by Leibniz, I can think of 'heat' (*calor*) without taking into account any 'hot thing' (*calidum*), but I cannot conceive of 'this heat' (i.e. this particular, individual accident) without considering some hot thing at the same time. Again:

¹⁹⁴ Cf. also Leibniz's remarks on Twisse: "Necessary truths concern essences, contingent truths concern existences. [...] Existences, indeed, involve all the circumstances, i.e. all singular things [*singularia*]. [...] The complete notion of an individual involves essential as well as existential predicates [*Notio completa individui complectitur tam essentialia quam existentialia*]" (Grua 354). Compare this passage with the earlier *De libertate, fato, gratia Dei*, A VI 4, 1600: "It must be answered that in this complete notion of a possible Peter, which is the object of God's knowledge, are contained not only essential or necessary predicates, i.e. those which flow from incomplete or specific notions (and, therefore, can be demonstrated *ex terminis*, since their opposite implies a contradiction), but also existential ones, or, as I also would say, contingent, because what is proper of the nature of an individual substance is that its notion is perfect and complete, and contains all individual circumstances, also contingent ones, until the smallest differences [...]". The passage in the remarks on Twisse proves that also in his late writings Leibniz is still committed to this account of individual substances in terms of complete concepts.

"Of course, I can think of a circle, as a thing possible in itself, or which do not imply a contradiction; but, if I wish to know whether a circle exists now, and if I want to know it *a priori*, I am forced to presuppose many other things beside this, and, first of all, I am forced to presuppose the transition from the circle and the properties which follow from its nature to other things, i.e. to the circular subject [*literally*: "the subject of the circle"]. For the essence of the circle, taken in itself, can be resolved into its causes, until the first ones; from that, however, I cannot judge whether a circle exists or not; for there are certain difference which cannot be derived from forms: these are the difference between a big and a small circle, or the question whether there is only one circle or many, or whether it exists or not. When I have discovered that a circle is possible, indeed, I can ask whether something is possible, which involves a plurality of things [...]. It is clear from that that the ultimate subject is a complete entity [*Ens completum*], which involves the whole nature of things, i.e. such that from the perfect understanding of it (having understood those aspects which can discern it from all the other things), it can be concluded which possibles do exist".¹⁹⁵

The main aim of this passage is the characterization of the ultimate subject ('substance') as a complete being or complete entity, a point Leibniz had already sketched in a short note written at the end of 1676, where individual substance had been characterized in terms of its ontological (not conceptual) completeness, i.e. as something "which involves all things, i.e. for the perfect understanding of which the understanding of no other thing is required".¹⁹⁶

Also in that case, this characterization of a substance was contrasted with that of a figure, i.e. of something having an abstract nature, for the perfect understanding of which something else has to be understood (in this case, motion that has actually produced that particular circular thing).

In the text above, however, something more is added, i.e. the fact that an abstract entity, even when resolved into its most basic attributes (like the concepts constituting the definition of the circle), cannot provide us with an answer to questions concerning all those differences which cannot be derived from forms, i.e. those concerning quantitative properties, numerical identity, and existence. In order to answer this question, one must shift from the circle and the properties derivable from its (general) essence to the circular thing (*subjectum circuli*), from the perfect understanding of which an infinitely sharp mind would be able to derive not only everything about that thing (i.e. those properties which are not derivable from the essence of the circle alone), but could also judge which possible things exist.

The latter can just mean that, from the nature of a singular substance, an omniscient mind would be able to derive everything which is compossible with that substance. Interestingly enough, the notion of existence is employed to characterize those 'haecceitistic' properties which cannot be captured at the level of general essences. This point can be also argued from the fact that Leibniz explicitly contrasts the question concerning the possibility of the circle *in se* with the question concerning the *present existence* of the circle (*sed si nosse velim an nunc existat circulus*), where reference to 'now' makes clear that he has in mind the position of a determinate individual within the whole series of things.¹⁹⁷

In this way, Leibniz concludes that an individual is "that, the understanding of which involves the understanding of the existence of things [*Individuum autem est cujus intelligentia*

 ¹⁹⁵ De cogitationum analysis, 1678-81 (?), A VI 4, 2770 (the earlier date seems the most plausible to me).
 ¹⁹⁶ Cf. A VI 3, 400.

¹⁹⁷ Cf. also *Inquirenda logico-metaphysica*, 1689-90 (?), A VI 4, 998: "Omne Ens completum existens simplicius, est simul natura prius, quia omne Ens completum omnia alia existentia involvit. [...] Videndum an non omne individuum, etiam accidens, involvat omnia alia existentia, quia involvit suum subjectum".

involvit intelligentiam existentiae rerum].¹⁹⁸ The 'universal', on the other hand, is "that, the understanding of which involves possibilities only". As one can see, the contraposition between individuality and universality is explained in terms of that between, respectively, existence and possibility. A singular thing, which is the same as an individual, is also characterized as "that, from the understanding of which one can judge whether and when and where it exists, and if it exists alone or with others, and, in a word, the whole totality of things".¹⁹⁹

In the 1678 *De cogitationum analysi*, the contrast between existence and essence (possibility) is plainly stated in terms of the opposition between the universal and the singular (i.e. the abstract and the concrete). The very same example employed there, that of the circle, will be used again by Leibniz in his late remarks on Stegmann (written after 1708); once again, he wants to stress the distinction between questions concerning the essence of a thing (the *quid sit*) and questions concerning the existence of the same thing (the *an sit*). In the latter text, indeed, Leibniz writes:

"The author [Stegmann] makes the mistake of confusing essence and existence. He says that essence and existence are nothing other than the very nature of the entity which is called its reason and quiddity. But the question of essence is one thing, that of existence is another. When the essence of the circle is known to us (i.e. that all extreme points of a plane figure are equidistant from one centre) we enquire afterwards about existence, by applying this definition to some given figure, which is claimed to be a circle, and thus we find out about the existence of a circle, i.e., whether it exists or not. So the essence of a circle can be known to us, although its existence is unknown".²⁰⁰

Also in this case, as in the earlier text, the passage from essence to existence is understood as the transition from a general essence (which is captured by the definition of the circle) to a circular subject, i.e. to a determinate figure "which is claimed to be a circle" (*quae pro circulo venditatur*). Emphasis, however, is not put on the distinction between general and specific properties (which flow from an incomplete notion) and individual properties (which derive from the individual nature), but, rather, on the priority of the question of essence over that of existence in the case of our knowledge of mathematical objects, i.e. on the fact that, in order to be able to say if a determinate thing is circular or not, we must already be able to understand what is a circle (i.e. to know its definition).

In this case, however, 'existence' is no longer characterized in a temporal fashion, i.e. as existence *now*, which is just a reference to the position of a (completely determined) individual in the order of the series, but, rather, as something connected with the old question concerning the existence of the external world: our knowledge of the essence of the circle is guaranteed by our knowledge of the definition of the circle, whereas our knowledge of the existence of something which is a circle (a circular subject) is uncertain, because it ultimately rest on our acquaintance with something external to us (knowledge of the essence would remain unaltered even though there were no actually existing world).²⁰¹

¹⁹⁸ Cf. A VI 5, 875: "Omne enim existens involvit omnia quibus coexistit".

¹⁹⁹ A VI 4, 2770-71.

²⁰⁰ After 1708, Jolley 181.

²⁰¹ In the next chapter, I shall highlight Leibniz's attempt at distinguishing two different ways of understanding existential propositions, one *de certo tempore* and the other making abstraction from a determinate time. See below.

Coming back to the text of *De cogitationum analysi*, one should also pay attention to a marginal remark appended by Leibniz to the definition of *connected things* as those which mutually involve the existence of each other.

In his remark, indeed, he comes back to point out the difference between knowledge of essence and knowledge of existence:

"Notice that one thing is to think of the essence, another to think of existence. And to think of possible existence is nothing else than to think of existence. But demonstrating a possibility is another thing. I do not conceive of the heat as possible, unless insofar as I conceive a certain subject as existing. I cannot distinctly conceive of the existence of heat without conceiving the concept of a cause".²⁰²

What Leibniz says in this note, i.e. that to think of a possible existence is nothing else than to think of existence seems to be, at first sight, the opposite of what he will say in the *GI*, where 'possible existence' is rejected because it would be just the same as essence. Here, on the contrary, possible existence is equated with existence and contrasted with essence. As I have already pointed out, however, in the passage from GI, the notion of 'existence' is explicitly referred to 'actuality', whereas in this case the contraposition between essence and existence is placed at the ontological, not at the modal level.

In particular, Leibniz stresses that, in order to demonstrate that 'heat' is possible, one has to conceive of a certain subject as existing, i.e. a concrete and individual subject (a thing), which can be said to be 'hot' (i.e. which is 'this hot thing'), i.e. one has to look for an example of an hot thing (perhaps by way of ostension). On the contrary, in order to conceive of the existence of heat (or, perhaps, of 'this hot thing'), one has to look for the concept of a cause. Where, notice, the concept of a cause means that the cause can be just a mere possible one (possible existence requires a possible cause to be understood).²⁰³

As remarked by Stefano Di Bella, in this note "the boundary between the two spheres (say, the essential and the existential) does not properly coincide, despite all appearances, with the one between the possible and the actual".²⁰⁴ In this sense, then, 'existence' is explained in terms of compossibility, but, as already said, this is a notion that holds for every possible world, not just for the actual one; even though, of course, these two notions are not unrelated, since the actual world is ultimately described as the 'most compossible one' (or, better, as the most perfect among the many sets of compossible things).

²⁰² De cogitationum analysi, A VI 4, 2769, note 4.

²⁰³ Cf. Leibniz to De Volder, July 6, 1701, GP II, 225: "You reply that a cause is required in order to conceive of the existence of a substance, but not in order to conceive of its essence. However, I redouble: in order to conceive the essence of a substance, the notion of a possible cause is required; in order to conceive of its existence, the notion of an actual cause is required". Cf. also Leibniz to Bourguet, GP III, 572. ²⁰⁴ Di Bella, *The Science of the Individual*, p. 92. See also pp. 96-7, where he explains that, as universal

²⁰⁴ Di Bella, *The Science of the Individual*, p. 92. See also pp. 96-7, where he explains that, as universal connection is understood as a notion that explains spatiotemporal location (and as discernibility is a notion that explains numerical distinction), so compossibility is the notion that explains 'existence' (where, of course, 'existence' primarily means 'existence at a (possible) world', not actuality *tout court*).

8.8 A Twofold Account of Possibility:

Pre-existential and Post-existential one

Terminological questions aside, however, I think there is a sense in which Leibniz is legitimate to distinguish between a notion of 'possible existence' which should be rejected, and one that, on the contrary, should be accept within his system. What I will say is mostly implicit in Leibniz's texts, but I think it is not in contrast with the spirit of his philosophy (as far as the letter is concerned, indeed, his remarks on 'possible existence' might be regarded as ambiguous).

In Chapter 2, I have shown how the young Leibniz, influenced by Thomasius, rejected the notion of 'potential being' in the sense of the Schoolmen's *ens nominaliter sumptum*, i.e. the essential notion of being.

In that passage, indeed, a very young Leibniz wrote:

"Potential being can be called 'being' [*Ens*] only in an inappropriate way. [...]It will be enough to say that being in potency is in potency only by changing the meaning of the term [*termino alienante*], as a husband in potency is not a husband. If the author [Stahl] wants to maintain the expression "potential being", he should explain it not as if it were in potency with respect to being [*ens*], but, rather, with respect to existence [*existere*]".²⁰⁵

As said above, Leibniz is endorsing what we would call an *attributive reading* of 'potential being' against a *predicative reading*. Now, as it will be explicit in the next chapter, from the time of this remark, Leibniz will change his mind about the reliability of the notion of *essentia realis* (or the nominal sense of being), accepting the idea that the absence of contradiction of a concept is enough to capture an essence at the level of what is purely possible. As it is characteristic of many aspects of his thought, however, the idea behind the remark in the passage above will be retained by him, and re-interpreted in terms of a theory of existential possibility, one in which 'potential being' is said to be potential "not in respect to essence but to [actual] existence".

The main idea, indeed, is that *possible* in 'possible individual' (or 'possible world') has to be taken as shorthand for 'possibly existing individual' (or 'possibly existing world'), and that this notion of existential possibility is the same as that of 'possible existence', and that both of them are to be read attributively, not predicatively. In other words, coherently with his rejection of modal realism, Leibniz can both reject and accept the idea of 'possible existent things'. The predicative reading of 'possible', indeed, is correctly rejected since it would commit him to the existence of merely possible *things* (i.e. to a form of modal realism), but the attributive reading , on the contrary, might well be accepted, for merely possible things are no longer things in a proper sense. A merely possible individual, indeed, is not an individual but a *complete concept* (what, according to the material way of speech, is said to be a possible individual should be properly understood, in the formal way of speech, as referred to a

²⁰⁵ A VI 1, 23.

concept).²⁰⁶ The expression 'possible individual' is a sort of abbreviation for 'something which, were to exist (were to be created by God), would be an individual'.

8.8.1 An attributive theory of possibility (Leibniz vs. Meinong)

This idea has been originally emphasized in Bolzano's reading of the Leibnizian notion of *cogitatio possibilis* in the 1677 *Dialogus*(which Bolzano regards as an anticipation of his own notion of 'proposition in itself'). This original intuition by Bolzano has been discussed and formalized by B. Schnieder.²⁰⁷ In what follows, some of the results of this paper will be applied (with slight modifications) to Leibniz's account of existential possibility, since I do believe that a similar intuition is at the basis of Leibniz's mature account of essences as having a tendency toward existence.

The main idea, as sketched above, is that, while in a Meinongian perspective, a 'possible golden mountain' is 'something which is a mountain, is golden, and is possible', according to the attributive reading, a 'a possible golden mountain' is no mountain at all, nor is something golden and merely possible (since, being a concept, it is neither golden nor possible), but is something which, when (and if) made actual, would exist as golden mountain.

One problem with this approach is that, whereas in the case of a 'possible golden mountain', 'possible' can be taken as something which 'modifies' the substantive 'golden mountain' (according to the Scholastic jargon, an *alienating term*), when talking of something like a 'possible object', it seems difficult not to read 'possible' predicatively, given that an object is usually characterized as any bearer of properties whatever. In Leibniz's terminology, notice,

²⁰⁶ On this point, cf. the remarks of B. Mates, "Leibnizian Possible Worlds and Related Modern Concepts", pp. 176-77. Something like the distinction between formal and material mode of speech plays a fundamental role here. Such a distinction, which we usually associate with Carnap's theory of semantical ascent, corresponds to the use/mention distinction and, as such, was widely employed even in the Scholastic debates (cf. the distinction between in actu signato and in actu exercito). On the distinction between the formal and the material significate, cf. Nuchelmans, Judgment and Proposition, p. 223 and ff. In particular, he stresses that "the distinction between formal and material supposition and that between actus exercitus and actus significatus could also be brought under the opposition directus/reflexus or reflexivus". He also adds that "if we reflect upon the units of thought and speech themselves, and if we conceive of them and mention them in abstraction from their direct reference to the world, this reflection necessarily turns actus exercitus ['use'] into an actus significatus ['mention'] and makes use of words that have to be taken according to material supposition [here, 'material supposition' corresponds to the formal mode of speech, not to the material one!]. So the world reflexivus could easily acquire a meaning that is closely akin to the modern sense of the prefix 'meta-'" (p. 226). This point is relevant, for Leibniz sometimes explicitly connects reflexions on possibilities with what the *reflexive* mode of speech, especially as far as the problem of primitive possibles (or primary notions) is concerned, cf. A VI 4, 1441, note: "From this it clearly appears that simple notions cannot be understood if not by means of propositions, at least considered in a reflexive way". This note is appended to a passage in the main text where Leibniz observes that the definition of *possibility* contains in itself that of this *to-be-something* [hujus esse aliquid]". I shall come back on this point in Chapter 9.6.

²⁰⁷ Cf. B. Schnieder, "Mere Possibilities. Bolzano's Account of Non-Actual Objects", in *Journal of the History of Philosophy*, 45, 4, 2007, pp. 525-50. For Bolzano's remarks on Leibniz's notion of possibility, see B. Bolzano, *Wissenschaftslehre*, Sulzbach 1837, # 23, pp. 92-93: "The concept of *cogitatio possibilis*, which Leibniz express in many places, is not something formed by the two concepts *cogitatio* and *possibilis*, i.e. in the way in which many others concepts we express are formed by connecting a substantive with an adjective, like, for instance, the concept of a 'golden chandelier' is formed by the two concepts of 'chandelier' and 'golden thing'. The golden chandelier is a species of chandelier in general; on the contrary, a possible thought is not a species of thought in general, but a species of possibilities".

what is nowadays called an 'object' is called an *entity* (*Ens*), since he sticks to the claim that non entis nulla sunt attributa. This ens, in turn, can be either interpreted as a concept (when it is contrasted with an actually existing thing) or as an object in itself, i.e. as an essence (the Schoolmen's essentia realis).²⁰⁸

In this case, however, a 'possible object' (as a 'possible individual') is just an abbreviation for a 'possibly actual object' (or 'possibly actual individual'); in this sense, what is modified by 'possible' is 'actual' (not 'object'), and this is exactly the sense in which Leibniz can speak of *possible existence*. (Of course, every actual object is also a possible one; a merely possible object will be defined as an object which is not actual and is possibly actual).²⁰⁹

Moreover, Leibniz's reflection is placed into an essentialist frame, i.e. one in which, roughly speaking, there can be no object (i.e. no individual) which is not an object of some *sort*, be it a specific or an individual one. Furthermore, he clearly accept the Cartesian paradigm that essence precedes existence, i.e. that the question quid sit must precede the question an sit, contrary to what has been maintained by the whole Aristotelian tradition. It follows, therefore, that there cannot be merely possible objects (in the sense clarified above) which are not merely possible objects of some sort. Of course, in the context of traditional essentialism, the idea is that something is a 'possible F' where F stands for a (finite) set of essential properties. According to Leibniz's considered view, since only individual can exist in a proper sense (i.e. be actual), it follows that something is a 'possible F' where F stands for an individual essence (i.e. an infinite set of properties), i.e. something like a 'possible Peter' or a 'possible Adam'.

It is interesting to show how the two different formalizations employed by Schnieder to grasp the idea of 'essential property' (according to Bolzano) can be usefully applied to Leibniz's case as well. The general premise is that, when one talks of an essential property, he generally assume that φ is an essential property of an individual *i* if *i* cannot exist without ceasing to exist, or, alternatively, without ceasing to be *i*. These two characterizations are usually taken as equivalent ones, but they can be differentiated depending on how narrow (or, alternatively, how large) the concept of existence one has in mind is.

If one assume a purely *logical* characterization of existence, indeed, 'x exists' is expressed as $(\exists y (y = x))'$, i.e. existence is defined by means of identity. In this sense, notice, everything which is not self-contradictory, i.e. every logically consistent concept, would be said to exist. This is why this notion of 'existence' is characterized as a logical one. Alternatively, one can interpret 'existence' in a more restricted sense, i.e. as referred to what is *actual* and only to

²⁰⁸ Cf. what Leibniz writes in the first draft of *De modo distinguendi phaenomena realia ab imaginariis*, A VI 4, 1499: "What an *Entity* [*Ens*] or a thing is cannot be explained better than stating that A is an entity, and B is an entity, and D is an entity, and, thus, it is as if were to say that Entity is the common genus of all them. Something [Aliquid] and entity are actually the same thing, but they differ only from the way they are conceived. I can also say that an entity is that the concept of which involves something positive, or posit something which can be conceived by us". Immediately after that, he adds a characterization of *Existens* in terms of distinct perceptions ("That entity exists which can be immediately perceived or from which something follows which can be immediately perceived"); where it is clear that what perceptio adds to mere cogitatio (and existence adds to mere entity) is the fact of being *cogitatio ex qua sequitur conatus agendi* (Ibid.). In this way, we obtain our distinction between purely logical existence (ens) and actual existence (existentia), where the latter is characterized as having causal powers. On the connection between existentia and conatus agendi see my discussion in the Appendix to Chapter 4 above. ²⁰⁹ Cf. Schnieder, "Mere Possibilities", p. 537.

that; in this sense, to say that 'x exists' means just to say that 'x is actual'. The notion of actuality has to be interpreted here as essentially related to spatiotemporal location and causal efficacy, i.e. the main idea is that a thing is actual if and only if, in principle, it can have causal interaction with us (and vice versa).²¹⁰ In a more Leibnizian sense, one can say that something is actual if and only if it belongs to the (causally and spatiotemporally interconnected) series of things which constitutes the world created by God.

Now, given that φ is essential to x iff, necessarily, if x exists, x has φ , two different interpretations of 'essential property' follow from the two ways in which 'existence' can be taken.

According to the first one,

(1) φ is an essential property of *x* iff \Box ($\exists y (y = x) \rightarrow x$ has φ)²¹¹;

According to the second,

(2) φ is an essential property of x iff \Box (x is actual \rightarrow x has φ).²¹²

According to (1), no object can fail to exist, since no individual can fail to be identical to itself; in other words, the only non-existing things are those which fail to be identical to themselves, and they are just nothing at all, for there is no 'entity' corresponding to an inconsistent concept; according to (2), on the contrary, there are (in the logical sense of 'there are') many objects (=bearers of properties) which fail to exist (=to be actual), and, thus, actually existing objects are contingently actual. Moreover, according to (1), but not according to (2), abstract objects and general essences might be said to have existence as well (this derives from the narrow account of actuality we have introduced above).

²¹⁰ In this sense numbers, ideas, concepts, propositions are not actual. In the following pages of this chapter, indeed, I will take 'actual' as synonym of what has causal powers and is placed in a spatiotemporal framework. This notion of 'actuality' is different from that employed by modern metaphysicians, when they say, for example, that possible worlds are made of propositions and that propositions are actual entities, i.e. they belong to the actual world. In this case, numbers and mathematical propositions are not only actual, but also necessarily existent entities, whereas they are not actual according to the causally efficacious criterion employed above (since they are not concrete). In the next chapter, I will show that in certain texts Leibniz comes closer to this idea of 'actuality' in the case of essential and necessary propositions (and abstract objects).

²¹¹ This is the way in which an essential property is characterized by Kripke, cf. S. Kripke, "Identity and Necessity", originally published in M. K. Munitz (ed.), *Identity and Individuation*, New York 1971; now in S. Kripke, *Philosophical Troubles. Collected Papers*, vol. I, Oxford 2011, pp. 1-26, especially p. 15 note 12. Kripke observes that \Box [($\exists x$)(x = a) \rightarrow Fa] is equivalent to \Box [($\forall x$) (non Fx $\rightarrow x = /= a$)], and adds that the second formulation "has served as a powerful seducer in favour of theories about the 'identification across possible worlds'". Against this temptation, however, Kripke emphasizes that "although an essential property is (trivially) a property without which an object cannot be *a*, it by no means follows that the essential, purely qualitative properties of a jointly form a sufficient condition for being *a*, nor that any purely qualitative conditions are sufficient for an object to be *a*". I am wondering whether the temptation of falling into a qualitative view of identification through possible worlds might also have been suggested by Kripke's choice of defining an essential property in terms of *de dicto* necessity, whereas essentialism (at least, traditional one) was clearly committed to a *de re* account of modality

²¹² Cf. Schnieder, "Mere Possibilities", pp. 538-39. This account is based on Linsky and Zalta's views, where, however, 'actual' is replaced by 'concrete', for they stick to the view that everything exists, even though not everything is concrete. Cf. B. Linsky and E. Zalta, "In Defense of the Simplest Quantified Modal Logic", *Philosophical Perspectives*, 8, 1994, pp. 431-58. See also below and my discussion in the Introduction.

In this sense, if we take a Leibnizian 'possible', i.e. a possible individual, say the possible Peter, he could have failed to be actual (since God could have created another world) and, therefore, according to (2), he could have failed to exist, i.e. to be an actual individual. In this sense, a merely possible Peter *is not* an individual (in flesh and bones), he *is not* born from such and such parents, and he has never denied Jesus, and so on; all those things can be said of him only in a counterfactual way. Assume, indeed, that God has in fact created a world which does not contain Peter; all that we can say is that, had God created the world to which (the complete concept of) Peter belongs, Peter would have been actual, i.e. he would have been born from such and such parents, denied Jesus, and so on. In particular, we can ascribe him all those individual and *haecceitistic* properties, such as spatiotemporal and causal determinations, which, on the contrary can never be ascribed to a mere abstract object, like a triangle (properly speaking, i.e. according to the material way of speech, they cannot be ascribed to Peter's concept either, but they can be ascribed to it only according to the formal way of speech, i.e. the concept of Peter represents everything that would happen had the individual Peter to be actualized by God).

According to (1), on the other hand, Peter could have never failed to be Peter, since 'to be Peter', in this case, means just to have a complete concept such and such; this also means that, every change (even the smallest one) in the complete concept of Peter would modify his individual essence as well, i.e. would make it the complete concept of another individual, not of that very same Peter (here I do not take position on the question whether 'to be Peter' should be taken as something like an abbreviation for an extremely accurate and infinite description, like the Quinean 'Peterizes', or, rather, like a sort of haecceity in Plantinga's sense).²¹³

²¹³ The Quinean option, however, has to face the question of Leibniz's commitment to some (weak or strong) form of essentialism. In other words, the question is whether 'to be a man' or 'to be Appius' are determinations that an individual can lose without ceasing to exist. In favour of the former there is Leibniz's commitment to the idea that death is just a transformation and not a complete annihilation of the individual. On the other hand, however, something similar to a Quinean view is contrasted by him in his attempts at making sense of the ontology of change and, especially, the persistence of the same individual through time. Cf. in particular the text De mutationibus, VE 172-75, commented by S. Di Bella, "Leibniz on the Subject of Change", in K. D. Dutz (hrsg.), Individuation. Sympnoia panta. Harmonia. Emanation. Festgabe H. Schepers, Münster 2000, pp. 23-48. In *De mutationibus*, indeed, the very question is whether terms like *Appius* or *homo* are to be taken as accidental or essential. Concerning general essential terms, like *homo*, other texts to be taken into account are the table of categories of the 1680's, where, however, the discussion is connected with the perspective of grammatica rationalis. Cf. A VI 4, 553-4, 571-72, 575, 625-26, 928, 943, and 998-99. These texts usually presents two different levels of analysis. At the grammatical level, they look for a criterion of distinction between substantive and attributive terms. Cf. for instance A VI 4, 571, where Leibniz writes that a term expressing a secondary substance, like homo, does not have a subjectum inhaesionis (i.e. there is no such a thing like humanitas): "it cannot be found any thing of which one can say that it has 'man', or, that 'man' inheres to 'it', in the same way in which one can find a thing which has 'heat', or such that 'heat' inheres to it'. The philosophical level analysis, however, is put forth few lines below, where he adds (p. 572) that, if one can employ only concrete terms, every term would turn out to be a substantive one, and, therefore, homo could be actually expressed in terms of res humanitate praedita. The same position will be repeated in the late correspondence with Des Bosses, where Leibniz will explicitly resort to the Ockhamist distinction between denotation and connotation: "Real terms are the things themselves, since nothing is expressed besides the thing; connoting terms are things with an addition. For instance, 'man' is a purely real tem, 'rational man' is an essential connoting term [...]. But if we should conceive that the same thing can be at one time human and at another time not-human, then 'man' would be an accidental connoting term" (GP II, 471/LDB 309). A curious passage occurs at A VI 4, 999, where Leibniz seems to establish the distinction between (specific) essential predicates and accidental ones in temporal terms, but he also adds that "a substantial term is that which is primitive, i.e. which cannot be demonstrated of its

Definition (2) is that which is explicitly endorsed by the Suárezian reading of eternal truths as conditional propositions (if a man has been *created* by God, i.e. *made actual*, then, he will necessarily be an animal).²¹⁴ Remember, however, that identity between subject and the predicate of those propositions had been invoked by Suárez in order to avoid the conclusion that, then, every conceivable concept could have been actualized, or, in a positive way, in order to distinguish between genuine essences and mere *entia rationis*.

As Schnieder himself acknowledges, indeed, definition has to be integrated in the following way:

(2*) φ is an essential property of *x* and \Diamond (*x* has φ) *iff* \Box (*x* is actual \rightarrow *x* has φ);

Otherwise necessarily non-actual entities would entail essential properties as well. The diamond before x in the *definiens* can be interpreted, according to Leibniz, in terms of x's having a consistent concept, i.e. in terms of mere logical possibility.²¹⁵

In this case, then, two different concepts of possibility are employed, one is the concept of mere logical possibility (or, also, pre-existential one), which is explicitly recalled also in (2*), and corresponds to the logical account of possibility defended by Leibniz (for instance, when he requires that the concept of a 'most perfect being' be a possible, i.e. a consistent one). The other one is the existential (or post-existential) notion of possibility which is implicitly contained in the notion of 'merely possible individual' (or 'merely possible world), and has been employed to make sense of the notion of 'possible existence' (it corresponds to what Leibniz dubs *Existurientia*).

8.8.2 Some textual evidence

That Leibniz is implicitly working with two different notions of 'possibility' seems to be evident to me from his very same words. For instance, in *De libertate et necessitate*, Leibniz originally introduces the notion of possibility without defining it, but just saying that he holds "a notion of possibility and necessity according to which there are some things which are

ultimate subject; an accidental one, on the contrary, is one that can be demonstrated of its ultimate subject. And, therefore, a substantial term is a primitive attribute of the individual substance, i.e. of the ultimate subject". The sense in which a substantial term (like *homo*) must be taken as a primitive attribute is due, perhaps, to its explanatory power, as Leibniz seems to say at A VI 4, 943, where he points out that an individual can be said to be *mortal* or *rational* because he is a *man*, but not vice versa; furthermore, "the term *man* is formally and immediately [*formaliciter et immediate*] understood as saying all those properties which can be truly said of every individual, of which *man* can be truly predicated".

²¹⁴ The great divide between Leibniz's metaphysics and its modern counterparts is that the latter is independent from a creationist account, where the former is not (although Leibniz, sometimes, gives the impression that talking of the actualization of the possible may replace the creationist idea of *creatio ex nihilo*). This difference has to be stressed since Leibniz's account of existence cannot be understood when detached from the idea of creation (for a possible world is not just an alternative state of affairs, but, first of all, a possible creation.

²¹⁵ Once again, I think that, in the case of Leibniz (as well as in that of late Scholasticism), 'logical possibility' is characterized by absence of contradiction or *non-repugnantia* with respect with the framework of traditional essentialism, i.e. of the Porphyrian tree, so that, for instance, a 'man stone' would be a logically impossible concept since the essence of man and that of stone are mutually incompatible.

possible, but yet not necessary, and which do not really exist", i.e. the possible is characterized as what is not necessary, i.e. not necessarily actualized.

Two paragraphs below, he explicitly characterizes the possible in the following way (a): "we must hold that everything possible is what involves some degree of perfections, and, moreover, that the possible that occurs [*contingere*] is the one more perfect than its opposite [...]". In these lines, then, Leibniz distinguishes the merely possible from the contingent, i.e. that which is actual but not necessary. Furthermore, the possible is said to involve some degree of perfection, and perfection is equated with "essence or an *exigentia existentiae*".²¹⁶ It is obvious that this characterization (a) corresponds to the existential (or post-existential) account of possibility, where 'possible' means 'possibly actual'.

After other two paragraphs, however, Leibniz adds a further characterization (b): "a possible thing is something with some essence or reality, that is, something that can be distinctly understood". The example is that of a pentagon, which would remain possible even if we were to imagine that no exact pentagon would ever happen to exist *in rerum natura*. ²¹⁷It is true that these two definitions of possibility have in common the reference to 'essence' or 'reality', but, whereas in (a) essence is explicitly characterized in terms of an exigency to exist, according to (b) it is said to be "something which can be distinctly understood".

I assume that *quod distincte intelligi potest* stands for 'what can be understood without contradiction', i.e. a possible is an essence, or a concept that does not involve a contradiction. The latter is the sense of possibility Leibniz will employ in his logical papers, for instance in the *GI*, where a concept *B* is said to be possible if it does not contain both *A* and *non-A* (see the next chapter).

Now, (a) and (b) are not to be taken as immediately equivalent, at least from the intensional point of view. According to (b), indeed, all the possibles are equally possible, i.e., they are all on the same level, being just non-contradictory concepts. On the other hand, according to (a), there are *degrees of possibility*, i.e. degrees of perfection or quantity of essences, since not all the possibles are equally perfect, or, as Leibniz says, each of them tends toward existence with a force which is proportional to their degree of perfection (if they were all equally possible, the result would be that they would be all compossible with each other, and, therefore, all things would be actual). It is not a coincidence that characterization (b) is the heir of Leibniz's original notion of *facilitas existendi* in his early drafts on the *Elementa juris naturalis*, according to which something more 'feasible' (*facile*) is what has less requisites than its opposite, and, therefore, its realization cannot be impeded.²¹⁸

If Leibniz did not accurately distinguish between (a) and (b), however, is because, however they capture a different sense of 'possible' from the intensional point of view, what is possible according to (a) has to be taken as coextensive with what is possible according to (b). In other words, what possesses a tendency toward existence, i.e. what is possible according to (b), is just and only what has an essence (is real) according to (a), i.e. those concepts whose notion is free from a contradiction (on a similar vein, according to Suárez, what is possible from the ontological point of view, i.e. can be created, is only that which possesses an *aptitudo* toward

²¹⁶ A VI 4, 1445-46/AG 20 (translation modified).

²¹⁷ A VI 4, 1447/AG 21.

²¹⁸ See Chapter 3 above, note 258. Cf. also Piro, Spontaneità e ragion sufficiente, pp.85-96.

existence, but such an aptitude is conferred only to those things which have an *essentia realis*, guaranteed by the *non repugnantia* of their constituent notions).

The difference between these two accounts, (a) and (b), is implicitly taken into account by Leibniz, when he acknowledges that there is no reason why some possibles must be endowed with a tendency toward existence and others do not have such a tendency, because all that is required in order to have such a tendency (*Existurientia*) is their being 'really' possible, i.e. having an essential reality according to (b), and, from this point of view, all the possibles are on a par.²¹⁹ It does not follow from this, however, that the degree of reality or perfection each possible (or, better, each set of compossible possibles) has is equal to that of all the others, otherwise everything should and would exist.

On the contrary, it is only because a certain group of compossible things (a certain "series of things") is more perfect than all the others (in this sense, more possible than the others according to (a)) that it has been chosen by God to be created, i.e. to pass to actual existence. It seems, however, that possibles can be said to be 'real' in two different senses, and the question is if both these senses of reality have to be dependent on the existence of God (God's being the source of the reality of essences). What is certain is that the logical status of possibles is independent from God (i.e. the possibility of what is possible would hold even if, per impossibile, God did not exist), whereas their ontological status does depend on God ("The very reality of essences, indeed, that by which they flow into existence, is from God").²²⁰ If the possibles' having an essence according to (b) is just another way of referring to what the tradition called the *possibile logicum*, then this is also the sense in which the possibles might be say to be independent from God ("Essences can, in some sense, be conceived without God, but existences involve God"²²¹). Otherwise, we must distinguish between the logical sense of in which possibles are said to be possible (they are all equally possible in this sense), the sense in which they are said to have different degrees of perfection, and, finally, the sense in which they have a tendency toward actuality which is proportional to their different degrees of perfection.

Coming back to the distinction between (a) and (b), we can see that it might also explain why, after having carefully distinguished the logical sense of possibility from the temporal/causal sense, which can be ascribed only to compossible things, Leibniz seems to be brought back to a causal or quasi-causal account of pure possible things.

²¹⁹ A VI 4, 1363; 1443; 1617 note ("Itaque omnia Entia quatenus involvuntur in primo Ente, *praeter nudam possibilitatem* habent aliquam propensionem [...]", italics mine); GP VII, 303 ("[...] omnia possibilia, seu essentiam vel realitatem possibilem exprimentia, *pari jure ad existentiam tendere* pro quantitate essentiae seu realitatis, vel pro gradu perfectionis quem involvunt", italics mine; Gerhardt reads 'essentiam' instead of 'existentiam'), and 304 ("Et ut possibilitas est principium Essentiae, ita perfectio seu Essentiae gradus [...] principium existentiae"); GP VII, 289, # 5 ("Sed quae causa facit ut aliquid existat, seu ut possibilitas exigat existentiam, facit etiam ut omne possibilem habeat conatum ad Existentiam, *cum ratio restrictionis ad certa possibilia in universali reperire non possii*"). The idea, therefore, is that, all the possibles, insofar they are possible (i.e. they have a *nuda possibilitas* =logica possibility= *non repugnantia*), have a reality (=ontological status) as well, i.e. a tendency toward existence (given by God): they tend toward existence *pari jure* insofar as they are all possible (logically possible), but not all of them exist because the force with which they tend toward existence is in function of their degree of perfection (which is not the same for all possible worlds). On the analogy with force and dynamics, see *De affectibus*, A VI 4, 1434-35 (where what is *fortior ad animum determinandum*, i.e. what "exhibits to us a bigger stuff of distinct cogitability", is said to be also *perfectior*).

8.8.3 A quasi-causal account of possibility? The role of divine decrees

Reference to a 'quasi-causal' account of possible things, however, can be made sense of (only) from the point of view of Leibniz's strategy of 'possible decrees', i.e. the idea that possible worlds (and possible individuals) are distinguished from the possibility of general essences because the former involve a reference to divine decrees taken as possible, while the latter do not.

This point is posited in an explicitly tentative way in the last paragraph of *De libertate et gratia*:

"It can be said, perhaps, that divine decrees [*voluntates divinas*] are contained also in the pure possible ideas, and the concurrence toward existence insofar as these are possibles, or the very same formal reason of existence, has a certain essence. But, therefore, it would follow that a new existential being must be required. The formal reason of the existence of contingent things is to please a necessary being. But is it possible that also those things which do not exist please a necessary being? Of course, it is possible, but it is not possible that they should please him more [than others]. Therefore, it is not possible that they exist. This difficulty must be solved".²²²

This is one of the few passages in which Leibniz discusses the question of the "formal reason" of existence (see my discussion of it in Chapter 7 above). Remember that causality and existence are closely connected, and the same holds for existence and divine will. Insofar as possible worlds include possible individuals, and not only general essences, it seems that they should involve divine decrees (or *divinae voluntates*) as well. But, once again, this seems to place existence among merely possible things, to the effect that, in order to explain the passage from possibility to actuality, another concept of existence would be required. This is nothing but the puzzle of existence I have already discussed above.

Notice that the same problem has been formulated by Leibniz from the theological point of view in one of remarks on Arminian theology. The text Leibniz is commenting denies that God had foreknowledge of which angels were to be chosen as good and which to be punished as evil before they have been created; in order to solve the difficulty it must be denied that what is purely possible is a being (*ens*).

Leibniz replies:

"It seems to me that this [rejection of the ontological status of the possible] is not the real point of the question, for it is sufficient that truths about possible things are rooted in divine understanding. But you will object to me: one can also conceive the very same actual decree [decretum de existendo] as merely possible [sub ratione possibilitatis], and so on, to infinity. I concede that. For God exercises all his reflexive activities simultaneously and at once [Deus omnes actus reflexos simul ac semel exercet]".²²³

The actual decree is the *fiat*, the act by means of which God decrees that a certain possible world must exist (i.e. be actualized). The objection, then, is always the same: if this very same

²²² De libertate et gratia, 1680-84 (?), A VI 4, 1460.

²²³ Grua 345.

decree, i.e. the theological counterpart of the existence of the world, can be already conceived *sub ratione possibilitatis*, i.e. as a merely possible decree, it will follow that another actual decree is required in order to pass to existence; but, again, this new decree can be thought as possible as well, and so on. Interestingly enough, Leibniz concedes this kind of infinite regress to his opponent, but he says that it is not a dangerous one, since God's reflexive acts, which we understand as numerically distinct activities (and also temporally distinct activities), are exercised by him 'all at once'. This, in particular, should be the case when we are discussing of the distinction between merely possible decrees and the actual one.²²⁴

The theology of the 'possible decrees', then, is tightly intertwined with the topic of 'possible existence', or, better, is just the theological formulation of the latter (or, if you prefer, 'possible existence' is the metaphysical formulation of the theology of the 'possible decrees'). What is important in the passage from *De libertate et gratia*, is that the difficulty that has to be solved consists of the fact what is logically possible, i.e. all the possible worlds which remain possible *in themselves*, cannot be reduced to something merely imaginary. This was the kind of solution adopted by Leibniz in the *Confessio* and the Paris Notes. It can no longer be accepted, however, because, otherwise, the existence of the world would turn out to be metaphysically necessary. In order to distinguish what is merely possible but still *creatable* from what is a mere *ens rationis*, a sort of intermediate status between bare conceivability and actual existence has to be introduced. This is where the idea of the reality of the possibles, i.e. their having a tendency toward existence proportional to their degree of essence, finds its proper place.

From a certain point of view (i.e. from the point of view of God's *antecedent will*) God would create everything which is genuinely possible. Notice that, at this level (that of the antecedent will), possibles are taken one by one, i.e. they are not collected into possible worlds. It is only when one shifts from the understanding of the possibles taken everyone in isolation from the other to the understanding of the prevalence of one of these groups over all the other ones makes sense. The point to be stressed, however, is that this passage presupposes (and does not ground) the introduction of possible individuals, since relations of compossibility and incompossibility can occur only at the level of possible individuals (properly speaking, they are inscribed into complete concepts, exactly as it holds in the case of natural laws). And the very same idea of possible individuals brings with itself the idea of possible existence (and possible causes and so on).

The difference between these two levels has been pointed out by M. Gueroult with his differentiation between the level of *essences* and that of *substances*: whereas essences are completely independent from any reference to existence, substances can be understood only if a reference to existence (possible or actual) is involved therein. Essences are related to possibles in themselves, apart from their distribution into worlds, whereas possible individuals (possible substances, according to the attributive reading of 'possible') do

²²⁴ For the distinction between merely possible divine decrees and the actual decree, see Schneider, *Analysis und Synthesis bei Leibniz*, pp. 208-16. He stresses the fact that God's creative decree (i.e. the actual decree) presupposes a voluntary and free act by God, i.e. it does not necessarily follow from the internal structure of a possible world (which is completely determined already at the level of the possible decree). At the same time, such a free act is not without a reason, since it is guided by PSR, or, better, by the Principle of Perfection.

presuppose existence (since they involve relations of compossibility and incompossibility, positional differences, etc.).²²⁵

The passage to possible worlds (and, hence, to incompossibility) requires the passage from the mere logical space of all possibilities to the idea of a *possible creation*, which brings with itself the very same idea of *existence* (or, better, the very same idea of existence, in Leibniz's philosophy, cannot be disjoint from the idea of creation).²²⁶

From the ontological point of view, it can be characterized as the passage from the level of general and specific essences to that of possible individuals and possible worlds. In this sense, the very same notion of existence (purely possible existence, of course) is already contained in the idea of possible individuals, whereas the possibility of general essences is explicitly thought of as independent from existence (be it actual or merely possible one). From the theological point of view, it can be characterized as the passage from the level of divine understanding *stricto sensu* to the level of divine wisdom, i.e. something intermediate between understanding and (actualizing) divine will, which corresponds to the level of possible worlds (collections of possible individuals).²²⁷

At the end of the next chapter, I will show how it can also be characterized as the passage from the level of God's knowledge of simple understanding taken in a strict sense, i.e. as knowledge of possibles which are necessarily so, to God's knowledge of simple understanding insofar as it involves knowledge of contingent possibles, i.e., once again, possible individuals; the latter, as Leibniz himself says, can be also equated with the domain of middle knowledge.

²²⁵ Cf. M. Gueroult, "Substance and the Primitive Simple Notion in the Philosophy of Leibniz", *Philosophy and Phenomenological Research*, 7, 2, 1946, pp. 241-44.

²²⁶ The idea of 'creation' is central to Gueroult's interpretation of Leibniz. This point has been rightly stressed by Ishiguro, *Leibniz's Philosophy of Logic and Language*, p. 193.
²²⁷ This might be the sense in which, in section 225 of the *Theodicy*, Leibniz speaks of the relation between

God's wisdom and possible worlds. There, indeed, Leibniz says that "divine wisdom does not exceed the possibles extensively, since the objects of the understanding cannot go beyond the possible", but "it exceeds them intensively, by reason of the infinitely infinite combinations it makes thereof, and its many deliberations concerning them. The wisdom of God, not content with embracing all the possibles, penetrates them, compares them, weighs them one against the other, to estimate their degrees of perfection or imperfection [...]". Divine wisdom "makes of them an infinity of infinities, that is to say, an infinity of possible sequences of the universe [= possible worlds], each of which contains an infinity of creatures. By this means the divine Wisdom distributed all the possibles it had already contemplated separately, into so many universal systems which he further compares the one with the other" (GP VI, ?/H 271, italics mine). As Leibniz himself points out, all these operations take place all at once in God (no priority of time takes place here). From the point of view of the priority of nature, however, three steps can be distinguished: 1) God's understanding of the possibles taken separately; 2) God's understanding of the possibles as grouped into different possible worlds (this is the level of divine wisdom properly said); 3) God's choice of the most perfect world as the candidate for creation. The problematic passage, however, is that from (1) to (2), i.e. the passage from possibles as essences to possibles as individuals. Individuals find no place in (1), since it is impossible to taken a possible individual separately from all the other ones (i.e. from the whole world to which it belongs). However, since the idea of a non-actual individual is a problematic one (for the reasons I have discussed in the last part of Chapter 6 above), Leibniz does not say that possible individuals are, so to say, 'discovered' by God (for this would presuppose a certain reality of those individuals which precede the very existence of God), but they must be 'constructed' through a combinatorial process (which, however, he describes only metaphorically). The big problem, however, is to what an extent one can seriously entertain the idea that individuality (reference to an ontological, not just logical, subject) can be constructed in terms of a combination of general essences. Cf. also Cover and Hawthorne, Substance and Individuation, pp. 151-54.

Before moving on, however, something more has to be said about the necessity of distinguishing, at the level of what is merely possible, between general essences and individual ones.

8.9 Possibilities and Possible Individuals

This last paragraph will focus on the (terminological?) ambiguities concerning Leibniz's way of employing the term *possibile*. Leibniz, indeed, never explicitly distinguish between talking of possibles as ideal beings (abstract, incomplete things, specific essences, etc.), like mathematical concepts, and talking of possibles as possible individuals (complete concepts of non-actualized creatures). If what I have said in the previous paragraph is correct, however, such a distinction is of the utmost importance for a correct understanding of Leibniz's metaphysics.

8.9.1 Abstract possibilities

For instance, when talking about space and time as continuous magnitudes, he often says that they are mere ideal entities since continuity holds only at the level of the possible, not of the actual. Ideal things, says Leibniz, i.e. entities like "time, extension, motion, and the continuum in general, as we understand them in mathematics [...] express possibilities, just as do numbers".²²⁸

In the same text, he also adds that

"space and time taken together constitute the order of possibilities of the one entire universe, so that these orders [...] relate not only to what actually is but also to anything that could be put in its place, just as numbers are indifferent to the things which can be enumerated. This inclusion of the possible with the existent makes a continuity which is uniform and indifferent to every division. It is true that perfectly uniform change, such as the mathematical idea of motion, is never found in nature any more than are actual figures which possess in full force the properties which we learn in geometry, because the actual world does not remain in this indifference of possibilities but arises from the actual division or pluralities whose results are the phenomena which are presented in practice and which differ from each other to their smallest parts".²²⁹

Space and time are ascribed to the domain of possibilities, insofar as they are ideal and not real things, continuous and not discrete. This means that, just like numbers, they are indifferent to the things which can be ordered through them. This means, if I am not mistaken, that their being possible consists in their being indeterminate: possibility as *indeterminacy* (i.e. the possibility of many different divisions, like the same segment can be divided in two parts, three parts, four parts, etc.) is contrasted with actuality as *determinacy*. For "the actual world does not remain in this indifference of possibilities but arises from the actual division"

²²⁸ Reponse aux reflexions contenues dans la second Edition du Dictionnaire Critique de M. Bayle, GP IV 568/L583.

²²⁹ Ivi.

of things up to their smallest parts. This is the sense in which Leibniz contrasts the potential infinite which holds at the level of ideal entities with the actual infinite division of matter, which, ultimately, is something discrete.

Now, if such a characterization of possibility were to be applied to the case of merely possible individuals, many absurdities would follow. The most obvious is that there is no sense in which one might say that possible individuals can be contrasted with actual ones because the former are undetermined and the latter determined, since, as we know, possible worlds are completely determined in every detail. The same could be said about the "inclusion of the possible with the existent", which, according to Leibniz, constitutes the nature of continuity. Of course, this does not mean that there cannot be a sense in which possible individuals might be regarded as ideal entities, but it cannot be the same sense in which mere possibilities are said to be 'ideal'.

As it has been correctly pointed out, indeed, the term 'ideal' has three interrelated marks for Leibniz; an ideal entity, indeed, (1) is something which is never fully realized (as in the case of mathematical entities discussed above); (2) it refers to possible as well as to actuals (insofar as they are possible); (3) its existence is only an existence-in-the-understanding (or, as in the case of geometrical notion, also in the imagination). As Mc Rae correctly concludes, however, if possibles are ideal in the sense of (1), i.e. "that they are capable only of being approximated by actual things [...] they are not then 'possible existents'.²³⁰He also quotes a passage from a letter to Bourguet (dated December 1714), where Leibniz refers to his correspondent's objection that "one cannot say in a rigorous sense that our intellect conceives of possibilities which will never exist". Leibniz replies that he sees no reason why one should accept that conclusion: "Perhaps there are figures of geometry and surd numbers which have never existed and never will. Are they any the less possible, that is to say, less knowable?"²³¹

As an example of a non-actualized possible, Leibniz chooses one which is non-actualizable in the strictest sense, i.e. an ideal/imaginary notion: the sense in which a geometrical figure "never existed and never will" is that there is nothing, among actually existing things, which is a fully adequate instantiation of the ideal model (archetype).

A possible individual, on the other hand, can be non-actual in an altogether different sense, i.e. if it is not one among the complete concepts which belong to the best possible world (or, which is the same, if it is a member of a non-actual world). But a possible individual (think, again, of the complete concept of Peter), can be fully realized, and, if it belongs to the world God has chosen to create, is also fully realized. It is not something like an imperfect copy of a sort of Platonic model, for, as we already know, there can be no difference between the concept of Peter taken as possible and the concept of Peter as actual (since the former and the latter are both completely determined). Its own existence is not a matter of degrees: either it exists (belonging to the best possible world) or not (being a still completely determined complete individual concept).

 ²³⁰ Cf. R. McRae, *Leibniz: Perception, Apperception, and Thought*, Toronto/Buffalo/London 1976, p. 85.
 McRae's threefold characterization is based on what Leibniz says about the notion of 'space', but it can be generalized to all kinds of abstract and ideal notions as well.
 ²³¹ GP III, 573/L 662. Cf. also GP II, 45: "When I talk of possibilities I am satisfied if one can form true

²⁵¹ GP III, 573/L 662. Cf. also GP II, 45: "When I talk of possibilities I am satisfied if one can form true propositions from them. For instance if there were no perfect square in the world, we should nevertheless see that no contradiction is implied".

8.9.2 Can abstract notions be reduced to possibilia?

In the case of Leibniz's way of employing the term 'possible', it can be repeated Y. Belaval's remark, i.e. that sometimes Leibniz seems to blur together the Platonic world of ideas and the Aristotelian world of individual substances.²³² In particular, it seems that in Leibniz's philosophy, a nominalist account of individuals (possible or actual ones) is paired with an account of possibilities as a sort of Platonic ideal models. The latter, however, might be weakened if one reduces truths about ideal entities to truths about individuals. As in the passages discussed above, indeed, one can see, for instance, that talking about lines and numbers does not refer to abstract things, but, rather, to (concrete) things with such and such properties (they denote individual things and only connote abstract properties). Again, a circle does not refer to something like 'circularity' but, rather, to something common to all individual circular things, with one *proviso*: that both actual and possible individuals are taken into consideration.

In this way, however, Leibniz's claim that there are no perfect squares (or circles) in the world should be understood in a non-literal way, i.e. as shorthand for something like: there is no individual, among those which inhabit the actual world or the possible ones, which instantiates the property of being a perfect square, since such a property is only a generalization, i.e. the product of an act of abstraction that selects all and only those properties which are common to all the (possible) squared-shaped things. In what follows, however, I shall discuss some elements which show why this kind of solution should not be regarded as a reliable one (or, also, as Leibniz's considered solution).

Leaving aside the problems concerning intensional and hyperintensional notions (like 'triangle' and 'trilateral'), one might wonder whether this reduction works also in the case of notions in the mind of God. Furthermore, this seems to overlook another point rightly stated by McRae, i.e. that "incomplete concepts are not parts of complete concepts", since it is simply false that "if enough incomplete concepts (i.e. infinitely many of them) were put together they would add up to a complete concept".²³³ As Leibniz clearly writes to Arnauld, the notions of species (which are the most abstract) contains only eternal or necessary truths; on the other hand, the notions of individual substances ("which are complete and can completely distinguish their subject" from all the other possible ones), "involve [...] contingent or factual truths, and the individual circumstances of time, places" as well as other ones.²³⁴ This means, in other words, that all those features which, in the 1672-73, where conceived of as extrinsically individuating a substance (especially those concerning temporal

²³² Belaval, *Études leibniziennes*, p. 211.

²³³ Mc Rae, *Leibniz*, pp. 83-84, who also writes: "The term 'abstract' [...] suggests that these concepts have as their objects what is common to, or the same in, different individuals, but this too is impossible, for not only are two individuals which differ only numerically, but [...] two affections in different subjects cannot differ only numerically". As I have shown above, however, talking of 'sameness' has to be rephrased in terms of talking of 'similarity'.

²³⁴ GP II, 49. Among the others, Leibniz remembers that the notion of a (possible) individual involves in itself that of its (possible) causes. The inclusion of the causal history into the complete notion is fundamental if the latter has to work as a genuine principle of individuation, i.e. the idea of a fully determinate and unique causal chain which connects all the stages of that individual's life (up to the –only apparently –most negligible circumstances). Cf. GP II, 51. Also this idea can be traced back to the Paris notes, especially to the 1676's *Meditatio de principio individui*, A VI 3, 490-91.

and spatial location), are still retained but taken as internal to the individual's complete notions.

The last point finds a confirmation in one of Leibniz's notes to Burnet. The topic, once again is that which originated the *excursus* on the problem of individuation in the *Confessio philosophi*, i.e. the fact that some individuals are saved while others are damned is also due to a certain series of circumstances that have been more favourable to the former and more adverse to the latter.

Talking on different ways in which "efficacious graces" are conceded by God, Leibniz writes that they have different effects in different individuals, but they do not depend on ourselves, "they are not in our power, but are to be located in the series of things, i.e. partially in God's understanding and partially in his will". For, as he says, "creatures are considered by the divine intellect conditionally, in the realm of possibility, together with the circumstances that would be needed if the creatures were ordained to exist"²³⁵. And, few lines below, he adds that, thus "man alone does not determine himself in the business of salvation, but the concurrence of circumstances,

or rather the series of things, along with man, does".²³⁶

The main reason for distinguishing between abstract and concrete possibilities, and to suspect that reduction of the former to the latter is not a viable solution, is that, if I interpret Leibniz correctly, they possess different modal properties (in a nutshell: Leibniz's Platonism requires that abstract possibilities are necessarily non-actual ones, or, better, non-actualizable ones).

8.9.3 Necessarily vs. contingently non-actual possibles

Also in this case, as in that of 'possible existence', I would like to propose a sort of disambiguation, which aims to be faithful to the spirit, if not to the letter, of what Leibniz says. Even though Leibniz employs the term 'possible' to cover both abstract and individual entities, indeed, I have shown that merely possible individuals must be distinguished from non-actual entities of another sort.

The proposal is to understand possible individuals as *contingently non-actual* entities and abstract objects as *necessarily non-actual* entities. As said before, in contemporary philosophy one usually talks of 'objects' in order to refer to anything which has some properties. Leibniz's analogous of this notion of 'object' is *ens*, 'entity', given the acceptance of the idea that what is 'nothing' has no properties at all. The idea that *non entis nulla sunt attributa*, therefore, has not to be restricted to actual entities only, but extended to possible ones.

The main difference I want to introduce now is that between [a] entities which, however not actual (they are not members of this world) are still contingently non-actual, for possible individuals are said to be 'possible' in the sense of being 'possibly actual'; and [b] entities which are not actual and cannot be actual in any possible world, since whatever can be actual

²³⁵ Notes to Burnet, # 27, c (DPG 95/Lalanne, 91-92)

²³⁶ *Ibid.*, # 27, d (DPG 97/Lalanne, 93-94).To the latter consideration, Leibniz has originally added (and then cancelled) the following remark: "Even though, in reality, one should said that in every singular substance a relation with all other things is involved" (Lalanne 94, not reported in DPG). This corresponds to the internalization of the *series rerum* in the complete concept taken as a *law of the series*.

is an individual, i.e. a concrete, and these are not concrete but abstract objects. Entities of type [b] are abstract entities like numbers, ideas, propositions, or, also, mathematical objects in general, specific essences, and so on. These entities must be carefully distinguished from entities of type [a], which are possible individuals. The latter are contingently non-actual, for they could have been actual, if God had created another world. The former, on the contrary, are said to be necessarily non-actual, not only because they are not actualized in every possible worlds (for possible worlds are inhabited by possible individuals only), but also because they are entities which lack actuality by their own nature. Again, an individual essence (a possible individual) involves a tendency toward actual existence, whereas essences as abstract possibilities have no such a tendency at all.

The following schema is a modified version of that proposed by B. Schnieder to illustrate Bolzano's theory of objects. I have adjusted it to Leibniz's theory of *entid*²³⁷:



Another difficulty, however, has to be discussed here. Most of the times, indeed, Leibniz speaks of "abstract and incomplete notions" as if they were one and the same thing.²³⁸ The

²³⁷ Cf. Schnieder, "Mere Possibilities", p. 540. The distinction between merely possible and abstract entities proposed has been associated to that, proposed by Linksy& Zalta and Williamson, between contingently and necessarily abstract objects. The main difference, however, is that for these modern authors everything exists necessarily, and, thus, statements concerning contingent existent things must be rephrased as statements concerning the fact that certain existing objects are contingently non-concrete (whereas other objects, like numbers, are necessarily abstracts). An important feature of Linsky & Zalta's approach is that they manage to distinguish between the (modal) contraposition 'necessary'/ 'contingent' and the (ontological) one 'essential'/ 'accidental', so that, in their language, there are objects which are essentially but only contingently non-actual. One of the main difficulties with the post-Quinean debate on essentialism, indeed, is the conflation of 'essential' on 'necessary' (and 'accidental' on 'contingent'). As I have shown, however, the same possibility of blurring together the ontological and the modal level is present in Leibniz, at least at the terminological level. Cf. B. Linsky-E. Zalta, "In Defense on the Contingently Noncrete", *Philosophical Studies* 84, 1996, pp. 238-94. Cf. also E. Zalta, "A (Leibnizian) Theory of Concepts", *Logical Analysis and History of Philosophy*, 3, 2000, pp. 137-83.

idea seems to be that of a perfect correspondence between abstract and incomplete notions on one hand, and concrete and complete notions on the other hand. In the scheme above, notice, all actual entities can be ascribed to the field of the concrete (individual accidents might seem to constitute an exception, but one must think that Leibniz has in mind something like substances-with-accidents, whereas an accident isolated by reference to his substance has to be counted as an abstract or de-particularized one). On the contrary, in the field of what is non-actual, only ideal entities like numbers, propositions, and specific essences must be said to be *abstract* in a proper sense, whereas possible individuals seem to be part of the domain of the concrete. On the other hand, however, possible individuals *qua* individual essences seem to be abstract entities as well.

In the contemporary debate, whoever rejects modal realism and accepts a form of commitment to possible worlds (i.e. subscribe to the claim that *there are* possible worlds), usually maintains that possible worlds are abstract entities. Of course, one should avoid confusion arising from overlapping contemporary terminology with Leibniz's own way of distinguishing concrete and abstract entities. In contemporary modal metaphysics, for instance, numbers are abstract entities but they are said to be actual, since they belong to the domain of the actual world (for they belong to the domain of every possible world). In the Leibnizian scheme I sketched above, on the contrary, numbers are abstract entities and *therefore* (since they are causally inert, have no spatiotemporal location and so on) they cannot be actual (they are neither actual individuals nor possibly existing ones). Once again, modal distinctions and ontological ones are not easy to conciliate with each other.

One should note, however, that contemporary actualist accounts of possible worlds usually maintain that (a) possible worlds are abstract entities , and (b) they are made of propositions (or states of affairs); actualism is respected since propositions (or states of affairs) are said to belong to the actual world. In the next chapter, I will take into account some Leibnizian texts where a view on abstract entities in same sense closer to the contemporary one is envisaged, especially for what concern the 'necessary existence' of entities like essences and propositions (in this case 'existence' has to be taken in the logical sense, where 'there is...' cannot be immediately interpreted in terms of 'there is something actual...'). For the moment, however, let me stick to Leibniz's usual view that possible worlds should be regarded as maximal consistent sets of complete individual concepts.

One can say that concepts and, especially, propositions are to be counted among abstract entities. In distinguishing between contingently and necessarily non-actual entities above, indeed, I have also listed 'ideas' among the latter. Now, since, according to Leibniz, concepts and propositions are equivalent (every concept conceals a propositional structure and, vice versa, every propositions can be transformed into a concept), and possible individuals are to be properly regarded as complete concepts, which, in turn, are nothing but ideas in the mind of God, one should conclude that they are abstract entities. In this sense, notice, the distinction between the possible and the actual is easy to grasp: such and such a possible individual, i.e. the possible Peter, is not, properly speaking, an individual such and such (he does not deny Christ, etc.); it is only an idea (abstract entity) which represents or stands for an

²³⁸ In the correspondence with Arnauld, for example, Leibniz says that the notion of a sphere in general is "incomplete ou abstraite" (GP II, 39).

individual such and such (which would have denied Christ, etc., had God actualized that world).²³⁹

The question is a very tricky one, for, insofar as a complete concept is the idea *of a certain individual* (the apostle who denied Christ, the first Pope, etc.), it has many characterizations which presuppose or require actuality: there are not non-actual individuals, non-actual apostles, and so on (the idea of its being actuality-demanding can be connected with Leibniz's idea that possible individuals have a tendency toward existence). Insofar as it is the *idea* (or *notion*) of a certain individual, however, it is not something which requires or presupposes actuality. Against Spinoza, for instance, Leibniz observes that ideas do not act, it is only the mind which acts.²⁴⁰ Once again, what one can say is that the idea/notion corresponds to something which, were to be actualized, would be a certain individual substance, i.e. an apostle, a denier-of-Christ, etc. The problem, however, is to understand what kind of entity that 'something' might be, for it seems to require the idea of something like a merely possible object, which, however, is rejected by Leibniz when he rejects the idea of something's being actual without actuality ('possible existence' in the predicative sense).

The main source of ambiguity, perhaps, is that, insofar they can be reduced to concepts and propositions, *possibilia* are closer to conceptual more than to ontological items; on the other hand, however, insofar as these very same concepts and propositions are considered as ideas in the mind of God, *possibilia* must be said to have a certain reality, i.e. an ontological status, however a weak one. From the point of view of his connection with the Scholastic tradition, Leibniz sticks at the idea that mere *possibilia* have a kind of being intermediate between that of existence and the non-being of *entia rationis*. It is worth noticing, however, that his way out from such a fishy situation consists in the appeal to the idea of exigency toward actuality, i.e. something which essences do not have on their own (insofar as the possibles are merely possible) but only because God confers them a certain ontological status (a reality), when deciding to create a world.

This seems to be Leibniz's most accurate way of presenting his views in the *Notationes Generales*:

"Every essence or reality demands existence, as every conatus demands motion, or effect, at least if nothing impedes it. And every possible does not involve only possibility [*in the logical sense*], but also a conatus to exist in actuality [*an ontological status*], not as if those things which do not exist have a conatus, but because this is required by the ideas of essences which exist in God's understanding; i.e., after God has freely decreed to choose that which is the most perfect".²⁴¹

This passage explicitly rejects to ascribe a tendency (conatus) to existence to *things which do not exist*; therefore, this conatus shifts from 'possible objects' to the 'ideas of essences which exist in God' (i.e. to employ Suárez's terminology, from the *creatura possibilis* to the *exemplar* in the mind of God), and, ultimately, to God's mind.

²³⁹ This idea of 'representation' is what the modal realist finds impossible to understand. Cf. Lewis, *On the Plurality of Worlds*, p. 136 and ff.; Divers, *Possible Worlds*, pp. 275-92.

²⁴⁰ "Ideae non agunt. Mens agit" (A VI 4, 1713, note 21). Cf. also the following passage from a letter to De Volder: "Idea est aliquid ut sic dicam mortuum et in se immutabile, ut figura, anima vero aliquid vivum et actuosum, et hoc sensu non dico esse unam aliquam ideam, quae ex se ad mutationem tendat" (GP II, 184). Cf. also the other passages discussed by Poser, *Zur Theorie der Modalbegriffe* p. 63 note 8.

²⁴¹ Notationes generales, A VI 4, 557.
The reduction to God's mind, however, cannot be pushed to the extreme, i.e. divine ideas cannot be reduced to dispositions in God's mind (as it happens in the reading of Benson Mates), for the latter would be incompatible with the actual (and not dispositional) character of divine knowledge. Moreover, if Leibniz says that ideas do not have a conatus on their own, but it is God who confers such a dynamic aspect to the otherwise static domain of essences, the essences in this domain (i.e. divine ideas) must have some ontological status on their own (this is nothing but the bulk of Scotus's criticism of Aquinas' reductionist account of possibles to God's essence).

Be it as it may, however, it seems to me that Leibniz's metaphorical way of contrasting the static aspects of possibles *qua* involving possibility only with the dynamic aspect ('conatus') of these very same possible *qua* involving a tendency toward actuality, can be rephrased in a less exotic way, i.e. as a restatement of the difference between the level of essences as such (forms, ideas, etc.) and the level of individualized essences (individuals-with-forms, or subjects-with-forms), where the latter are clearly acknowledge as actuality-demanding (since the notion of existence is somewhat inscribed within complete concepts themselves (relations of compossibility, connection, etc.). This level has to be distinguished from that of actual existence properly said, however, for the latter is a temporal one, or, perhaps, better, a *tensed* one, i.e. is the temporal development of the 'law of the series', whereas the former is the counterpart of the latter from an eternalist (or *non-tensed*) point of view.

8.9.4 "Abstractum Completum". A recovery of 'abstractive knowledge'?

At the same time, however, when coming to complete concepts (i.e. to concepts of individuals), Leibniz seems to be incline to weaken (if not to blur at all) the distinction between concepts and objects, for a complete concept is the perfect copy of the corresponding individual. In this sense, as far as I know, there are no passages in which Leibniz explicitly says that complete concepts are abstract entities, but he always maintains the perfect correspondence between abstract and incomplete on one hand, and concrete and complete on the other hand.

The only relevant exception to what I have said is represented by a passage, contained in a table of definitions, where Leibniz draws a somewhat different distinction between the complete/incomplete and the concrete/abstract pair:

"Substance is a concrete complete, like a certain man, for instance Caesar.

Accident is an incomplete abstract.

The characterization of 'substance' as a concrete-and-complete entity makes clear that Leibniz has in mind primary substances of the Aristotelian tradition: *this* man, like Caesar. An accident, on the contrary, is characterized as an incomplete-and-abstract thing, i.e. something which is abstracted from the concrete substance with its own individual accidents (therefore,

A complete abstract is the very same essence of a substance, for instance Lentuleity; a concrete incomplete is a certain mathematical being which we conceive of as it were a substance, like space and time".²⁴²

²⁴² Definitiones, 1680-1684/5 (?), A VI 4, 400.

it is both abstract and incomplete). The notion of a "concrete incomplete" has been already envisaged in a couple of passages I have mentioned above, where Leibniz repeated that certain *res mathematicae* can be conceived by us *ad instar substantiarum* (even though, properly speaking, space and time are not complete things).

The most puzzling element of this table of definitions, however, is the idea of a "complete abstract", which, Leibniz says, is *ipsa Essentia Substantiae*, i.e. an individual essence, the abstraction which corresponds to an individual thing, like *Lentuleitas* (a term already employed by Hobbes).

What is problematic here is that such a characterization of an individual essence as something abstract-and-complete does not square with Leibniz' usual characterization of the abstract/concrete distinction. Leibniz himself should have been aware of that, for he adds a marginal notes where he substantially repeats his usual distinction: that two abstract terms can be distinguished, even though this distinction does no immediately amount to a distinction between two things (because there can be two different terms, like 'dry' and 'warm', which can be attributed to the very same thing).²⁴³

Leibniz warns that he has not been able to provide a better definition of that distinction up to that moment. Notice that this second characterization does not capture the sense in which possible worlds could be said to be abstract entities; for possible worlds are composed by things like *Lentuleitas* and *Petrinitas*, i.e. by concepts which stand for individual essences.

The only solution I have in mind is that, once again, 'abstraction' and 'abstract' are ambiguously employed by Leibniz. In particular, the notion of abstraction required here (in the case of 'Lentuleity') is that of 'abstraction from existence', which characterizes the Scholastic notion of *abstractio praecisiva*, as a sort of abstraction from both actual existence and non-existence of a thing.

At the origin of this idea, there is an opposition, originally proposed by Scotus, between *abstractive* and *intuitive* knowledge, where both 'abstraction' and 'intuition' have to do with existence only: intuitive cognition is the knowledge of an existent thing insofar as it exists (and, thus, it is immediate knowledge), whereas abstractive cognition is the kind of knowledge of the nature (or quiddity) of something which makes abstraction from the existence (or non-existence) of the thing.

As Scotus remarks, insofar as it is contraposed to abstractive cognition, intuitive cognition concerns actual existence only; it has nothing to do with the sense in which intuitive knowledge is distinguished from merely discursive one.²⁴⁴

²⁴³ Cf. A VI 4, 400, note. Cf. Rauzy, *La doctrine leibnizienne de la vérité*, pp. 261-66 ; Di Bella, *The Science of the Individual*, pp. 191-92.

²⁴⁴ Cf. Scotus, *Ordinatio* II, d. 3, pars 2, q. 2 (*Opera omnia*, VII, 552-53): "For there can be a certain cognition of an object insofar as the former makes abstraction from all actual existence, and there can be another cognition of the object according to the fact that the latter is existent and is present in a certain actual existence [...]. To speak more quickly, I call the first 'abstractive', which is the cognition of the object's quiddity which makes abstraction from actual existence or non-existence. The second, that is a cognition of the object's quiddity according to its actual existence [...], is called 'intuitive intellection', not in sense in which 'intuitive' is distinguished from discursive cognition (otherwise some 'abstractive' cognition would be intuitive as well), but simply 'intuitive' in the sense in which say that we intuit a thing as it is in itself'. Cf. J. F. Boler, "Intuitive and Abstractive Cognition", in N. Kretzmann-A. Kenny-J. Pinborg (eds.), *The Cambridge History of Later Medieval Philosophy*, Cambridge 1982, pp. 460-78; Scribano, *Angeli e beati*, pp. 94-7 and 148-49.

The distinction between abstractive and intuitive knowledge is relevant also because is a sort of (late) ancestor of the idea that knowledge of the singular *qua* existing thing must be distinguished from knowledge of the singular as such. Scotus points out this when he says: "Intuitive cognition does not concern the singular only, insofar as it is intuitive cognition, but it essentially concerns the very same nature of the existent insofar as it is existent".²⁴⁵

In late Scholasticism the distinction between intuitive and abstractive knowledge also corresponds to that between knowledge of vision (i.e. of the actual world) and knowledge of simple understanding (i.e. of the possible), for knowledge of vision is intuitive (in the sense established above) and knowledge of simple understanding is abstractive, i.e. makes abstraction from existence (but not from singularity).²⁴⁶ Notice, also, that intuitive knowledge, which is defined as *notitia rei presentis ut praesens est*, is not necessarily characterized as a kind of knowledge which depends on the presence of the object, "for the knowledge [*notitia*] by means of which God intuits both himself and creatures, is intuitive and, however, it is said to depend neither on God himself nor on the creatures, and is caused by none of them".²⁴⁷

Furthermore, reference to alternative possible worlds generally occurred in contexts related to the debate concerning the so-called 'middle knowledge', i.e. God's knowledge of conditioned futurities (which are a particular kind of counterfactuals). As it has been shown, in the debates on middle knowledge, possible worlds are conceived as 'abstract worlds', where, however, the term 'abstraction' means abstraction from the disjunction between existence and non-existence; in this sense, the term 'world' no longer means the world in concrete sense, but different ways in which our world could be ('could be' and not 'could have been' because, contrary to Leibniz, middle-knowledge theorists usually accepts transworld identity).²⁴⁸

 ²⁴⁵ Scotus, *Report. Paris.* IV d. 45 q.3 (*Opera omnia*, XIV, 575), quoted in Funkenstein, *Theology and The Scientific Imagination*, p. 139, note 42.
 ²⁴⁶ Cf. Suárez, *De divina substantia*, III, chapter IV, 2-3 : the first division of divine knowledge is that between

²⁴⁶ Cf. Suárez, *De divina substantia*, III, chapter IV, 2-3 : the first division of divine knowledge is that between knowledge of simple understanding and knowledge of vision ; the second is that between abstractive and intuitive knowledge. Knowledge of vision, insofar has the existent as its own object, must be intuitive; whereas knowledge of the possible is abstractive, "since it makes abstraction from the actual existence of its object". Abstractive knowledge has only creatures as objects, since only created things do not involve existence in themselves, "and, therefore, they can be known according to their essences, i.e. *quidditative*, even though they are not regarded as existent" (Vivès I, 207 b).

 $^{^{247}}$ Conimbr., commentary to *De anima*, II, 6, 3, 1, quoted by Gilson, Index, n. 87, p. 53. This point is relevant to Leibniz's explication of God's vision of contingent truths. Cf. *De libertate, contingentia, et serie causarum,* A VI 4, 1658: "God's vision, however, should hardly be thought of as a kind of experiential knowledge (as if he sees something in things distinct from himself), but as *a priori* knowledge, knowledge derived from the reasons for truths, insofar as he sees things within himself [*ex se ipso*], possibles through a consideration of his own nature, and existing through the additional consideration of his free will and his decrees [...]" (AG 97). Di Bella, *The Science of the Individual*, p. 357, rightly talks of a paradoxical case of knowledge by acquaintance which, however, precedes and does not follow its object.

²⁴⁸ In his notes to Burnet, Leibniz himself, rejecting absolute necessitarianism, seems to accept a sense of contingency *in sensu diviso* and not *in sensu composito*. Commenting Aquinas' claim that there is compossibility between the fact that God decreed to save this man and the fact that, nonetheless, he could damn him, but the two things together are not compossible, he explains that "speaking *absolutely* and *in a divided sense*, it can happen that what is certain will not take place" (# 14 d, DPG 73/ Lalanne, 58), where the divided sense has to be interpreted as "There is something that will certainly happen and it is possible that it will not happen". However, he is silent about the question of trans-world identity that is implicitly involved here (is it really of the same man who will be saved that we can say that he could have been damned?). That his views on this point are oscillating is clear from his remarks on the 'possible Keilites' in his notest to Ludovicus de Dola, A VI 4, 1789-90. On the distinction between *in sensu diviso/composito*, cf. also Maierù, *Terminologia logica*, pp. 499-600.

It is interesting to quote, for instance, a passage from the Jesuit Hurtado de Mendoza (1578-1641), where he writes that, before (in a non-temporal sense, of course) he decreed to create this world, God not only knew his own omnipotence but also something else, i.e. possible worlds. But those things which he knew before creating the world were not something existing prior to him (and they were something inexistent neither); rather, he "knew something distinct from himself, which makes abstraction from both actual and non-actual existence [*praecisum ab existentia et non existentia exercita*]". They were something possible since they entertain the state of what is intrinsically apt to exist (the concept of *aptitudo* to existence is employed, once again, to distinguish what is really possible from the being of reason).²⁴⁹

This is the status of what Hurtado calls the world *secundum se*, i.e. that according to which "the world was neither really non-existent nor really existent", i.e. leaves out any consideration of existence *in actu exercita* (the latter means existence in act, as *res extra causas sua posita*, i.e. that which Suárez calls the participial or verbal sense of being).Notice also that the same status is ascribed by Hurtado to essential proposition of eternal truths, like "Man is an animal", which designate something distinct from God's omnipotence but beyond the very same distinction between actual existence and non-existence.²⁵⁰

Finally, let me point out that this notion of *abstractio praecisiva* is of the utmost importance to understand Suárez's claim that the proper object of metaphysics is 'real being' (which include both the possible and the actual), since it allows to isolate a notion of 'reality' which is independent from actual existence but, at the same time, is not incompatible with the latter.²⁵¹

As Suárez himself explains, indeed, being taken as a name (i.e. in the essential sense) does not mean potential being, insofar as the latter is opposed to being in act as a privation or negation of the latter, but

"[...] it only means being which precisely says the real essence, which is completely different; for, as the precisive abstraction is different from the negative one, thus being taken as a name, even though it precisely means the being which has a real essence, does not add a negation, i.e. the lack of actual existence, i.e. the kind of negation or privation which is added by potential being".²⁵²

This very same distinction between negative and precisive abstraction has been completely overlooked by authors like Hobbes, and not by chance, since Hobbes's aim was that of rejecting Suárez's distinction between the nominal and the verbal sense of being (which was

 $^{^{249}}$ Cf. for instance Suráez, DM II, iv, 14: "although [...] to be in act does not pertain to the essence of a creature, nonetheless a disposition to be, or an aptitude to exist pertains to the intrinsic and essential concept of it; and in this way being is an essential predicate".

²⁵⁰ Cf. P. Hurtado de Mendoza, *Disputationes de Deo*, 1635, disp. 29, section 97, 596 r-596v. I quote the text from J. Schmutz, *La querelle des possibles. Recherches philosophiques et textuelles sur la métaphysique jésuite espagnole, 1540-1767*, thèse de doctorat, École Pratique des Hautes Etudes (Paris)-Université Libre de Bruxelles, 2003, vol. II, pp. 649-50. Cf. also Id., « Qui a inventé les mondes possibles ? », pp. 34-37.

²⁵¹ Furthermore, the notion of 'precisive abstraction' is at work in the explanation of the distinction between essence and existence as a conceptual one, see DM XXXI, vi, 15: "[...] our intellect, which can make precisions in what are not separated in reality, can also conceive of creatures by abstracting them from actual existence. For, since they do not exist necessarily, it is not repugnant to conceive of their natures by prescinding from efficient causation and consequently from actual existence" (Wells, 96).

²⁵² Suárez, DM II, iv, 11. On the distinction between two senses of abstraction, see Ibid., ii, 16. Cf. also Courtine, *Suárez*, p. 157 and ff.

grounded on the former) and, especially, the primacy he assigned to essence over actual existence. As I have showed above, the young Leibniz, in his account of the abstract/concrete distinction, was quite close to the Hobbesian model, and, therefore, he could not find a place for something like Suárez's twofold account of abstraction. The modifications his philosophy underwent during and after the Paris period, however, have led him to reconsider the whole issue and, also, to embrace a more moderate view.

Appendix

Suárez on Divine Ideas, Exemplars, and Possibilities

In 8.4 and 8.5 above, I have shown that Suárez explicitly ascribes to God only knowledge of the ideas of individuals (possible as well as actual), and not those of genera and species as well. Genera and species, indeed, are just the ideas of individuals conceived of in a confused way. I do not know of any text in which Leibniz expressly says that genera and species are concepts conceived of in a confused way.

As I have remarked above, indeed, in his tables of categories Leibniz expresses only the idea that the concept of an universal substance (like *homo*) is just the concept of any rational substance whatever, i.e. the concept of what is common to Titius, Cajus, and so on, insofar there is something they have in common (or, better, there is a certain similarity between them). This view is in keeping with Suárez's logical/ontological account of universals and common natures in his *DM VI*, but does not say anything relevant about the reality (or unreality) of such concepts from the point of view of God's knowledge.

Furthermore, one may add that Leibniz would be dissatisfied with calling general concepts 'confused ideas', for there are many texts, from the *New Essays* onwards, in which he states that there are general and abstract notions (such as that of space and other geometrical notions) which are clear and distinct ideas, i.e. the objects of mathematics insofar as they are objects of a clear and distinct imagination (whereas secondary qualities, like colours, are just clear and confused ones).

Concerning essences in the traditional sense, i.e. genera and species of Aristotelian essentialism, the question is less clear (the question is discussed in the *New Essays*, in the context of a confrontation with Locke's conventionalism, where Leibniz is pushed to embrace a more 'realist' point of view, according to which genera and species are said to be grounded in reality prior to the knowledge we could have of them).²⁵³However, one could add that

[&]quot; [...] homo verbi gratia, non ideo est animal rationale, quia Deus talem illum cognoscit, seu quia in exemplari divino talis repraesentatur, sed potius ideo talis cognoscitur, quia ex se postulat talem essentiam" (Suárez, DM I, iv, 21)

²⁵³ On clear and distinct ideas of mathematics, see the discussion in R. Mc Rae, *Leibniz: Perception, Apperception, and Thought*, Toronto 1976, in particular pp. 77-78, and also G. H. R. Parkinson, "The 'Intellectualization of Appearances': Aspects of Leibniz's Theory of Sensations and Thought", in Hooker (ed.),

Leibniz's notion of 'confusion' (as explained in his 1684 *Meditationes*) should not be overlapped with Suárez's one, since the latter was connected with the logical doctrine of *suppositio* (*confusa tantum*).

There is another interesting point of distinction between Leibniz and Suárez, however, and concerns the reducibility of talking of *possibilia* (possible individuals) to talking of divine ideas. As the passages of Leibniz quoted above show *ad abundantiam*, Leibniz clearly identifies merely possible creatures with ideas *in mente Dei* (a sort of reversal of the Ockhamist view that divine ideas are nothing but creatures in themselves).

When looking at Suárez, on the contrary, the question is not so simple. There is a sense in which one might say, indeed, that, even if he places divine ideas and *possibilia* side by side, he ultimately refrains from identifying the latter with the former. As I have already pointed out, in DM VI Suárez strongly distinguishes the problem of universals from that of divine ideas as the 'causes' or 'exemplars' of things contained in God. Discussion of the latter is devoted to DM XXV, concerning 'exemplar causality, and the parallel passages in *De divina substantia* concerning the question whether the ideas of all things are contained in God.

In DM XXV Suárez clearly rejects the possibility of identifying divine ideas with (possible) creatures. There, indeed, he takes talking of exemplars in the mind of God as synonym of talking of divine ideas, and, at the same times, shows that these are to be understood as *formal concepts* and not as *objective* ones. In particular, he proceeds to show that the divine exemplar can be identified neither with the divine essence (taken in itself, precisely) nor with the possible creatures as "objectively existing in the mind of God".

Of course, following Augustine's identification of Platonic ideas with the *rationes* in the mind of God, Suárez assumes that exemplars are to be placed in the mind of God. His point, however, is that ideas cannot be taken as objective concepts: this is the *communis sententia* he wants to reject.

The objective concept, indeed, is the thing or the nature of thing as immediately represented through the formal concept; the formal concept, on the other hand, is the act itself by which the understanding conceives some thing or the nature of something.²⁵⁴ An idea is not something created or creatable, as in the case of creatures, be they actual or purely possible. In this sense, Suárez notes, exemplar is closer to the uncreated nature of divine essence.²⁵⁵

Leibniz, pp. 3-20. On the idea of space, see NE, II, xiii, A VI 6, 146-51.On the 'reality' of genera and species and the question of essentialism, see Mugnai, *Astrazione e realtà*, in particular pp. 116-21. Remember, that in the *NE* Leibniz introduces also a distinction between *logical* (or *mathematical*) and *physical species* : according to the first, "the tiniest difference which stops two things from being alike in all respects makes them of two different species"; in this sense, however, two physical individuals "will never be perfectly of the same species in this manner [in the logical sense], because they will never be perfectly alike; and, furthermore, a single individual will move from species to species, for it is never entirely similar to itself for more than a moment" (NE, III, vi, 13, A VI 6, 308). Same admission in a famous letter to De Volder, January 21, 1704, GP II, 263. On the contrary, Leibniz does refrain from applying the logical/mathematical criterion of distinction to the case of physical species, otherwise it would be impossible to say of any two individuals whatsoever that they belong to the same species, cf. A VI 6, 309-10. Cf. S. Godin, "Locke and Leibniz and the Debate over Species", in R. J.Gennaro-C.Huenemann (eds.), *New Essays on the Rationalists*, New York/Oxford 1999, pp. 163-77.

²⁵⁴ Cf. Suárez's discussion in DM II, i, 1. See also M. Renemann, "Suárez's Doctrine of Concepts", in Salas-Fastiggi (eds.), *A Companion to Suárez*, pp. 313-335.

²⁵⁵ In particular, he points out that "ideas are not certain things external to God, nor creatures which objectively exist in the mind of God, but they are the reasons substantifying them [*rationes earum substantificas*], i.e. substantial reasons or, better, reasons of substances which are singularly productive [*substantiarum factivas singulariter*]" (DM XXV,I, 11).

Therefore, since ideas are uncreated, while possible creatures are creatable, it follows that, whereas the latter are objective concepts, the former cannot be.

The demonstration which follows proceeds by eliminating the two principal objects of divine knowledge: the primary object, i.e. God's divine essence in itself, and the secondary object, i.e. creatures. But possible creatures, since are something which can be created, cannot be equated with ideas; divine essence, insofar it is taken in itself and making abstraction from the knowledge thereof does not contain the creature as its exemplar cause (divine essence contains creatures *solum eminenti virtute* [...], *non formaliter ullo modo*).²⁵⁶ Thus what the Schoolmen called *esse cognitum* cannot constitute the exemplar *in esse exemplaris*, also because the former, in order to subsist, presuppose the latter.

If the exemplar or the idea in God cannot be an objective concept, Suárez concludes that it should be a *formal concept* which inheres to the divine understanding. In this way, Suárez is able to find a place for the Augustinian view that divine ideas are the eternal and immutable reasons of things, intelligible forms, which are in (*inesse*) God in a formal way insofar as he is an intelligent being.²⁵⁷

The relevant point, here, is that the exemplar in God is not a theoretical concept but a *practical* one, i.e. a notion of the things to be produced (*rei efficiendae*) in a proper sense, or, as he also says, a *forma actuans*. What is presupposed here is the distinction between God's speculative knowledge and his practical knowledge. The former can have, as its objects, both divine essences and creatures (possible and actual). Practical knowledge, on the contrary does not have a direct object (since the objects have been already exhausted by the speculative one), but, rather, an indirect one.

Interestingly enough, it is only in the case of God's practical knowledge that the parallel with art is introduced by Suárez.²⁵⁸

Concerning the distinction between the thing (*res ipsa*) and the exemplar, indeed, he remarks that

"[...] it is usually attributed to the exemplar the role of being the measure and the rule of the truth and the property of the produced thing. In this sense, [...] many authors say [...] that the truth of created beings has to be derived from the conformity of the latter to the exemplars that are in the divine understanding, as from the measure of things [...] [F]or the exemplar of the artist is the measure of the artefact. But this role can be properly played by the formal concept only; for the objective concept, if it is generally appropriate and adequate to the thing which has to be produced, cannot be distinguished from the thing itself. A certain thing, indeed, cannot be the measure of itself [...]".²⁵⁹

²⁵⁶ DM XXV, i, 14. Cf. also Ibid., i, 15: "[...] nam, essentia divina, si consideretur prius ratione quam sit cognoscens, vel cognita a se, non potest intelligi ut exemplar creaturarum secundum proprias rationes earum, quia licet eminenti virtute contineat illas, non tamen formaliter ullo modo eas continet aut refert [...]". ²⁵⁷ Cf. *Ibid*,i, 26.

²⁵⁸ Cf. *De divina substantia* III, iv, 9: "At verum per modum artis est Divina scientia practica, in ordine ad operationem ad extra, quia cognoscit non solum quasi speculando et contemplando quidditatem et proprietates earum [*creatures*], sed etiam cognoscendo modum quo fieri debent, quod est proprium illius scientiae practicae,

earum [*creatures*], sed etiam cognoscendo modum quo fieri debent, quod est proprium illius scientiae practicae, quam factivam vocant, et est propria et propriissima ars". And cf. also Ibid., v, 7, where ideas, properly speaking, pertain only to God's practical knowledge. ²⁵⁹ DM XXV, i, 29. Cf. also *De divina substantia*, III, v, 1: "[...] quia idea nihil aliud significat, quam exemplar

ad cujus imitations artifex operator, ostensum autem est, Deum operari, ut supremum artificem, oportet ergo ut suas ideas habeat".

This passage is interesting, for the parallel with the artist and the models he employs for producing artefacts has been employed by Leibniz in his conversation with Wagner ("*ideae vel possibilitates sunt natura priores mundo, ut ars artificis prior est opera*"). The ambiguity detected above can be furtherly clarified here. Suárez, indeed, explicitly distinguishes between divine ideas, which are dissimilar from the things to be produced (since a thing cannot be the measure of itself), and objective concepts, which are said to be identical or indistinguishable from the produced thing.

Now, objective concepts which are said to be indistinguishable with things are (possible) creatures, which corresponds, in Leibniz's terminology, to complete concepts, or, better to the descriptive function of the complete concept (as far as its determinations are concerned, the complete concept of Adam cannot be distinguished from the actual Adam). However, when claiming that ideas are the same as possibilities (the model employed by God as the supreme artist), Leibniz seems to conflate these two aspects, i.e., once again, the normative and the descriptive function of the complete concept.²⁶⁰

Note that, as he makes clear in *De divina substantia*, Suárez takes divine ideas to be identical with God's *verbum* or "a formal essential concept that God has of creatures insofar as they are possible". In this sense, however, ideas cannot be said to be possible things *ut objecta menti Dei*.²⁶¹

Finally, concerning the way in which one can characterize God's knowledge of exemplars, Suárez argues that it has to be regarded as an indirect one:

"[...] for God, in knowing creatures in his own essence, gives form (to speak in our imperfect way) to reasons, or concepts of them, by means of which he knows them directly, even though as secondary objects of his knowledge. Because his knowledge is the most perfect one, in knowing and giving form to the exemplars of creatures, he knows in himself that concept that intellectually represents creatures; which is to know in himself the exemplars of creatures. By conceptually distinguishing these two aspects, we understand as prior the formation of exemplars themselves, and then the knowledge thereof, which, however, seems to be a certain kind of reflection. In God, however, because the highest simplicity and infinity of that act, both these aspects are known in the same simplest act. Therefore, in this way, it is given in God [...] not only the idea as formed, but also as known [...]. And in this way we can distinguish (by a distinction of reason) in God the idea from the cognition of the idea, as well as we can also distinguish (by a distinction of reason) the direct cognition from the reflexive one. And we also understand that the idea insofar as its own being is concerned consists in a formal concept, which God directly possesses, of the thing to be produced or made, insofar as it has to be produced; on the other hand, the cognition of the idea is an almost perfect application and conjunction with the artist himself, in order to produce an effect based on the imitation of that".²⁶²

The reason why God's cognition of the exemplar (from our point of view) can be interpreted only as a reflexive one is that there is no third kind of speculative direct knowledge between his knowledge of the essence precisely and the knowledges of creatures in themselves. It is interesting that in the passage I have quoted Suárez explicitly talks of God as shaping in himself a *concept* of creatures by means of (or trough which) he can have knowledge of them.

²⁶⁰ For the distinction between the normative and the descriptive function of complete concepts, see again Mugnai's review of Adams' *Leibniz*, pp. 79-80.

²⁶¹ *De divina substantia*, III, v, 6.

²⁶² DM XXV, i, 34.

The same terminology is employed in *De divina substantia*, where this very same process is presented as one of the ways in which theologians try to make sense of God's knowledge of purely possible things. Furthermore, he emphasizes the fact that God's practical knowledge (in the sense of his 'being the cause of things' *per modum artis*) falls under the knowledge of simple understanding, not under the knowledge of vision.²⁶³

Also in this case Suárez explicitly talks of God as forming in himself a primary notion or a 'concept' of creatures (which he also refers to with the traditional name of *verbum*).²⁶⁴Having this notion or *verbum* of creatures in himself, God sees at the same time himself as having this notion or *verbum* and, through this process of reflection on himself, he is able to represent creatures. Once again, he remarks that "this mode of reflection does not constitute a peculiar kind of knowing creatures in himself [*in se*], especially because the representation of the *verbum* is not objective"; therefore, he concludes that "this is only a kind of reflection intimately included in the prior knowledge [God's knowledge of his own essence], because of the perfect way in which God knows".²⁶⁵

If Suárez feels the need to introduce this kind of reflexive knowledge is, perhaps, because he needs to keep together two apparently diverging claims, i.e. the request that God knowns creatures in themselves and not only in himself, and, on the other hand, the request that God's knowledge of possible creatures cannot be taken as prior to God's knowledge of his own essence.²⁶⁶ Whereas some late Scholastics (like Vasquez) argued in favour of the priority of God's knowledge of the essence of things over knowledge of his own essence, Suárez refrains from such a radical break with the tradition. We have already seen how, when interpreting Aquinas' claim that God knows creatures in himself, he intentionally misinterprets it, concluding that God's act of understanding is actually directed toward creatures. However, as it has been pointed out,

"as creatures are only the secondary object of this act, [...] this act does not fulfil Suárez's requirement of knowledge of creatures in themselves. Only a quasi-reflection, in which God cognizes His understanding and the object of his understanding separately, fulfils the requirement".²⁶⁷

Note, however, that these two acts, the direct and the reflexive one, can be conceived of as separate only from the point of view of our inadequate knowledge, whereas, properly speaking, they occur simultaneously in the absolute simplicity of God's knowledge. Furthermore, Suárez's distinction between the divine exemplar (or idea) and the creature understood as possible can be made sense of because he does not want to give up reference to divine ideas, i.e. he cannot fully accept the Ockhamist reduction of ideas to creatures themselves.²⁶⁸

²⁶³ Cf. De divina substantia, III, iv, 15 (Vivès I, 209b).

²⁶⁴ The passage where Suárez comes closer to a sort of Leibnizian view of complete concepts is in *De divina substantia*, III, v, 7, where he says: "Sed in hoc conceptu [*the exemplar as formal concept*] sunt ideae, vel potius hic conceptus, ut est de tali, vel tali creatura, est idea, ergo idea in divina scientia [...]" (Vivès I, 211 b). ²⁶⁵ *De divina substantia*, III, ii, 21 (Vivès I, 202 a).

²⁶⁶ The latter point is clearly expressed in *De divina substantia*, III, ii, 14-19, where Suárez discusses the point of view he ascribes to Scotus and Ockham.

²⁶⁷ Renemann, "Suárez's Doctrine of concepts", p. 328.

²⁶⁸ In *De divina substantia*, III, v, 6, indeed, Suárez rejects Ockham's view that ideas "are creatures themselves, which are produced in time, insofar as they are put forth in eternity in the mind of God, not in a formal but in an

Chapter 9

Possibilia, Essences, and Propositions. Leibniz and the Problem of Necessary Being(s)

"Veritates necessariae consequentur ex naturis. Ergo et naturae sunt aeternae, non tantum Veritates" (De veritatibus necessariis seu aeternis, August 1677, A VI 4, 17)

> "Sunt autem Formae aliae Essentiales, seu constitutivae, aliae accidentales. Sed fortasse formis essentialibus careri potest ut sint nudae notiones" (Leibniz to Des Bosses, January 21, 1713, GP II. 471)

9.1 Platonism about Essences in the Correspondence with Eckhard (1677)

After having focused my attention on the sense in which Leibniz speaks of ideal vs. real entities, and of the multi-facet ways of dealing with notions like 'existence', 'possibility', and 'abstraction', I would like to come back again to the disjunction between two wats of reading the 'existence of essences' which I have originally settled down at the beginning of the previous chapter (see 8.1 above). Now, indeed, I would like to take into account the second horn of that disjunction, i.e. that reading which emphasizes the ontological commitment to the existence of essences and natures, at least as far as general and specific essences are concerned. Since *platonism* (with the lower case letter, this time) is usually understood as the view that ascribes existence to abstract objects, I will describe it as a form of platonism.²⁶⁹

objective way". And, few lines below, he adds that "the thing as a possible object in the mind of God, is nothing real and actual outside God, nor is something truly distinct from the creature which is produced. Therefore, the creature, as object [*objecta*] in this sense, cannot be said eternal and immutable, and other attributes which typically belong to divine ideas" (Vivès I, 211 a-b).

²⁶⁹ In contemporary metaphysics, platonism is commonly understood as the view that there exist such things as abstract objects, i.e. objects which do not exist in space or time (they are not physical objects) nor in the mind (they are not mental objects), but inhabit a sort of Fregean 'third realm'. Typical examples of abstract objects the existence of which a platonist is committed to are numbers, properties, propositions, universals, sets, states of affairs, etc. Conceptualism is the view that those abstract objects are mental entities, for example ideas (in the case of Leibniz, conceptualism is to be qualified as a sort of divine mind-conceptualism). Nominalism is usually regarded as the view that there are no such things as abstract objects (or universals). Depending on the ontological weight one wants to attribute to 'there are' (in 'there are not such things like abstract objects'), conceptualism can be regarded as a form of nominalism or as an alternative view to it. Often, however, 'nominalism' is simply understood as a synonym of 'anti-platonism' in general. Cf. M. Balaguer, "Platonism in

Even though I am persuaded that, eventually, Leibniz will reject such a form of extreme platonism to embrace a moderate form of conceptualism –as clearly stated in the passage from the *New Essays* and the other texts I have extensively quoted in the previous chapter –, it will be interesting to follow this train of thought for a while, especially because it is not just limited to Leibniz's remarks in his 1675 letter to Foucher. On the contrary, it seems to be a general feature typical of a certain stage of his philosophical development, in the period which immediately follows his return to Germany. Of course, as always in Leibniz, the ontological question concerning the status of possibilities and essences goes hand in hand with the theological question concerning the relation between God and the latter, in particular as far as the dependence/independence of essences (and possibilities) from God's understanding is concerned.

9.1.1 Again on the existences of essences in God

Let me recall that in the discussion with Wagner, quoted above, Leibniz at same point talks of ideas and possibilities *in Deo existentes*.²⁷⁰ Again, in the *Notationes generales*, one of the most important drafts preceding the *Discourse*, Leibniz writes at some point: "And every possible thing does not involve only possibility, but also a tendency to actual existence, not as if those things which do not exist had a tendency, but because this is required by the ideas of the essences which actually exist in God [*ideae essentiarum in Deo actu existentes*]".²⁷¹ This passage has been regarded by Mondadori as one putting forth a strong (and exceptional) view, according to which essences (or, better, divine ideas which stand for essences) do exist in God not just 'objectively' (in the sense of "objective being") but also actually (in the sense of their "formal being"), and, therefore, are to be really (and not just conceptually) distinguished from God.²⁷²

Of course, there is a simple way of providing a deflationary interpretation of this passage (as well as of that in the discussion with Wagner): when talking of ideas as "actually existing" in God, indeed, Leibniz is just pointing out (in a very misleading way, however) that God's understanding of essences is never in potency but always in act (in contrast with ideas in the human mind, which have a dispositional nature). In this sense, Leibniz would say, with Aquinas, that "*in Deo non est intellectio* [...] *in potentia, sed in actu*".²⁷³ This would perfectly match also with the remark that the tendency to exist Leibniz ascribes to "possible things" has not to be understood as if "things which do not exist had a tendency" (i.e. as if one were committed to the existence of non-actual things). However, it is interesting to remark how in

Metaphysics", *The Stanford Encyclopedia of Philosophy* (Spring 2016 Edition), Edward N. Zalta (ed.), URL = <u>https://plato.stanford.edu/archives/spr2016/entries/platonism/</u>.

²⁷⁰ Grua, 396; and cf. also *De rerum originatione radicali*, GP VII, 305: "Respondeo, neque essentias istas, neque aeternas de ipsis veritates quas vocant, esse fictitias, sed existere in quadam ut sic dicam regione idearum, nempe in ipso Deo [...]". As I have already pointed out, these two texts are chronologically and thematically close.

²⁷¹ Notationes Generales, 1683-85 (?), A VI 4, p. 557.

²⁷² See Mondadori, "Nominalism", p. 178.

²⁷³ ²⁷³Cf. what I have already said in Chapter 5.1 above. For the distinction between the modally vacuous state of ideas in God and the modally non-vacuous state of ideas in the human understanding, see always Mondadori, "Modalities, Representations, and Exemplars".

such a passage the privilege of actual existence (*in actu existere*) is ascribed not to God's act of understanding (in the formal sense), but, rather, to the objects of his thought, i.e. to ideas, even though, admittedly, the expression "ideas of essences" can be an ambiguous one.

The deflationary reading, which can be applied to Leibniz's way of talking of essences in the 1680's and 1690's, however, would be at pain when coming to what Leibniz says in a series of texts written between 1677 and the beginning of 1678. In particular, I am thinking of a couple of short drafts dated August 1677, where the topic of eternal truths is discussed as a sort of preliminary step to a new formulation of the ontological argument.

These two texts have been written in the very same period as the *Dialogus*, which could be regarded as a sort of turning point of Leibniz's conception of metaphysical possibility, as it clearly emerges from the passage in which (against Hobbes' conventionalism), he states that "truth pertains to propositions or to thoughts, but to propositions or thoughts which are possible".²⁷⁴

The relevance of this, apparently incidental, remark, however, can be fully understood only in conjunction with what Leibniz says in the two drafts *On the reality of truths* and *On necessary or eternal truths*. The topic of the 'reality of truth', indeed, is fundamental in order to understand the question of the basis or ground of truth, which is the topic of the reply to conventionalism contained in the *Dialogus*.²⁷⁵

The topic is, once again, that already presented in the letter to Foucher: the independence of truths and propositions from both our psychological act of thinking them and from what exists in the world 'out there' (i.e. their correspondence with actual states of affair, we could say). In these two texts, however, the independence of propositions (and essences) is pushed to its extreme consequences, and leads Leibniz to endorse a sort of platonist position concerning the ontological status of propositions.

9.1.2. Necessary being and/or Necessarily existent. Leibniz vs. Eckhard

The topic of eternal truths, and their connection with the ontological argument, had already been at the centre of Leibniz's attention in his discussion with the Cartesian Arnold Eckhard, which took place only few months before the period when Leibniz composed the two drafts I have mentioned. It is important to stress that Eckhard was a strong supporter of the Cartesian thesis concerning the creation of eternal truths. In his private notes to a very long letter written by him in May 1677, Leibniz shows all his disappointment for, and his dissatisfaction with, the metaphysical as well as moral consequences of the claim that essences are created by God (and with the related idea that God is "cause of himself" in a positive sense).

To the argument of my discussion, the correspondence with Eckhard is relevant at least for two different reasons. First, in his letter for Eckhard, Leibniz expresses his most clear and most interesting opinion on the Cartesian doctrine, trying to understand the rationale behind such a radical thesis:

"Truth to be told, it seems to me that that claim, i.e. that is the divine will which makes it that a triangle has its three angles equals to two right ones, or that a circle is the most capacious of the isoperimetric figures, is an

²⁷⁴ *Dialogus*, August 1677, 21.

²⁷⁵ Cf. Mugnai, "Leibniz's Nominalism", pp. 157-59.

extremely incorrect one. It is as if God had given to the circle such a privilege, which, however, could have been equally transferred to the square as well. Those things are enough to understand that our author [Descartes] had not access to the deepest truths. It seems to me, however, that I have understood by means of what kind of argument he has been led to formulate such a claim. He stated the following criterion of truth: our clear and distinct perception. Therefore, what is true –e.g. that the circle is the most capacious among the figures of the same perimeter –can be known only because we perceive this property of the circle in a clear and distinct way. However, had God created our nature so that the contrary be perceived by us in a clear and distinct way, then the contrary would have actually been true. This is an opinion of him on which I completely disagree".²⁷⁶

This is the only passage where Leibniz explicitly connects the creation of eternal truths with Descartes' criterion of truth (or of clear and distinct conceivability), which, in turn, was based on the veracity of God. In the continuation of his correspondence with Leibniz, Eckhard will try to defend Descartes's theory by showing that the contingency ascribed to eternal truths holds only from the point of view of God's absolute power; whereas they are necessary from the point of view of God's ordained power as well as from that of our understanding (the two having to be equated, ultimately).²⁷⁷

This explanation, however, does not make Leibniz change his mind on this point; on the contrary, in his private notes to Eckhard's letter, he will insistently try to reduce Descartes' theory to a form of theological voluntarism.²⁷⁸ At the same time, he will make it clear that divine will "follows from the necessity of things, because also the existence of God is a consequence of the necessity of things, i.e. of God's essence. For the essence of God is the same thing as the necessity of things".²⁷⁹

This note might be regarded as the point of departure of the kind of argument Leibniz will develop in the two drafts of August 1677. His commitment to a platonist view of essences, indeed, can be read as a sort of reaction (or overreaction) to the (extreme) contingentism of the Cartesian account. There is something paradoxical here, however, because a sort of platonist account of essences has been defended by Descartes himself in the fifth Meditation, in order to show the validity of the ontological argument (leaving aside the question whether

²⁷⁶Leibniz to G. W. Molanus (for A. Eckhard), April 1677, A II 1, 306.

²⁷⁷ Cf. A. Eckhard to Leibniz, May 1677, 353. On this point, see S. Landucci, *La teodicea nell'età cartesiana*, Napoli 1986, pp. 197-206. Landucci notes that Eckhard's reading of the theory of eternal truths (according to the distinction between absolute and ordained power) is very close to that endorsed by Spinoza in his *Cogitata metaphysica* and in the commentary to Descartes'*Principia* (a work that Leibniz himself had read or re-read in this very same 1677).

²⁷⁸ Leibniz is particularly worried about the fact that Descartes' theory of eternal truths seems to undermine the primacy of the principle of non-contradiction in the domain of necessary truths: "Furthermore, the one and only principle of necessary truths is that the contrary [of a necessary truth] involves a contradiction in terms. Thus, in the theorems of geometry it can be always shown that the contrary implies a contradiction. Since the incompossibility of two contradictory statements does not depend on divine will, it will follows that that the truths will not follows from that either" (A II 1, 351, note 74). This point will be furtherly expanded in the *Dialogus inter theologum et misosophum*, 1678-79 (?), A VI 4, 2215-16 (where he clearly states that logical and metaphysical principles are univocal in the case of God as in that of finite minds); and, later on, in *De non violando principio contradictionis in divinis contra Honoratum Fabri*, 1685 (?), A VI 4, 2340-42.

 $^{^{279}}$ Leibniz's note to Eckhard's letter, May 1677, n. 80, A II 1, 352. Against the accusation of subjugating God to the fate (repeated by Eckhard at A II 1, 354) Leibniz replies that, whereas the Pagan philosophers had subjugated the existence of things to the necessity of things, he is subjugating the possibility (the essences) of things to God (even though he clearly identifies the essence of God with the necessity of things). Later on, in the famous #20 of the *Theodicy*, he will make clear his point by saying that the necessity of things (the eternal truths) corresponds to the object of God's understanding.

what Descartes said there might be conciliated with the creation of eternal truths or not).²⁸⁰ There is a sense in which Leibniz is stressing the same kind of platonism about essences defended by Descartes in the fifth Meditation against Descartes' account of eternal truths.

The connection with the ontological argument is related to the second, fundamental element which emerges in the correspondence with Eckhard. Leibniz's attention shifts from a version of the argument based on the notion of the most perfect being (*ens perfectissimum*) to another version of the same argument based on the idea of a necessary being (*ens necessarium*). From this moment onwards, indeed, the latter will be clearly privileged by Leibniz, because it allows him to put between brackets the delicate question of defining what a 'perfection' is, and whether existence might be regarded as a perfection or not.²⁸¹

Eckhard will be very suspicious about this Leibnizian attempt at reformulating the ontological argument moving from the notion of a necessary being, since he believes that, as employed by his correspondent, the notion of a 'necessary being' is a potentially misleading one. In particular, Eckhard maintains that 'necessary being' can be taken either as a synonym of (a) "that which necessarily exists", or of (b) "that which contains necessary existence". If it is taken in the first sense, (a), then the entire proof is only a tautology; whereas, when taken according to (b), the proof is valid, but the premise that 'what contains necessary existence necessarily exists' has to be proved as well.

What Eckhard fears is that Leibniz is just assuming, according to (a), the derivation of the existence of God from his essence, which, on the contrary, can be proved only moving from the notion of the most perfect being. For, according to what has been already stated by Descartes, necessary existence is contained only in the idea of the most perfect being.²⁸²

Whereas Eckhard acknowledges a difference between saying that "God necessarily exists" (read *de dicto*) and "God involves necessary existence" (read *de re*), Leibniz, on the contrary, aims to show that saying that "necessary existence pertains to God" is logically equivalent to saying that "it is necessary that existence pertains to God". In this way, the passage from the first to the second would be a perfectly warranted one.²⁸³

In order to make his point as clear as possible (and also repeating that he does not want to put forth an altogether new argument, but only to purge the Cartesian one from the problematic notion of 'perfection'), Leibniz says to Eckhard he has attached a text to his letter, which is

²⁸⁰ Paradoxically as it may be, according to Descartes, the creation of eternal truths does actually follow from his assumption that essences should have a determinate ontological status. If essences are something, and not just nothing at all, they have some kind of being; but whatever kind of being they have, it comes from God, since, according to a creationist metaphysics, everything has been created by God. In this way, Descartes comes to reject Suárez's (as well as Leibniz's) conclusion moving from a presupposition he shares with them. See Scribano, *L'esistenza di Dio*, pp. 47-48.

²⁸¹ This point is mentioned for the first time in Leibniz's own account of his conversation with Eckhard, cf. *Unterredung mit Arnold Eckhard*, 15 April 1677, A II 1, 312: "Mihi vero videri hoc argumentum reddi posse compendiosus, sublata perfectionum mentione, si scilicet sic argumentemur: Ens de cujus essential est existentia necessario existit. Deus est ens de cujus essentia est existentia. Ergo Deus necessario existit". On this *compendiosus argumentum* cf. S. Di Bella, "L'argomento ontologico moderno", p. 1558 and ff. For a general look at Leibniz's discussion of the ontological argument, see now M. R. Antognazza, "Leibniz's Ontological Argument", forthcoming in G. Hoppy (ed.), *Ontological Arguments*, Cambridge.

²⁸² Cf. Eckhard to Leibniz, 19 April 1677, A II 1, 320-21. Or, more generally speaking, necessary existence must follow from a particular attribute of God, and not just from the simple definition of 'necessary being'. I owe to Stefano Di Bella clarifications about what is at stake in Descartes' point of view.

²⁸³ Cf. Leibniz to Eckhard, A II 1, 28 April 1677, 324. Cf. Di Bella, "L'argomento ontologico moderno", pp. 1559-60.

explicitly focused on this topic.²⁸⁴ This *scheda*, according to me, has to be identified with a text –which Leibniz himself entitled *Definitio Dei seu entis a se* –printed by the editors among the texts *De summa rerum*, and tentatively dated December 1676 (even though, as they note, the paper on which it has been written down is the same Leibniz used in 1677).²⁸⁵ In this very short text, Leibniz moves from a definition of *ens a se* as that being whose existence follows from its possibility or essence.

The first thing to observe is that Leibniz expressly states the equivalence between *possibilitas* and *essentia*:

"It is the same for existence to follow from the possibility of something, as it is for existence to follow from the essence of something. For the essence of a thing is the same as a special reason for possibility, i.e., from the conception of which it is conceived distinctly and *a priori* that the thing is possible. I say "*a priori*"; that is, not from experience but from the very nature of the thing, just as we conceive the number 3, a circular line and other things of this sort to be possible, even if we have never experienced them to exist in reality, or at any rate do not take this experience into account".²⁸⁶

Then, Leibniz goes on to show that the *ens a se* characterized in this way is the same thing as a necessary being (i.e. "that which necessarily exists"), because its non-existence would imply a contradiction, i.e. a contrast with the concept or the essence of that very same thing. Therefore, the conclusion follows that "[i]f a necessary being is possible, it follows that it exists actually, or, that such a being is actually found in the universe" (where, of course, the problematic point is to prove the possibility of something like a necessary being). This conclusion is called by Leibniz a "splendid theorem" and "the pinnacle of the whole modal theory".²⁸⁷

Rather than on this second stage of the correspondence with Eckhard –and the development of Leibniz's modal version of the ontological argument –, I want to focus here on the fundamental premise which is at work in the passage quoted above. I mean the close link Leibniz is now envisaging between the concept of logical possibility (and logical necessity) and a domain of essences which are regarded as self-subsisting and independent from their (possible) actualization.

This connection, notice, is what allows Leibniz to link the definition of God as the being whose existence follows from its own essence (the *ens a se*) with the definition of God as

²⁸⁴ Cf. Ibid., A II 1, 321.

²⁸⁵ Definitio Dei seu entis a se, A VI 3, 582-83. Contrary to what the editors of A VI 3 suggest, this text belongs to the period of Leibniz's correspondence with Eckhard, as already pointed out by G. H. R. Parkinson, "Leibniz's *De summa rerum*", *Studia Leibnitiana*18, 2, 1986, 132-51, p. 142. If my reconstruction is correct, it should be identified with the *scheda* Leibniz attached to his second letter to Eckhard.

²⁸⁶A VI 3, 583/DSR 105-07. Cf. also *Elementa verae pietatis*, A VI 4, 1363-64 (where possibility is equated with "quantity of reality" or, which is the same, "quantity of essence").

²⁸⁷ A VI 3, 583/DSR 107. Other occurrences of the "splendid theorem" will be discussed in what follows. The connection between the ontological argument, the reality of ideas (i.e. their possibility), and the proof of possibility will be summarized in section 23 of the *Discourse* (A VI 4, 1556-57/AG 56). Leibniz himself has acknowledged that his reflections on the distinction between real and nominal definitions have been originated from his interest in the ontological argument. See *Meditationes de cognitione*, A VI 4, 558-59, and, especially, *De synthesi et analysi universali*, A VI 4, 541.

necessary being (in the sense (a) acknowledged by Eckhard), and, thus, to provide an answer to the objection raised by his Cartesian opponent.²⁸⁸

In sum, Leibniz's argument amounts to say that a necessary being exists if (1) it can be proved that is possible, i.e. that its concept does not entail a contradiction, and that, therefore, (2) such a concept immediately corresponds to an essence in the realm of possibilia (or purely intelligible things). Given that the passage from (1) to (2) is guaranteed only if one is committed to an ontology of ideal entities, the introduction of such an ontology is one of the most relevant advancements at this stage of Leibniz's thought. And this is also the kind of ontology Leibniz is working with in the two drafts on eternal truths he has written in August 1677.

9.2 A parte rei. The Necessary Existence of Propositions in 1677

In these essays, however, the independence of propositions (and concepts) from the act of thinking is pushed to its extreme consequences, and will lead Leibniz to endorse a strong realist position concerning the ontological status of essences and propositions (one which can be regarded as alternative to the conceptualist strand I have discussed in Chapter 8 above). In order to emphasize the need of an objective ground of truth itself, indeed, Leibniz comes to literally state that truths concerning essences and possibilia do actually exist, they are *quiddam actu existens*.

The main aim of *De veritatis realitate* is to prove that "a certain necessary being exists", where a necessary being is defined, as showed above, as that whose existence follows from its essence. The context, therefore, is that of the discussion of the ontological argument we have already met in the correspondence with Eckhard and related texts.

9.2.1 Leibniz's argument in De veritatis realitate

Leibniz's argumentative strategy can be summarized in the following steps:

- (1) The truth of necessary propositions is in act *a parte rei*;
- (2) The truth of necessary propositions is necessary; therefore
- (3) A certain necessary thing is in act *a parte rei*.

But since it is also true that

(4) Whatever is in act *a parte rei*, that exists;

²⁸⁸ However, the possibility of formulating the ontological argument moving by the notion of necessary being has already emerged in a passage from the Paris notes, cf. *Ens perfectissimum existit*, November 1676 (?): "Whatever is necessary, necessarily exists. Whatever necessarily exists, exists. Therefore a necessary being exists. The conclusion is to be understood in this way: if a necessary being which is given is to exist, it only has to be shown that it is given, namely in the number of possible or intelligible things [*in numero rerum possibilium sive intelligibilium*]" (A VI 3, 576/DSR 99).

it follows from (3) and (4) that:

(5) A certain necessary thing exists.

Notice that the same equivalence between *de dicto* and *de re* necessity, defended by Leibniz against Eckhard, seems to be at work also here. The point of departure, which justifies (1), is the remark that a necessary proposition –like 'The circle is the most capacious of all isometric figures' –is true even if no circle really exists (i.e. if there is no actual circular thing), and, also, even if "neither I nor you nor anyone else of us exists". From the absolute independence of truth from the act of thinking, then, Leibniz derives its reality: "because this truth does not depend on our thinking, it is necessary that there is something real in it".

From the reality of propositions, then, Leibniz derives their actual existence: "This reality is a certain existence in actuality. For this truth does always subsist *a parte rei*". Actual existence is immediately derived from the reality of truth, without resorting to God's understanding as its basis (as it will be according to the conceptualist account).

Notice, however, that at point (5) Leibniz has proved that there are as many necessary beings as there are necessary propositions:

"From this is evident that there are as many necessary things as there are necessary truths. These necessities can be combined, any one to any one, because any two propositions can be connected to prove a new one, when the means of joining them have been added. (A difficulty is that the same proposition can be demonstrated in many ways. Yet there are not many causes of the same thing). Therefore all realities existing in eternal truths, with no one thinking about them, will have some real connection to each other. Truths arise from natures or essences. Therefore even essences or natures are certain realities, always existing".²⁸⁹

So far, the task of providing an ontology of truth had led Leibniz to conclude that there are as many necessary beings as there are necessary truths. This would be an extremely realistic solution, even from the point of view of the Scholastic and late-Scholastic positions.

Remember how, in the mental experiment proposed by Cajetanus (and rejected by Thomasius), the reality of eternal truths might be assessed by imagining the annihilation of everything but a single human mind, for example the existence of I who am thinking at the essence of the rose or the circle. Of course, in late Scholasticism there were also extreme realist positions, like that of Gabriel Vázquez, who believed that not only the possibility of the possibles but also their reality was independent from God's understanding (against Scotus and the major part of his followers).²⁹⁰ The main difference, however, is that these reflexions were generally concerned with the reality of creatures in the mind of God, whereas, as we shall see in a moment, Leibniz is particularly interested in the reality of general essences.

Coming back to Leibniz's text, we have seen that the reality as well as the actual existence of truths is derived from their being independent of any act of thinking them. The reality of these

²⁸⁹De veritatis realitate, August 1677, A VI 4, 18-19/LST 182.

²⁹⁰ On Vázquez's position, see Schmutz, "Un Dieu indifférent", pp.192-204. Talking about Vázquez and his followers, he remarks : « This essentialist school proposed, perhaps for the first time in the history of medieval metaphysics, an ontology completely independent from the *scientia Dei*, conceiving possibles and essences as distinct *a parte rei* from the divine understanding" (p. 202).

necessary truths is to be found in "essences or natures", which are said to exist always.²⁹¹ At the same time, however, Leibniz refers to the essences or natures as necessary existing and eternal beings.

In this sense, it seems that he is going the other way round with respect to the deflationary account defended by Thomasius: he moves, indeed, from a merely logical understanding of 'essences' (as a shorthand for essential propositions) to a metaphysical understanding of them as *entia incomplexa*, i.e. essences or natures in a genuine sense. In *De veritatibus necessariis*, he clearly writes: "natures are eternal too, not just truths"; exactly the view rejected by Thomasius (cf. 2.3 above).

Thus, essences and necessary propositions are equated with necessarily existent things. This does not mean, however, that they are considered as substances. As Leibniz immediately makes clear, indeed, "[t]hose realities are not substances", but only modes or modifications of a substance, as he will explicitly point out in *De veritatibus necessariis*.²⁹² Moreover, in the last part of *De veritatis realitate*, he adds that those "realities that are in natures *a parte rei*, or, as they say, objectively, are not distinguished by time and place"²⁹³, where this "*ut vocant objectivae*" can be interpreted as either a reference to the Scholastic view of *esse objectivum* or to the Cartesian thesis of the objective nature of ideas.

Finally, what he says in the passage between brackets in the text quoted above makes clear that he is referring here only to general essences or abstract natures, and not to individual essences as well. Only in the case of general essences, indeed, one can say that "the same proposition can be demonstrated in many ways", whereas "there are not many causes of the same thing" (of course, in the context of Leibniz's argument above, this seems to posit some problems concerning the criteria of identity for propositions). This difference has been already pointed out in a paper of the Paris period concerning the principle of individuation, where the discernibility of the methods of production is required in the case of individuals, but not in that of abstract concepts. In the latter case, indeed, "different causes can produce an effect that is perfectly the same", and, in this case, the two products are perfectly indiscernible, even from the point of view of God.²⁹⁴

9.2.2 A new argument for the existence of God?

²⁹¹ The idea that essences or natures are the ground of necessity (rather than the contrary, which is the common view of post-Kripkean essentialism based on modal semantics) has been notoriously defended by Kit Fine (see for instance K. Fine, "Essence and Modality", *Philosophical Perspectives*, 8, 1994, pp. 1-16). For a recent development of these ideas, and a defence on the idea of essences as necessary beings, see. B. Hale, *Necessary Beings. An Essay on Ontology, Modality, and The Relations between Them*, Oxford 2013, especially pp. 145-64, and 165-75, where the claim that what he calls pure properties do necessarily exist. Cf. also my discussion in the Introduction above.

²⁹² Cf. *De veritatis realitate*, A VI 4, 19. See also *De veritatibus necessariis seu aeterniis*, August 1677, A VI 4, 17: "If no one thought [about it], the impossibility of a square larger than an isoperimetric circle would still exist. And since it is only a mode, it is necessary that its subject be something" (LST 182).
²⁹³ A VI 4, 19/LST 182.

²⁹⁴ *Meditatio de principio individui*, April 1676, A VI 3, 490-91/DSR 51. Also in the text concerning the project of *mathesis universalis*, especially as far as congruence is concerned, Leibniz will make it clear that the principle of indiscernibles cannot be applied to abstract entities. Cf. Mugnai, "A Systematical Approach to Leibniz's Theory of Relations", pp. 71-73.

The next step consists in showing that such necessary truths can be combined together "any one to any one, because any two propositions can be connected together in order to prove a new one, when the means to join them have been added" (what this could mean, practically speaking, is difficult to say; anyway the model seems to be that of a combinatorial account, in which the set of propositions is closed under certain operations defined on them).²⁹⁵

This is the idea from which Leibniz moves to sketch a new proof of existence of God as a necessary being, which is the main task accomplished in the other draft, *De veritatibus necessariis seu aeternis*. The starting point, once again, is the existence of propositions which can subsist even without the existence of their subjects (i.e. also without existential import). From this point, however, this time does Leibniz conclude that it is impossible that nothing exists at all.²⁹⁶ Since "[t]here are as many possibilities or truths as there are propositions", and since, as we have already shown, these are independent from both actual existence and actual thought, they are something which exists²⁹⁷. At the same time, since they are not substances, but only modes, it is necessary that there be something which is the "subject" of all these modes.

In its original formulation of the argument, from the impossibility that nothing exists (since propositions and possibilities are eternally existent), Leibniz immediately inferred the existence of a "cause" of their existence, and, he also immediately inferred the uniqueness of such a cause, because "all things seem to exist in one being, which contains ideas. This proof of a necessary and ideal being is not to be disregarded".²⁹⁸

Fortunately, a more detailed account of this proof is articulated in the following lines; one which moves from the idea of the mutual combination of truths (the combinatorial account mentioned above):

"A plurality of truths joined with each other produce new truths. And there is no truth which does not produce a new truth when united with any other truth. Therefore anything in any truth that exists objectively from eternity is united with any other truth. And this is much more obvious from the fact that one nature joins in constituting another nature. Nature and truths are modes. The cause why a necessary proposition is true when no one is thinking about it must be in a subject *a parte rei*. The cause why the aforesaid proposition about the circle and the square is true is not in the nature of the circle alone nor in the nature of the square alone, but

²⁹⁵ About Leibniz's combinatorial account, see *Demonstratio axiomatum Euclidis*, February 22, 1679, A VI 4, 175 note, where he mentions the general axiom: "from two [propositions?] whatsoever taken together something new is always determined. For there is something more in positing them together than in positing them one by one".

²⁹⁶ Notice that this to seems in contrast with the 'existentialist' perspective adopted by Leibniz when he asks 'why something exists rather than nothing?', which seems to involve the idea (explicitly stated in the PNG) that nothing is simpler and easier than 'being'. I have already discussed this point in Chapter 7 above. Let me just add that, as I will show in what follows, the perspective adopted in these 1677 texts is closer to a possibilist one, where the positive bias in favour of possibility is immediately interpreted as a bias in favour of existence (over non-existence). Later on, however, Leibniz will rephrase this idea by saying that the bias in favour of possibility involves only in terms of a bias in favour of the possibles' having a tendency toward existence (or *existurientia*). At the same time, the possibilist strand will be corrected by the actualist claim that "ratio existentis non est nisi ab existence" (GP VII, 303), i.e. that the ultimate ground of both the actual and the possible is God, the only (actual) being who exists necessarily.

²⁹⁷ The view that necessarily, if the proposition that P is true, than the proposition that P exists, has been defended by T. Williamson, as part of a provocative (and very much discussed) argument to the conclusion that everything exists necessarily. Cf. T. Williamson, "Necessary Existents", in A. O'Hear (ed.), *Logic, Thought, and Language*, Cambridge 2002, pp. 233-51.

²⁹⁸ De veritatibus necessariis, A VI 4, 17/LST 182.

also in other natures that enter into it –for instance, of the equal and of the perimeter. The proximate cause of one thing is in which is found the nature of the circle, the square, and the other things; that is, in the subject of ideas, or God".²⁹⁹

The claim that essential or necessary truths are reciprocally connected –and that any mutual connections produce something new, i.e. a new proposition –is substantiated by Leibniz with a reference to the proposition 'A larger square than an isoperimetric circle is impossible' (which is logically equivalent to the one employed in the other draft). According to the well-known abstract/concrete contraposition, modes are just modifications of one substance (or thing, *res*). Therefore, those truths must inhere in some subject. Leibniz's argument is not very clear, but he seems to assume that the subject in which all these propositions inhere is also the cause of their reality, or, of the fact that they eternally exist even if no one is thinking about them.

This usage of the term *causa*, however, is a very problematic one, since it seems to me that the term 'reason' would have been more appropriate.³⁰⁰ In particular, the following passage seems quite problematic to me:

"Causa cur vera sit propositio necessaria nemine cogitante in aliquo subjecto a parte rei esse debet. Causa cur vera sit propositio dicta de circulo et quadrato non est in natura circuli tantum nec in natura quadrati tantum, sed in aliis naturis quoque ingredientibus"

Talking of the cause which makes a proposition true, indeed, seems to be a sort of category mistake, at least if we want to distinguish the *truth* of a proposition from its *reality* (the same holds in the case of the distinction between the logical and the ontological status of essences or possibilities). However, since in these texts Leibniz is explicitly assuming that eternal truths and essences are something existing *a parte rei*, and since causality pertains to the domain of what exists, this could be the reason for such a conflation between causes and reasons.

The other interesting point is the remark that, in the case of the proposition at stake, the 'cause' of its truth is not contained in the essence of the circle and the square alone, but also in that of 'equality', 'perimeter' and all the other concepts that enter into it. The reason for that, says Leibniz, is that the proximate cause of one thing is singular (*unica*). It follows that such a cause "must be in that in which is found the nature of the circle, the square, and the other things; that is, in the subject of ideas, or God". The same conclusion can be reached if all those propositions are joined together (since "anything in any truth that exists *a parte rei*

²⁹⁹*Ivi*.

³⁰⁰ This usage of the word 'cause', however, can be referred to different senses of 'causality', for instance to the formal one, as it happens with reduplicative proposition in which reduplication is performed in order to introduce a cause (*gratia causae*). Cf. Nuchelmans, *Judgment and Propositions*, p. 288, where he discusses the case of the proposition 'It is on account of being a triangle that an isosceles has three angles which are equal to two right angles' (*Triangulus est causa isosceli habendi tres angulos aequales duobus rectis*). He refers to Arnauld and Nicole, *Logic or the Art of Thinking* (1683), II, 9, edited and translated by J. Vance Buroker, Cambridge 1996, pp. 101-02, where they discuss "causal propositions", i.e. compounded ones which contain two propositions connected by a word expressing 'cause', like 'because' (*quia*) or 'so that' (*ut*). In this sense, as Leibniz says in the passage above, a proposition concerning the circle (or the square) is true 'because of' the natures which enter into the nature of the circle (or the square).

from eternity is united with any other truth"); in this case, there will be also a remote cause in which the realities of all these natures inhere as modes of a single substance.

Notice, however, that, at the very same time, the reality of this single, all-embracing cause, is composed by the sum of the realities of these singular propositions. Therefore, in calling God "the subject of the ideas", the claim is involved that God's necessary existence is that in which the natures of all simple ideas are located.

9.2.3 A critique of Adams' interpretation

This is the most fascinating and, also, the most problematic point of this sketch of proof. Reference to God as a being which "contains ideas", indeed, has led many scholars –most notably, Robert Adams, who devoted an entire chapter of his book on these texts –to interpret this proof as an anticipation of the proof of the existence of God from the reality of eternal truths.³⁰¹ The latter concludes that, since eternal truths are ultimately objects of thought, i.e. ideas, the existence of an intellect that constantly thinks at them is necessarily required. This is the kind of proof that one can read, for instance, in the *Monadology*:

"It is also true that God is not only the source of existences, but also that of essences insofar they are real, that is, or the source of that which is real in possibility. This is because God's understanding is the realm of eternal truths or that of the ideas on which they depend; without him there would be nothing real in possibles, and not only would nothing exist, but also nothing would be possible [...]. For if there is reality in essences or possibles, or, indeed, in eternal truths, this reality must be grounded in something existent and actual, and, consequently, it must be grounded in the existence of the necessary being, in whom essence involves existence [...]".³⁰²

It seems, however, that the differences between this proof and that sketched in 1677 are more relevant than the apparent analogies. The argument of the *Monadology*, indeed, is an actualist argument, i.e. one in which the reality of eternal truths (or that of possibilia) must be grounded in "something existent and actual", where the existence of a primary actual being is already presupposed (as Leibniz has clearly remarked in the discussion with Wagner). I dub it 'actualist' since it aims at showing that there are no possibilities which do not have an ontological ground in some actual being (which is not the actual world, as for contemporary modal theorists, but rather God). In this case, then, it is not the reality of truths which grounds the existence of God; on the contrary, the latter is the ontological ground of the former.

Coming back to the 1677 drafts, on the contrary, the texts of *De veritatis realitate* seems to go in the opposite direction. The argument seems to be a possibilist one, where 'possibilism' is the view that there are possibilities whose ontological status is not grounded in some

³⁰¹ Cf. Adams, *Leibniz*, pp. 177-83. The argument of the two 1677 drafts is clearly distinguished from the proof of the *Monadology* in Di Bella, "L'argomento ontologico moderno", pp. 1572-3. In particular, he clearly stresses that, contrary to what will happen in the late Leibniz, the 1677 proof does not posit the existence of the necessary being in order to ground the reality of eternal truths, but considers these same eternal truths as (infinitely) many necessary beings.

³⁰²*Monadology*, ## 43-44, GP VI, 614/AG 218. Leibniz himself refers to sections 184, 189, and 335 of the *Theodicy*, where he repeats the claim that, without God, there would nothing real in possibles (i.e., no ontological status of possible things, whereas their logical status is guaranteed by their just being non-contradictory concepts, independently from God's existence). Cf. also Leibniz to Bourguet, 1714, GP III, 572.

actually existing being. Here, indeed, the very same truth of a certain kind of propositions (the necessary ones) is able to grant them a necessary existence. Contrary to what happens in the *Monadology*, in *De veritatis realitate* Leibniz first accepts the inference to eternal truths as necessarily existing beings, and only then he assumes that the plurality of such beings belongs to God; but, notice, not as the objects of his understanding, but, rather, as modes that inhere to a single subject.

Admittedly, there are some oscillations in what Leibniz says in these drafts. When Leibniz says that eternal truths exist "objectively", he could have in mind something like his mature view that God is the source of the reality of eternal truths, where the latter are clearly understood as the internal objects of divine understanding. As I will say in a moment, the very same notion of "the subject of ideas", as employed here, is an ambiguous one.

Another relevant difference between the earlier and the later proof is worth mentioning. The proof of the *Monadology* is based on God's understanding as the place of the possibles, where 'possibles' is referred to possible individuals (complete concepts), which constitute possible worlds, not only to specific essences or essential propositions (in this case, notice, reference to 'eternal truths' has not to be taken in a restricted sense, and, of course, this is a source of confusion in what Leibniz is saying).³⁰³ Anyway, it is clear that, since possibilia (= possible individuals) are conceived of as divine ideas, their reality must be grounded in God's understanding.

On the contrary, in both the 1677 texts, Leibniz's attention is wholly focused on geometrical propositions, which are the typical case of abstract objects. And this is confirmed by Leibniz's talking of natures and essences as "modes", which have neither spatial nor temporal location (they "are not distinguished by time and place"), and, also, by the fact that truths about them can be demonstrated in many ways. He also adds: "The same nature comes together to form innumerable others, and is able to come together with any other". None of these features, however, can be ascribed to possible individuals. A complete individual concept, indeed, cannot exist at more than one world; it represents an individual essence, which contains spatiotemporal (and causal) determinations; the succession of its states (better: the states represented by the concept) is causally determined in one way only (there are no many causes of the same thing).

³⁰³ In other words, there are in Leibnizian texts both a strict and a large account of what constitutes the domain of eternal truths. According to the strict sense, eternal truths are necessary truths concerning general and abstract essences, as in the case of mathematical truths and truths concerning genera and species of traditional essentialism (these general truths are to be contrasted with those concerning individuals, possible as well as actual ones). According to the large sense, however, the domain of eternal truths can be extended to what covers truths about unrealized possibilities (be they merely general or also individual ones). The large account is motivated by Leibniz's tendency to reduce middle knowledge to knowledge of simple understanding, and to contrast what pertains to the domain of the possible with what pertains to the domain of the actual. See for instance Leibniz's letter to Burnett, 27 December 1707: "l'idée de ce monde comme possible ne laisse pas d'estre eternelle et necessaire" (GP III, 315). Cf. also New Essays, III, iii, 19 (A VI 6, 296), Leibniz to Joh. Bernoulli, 16 May 1699, GM III, 586. On this problem, see Heinekamp, Das Problem des Guten bei Leibniz, pp. 67-77 (esp. p. 68, note 184), and p. 88 (and note 296). At A VI 4, 1515, Leibniz says that God's knowledge of propositions (be they necessary o contingent) immediately results from his knowledge of terms. It is difficult to understand whether this also means that both knowledge of vision and middle knowledge (explicitly mentioned there) immediately results from knowledge of simple understanding or not. Moreover, the sense of 'resultare' needs to be clarified (is it a kind of reductionist account or not?), cf. below 9.7.

9.2.4 Interlude: "Subjectio". Existence and the Abstract/Concrete distinction

All this amounts to say that Leibniz is referring to general or primitive essences, which, in some way, are constitutive of the divine essence itself. In this sense, the proof of 1677 is closer to the proof of compatibility of all perfections in God (that Leibniz established at the end of 1676) than to the later proof from the reality of eternal truths. In both cases, indeed, the proof is not placed at the level of possible individuals (the objects of God's understanding), but at a more basic one, the realm of possibilities as general essences or quiddities, which, in some sense, are constitutive of God's essence itself. Reference to God as the "subject of ideas", then, is originally to be understood in this sense.³⁰⁴

If we look back at the Paris notes, indeed, we can see how Leibniz had clearly acknowledged the difference between the subject and the forms (where simple forms are equated with God's attributes). The difference between the subject and the forms, indeed, seems to be irreducible to that between the simple forms and the bare combination of the latter (even of an infinite number of them). The difference between subject and forms, says Leibniz, is "necessary, because nothing can be said about forms on account of their simplicity; therefore there would be no proposition unless forms were united to a subject".³⁰⁵ In the same text, Leibniz also adds that "the essence of God consists in the fact that he is the subject of all compatible attributes", i.e. of all simple forms, which is the main result of Leibniz's compatibility proof.³⁰⁶ Taking 'ideas' in the original Platonic sense, that of 'forms', we have here a first sense in which God can be said the "subject of ideas".

³⁰⁴ Cf. W.Schneiders, "Deus Subjectum: Zur Entwicklung der leibnizischen Metaphysik", *Studia Leibnitiana Supplementa* 18, 1978, pp. 20-31. As pointed out by Mondadori, "Leibniz on the Reality and the Possibility of the Possibles", pp. 213-14: "on a plausible interpretation of [Scotus'] conception of possibility, the realm of the pure possible, which consists of pure quiddities [...] is "constitutive" of the divine intellect, and is, in this sense at least, just like the Principle of Contradiction, both independent of it and an a priori precondition of thinking". However, Mondadori warns that neither in this case essences can be said to exist in the full sense. This seems to be the most relevant difference with Leibniz's account of August 1677. It is not a coincidence, I think, that the idea that divine essence has to be constituted by a combination of simple essences makes the pair with the tendency to stress the independence of essence from the existence of God (a tendency implicit in Suárez's explanation of 'real essence' in terms of *potentia logica*, where God himself is regarded as a particular kind of being and *ens* as a name is taken as the common genera of both him and finite creatures (cf. 2.4 above).

³⁰⁶ Ivi. Cf. also A VI 3, 519-20/DSR 79. For the compatibility proof, see Quod ens perfectissimum existit, November 1676, A VI 3, 578-91 (but also 571-77 for preliminary drafts of it). The idea behind Leibniz's proof seems to be that the compatibility of perfections with each other is sufficient to prove the existence of a subject of these perfections, i.e. something similar to the idea defended by Hilbert in his correspondence with Frege (which is nothing but an inchoative version of what we call the theorem of the existence of a model). As Hilbert himself points out, this is the kernel of his controversy with Frege, i.e. Frege's rejection of Hilbert's claim that "if the arbitrarily given axioms [of a formal system] do not contradict one another with all their consequences, then they are true and the things defined by the axioms exist". In his reply, Frege will criticize from a Kantian point of view, i.e. by claiming that the only way of proving that a concept is not contradictory is to provide an object which satisfies it: "What means have we of demonstrating that certain properties [...] do not contradict one another? The only means I know is this: to point out an object that has all those properties, to give a case where all those requirements are satisfied. It does not seem possible to demonstrate the lack of contradiction in any other way". Interestingly enough, in order to substantiate his claim, and remark his distinction between firstorder properties and existence as a second-order one (i.e. a property of concepts), Frege produces an example based on the proof of the existence of God: "Suppose we knew that the propositions (1) A is an intelligent being; (2) A is omnipresent; (3) A is omnipotent, together with all their consequences do not contradict one another; could we infer from this that there was an omnipotent, omnipresent, intelligent being?". Frege rejects the validity of an argument that from the logical compatibility of 'A is Φ ', 'A is X', and 'A is Ψ ', derives that there is an

Also in this case, however, it seems that an ambiguity can be detected here, one very similar to the one emerging from the texts of August 1677. The problem is whether, from the logical/ontological point of view, the concrete subject is prior to the abstract forms or vice versa. In the case of finite things (individual substances), it is clear that priority goes to the subject, as Leibniz clearly states in another passage: "Things [i.e. created things] are not produced by the mere combination of forms in God, but along with the subject also. [...] The various results of forms, combined with a subject, bring it about that particular result".³⁰⁷

Leibniz himself is aware that there is a sort of gap between the level of pure forms and that of forms-combined-with-a-subject, one which does not result from the mathematical simile with numbers (with the ways in which numbers result from a combination of unities). For, while numbers are homogeneous with unities, forms are not homogeneous with subjects. Furthermore, he notes that while "forms are conceived through themselves, subjects are conceived through forms, and this is what means that they are subjects".³⁰⁸

However, when coming to the essence of God, the compatibility proof developed in November 1676 seems to reverse the priority order, since the fact that God is the subject of all the simple forms is proved through the fact that all absolute simple forms (perfections) are compatible with each other (or, better, Leibniz proves that any two of them are compatible, and then generalizes it to any *n*-ple of perfections). What I want to stress here, however, is that the mutual compatibility between simple forms is immediately equated with their mutual coexistence into a single subject. See, for instance, the following passage: "From this [the unanalysable and positive character of perfections] it is not difficult to show that *all perfections are compatible with each other*, or, that they can be in the same subject".³⁰⁹

object which has the properties Φ , X, and Ψ (which is just a small version of Leibniz's compatibility proof). All the quotations are taken from the Frege-Hilbert correspondence, in G. Frege, *Philosophical and Mathematical Correspondence*, edited by G. Gabriel and alii, Oxford 1980, p. 39, 43, and 47. ³⁰⁷ *De formis simplicibus*, April 1676, A VI 3, 523/DSR 85. Cf. Di Bella, *The Science of the Individual*, 55-62.

³⁰⁷ De formis simplicibus, April 1676, A VI 3, 523/DSR 85. Cf. Di Bella, *The Science of the Individual*, 55-62. Notice that this priority of the subject is easy to understand in the case of actual substances. It is very hard to understand it when merely possible (i.e. non-existent) subjects are taken into account. In the case of what does not actually exist, indeed, a subject cannot be something prior and not-derivable from essences (since, at the level of pure possibility, there is nothing over and above essences). This is why, I think, Leibniz sometimes resort to the idea that the subject is the product of a combination or, rather, a complication of essences; or, alternatively, that the complete concept (which stands for an individual subject) is nothing but a collection or a list of predicates. It is the same problem I have already hinted at when I have stressed the tension between the ontological subject and the individual essence, as well as that between the descriptive and the normative function of the complete concept.

³⁰⁸ A VI 3, 514-5/DSR 71 (translation modified). The Latin says: "*Re recte expensa, formae per se concipiuntur, subjecta per formas, et hoc quod sint subjecta*". Parkinson translates it as "[...] subjects and the fact that they are subjects, are conceived through forms". Loemker's translation (L 160) seems preferable in this case: "forms are conceived per se, subjects through forms. This is what subjects are". Of course, Leibniz will not be very eager to stress this gap, since it is not in keeping with the principle of continuity among forms. The distinction between forms which are conceived through themselves and subjects which are conceived through forms will correspond, at the level of linguistic analysis, to that between "concepts *per se*" and "concepts *per accidens*". Cf. *Characteristca verbalis*, 1679 (?), A VI 4, 334: concepts *per accidens* are concepts taken *in concreto*, i.e. "they involve the subject with formality"; concepts *per se* are taken *in abstracto*, i.e. "they refer to formalities in themselves, i.e. essences considered in themselves [...], i.e. without subject, place, time, matter, individual" (Ivi). Note also that the distinction between concepts *per se* and *per accidens* corresponds to that between propositions *per se* and *per accidens*, adopted by the young Leibniz in A VI 1, 520, which, as I have showed in 3.2, was modelled on Hobbes' distinction between necessary and contingent propositions.

³⁰⁹ Quod ens perfectissimum existit, November 1676, A VI 3, 578/DSR 101. Cf. also A VI 3, 575 and 577.

The difference between two levels, which has so clearly been envisaged in the case of finite things, then, seems to have been completely obliterated in the case of divine essence; and it should be so, otherwise the proof of possibility would not work as the right premise for the proof of God's existence (if a subject has to be presupposed also in this case, indeed, God's existence has to be presupposed as well, which is the point of those who have always rejected the ontological argument).

In a sense, however, the Paris notes testify this sort of polarity between subject and forms also in the case of God's essence. From one hand, indeed, as I have already said above, Leibniz remarks that "the essence of God consists in the fact that he is the subject of all compatible attributes"; where an 'attribute' is explicitly defined as "a necessary predicate which is conceived though itself [*per se*], or, which cannot be analysed into several others", and 'essence' is "everything which is conceived in a thing through itself, that is, the aggregate of all the attributes".³¹⁰ In this sense, then, the essence of God is to be understood as the aggregate of the necessary predicates which are conceived *per se*.

On the other hand, he stresses a sort of tension between God as subject and his essence, for, when he says that "God is the subject of all absolute simple forms", i.e. of all the affirmative ones, he immediately adds that "there are already in God these two: that which is one in all forms, and essence, or, a collection of forms". The problem is an old-debated one in the theological tradition i.e. that of making sense of God's absolute unity with the multiplicity of his attributes.³¹¹

Concerning the relation between the subject-attribute distinction and existence, Leibniz also adds: "To exist is, as it were, to think, with relation to something. No one exists, without being something" i.e. without having certain attributes, a certain essence". But "[t]hat to which existence is ascribed absolutely, i.e. existence without some determining addition, has ascribed to it as much existence as can be ascribed".³¹² That to which existence is ascribed absolutely is God (few lines above, Leibniz writes, indeed, that God "is absolutely existent, i.e. perfect"). What Leibniz seems to suggest here is that the distinction between attributes and subject, i.e. between the *what* and the *that* (*what* a thing is, and the fact *that* it is) is somehow weakened in the case of the absolute being.

Interestingly, the same intuition will resurface again in a latter text (written around 1700) devoted to the distinction between *terms* and *things*, which is just Leibniz's mature way of presenting the old distinction between attributes and subject from the point of view of Leibniz's work on the *grammatica rationalis*:

"Since beings [*Entia*] are known by means of their predicates, it follows that abstracts are known prior than the concrete things. In a concrete thing, indeed, one can understand both the *bare subject*, which can be found in many things in the same way, and *abstract entities*, by means of which one concrete thing is distinguished from another. In God, however, there is no room for such a composition between the subject and the abstracts, and he has no subject which is common to other concrete things. The subject, however, cannot be conceived but only perceived".³¹³

³¹⁰ Quod ens perfectissimum sit possibile, A VI 3, 574/DSR 95.

³¹¹ Čf. Grua, Jurisprudence universelle, pp. 274-88.

³¹² De origine rerum ex formis, A VI 3, 520/DSR 79.

³¹³ LH IV 7C Bl. 89 r. The original says: "Cum Entia cognoscantur per sua praedicata hinc Abstracta prius cognoscantur concretis [,] in concreto ergo intelligi possunt tum subjectum merum quod eodem modo se habere

The conclusion of the passage shows its similarity with the Paris text above: the composition between subject and the abstracts has no room in God, for God is an 'exceptional subject', one which has nothing in common with other concrete things. The fact that the subject can be only perceived and not conceived, i.e. not conceived *per se*, can be brought back to what Leibniz said above, i.e. that the subject is an absolute *that*, i.e. existence without any determining addition. On the contrary, the subject can be conceived only *per alia*, i.e. through the abstract predicates which can be attributed to it.

Note that this does not mean that the ontological subject has to be reduced to a 'bare substratum': what Leibniz calls here a *subjectum merum*, indeed, is what can be conceived of the subject when all the attributes have been stripped away from it (this is the core of Leibniz's criticism of Locke's theory of *substratum*).³¹⁴ The ontological subject, indeed, cannot be separated from its own qualities or accidents, otherwise we would have a 'bare subject' which would be the same in many things (*quod eodem modo se haber in multis*), which is absurd³¹⁵. From the point of view of the order of knowledge, however, our knowledge of the abstracts is prior to that of the subject, since, as Leibniz says, the subject can be known only by means of its predicates (one concrete things is distinguished from another by resorting to its distinguishing properties).³¹⁶

potest in multis tum entia abstracta, quibus unum concretum discernitur ab alio. Etsi in DEO non habeat locum haec compositio ex subjecto et abstractis, neque ipsi sit subjectum cum aliis concretis commune " (thanks to Lucia Olivieri for having shared with me the transcription of this text). On the things/terms polarity, see Di Bella, *The Science of the Individual*, 179-196

³¹⁴ Cf. NE, II, xxiii, 2, A VI 6, 218: If you distinguish two things in a substance - the attributes or predicates, and their common subject - it is no wonder that you cannot conceive anything special in this subject. That is inevitable, because you have already set aside all the attributes through which details could be conceived. Thus, to require of this 'pure subject in general' anything beyond what is needed for the conception of 'the same thing' - e.g. it is the same thing which understands and wills, which imagines and reasons -is to demand the impossible; and it also contravenes the assumption which was made in performing the abstraction and separating the subject fromall its qualities or accidents". Cf. also Fleming, "Leibniz on Subject and Substance".

³¹⁵ Cf. Gueroult, "Substance and the Primitive Simple Notion", p. 235, who stresses that the absolute unity (of a substance) cannot be grasped in itself, but only by means of its predicates. When thinking of the substance, one cannot separate the concept of the substance from that of its attributes. In this sense, the concept of an individual substance (as possessed by God) would be that which explains (and generates) all the predicates of that substance only (whereas we can conceive of a predicate only as something abstract). ³¹⁶ This priority of the abstract over the concrete from the point of view of the *ordo cognoscendi* seems to be in

contrast with what Leibniz says in the NE, II, xxiii, 1, where Teophilus points out that "it is the *concretum*, like wise, hot, shining, which comes to our mind, rather than the abstractions or qualities [...], like wisdom, heat, light, etc., which are much more difficult to understand"(A VI 6, 217-8). I think that the contrast is only an apparent one, however, for what Leibniz is contrasting here is the distinction between the abstract and the concrete from the 'grammatical' point of view, i.e. that between 'heat' (calor) and 'hot' (calidum), where the latter conceals an implicit reference to a thing, i.e. 'hot thing' (res calida). Cf. also the passage at NE, II, xii, 145, where he says that the knowledge of concrete things is always prior to that of abstract ones, for "one knows more the hot [thing] than the heat" (A VI 6, 145). What Leibniz says here, indeed, is that a proposition like "this is hot", referred to a certain thing (e.g. a stone) is prior to propositions concerning 'heat'; however when saving "this is hot", or, also, "this is a stone", we refer to a concrete thing by means of its qualities. Cf. Mugnai, Astrazione e realtà, pp. 136-38. A certain thing (a certain 'this') can be known either by acquaintance (reference to 'perception' in the passage in the main text) or by description, i.e. by ascribing certain attributes ('to be a stone', 'to be hot') to a certain ontological subject. The ontological subject in question is what had been excluded by the domain of predication by Hobbes (and by the young Leibniz as well), as shown in Chapter 3 above. Hobbes himself, when distinguishing rational knowledge from sensible one (knowledge tou dioti from knowledge tou oti), implicitly assumed that we know things only through their accidents.

Another relevant text to understand this quite sophisticate account of the subject/attribute contraposition is represented by a short note Leibniz has written in September 1677 (the date having been added by Leibniz himself, but only at a later stage); the editors have entitled it *De iis quae per se concipiuntur*, i.e. "Concerning those things which are conceived in themselves", which, as we have already read above, is just another way of calling what the Paris notes called 'attributes'.

Once again, this topic is connected with that of existence; in this case, in particular, with the fact that, since existence is conceived *per se* (*"Ipsum esse videtur per se concipi"*), it is impossible to provide a definition thereof (since a definition requires the analysis of a notion into its components or *requisita*, which, from the epistemic point of view, is the same as conceivability through other things).³¹⁷ Such an *ipsum esse* seems to say what in the Paris text above Leibniz called 'existence without any determining addition'. The proof is given by means of a *reductio*: "For if we suppose that it is conceived through other things, such as *a* and *b*, it seems that the existence of these things also could be conceived, which is absurd. Therefore, existence [*existentia*] is an uncompounded or irresolvable notion".³¹⁸

Few lines below, this conclusion is strengthened by the further remark that nothing absolutely simple can be conceived of by us –neither existence in itself (*ipsum esse*) –because "we must not postulate some ultimate difference [between two things A and B] in which reality or thinkability [*realitas seu cogitabilitas*] is not contained, for we have supposed that is contained in all things", i.e., he assumed that we do think only *realia cogitabilia* (this follows quite easily from the idea that whatever is conceivable without contradiction possesses a *realitas*). This mean that, whatever we could think of, there would be always two things therein, i.e. "thinkability and the form of thinkability, that is to say, something common and something particular". Reality, indeed, is the one in all things, it is like the stuff everything is made of, whereas what is particular is a determination, the fact of being a certain real thing. But, once we have distinguished between the universal and the particular, one can find again thinkability in the particular itself.

Leibniz's terminology here seems rather obscure, but the content is clear enough, at least if we think at what we have read in the passages above. We could imagine to reach something like a 'bare particular' by stripping away all its general predicates (in this case they are called *realitates*), but this cannot really happen, because, in that case, also the particular itself should be conceived by us, and, therefore, the same duality between particular and universal, thing and *realitas*, pops up again, and so on (like a sort of regress to the infinite).

³¹⁷ This point had been already discussed in the Paris notes, cf. *De formis seu attributis Dei*, A VI 3, 514/DSR 69. Leibniz also distinguishes between thing which are conceived *per se* absolutely and those which cannot be analysed into more simple ones because of the limits of our senses, like colours and other secondary qualities. Cf. A VI 3, 276 and 277, esp. the note at p. 276, where among ideas which cannot be defined, Leibniz mentions "existence, the *ego*, perception, the same, change", whereas sensible qualities are understood in themselves (by us), even though, from the ontological point of view, are produced by something else. (Once again, in these early reflections, conceivability and producibility seem to go hand in hand).

³¹⁸ De iis quae per se concipiuntur, September 1677, A VI 4, 25 (translated by David Blumenfled, 2016). Available

 $[\]label{eq:http://philosophyfaculty.ucsd.edu/faculty/rutherford/Leibniz/translations/N9\% 20 Things\% 20 Conceived\% 20 Through\% 20 Themselves.pdf.$

That this is what Leibniz has in mind here can be envisaged from what he says in the last paragraph of the text, when he explicitly focuses his attention on the question of the subject (*subjectum*) and what is added to it (*adjunctum*):

"About the subject and what is joined to it, there is also much subtlety. We think of a subject or substance when we say: *I*, *that*, *this*, for in these we think of something in common, that is the subject even in bodies themselves, as if by personification [*quasi per prosopopoeiam*]. Every thinkable quality is constituted from thinkability and the subject of thinkability. Thinkability is contained in this subject, but thinkability is one thing, the subject another. Therefore, this relation to the subject cannot be thought [*Ergo haec subjectio cogitari non potest*]".³¹⁹

The last line is particularly relevant, since the term *subjectio* (relation to the subject) stands for that *nescio quid* which (1) has to be assumed in order to differentiate the level of general essences or attributes (objective concepts) from that of particularized forms and particulars (individuals), but, at the same time (2) it is something which can never be thought of, since, by thinking it, one produce only new abstract determinations, which are unable to grasp the idea of the subject-with-properties (as Leibniz remarks in the passage quoted above, when all the attributes have been stripped away, one is left with a bare subject alone).

Another thing to note is that, in this way, Leibniz is recovering the original idea of the contrast between the ontological subject as what can be *perceived (perceivability* being the mark of existence) and its attributes which are the object of *intelligibility* or *thinkability*. For the young Leibniz the contraposition between what can be perceived and what can be conceived only principally meant that the ontological subject (the *substance* properly said) was only something which one can perceive by resorting to experience, since existence in itself could not be conceptualized. Now, on the contrary, this fact holds only from the point of view of our limited knowledge: in order to know what exists as well as the contingent properties of things (i.e. if Alexander the Great's death was natural or he has been poisoned), we must resort to experience (the causal chain, etc.). From the point of view of God's knowledge of complete concepts, however, things are different, for God 'perceives', by means of an intuition of a particular kind (i.e. which cannot be compared to human, sensible intuition) the *haecceity* of Alexander (i.e. his *subjectio*), and, for that very same reason, he is able to derive from that everything which can be truly ascribed to him, i.e. all the predicates of his notion.³²⁰

This text also contains the main reason of Leibniz's rejection of the claim that we can ever attain something like absolutely simple attributes of things (i.e. God's attributes), i.e. primitive concepts (those which, according to the combinatorial account, all the others are to

³¹⁹ *Ibid*, A VI 4, 26 (translated by D. Blumenfeld).

³²⁰ Reference, of course, goes to section 8 of the *Discourse*: "On the other hand, God, seeing Alexander's individual notion or haecceity, sees in it at the same time the basis and reason for all the predicates which can be said truly of him, [...] he even knows *a priori* (and not by experience) whether he died a natural death or whether he was poisoned, something we can know only through history" (A VI 4,1540-41 /AG 41). F. Mondadori has rightly pointed out that we can attribute to God a sort of knowledge *by acquaintance*, from which he derives a knowledge *by description* of what would happen to a certain individual if it were to be instantiated (i.e. of every true proposition about that individual). Cf. Mondadori, "Reference, Essentialism, and Modality", p. 81.

be derived from).³²¹ This topic, indeed, is discussed in a text like *De organo sive arte magna cogitandi*, where the same terminology, of things which are considered through themselves (*per se concipi*), is employed by Leibniz; where, however, they are presented as a sort of ideal limit or the horizon of our progressive, never-to-be-accomplished process of analysis of notions. ³²²The most interesting text on this point, however, is the *Introductio ad encyclopediam arcanam*, where *scientia generalis* itself is defined as *Scientia de cogitabili in universum quatenus tale est*. ³²³

The thinkable in general (*cogitabile in universum*) is also described as a *modum considerandi*, which contains everything under itself, with the only exception of the case of "a name without a notion, i.e. what can be named but cannot be thought". In a marginal annotation, Leibniz adds: "We do consider many things not in themselves [*secundum se*] but according to the way in which they are conceived by us and affect us".³²⁴The distinction between concepts and propositions is introduced as one between two kinds of *cogitabilia*, i.e., respectively, the *cogitabile simplex* and the *cogitabile complexum*.

Concerning primitive concepts, i.e. those which cannot be resolved into more fundamental ones, Leibniz writes that "it can be doubted whether any concept of that kind might be distinctly presented to human beings, so that they can be aware of having it". And he also advances the hypothesis that there is only one thing whose concept can be conceived *per se*, i.e. God:

"And such a concept can be the concept of the only thing which is conceived through itself, that is the highest substance, i.e. God. However, we can have no derivative concepts if not by means of the primitive one, so that, actually, there would be actually nothing in things if not through the influx of God, and nothing would be thought by our mind if not through the idea of God, even though we do not distinctly acknowledge in which

³²¹ Cf. what Leibniz says in his letter to J. Vagetius, December 2, 1679, A II 1, 497: "I have often reflected on the primitive notions [protonoemata] in general or those things which can be conceived in themselves, although I do believe difficult that one of such notions has been ever entertained by men in a sufficiently distinct way; however, we can reason about them once we have presupposed to have already grasped them. Concerning these things, one may ask, first, if there actually are any primary notions, or, otherwise, if the division can go to the infinite, as in the case of other divisions. Second, assumed that there are such things (for it seems that, otherwise, nothing could be conceived at all is there is nothing to be conceived through itself) one may ask if there is only one or more than one. If there is only one, one should ask in which way so many composite notions may derive from that. If there are many, they will have necessarily something in common, like possibility. Therefore, they will entertain certain relations with each other; otherwise they could not concur to constitute the composite notions. In which way, thus, are these notions simple? Therefore, in any way you look at it, you will find out some difficulties". This text is extremely important, for several reasons: (1) it is one of the few places in which Leibniz seems to seriously entertain the idea that there can be no primitive possibles, since the definition goes to the infinite (i.e. that each possibility is always relative to the level of linguistic/logical analysis you have reached), even though this idea is immediately rejected by resorting to the usual argument that the composite presuppose the simple; (2) Leibniz clearly envisages a sort of disjunction between the view that there are many primitive notions or just only one. The first option (a plurality of primitive notions) leads to the difficulty already discussed in De iis quae per se concipiuntur (cf. A VI 4, 26, where the difficulty regarded realitas or cogitabilitas, whereas here possibilitas is mentioned, but these notions amount the same thing). The second option leads to the view that primitive notions can be ultimately reduced to one, i.e. to the idea of God, since everything can be ultimately decomposed into God and nothing, following the parallel with the binary notation in arithmetic. The latter is the view entertained in De organo, cf. A VI 4, 158. On the latter point, see also the interesting reflections contained in Y. Belaval, "Sur le simple et le composé", in Id., Études leibniziennes. De Leibniz à Hegel, Paris 1976, 172-205, especially p. 200 and ff.

³²² De organo sive arte magna cogitandi, March-April 1679 (?), A VI 4, 156-60.

³²³ Introductio ad Encyclopediam arcanam, 1683-85(?), A VI 4, 527.

³²⁴ *Ibid.*, A VI 4, 528.

way the natures of things flow from God, or how the ideas of things flow from the idea of God. That, indeed, would be the ultimate analysis, i.e. the adequate cognition of things through their cause".³²⁵

Therefore, since we cannot have any adequate knowledge of the primitive concepts (or, which is the same, of the idea of God), or of the way in which complex concepts arise from the simple one (which is just the parallel of the way in which things 'flow' from God), the only affordable solution for us is to switch from the analysis of concepts to that of truths:

"The analysis of concepts seems to be something the human power is not capable of, i.e. the possibility of reaching the primitive notions, or those notions which can be conceived through themselves. The analysis of truths, however, seems to be much more in tune with the human capability, for there are many truths we can absolutely demonstrate, and reduce them to primitive and indemonstrable truths".³²⁶

The alleged primacy of the propositional analysis over the conceptual one –at least from the point of view of what can be effectively 'calculated' by our minds –, will never lead Leibniz to reject the idea that, nonetheless, terms are prior to propositions from the point of view of what is naturally prior.

As I will show in what follows, this oscillation between propositions and terms will be maintained also when Leibniz will realize the possibility of expressing both propositions as terms and terms as propositions. The question of the primacy of the concrete over the abstract (or vice versa) will be posited again then, but in terms of the question whether (and to what an extent) the propositional structure, especially the structure of the conditional proposition, might be reduced to that of conceptual inclusion (conceptual containment).

9.2.5 Summary

Coming back to the writings of 1677, I can summarize my views in the following way. One might say that Leibniz was oscillating there between two distinct accounts (which he did not manage to keep distinct yet). One in which possibilia are the objects of God's understanding; and since possibilia are clearly regarded as divine ideas, God's characterization as the "subject of the ideas" has to be understood in this sense (he is the actual thing which confers reality to his own ideas by thinking them). The second account is one in which (general) essences or natures are constitutive of divine essence itself, and, accordingly, the expression "the subject of ideas" has to be understood in the sense of the compatibility proof. As I have already said, the oscillation between the two accounts can be also inferred from the fact that

³²⁵ *Ibid.*, A VI 4, 529. The reduction of all primitive concepts to the concept of God makes the pair with Leibniz's attempt at reducing everything to God and nothing, in analogy with the binary calculus. This point had been emphasized in *De organo*, A VI 4, 157-58.

 $^{^{326}}$ A VI 4, 530-31. Same opinion expressed in *De organo*, A VI 4, 158. Cf. also *De la sagesse*, GP VII, p. 83, # 5: "It is very difficult to come to the end of the analysis of things, but is not difficult at all to complete the analysis of those truths one has need of. For the analysis of a truth is completed when one has found the demonstration, and it is not always necessary to complete the decomposition of the subject or the predicate in order to find the demonstration of a proposition". Notice that Leibniz easily (perhaps, too easily) equates talking of the analysis of "concepts" (in the passages quoted in the main text above) with talking of the analysis of "things" (*l'analyse de choses*).

Leibniz seems to conflate God's role as an explanatory reason of necessary truths with that of God as the source of their truths.

The tension between these two accounts can be partially weakened by relating them to two different ontological levels, i.e., respectively, that of possible individuals (complete individual concepts) and that of general essences (incomplete and abstract notions). It is also true, however, that the 'passage' from the level of general essences to that of individual essences is somewhat a mysterious one.

9.3 A parte rei/2.

Platonism, Existence, and Eternal Truths in the Probatio

Leibniz's emphasis on the existence of non-actual entities, where 'existence' is taken in a platonist sense and is clearly distinguished from both the existence of material things and that of mental entities, has to be clarified through reference to his intensive work in the improvement of the ontological argument for the existence of God.

A certain conception of essences (as something *a parte rei*), indeed, is necessarily required in order to save the very same possibility of an ontological proof from the charge of being (1) an argument which derives the actual existence of God from a mere concept (the 'logical objection'); and (2) a circular argument, one being able to prove only that God necessarily exists if he exists. In 4.3 above, I have showed that Leibniz's earlier rejection of the ontological argument in 1671 has been formulated exactly in these terms (and moved from Leibniz's hypothetical reading of eternal truths).

9.3.1 A posse ad esse. A new conception of Eternal Truths?

In a paper written in January 1678, on the contrary, he provides an answer to both (1) and (2) in order to defend his new account of the ontological argument. Against the charge of circularity (2), indeed, he observes:

"Eternal truths are not to be considered in this argument as hypothetically assuming actual existence, for otherwise we would have a circular argument. That is, from the assumed existence of God his existence would be proved. Of course, in saying that the essence of God involves existence, it must not be understood to mean that if God exists he necessarily exists, but in this way: *a parte rei*, even if no one thinks about it, it is unconditionally [*nulla conditione facta*], absolutely and purely true that the essence and the existence of God are inseparably connected in that region of essences or ideas".³²⁷

The first thing to observe is that Leibniz's understanding of the hypothetical character of eternal truths has changed from his earlier writings. I have already pointed out as, in his notes to Foucher, he remarked that "*ce sont des verités hypothetiques, qui ont lieu, quoyqu'on n'y*

³²⁷Probatio existentiae Dei ex ejus essentia, January 1678, annotationes, A II 1, 392/LST 185.

pense point, et ne dependent ny de nostre pensée, ny de l'existence des choses".³²⁸ In this sense, he can say now that his own proof is unconditionally true (at least from the point of view of existence; the possibility of a necessary being is still to be proved).

In order to make clear in which sense the essence and the existence of God are inseparably connected in the region of essences or ideas (and that such a proposition is unconditionally true), he adds:

"As in the region of eternal truths, or in the realm of ideas that exists *a parte rei*, there subsist unity, the circle, power, equality, heat, the rose, and other realities or forms or perfections, even if no individual beings exist, and these universals were not thought about; so also there is found, among other forms or objective realities, actual existence, not as is found in the world or in examples, but as some kind of universal form, which, if it is inseparably connected with some other essence or form in the realm of ideas, results in a being necessarily existing in fact".³²⁹

Here, the connection between the platonist framework and the logic of Leibniz's proof becomes extremely clear. The first thing to observe is that essences are explicitly understood as universals and contrasted with *entia singularia* as they exist in the world and in their particular instances (*in exemplis*). The same distinction, notice, will be at the basis of his preference for the intensional reading (as a method *per ideas*) of predication over the extensional one (because it does not presuppose the existence of individuals).

The second thing to observe is that this contraposition is particularly important in the case of existence, i.e. divine existence, which is to be found in this region of essences "as some kind of universal form" and contrasted with existence as found *in exemplis*. Taken in the first sense, existence, if it is inseparably connected with those other forms which constitute the essence of God, "result in a being necessarily existing in fact". This is the sense in which this proof is said to be unconditional and to constitute "the pinnacle of the whole modal doctrine", since it represents the one and only case in which existence directly follows from essence.³³⁰ On this point, as one can clearly understand, Leibniz's position is deeply changed from his own earlier views. The option in favour of a realm of self-subsisting forms allows him to reject (1), i.e. the claim that the proof illicitly moves from thought to being:

"In order that a possible objection against our argument may be easily removed, we should consider that all those who grant that God is a necessary being must also grant that some argument similar to ours can be made about God. For one is necessary [...] whose existence necessarily follows from his essence [...], therefore there must be some argument through which we can conclude the actual existence of God from consideration of his essence or possible existence alone [...]. Therefore all the objections that are usually raised against our argument at first glance (namely, that actualities cannot be deduced from possibilities, and others of this kind) immediately fail, for the same objections can also be made to the former argument through which anyone who considers the matter would understand that existence follows from the essence of God [...]".³³¹

³²⁸ A VI 3, 313 (quoted above 7.1)

³²⁹Ivi.

³³⁰ A II 1, 398, and see also A II 1, 391: "nam sola Dei essentia hoc habet privilegium, ut ex ipsa a priori, nulla actualitate, vel nullo experimento supposito concludi possit existentia, quia Deus etiam est Ens primum, sive a se, sive ex cujus essentia sequitur existentia".

³³¹*Probatio*, annotationes, A II 1, 392/LST 185.

The logical objection falls short when possibility is no longer interpreted in merely conceptual terms, but as "possible existence", i.e. as something which immediately corresponds to an essence, i.e. having an ontological status *a parte rei*, to the effect that the 'passage' is now regarded as one from being to being (from "possible existence" to actual one), and not from thought to being.

Interestingly enough, from his old criticism of 1671 Leibniz retains the belief that the Cartesian version of the argument is invalid just because it moves from a mere concept and not a genuine essence ("Cartesians work with conceptions and ideas alone, but they do not adequately bring out the force of the argument [...]")³³² This is why he turns the charge of circularity against the Cartesian proof, in particular, against the version provided by Descartes in the Geometric Exposition (in the *Replies to Second Objections*), based on the premise: "it is the same to say that something is contained in the nature or concept of some thing, as to say that that very something is true about that thing".³³³ What is paradoxical, however, is that this Cartesian claim is, probably, the closest anticipation of Leibniz's definition of truth in terms of conceptual containment (or, rather, of the intuitive and less problematic half of it).³³⁴

Furthermore, what Leibniz objects against Descartes is that, if definitions are conditional propositions, the definition of a necessary being (something like, 'Whatever is a necessary being, necessarily exists') ranges on a domain of actually existing things; and, then, the argument is just a circular one. On the contrary, says Leibniz, "our argument does not suffer from this difficulty, but proves something more, namely that if God is merely possible [in the sense explained above], he necessarily exists in act".³³⁵

Again, it is important to remark that Leibniz is implicitly assuming that the hypothetical reading of necessary propositions has to range on a domain of mere possible entities (not just on the actual ones). Only under this condition he could assess the convertibility of the hypothetical and the categorical in his 1686 essays on logical calculi.

It should also be stressed that such a reading of Descartes is not very fair. For the very same platonist framework within which the Leibnizian proof is modelled, indeed, is based on Descartes's account in the *Fifth Meditation*, as one can see from the fact that both put

³³² Probatio, Annotationes (2), A II 1, 391/LST 184.

³³³ *Ibid.*, Annotationes (7), A II 1, 393/LST186. Actually, Leibniz refers here to the version of the geometric exposition given by Spinoza in his exposition of Descartes'*Principia*, but Spinoza's exposition almost literally follows the Cartesian one.

³³⁴ On the origin of Leibniz's conceptual containment theory of truth, see E. Curley, "Der Ursprung der Leibnizischen Wahrheitstheorie", *Studia Leibnitiana*, 20, 2, 1988, pp. 160-74. Descartes and the Cartesians hold that if x is (clearly and distinctly) contained in the nature of y, then x can be truly affirmed of y. On the other hand, Leibniz's definition of truth requires reading it as a bi-conditional, not just as a simple conditional. The direction from right to left (x can be truly affirmed of y only if x is contained in the nature of y), however, is the controversial half of the definition, since it seems to imply that all truths must be essential ones (whereas the first half just say that if something pertains to the essence or nature of something else, then the former can be truly predicated of the latter, which is meant to refer to essential truths only). On this point, see C. E. Jarrett, "Leibniz on Truth and Contingency", *Canadian Journal of Philosophy*, 8, 1978, pp. 83-100.

³³⁵ *Probatio*, Annotatones (7), A II 1, 393/LST 186. Reference to 'possible existence', however, can conceal a conflation of logical and causal possibility. Cf. Lenzen, "Leibnizens ontologischer Gottesbeweis", p. 293; and Di Bella, "L'argomento ontologico moderno", pp. 1569-71. This might be the reason why the expression "possible existence" will be regarded by Leibniz as one to be avoided, as he states in his notes to Eckhard and in the GI (see my discussion in Chapter 8 above).

emphasis on mathematical essences rather than on genera and species of the Aristotelian tradition. $^{\rm 336}$

9.3.2 The Breakdown of platonism: Leibniz (and Descartes) against the Third Realm

The comparison between Descartes and Leibniz's account of mathematical essences is interesting also from another point of view, i.e. to understand why, ultimately, Leibniz opted for a conceptualist reading of essences rather than for a full-fledged form of platonism. Theological reasons are often invoked (as in the case of Suárez's oscillations with the independence of essences from the existence of God), but, I think, the true point is a philosophical one.

It has been pointed out, indeed, that one of the crucial reasons why a theory of abstract *objects* -to be contrasted with concrete ones and to be interpreted in a platonist sense (as a commitment to their existence) –is a wholly modern attempt (which takes place only with authors like Bolzano and Frege) is that it involves "the breakdown of the allegedly exhaustive distinction between the mental and the material that had formed the main division for ontologically minded philosophers since Descartes".³³⁷ Full-fledged platonism, indeed, requires the existence of a domain of entities (like Bolzano's propositions in themselves or Frege's thoughts), which are irreducible to both the domain of material and concrete objects (physical objects, located in space and time) and mental objects (i.e. the objects of the internal world of consciousness).

On the contrary, the postulation of something like a 'third realm' in the Fregean sense, however envisaged in many passages I have quoted in this chapter –from those related to the correspondence with Foucher to the correspondence with Eckhard, and, in particular, the two drafts of August 1677 –, will be ultimately rejected by Leibniz, who prefers to weaken the alleged independence of such entities (essences, eternal truths), reducing them to the objects of divine thought.³³⁸ This conclusion seems to be in keeping with the Cartesian exclusive and exhaustive distinction between what pertains to the domain of the mental and what pertains to the domain of extended things.

Also in the case of Descartes, indeed, the platonist account of mathematical essences in the *Meditations* has to be reconciled with a more conceptualistically oriented one in the *Principia*

³³⁶ Cf. Descartes, *Fifth Meditation*, AT VII, 64-65: "I find within me countless ideas of things which even though they may not exist anywhere outside me still cannot be called nothing; for although in a sense they can be thought of at will, they are not my invention but have their own true and immutable natures. When, for example, I imagine a triangle, even if perhaps no such a figure exists, or has ever existed, anywhere outside my thought, there is still a determinate nature, or essence, or form of the triangle which is immutable and eternal [...]. All these properties [those which can be derived from the nature of the triangle] are certainly true, since I am clearly aware of them, and therefore they are something, and not merely nothing; for it is obvious that whatever is true is something; and I have already amply demonstrated that everything of which I am clearly aware is true" (DPW II, 44-45). Leibniz's disagreement will concern the last point (i.e. Descartes' criterion of evidence).

³³⁷ G. Rosen, "Abstract Objects", *The Stanford Encyclopedia of Philosophy* (Winter 2017 Edition), Edward N. Zalta (ed.), URL = https://plato.stanford.edu/archives/win2017/entries/abstract-objects/>.

³³⁸ This explains why Bolzano was right in finding in Leibniz's notion of *cogitatio possibilis* (in the *Dialogus*) an anticipation of his theory of propositions in themselves, and, at the same time, in rejecting as psychologistic (from his point of view) the ultimate ground of propositions in the mind of God (as proposed in the *New Essays* and elsewhere). Cf. M. Mugnai, "Leibniz and Bolzano on the 'Realm of Truths'", *Bolzano's Wissenschaftslehre* 1837-1987. An International Workshop, Firenze 1992, pp. 207-20.

philosophiae, where mathematical objects (as well as universals in general) are explicitly treated as "modes of thoughts" (*modi cogitandi*), which arise from a process of abstraction from concrete objects (when we see a figure made up of three lines, we form an idea of it which is the idea of triangle, and so on).³³⁹

A similar difficulty in conciliating this abstractionist view with the nature of universals *ante rem* in Leibniz's philosophy has been discussed above. What is clear, however, is that Leibniz will ultimately reject the plausibility of a domain of ontologically autonomous entities in between ideas and actual objects, by resorting to ideas in the divine mind.

In the following paragraph, however, I will take into account another point which constituted a reason of dissatisfaction with the 1677-78 account of eternal truths, i.e. the 'proliferation' of necessary beings it gives rise to. It is true that in the notes written in January 1678, Leibniz stated that "only the essence of God has this privilege, that its existence can be deduced from itself *a priori* without supposing any actuality or experience", where, however, he clearly stresses the distinction between divine existence (to be placed among Platonic forms) and the material or empirical nature of the existence of all the other things. On the contrary, the same argument has been employed by him to justify the existence (not the material one, but still an existence *a parte rei*) of essences and necessary truths.

9.4. Perelegans Sophisma.

Leibniz against the proliferation of Necessary Beings

So far, Leibniz's main solution consisted in distinguishing between substances and modes of a substance: God and necessary truths are existing things, but only God is a substance the existence of which follows from its own essence. On the contrary, eternal truths and essences are just modes; nonetheless, according to their particular way of existing (call it 'existence_m' to distinguish the existence of modes from 'existence_s' of substances)³⁴⁰, they exist necessarily.

³³⁹ Cf. *Principia philosophiae*, I, ## 58-59, AT VIII-1, 27-28/DPW I, 211-12. For a discussion of this problem, see G. Brown, "Vera Entia. The Nature of Mathematical Objects in Descartes", *Journal of the History of Philosophy*, 18/1, 1980, pp. 23-37. Di Bella observes that it is not impossible to conciliate these two accounts if one maintains that the ideal character of mathematical objects is not reducible to making abstraction from empirical objects. Cf. S. Di Bella, *Le* Meditazioni metafisiche *di Cartesio. Introduzione alla lettura*, Rome 1997, 144-47, esp. p. 146 and note.

³⁴⁰ The idea of different modes of existence is incidentally discussed by Leibniz in his remarks on the proof of the existence of God of Erhard Weigel. Cf. *De probanda divina existentia*, 1678-79 (?), A VI 4, 1390-92; *De Weigelii existentiae Dei demonstratione*, 1693 (?), now edited in the Vorausedition of A VI 5; the most extensive text, however, are the *Animadversiones ad Weigelium*, published by Foucher de Careil, *Nouvelles letter et opusc.*, pp. 146-68 (he also published the second text at pp. 168-70). Leibniz seems to agree with Weigel that "the modes of existence are continuously renewed because of time, the qualities of places and circumstances", since I can say that my existence yesterday was different from my existence today (as my existence in the garden is different from my existence at home). From this, however, the conclusion does not follow that existence must be relativized: "but the change of all these relative existences [*existentiarum respectivarum*], or modes of existing, does not prove that absolute existence does actually change, so that the consequence would follow that the thing itself is annihilated [Weigel's proof was based on the idea of continuos creation]". From the fact that modes of the existing thing changes, then, it does not follow that existence itself changes: "but absolute existence

This strategy will be progressively replaced by another one, according to which essences and eternal truths are just the objects of divine thought, and, in this sense, existence cannot be ascribed to them (since existence is univocally determined as the existence of actual things, i.e. individual substances). Their reality, on the contrary, is bestowed on them by God's act of eternally think them ('reality', remember, coincides with their being in the understanding and has to be distinguished from actual existence).³⁴¹ Moreover, as shown in the previous chapter, divine ideas, from the ontological point of view, are properly regarded as having the status of relations rather than modes.

In the following, however, I will show how these two different attitudes are somewhat intertwined in other important steps of Leibniz's mature reflections, especially as far as the connection between logic and ontology is concerned.

9.4.1 Propositions as entia necessaria

The first approach, however, resurfaces once again in a draft written at the end of the 1680's and suddenly cancelled by Leibniz. In one of his table of definitions, indeed, after having introduced the notion of *ens* (or *possibile*) in the usual way, i.e. as that whose definition does not involve a contradiction (no matter how far the resolution of its concept can go), Leibniz had originally written the following definition of *(ens) necessarium*:

"A is said to be necessary, if non-existent A is impossible. Such necessary beings are many, even though only God is a necessary substance. [But abstract things are necessary beings..., *cancelled*] But there are certain necessary truths, to the effect that, generally speaking, one could say that, even if there is no circle, nonetheless the fact that the angle in the semicircle must be right exists, i.e. it is a necessary being [*tamen angulum in semicirculo rectum esse debere, existit; seu est Ens necessarium*], but from the genus of incomplete beings [*Entium incompletorum*]".³⁴²

This is a rather extraordinary text, and it is not strange that, ultimately, Leibniz chooses to delete it. There, indeed, he repeats that there is a plurality of necessary beings, among which only God can be said to be a substance, whereas necessary truths are to be counted among the incomplete (or abstract) entities.

It is also interesting to remark that the necessary being is attributed to a propositional content expressed through an infinitive form (which I have tried to translate by resorting to the expression "the fact that..."). For the moment, however, let me just stress the clear commitment to the existence of the proposition 'The angle in the semicircle must be right'.

is nothing but one and the same" (Foucher, cit., p. 156). The notion of 'relative existence' has been discussed also by Suárez, especially as far as the existence of accidents and modes is concerned, see DM XXXI, xi, 23-35. ³⁴¹ In a passage on Spinoza, written around 1707, Leibniz writes: "Essences can, in some sense, be conceived without God, but existences involve God. The very reality of essences, indeed, that by which they flow into existence, is from God. The essences of things are coeternal with God, and the very essence of God comprehends all other essences [...]" (Beeley 5/AG 273). This passage makes clear, among other things, that (1) the sense in which essences can be conceived without God's existence is the sense in which they are logically possible (the non-existential sense of possibility), and (2) this non-existential sense of possibility has to be contrasted with an existential sense of possibility, i.e. the reality of essences or "that by which they flow into existence", which is (or derives) from God. These two senses of possibility have been distinguished in Chapter 8 above.

³⁴²Definitiones: aliquid, nihil, non-ens, ens, 1688-89 (?), A VI 4, 931, textual apparatus at ll. 12 and ff.
This point seems to be in contrast with the nominalist view that individuals are the only existing things, while abstract entities do not exist in a proper sense. From a platonist point of view, on the contrary, the subsistence and independence of abstract entities is clearly equated with existence (not that of material objects, but of ideal entities). Of course, as we have seen in the preceding paragraphs, the choice of mathematical objects (like numbers and geometrical figures) seems to a particularly favourable one for a platonist ontology, especially because the platonist reading allows one to read mathematical propositions (like 'there are infinitely many prime numbers') at a face value, where the commitment to a domain of abstract objects (numbers, in this case) is the solution to the problem of the existential import for necessary propositions.

9.4.2 Inquirenda logico-metaphysica. The Sophism detected

There is a text from the end of the 1680's where Leibniz seems to have found a way to organize his metaphysical intuitions (and the corresponding terminology) in a more systematic way. Since, as far as I know, it has not been translated or very much discussed in the scholarship, I will reproduce here the whole passage.

It is taken from a text the editors have entitled Inquirenda logico-metaphysica:

"From our definitions, it seems there is a difference between a necessary being [Ens necessarium] and a necessarily existing thing [necessario existens]. In the latter claim, however, there is a difficulty which is worth discussing here. For, if we define *impossible* as that which involves a contradiction, and *possible* as that which does not involve a contradiction, and *necessary* as that whose contradictory is impossible, there will be a non-existent necessary being [Ens necessarium non existens], e.g. 'A circle which is not the most capacious isoperimetric figure is an impossible being', therefore 'A circle which is the most capacious isoperimetric figure is a necessary being'. However, it can happen that no true circle is given in the nature of things [i.e. among existent things], and, therefore, not even a circle which is the most capacious isoperimetric figure. But I will reply that a sophism is hidden in this conclusion. A very elegant one, I would say; but still a sophism, nonetheless. Of course one must concede that 'A circle which is not the most capacious isoperimetric figure is impossible'. However, it has to be denied that, therefore, it follows that 'A circle which is the most capacious isoperimetric figure exists necessarily'. Let us take that A (which stands for the concept 'circle-which-is-notthe-most-capacious etc.') is impossible; therefore it will be necessary non-A, that is 'non (circle-which-is-themost-capacious etc.)', which certainly does exist. For what follows in this case, indeed, is not that 'A circle which is the most capacious etc. exists', but only one of these two conclusions, i.e. either the circle itself does not exist [in the nature of things], or, if a circle does exist, it will exist as the most capacious [isoperimetric figure]". 343

A preliminary remark on the translation is necessary. This passage is written by Leibniz in a sort of semi-formal language, especially for what concerns his way of mentioning propositions in terms of propositional contents, or concepts which stand for a proposition. Given the equivalence between propositions and concepts (which Leibniz established in the GI), indeed, a proposition like 'A is B' is equivalent to a complex concept 'AB', given that the latter is possible (i.e. given that 'AB is an entity').

³⁴³Inquirenda logico-metaphysica, 1689-90 (?), A VI 4, 997.

Therefore, in the text above, an expression like 'A circle which is not the most capacious isoperimetric figure is an (impossible) entity' can be equivalently taken either as a proposition or as a concept. This is why I have reported it either between simple quotation marks or as a sort of complex term ('circle-which-is-...').I will come back to this point in what follows, since it is a fundamental ingredient of the questions I shall discuss.

For the moment, it is important to understand in which way Leibniz can produce the argument which he himself acknowledges as a "very elegant sophism" (*perelegans sophisma*).

Even though the context here is not concerned with the ontological argument, it is interesting to observe how, in the first lines of the passage, Leibniz introduces a difference between 'necessary being' and 'necessary existent', which seems to recall Eckhard's doubts about the possibility of moving from a *de dicto* to *de re* reading of the expression 'necessary being'.³⁴⁴

The problem with such a distinction, however, is that it seems to be untenable if we assume the (traditionally accepted) inter-definability of modal operators:

'A is impossible' *iff* A involves a contradiction;

'A is possible' *iff* A does not involve a contradiction³⁴⁵;

'A is necessary' iff non-A involves a contradiction.

From the preceding equivalences, it follows that if *non-A* involves a contradiction, then *non-A* is impossible. Since everyone would accept that is impossible that *non-A* exists, it seems to follow that *A* cannot but exist, i.e. *A* is a necessary being.

However, when applied to the case of the definition of a geometric figure (like a circle), it seems to follow that a circle necessarily exists, even though "it can happen that no true circle is given *in rerum natura*" (by the way, we know that this is Leibniz's position, since there is no actual concrete thing that instantiates a perfect circle).

The sophism, as Leibniz explains, is concealed in the passage from the impossibility of the existence of *non-A* to the necessary existence of *A*. What does correctly follow, indeed, is only (the necessity of) a disjunction: necessarily, either a circle exists *in rerum natura*, or, if a circle does exist, it will have such-and-such a definition (essence). This disjunction, however, is nothing but another way of putting forth the old view that eternal truths, when they do not range over things *in rerum natura*, hold only conditionally, given the equivalence between (*p*)

³⁴⁴ Leibniz's acceptance of the distinction between *ens necessarium* and *necessario existens* seems to be applied by him just to the set of necessary propositions. In this sense, as I will show in what follows, this will lead him to stress even more the difference between the case of God (whose existence immediately follows from his essence) and that of ideas or possibilities, whose 'reality' (or their 'tendency to exist') requires a sort of metaphysical grounding in the actual existence of God. However, from a theoretical point of view, I do not see why such a distinction between propositional and existential necessity should not be employed also *against* the modal version of the ontological argument. On the problems that derive from applying the necessity operator to concepts (and not just to propositions), see also Poser, *Zur Theorie der Modalbegriffe*, pp. 51-54.

³⁴⁵ Cf. GI #2, A VI 4, 749, note 8: "*Possibile* est quod non continet contradictorium seu *A non-A*. Possibile est quod non est: *Y, non-Y*". And, in another marginal note (n. 11), he explains that this definition can be applied to both concepts (incomplex terms) and propositions (complex terms): "Dico aliquid impossibile esse seu contradictionem continere, sive terminus sit incomplexus continens *A non-A*, sive sit proposition quae rursus vel dicat coincidere ea quorum unum continent contradictorium alterius, vel contineat terminum incomplexum impossibile [...]".

 $\rightarrow q$) and $(\neg p \lor q)$ ("either the circle itself does not exist, or, if the circle exists, it will exists as the most capacious one").³⁴⁶

9.4.3 A Paraphrase View?

Significantly enough, Leibniz is resorting here to his 'old' hypothetical reading of necessary truths in order to avoid any commitment to the existence of an infinity of necessary beings. From this point of view, Leibniz seems to depart from contemporary platonist views, which maintain that propositions, *qua* abstract objects, exist necessarily (where, however, the point is that the distinction is placed not among different senses of 'existence', but, rather, between different kinds of objects, i.e. abstract and concrete ones).

Furthermore, if one looks at the contemporary debate between platonism and nominalism, especially as far as mathematical objects are concerned, one can note the following analogies. The platonist maintains that if propositions like 'a is F' or 'There are Fs such and such' (for example, '3 is a prime numbers' or 'There are infinitely many prime numbers') are true, then the objects denoted by singular terms (or by bounded variables in existentially quantified sentences) must exist; therefore, in the case of mathematical objects (like 'number 3' or 'prime numbers'), the criterion of ontological commitment forces us to accept the existence of abstract objects.

If the nominalist does not want to reject the criterion of ontological commitment (as in the case of fictionalism), he can reject the existence of abstract objects denying that those sentences must be taken at their face value:

"Those who endorse a paraphrase view claim that while sentences like '3 is prime' are true, they should not be read as platonists read them, because we can paraphrase these sentences with other sentences that do not commit us to the existence of abstract objects. One of this view, known as *if-thenism*, holds that '3 is prime' can be paraphrased by 'If there were numbers, then 3 would be prime'[...]".³⁴⁷

If Leibniz's attempt in the passage from *Inquirenda logico-metaphysica* is to provide a kind of paraphrase view, that would in keeping with his nominalist views. At the same time, since the hypothetical reading is taken in a clearly existential sense, this seems to be in tension with platonism about essences of 1677-78 and, more importantly, with the new reading of hypothetical propositions based on conceptual inclusion.

This sort of oscillations, as I will show, seems to emerge once again in Leibniz's reflections on the possibility of reducing hypothetical to categorical propositions.

³⁴⁶ Or, better, Leibniz says that what follows is only that \Box (non-p v q), which is equivalent to \Box (p \rightarrow q).

³⁴⁷ Balaguer, "Platonism in Metaphysics" (see in particular the discussion concerning the Singular Term Argument and the objections against it). A typical example of this approach in the philosophy of mathematics is that of B. Russell, *The Principles of Mathematics* (1903), second edition, New York 1937, pp. 3-9.

9.5. De propositionibus existentialibus/1.

A New Account of Existential Propositions?

What Leibniz calls a "very elegant sophism" is very close to his own approach to the ontological status of necessary truths in texts from 1677-78 discussed above (that approach being nothing else than a generalization of the ontological argument to the case of necessary propositions).

However, even though I do believe that Leibniz criticism might be equally applied to the position held in those earlier essays of him, I would like to suggest that the most proximate source of this *perelegans sophisma* has to be found in a text which, according to the editors, should have been written at the end of 1688, *De propositionibus existentialibus*.

9.5.1. The secundi/tertii adjecti distinction in the GI

To introduce the discussion of this paper, let me recall that, together with the work on the ontological argument, the other occasion Leibniz had to re-think the question of ontological commitment and, especially, that of propositions ranging over a domain of non-actually existing things, has to be traced back to the logical-ontological questions touched in the *GI* (1686). I am thinking, in particular, of the double reading of propositions introduced in section 144 (and following) of that text. After all, the draft *De propositionibus existentialibus* can be considered as a sort of follow up of Leibniz's seminal discussion in his most extensive treatise on logic.

Let me recall also that in the *GI*, Leibniz distinguished between essential and existential propositions, and applied to both of them the distinction between a reading *secundi* and a reading *tertii adjecti* of the copula. This distinction was traditionally equated with that between the existential and the predicative sense of the copula (*est*) in propositions. Therefore, a proposition *secundi adjecti* like *Homo est* was intended to mean that a man actually exists, whereas a proposition *tertii adjecti* like *Homo est animal* was referred to the essential meaning of the copula. Another claim which can be easily found in the logical tradition before Leibniz was that, in the case of propositions *secundi adjecti*, the term 'being' (*ens*) has to be regarded as the predicate implicitly concealed in the copula (given that the canonical analysis of a proposition was that according to the form: 'subject-copula-predicate'); therefore, a proposition like *Homo est* has to be analysed as *Homo est ens*, where 'being' was clearly understood as referring to what actually exists.

The possibility of reading a proposition *de tertii adjecti* (like "Peter is a denier") in terms of the corresponding proposition *de secundi adjecti* (like "Peter-the-denier is") has a clear connection with Leibniz's theological view that, in creating the world, God did not decree that Peter should be a denier (since the concept of 'denying' was already contained in the notion of Peter), but only that the whole concept Peter-the-denier should be instantiated.

This connection between Leibniz's logical device and his theological views has been particularly emphasized by those scholars who accepted the Russellian view that existence (or

non-existence) is the only contingent property that Leibniz may ascribe to an individual. In order to do this, however, one has to stress the existential reading of propositions.³⁴⁸

What Leibniz says in the GI, however, does not seem to entirely correspond to such a view. According to Leibniz, indeed, the secundi/tertii adjecti distinction does not automatically coincide with that between existential and essential reading of propositions. Both existential and essential propositions, indeed, can be equally interpreted as de secundo and de tertio adjacente.

In this way, through a sort of combinatorial account, Leibniz shows that it is possible to have a secundi adjecti version of an essential proposition: the proposition 'A circle is a plane figure' can be written as 'A plane figure having a constant relation to some one point exists (est)', where est means that "it can be understood, it can be conceived, that among various figures there is one which has this nature, just if I were to say 'A plain figure having a constant relation to some one point is an entity or a thing", where, of course, 'entity' designates not only what is actual, but also the possible.³⁴⁹Similarly, an existential proposition like 'Every man is (exists) liable to sin' can be rewritten as 'A man liable to sin exists, i.e., is an actual entity', moving from the *tertii* to the *secundi adjecti* reading.³⁵⁰

In the piece on existential propositions, Leibniz moves from his well-known preference for the intensional reading of predication over the extensional one: "It is better to express propositions by means of universals or notions, since this method can be applied also to individuals which can be posited [quae poni possunt]".³⁵¹ Such a preference had been already expressed in a notorious passage of an essay on logical calculus dated April 1679.³⁵²

In our text, Leibniz explicitly mentions the possibility of applying the intensional reading (expressio propositionum per universalia seu notiones) to the case of (possible) individuals as well.³⁵³ In the final lines of the paper, he will also add that, as it is commonly employed in

³⁴⁸ Cf. in particular Mates, "Leibniz on Possible Worlds", pp. 512-13. In this essay, Mates interpreted ens as referred to actual existent things only. In his The Philosophy of Leibniz, esp. pp. 55-57, he distinguishes between the essential and the existential reading of 'entity'. Mates' emphasis on the existential reading has been remarked and criticized by R. M.Adams in his review of Mates' book (The Philosophy of Leibniz), published in Mind, 97, 1988, pp. 299-302 (cf. p. 300: "the existential sense of 'entity' is still much prominent in Mates' interpretation than it seems to me to be in the texts of Leibniz"). Cf. also Ishiguro, Leibniz's Philosophy of Logic and Language, pp. 183-87.

³⁴⁹ Generales Inquisitiones, 1686, # 144, A VI 4, 779/LP 80. On this point, see also what Leibniz says in the paper Difficultates quaedam logicae, after 1690, GP VII, 211-17, esp. p. 214 (LP 118), where the expression 'A laugher is an entity' is "taken to refer to possibility, i.e. as meaning that there is a laugher in the region of ideas".

On the history of the secundum/tertium adjacens distinction, see G. Nuchelmans, "Secundum/TertiumAdiacens. Vicissitudes of a Logical Distinction", Medelingen van de Afdeling Letterkunde, 55, 10, 1992, pp. 329-84. On Leibniz, see Rauzy, *La doctrine leibnizienne de la vérité*, pp. 79-84. ³⁵¹ *De propositionibus existentialibus*, end of 1688 (?), A VI 4, 1631.

³⁵² See *Elementa calculi*, April 1679, # 12, A VI 4, 200, where the distinction between the intensional and the extensional interpretation of the calculus is introduced, and Leibniz expresses his preference for the intensional reading: "Verum malui spectare notiones universales sive ideas, earumque compositiones, quia ab individuorum non pendent".

³⁵³ At first sight, it seems that a method *per universalia* should be applicable only to general notions and not to individual ones. However, at GP VII, 211 (LP 115), Leibniz has clearly stated that singular proposition (like 'The Apostle Peter is a soldier') is to be considered equivalent to a universal proposition as well as to a particular one ("For 'some Apostle Peter' and 'every Apostle Peter' coincide, since the term is singular'). The view that a singular proposition has to be brought back to the universal one is often repeated by him, cf. Cout. 323 ("Singularis autem propositio, v.g. Petrus est homo, referenda est ad universalem, cum totum termini in uno hoc exemplo singulari contineatur"). See also New Essays, IV, xvii, 8, A VI 6, 485. This idea dates back to the DAC, # 24 (A VI 1, 182-83= GP IV, 50-51), where, following Raue's analysis of the copula, a proposition like

propositions concerning individuals, the copula 'is' is usually understood as referring to actual existence, as in the case of 'Peter is alive' (*Petrus est vivens*). Nonetheless, "it is possible to predicate something of those individuals which do not exist, will not exist, and have never existed", thus employing a pure essential reading. Conversely, in the case of "truly existing individuals", Leibniz says that "all the propositions which are also essential are at the same time existential"; which I take as the reassessment of the impossibility of a real distinction between essence and existence, at least in the case of individual substances.³⁵⁴

9.5.2 'Existent' as a term

This short text is mainly focused on the analysis of existential propositions. In a sense, it can be read as an experimental one, i.e. one where Leibniz tries to test a sort of working hypothesis, which he clearly puts forth in these terms: "Let us see if the way of expressing logical propositions through terms by adding only the terms 'entity' and 'non-entity' works also in the case of existential propositions".

In a sense, Leibniz's strategy can be regarded as a reductionist one. His reductionist program is divided in two main steps. At the beginning, in order to stress the existential reading of propositions, he employs the couple of terms 'existent'/'non-existent' in order to shift from a reading of the verb 'to be' *de tertio adjacente* to one *de secundo adjacente*. Thus, 'Some pious is man is poor' becomes 'A poor pious man is existent'; 'No just man is derelict' is transformed into 'A derelict just man is a non-existent'; 'Every pious man is in trouble' into 'A non-troubled pious man is non-existent'. This first step corresponds to the analysis of the square of oppositions Leibniz has already provided in sections 146-49 of the GI.

At this point, Leibniz goes one steps further and asks whether it is possible that also 'existent' be taken as a term and shifted in the subject place, to the effect that the place of the predicate be filled by the term 'Entity' (or 'non-Entity') alone.³⁵⁵

With respect to the approach to the distinction between essential and existential propositions adopted in the *GI*, the strategy followed in *De propositionibus existentialibus* presents a fundamental difference. There, indeed, especially in sections 144-45, Leibniz seems to consider the distinction between the essential and the existential reading as a purely metalinguistic one (i.e. one external to the language of his calculus), depending essentially on the interpretation one gives of the term *ens*. According to the essential reading, *ens* is taken as ranging over a domain of objects which includes both possible and actual ones, whereas the existential reading takes *ens* as restricted to the domain of actual objects only.³⁵⁶

^{&#}x27;Socrates is the son of Sophroniscus' is paraphrased as 'Whoever is Socrates, he is the son of Sophroniscus'. From which it follows that it can also be truly said 'Every Socrates is the son of Sophroniscus'.

³⁵⁴ A VI 4, 1633. Cf. Suárez, DM XXXI, vii, 5: "[...] actual existence cannot add a thing or a real mode beyond the whole individual essential entity insofar as it is a created substance both entirely complete and directly located in the predicament of substance under the last species. The reason is that singular things alone exist essentially and primarily" (Wells, 109). Cf. also *Ibid.*, vi, *passim*.

³⁵⁵ "Videndum an posset etiam existens transferri in terminum, ut maneat Ens vel non Ens" (A VI 4, 1632).

³⁵⁶ Reference to possible objects, however, does not mean that, from the metaphysical point of view, Leibniz is committed to the existence of merely possible things, since, given the preference for the intensional reading of the calculus, the objects on which the variables range on are, properly speaking, 'concepts' and not 'objects'. From this point of view, the absence of existential import of Leibniz's essential interpretation of the calculus can be compared with the approach in the field of free-logics (i.e. logics which make place for non-denoting singular

This means, however, that each proposition (expressed in the canonical form) may have both a *secundi adjecti* and a *tertii adjecti* reading (depending on the position of the copula), but it has to be interpreted alternatively, i.e. either as essential or an existential one. In other words, the essential and existential reading are regarded as two different semantical interpretation of the language of the calculus (the essential/existential reading of *ens* is not part of the syntax of the calculus of the GI but is external to it).

On the contrary, the paper on existential propositions distinguishes between *existent* as a term, which can be shifted from his predicate position (in the *tertii adjecti* reading) to the subject position (in the *secundi adjecti* reading), and the term 'being' or 'entity' (*ens*), which works as the predicate in the *secundi adjecti* reading of the existential proposition. And since *existent* has been already specified and considered as a (conceptual) ingredient of the subject term, it seems to follow that the predicate *ens* can be interpreted in one way only (i.e. the essential one). Therefore, it follows that 'existent' is now taken as term of the object language itself (of course, Leibniz does not employ the distinction between language and metalanguage, since he does not has in mind our notion of a formal system). Accordingly, one will expect that this approach will produce some problematic consequences.³⁵⁷

What I want to stress now, however, is that also this new (and apparently bizarre) view originates from something Leibniz has already said in the GI. The place, this time, is section 71, devoted to the analysis of 'existent' in propositions like 'A is existent':

"What is to be said about the propositions 'A is an existent', or, 'A exists'? Thus, if I say of an existing thing, 'A is B', it is the same as if I were to say 'AB is an existent'; e.g. 'Peter is a denier', i.e. 'Peter denying is an existent'. The question here is how one is to proceed in analysing this; i.e. whether 'Peter denying' involves existence, or whether 'Peter existent' involves denial –or whether 'Peter' involves both existence and denial, as if you were to say, 'Peter is an actual denier', i.e. is an existent denier; which is certainly true. Undoubtedly, one must speak in this way; and this is the difference between an individual or complete term and another. For if I say, 'Some man is a denier', 'man' does not contain 'denial', as it is an incomplete term, nor does 'man' contain all that can be said of that of which it can itself be said''.³⁵⁸

The main point of this section is the distinction between complete and incomplete terms, e.g. 'Peter' vs. 'man'; where the former, but not the latter, stands for a complete individual concept, and, hence, "contains all that can be said of that of which it can itself be said", i.e. of Peter (the denotation of the term 'Peter'). The interesting point is that, in his attempt to reduce existential propositions to the canonical propositional structure (subject-copula-predicate),

terms). In this sense, one can see W. Lenzen, "Leibniz on Ens and Existens", in W. Spohn, B. van Fraassen, B. Skyrms (eds.), *Existence and Explanation. Essays presented in Honor of Karel Lambert*, Dordrecht 1991, pp. 59-75; and J. Skosnik, "Leibniz and Russell on Existence and Quantification Theory", *Canadian Journal of Philosophy*, 10, 4, 1980, pp. 681-720 (even though, some of Skosnik's conclusions seem a little bit exaggerated to me).

³⁵⁷ Wolfgang Lenzen, who is one of the few scholars who has paid attention to this piece, has pointed out that Leibniz's explicit reading of *existens* as a predicate is in contrast with Leibniz's account of existence in the GI. Cf. W. Lenzen, "*Non est'* non est *'est non'*. Zu Leibnizens Theorie der Negation", *Studia Leibnitiana*, 18/1, 1986, 1-37, pp. 29-30, note. If he refers (as he actually does) to section 73 (where Leibniz explicitly asserts that existence is actuality, and not "possible existence"), he is perfectly right. However, as I show in the main text below, Leibniz's approach is in tune with what he says in section 71, where 'existent' is actually interpreted as a logical predicate (where Leibniz explicitly focus on complete individual concepts, which involves, if not actuality, at least the reasons for the actualization of a certain individual).

³⁵⁸Generales Inquisitiones, #71, A VI 4, 762/LP 65.

Leibniz apparently makes no difference between 'denier' (*abnegans*) and 'existent' (*existens*), since he is explicitly committed to the view that the notion of Peter, *qua* complete, involves both of them (and both of them can be inferred from it).

Thus, existence is considered just as one among the predicates that are contained in the concept of Peter. The same view will be repeated in a text approximately written around 1689, where it is explicitly connected with the principle of conceptual containment. I have already quoted it in the preceding chapter, when discussing the connection between existence and conceptual containment.

However, it will be useful to read it again:

"It is certain that there is a connection between subject and predicate in every truth. Therefore, when one says

'Adam the sinner exists [Adam peccans existit]', it is necessary that there is something in the possible notion,

Also in this case, it is clear that, from the point of view of the logical analysis of the proposition, whereas the subject term is '*Adam peccans*', the predicate term is represented by '*existens*'. This is enough to maintain that, at least from the logical point of view, Leibniz did not regard existence as an exception to his theory of truth based on conceptual containment.

This is not enough, however, to conclude that, also from the metaphysical point of view, the predicate of existence should be regarded as representing a property which is just one among all the other properties of an individual thing. This can be understood by the fact that, in the quoted passage, Leibniz does not say that existence is contained in the notion of Adam, but, rather, that there is something in the complete notion of Adam by virtue of which it is said to exist (i.e., most likely, the fact that Adam belongs to the most perfect group of compossible things, as Leibniz himself explains in section 73 of the *GI*).

9.5.3. Leibniz's new paraphrase

Coming back to *De propositionibus existentialibus*, we are now able to see the rationale behind Leibniz's choice of taking 'existent' as a term, i.e. as a part or member of the subject term of a proposition, while the predicate place is occupied by the very general term *Ens* (or *non-Ens*).

At this point, Leibniz can propose a new paraphrase of the propositions presented above (see the fourth column in the following table):

Propositions	Original Form	First Step	Second Step
Particular Affirmative	"Quidam pius est pauper"	"Pius pauper est	"Pius pauper existens est
		Existens"	Ens seu possibile"
Universal Negative	"Nullus justus est	"Justus derelictus est non	"Justus derelictus existens
	derelictus"	Existens"	est non Ens seu
			impossibile"
Universal Affirmative	"Omnis pius tribulatur"	"Pius non tribulatus est	"Pius existens non
		non Existens"	tribulatus est non Ens seu
			impossibile"

³⁵⁹ De contingentia, 1689 (?), A VI 4, 1651/AG 29 (translation modified).

^{&#}x27;Adam the sinner', by virtue of which it is said to exist".³⁵⁹

Particular Negative	"Quidam pius non est	"Pius non pauper est	"Pius existens non pauper
	pauper "	Existens"	est Ens seu possibile" ³⁶⁰

Leibniz's new analysis is particularly interesting as far as universal propositions are concerned. A universal negative proposition (existentially interpreted), which has already been written as 'A derelict just man is non-existent', is now transformed into 'An existent derelict just man is a non-Entity, or impossible'; where, however, Leibniz immediately points out that it should be said to be 'impossible' only "according to hypothetical impossibility, i.e. once the existence of this series of things has been posited".³⁶¹

The main difficulty with this new account, however, arises when one moves from impossibility to necessity, as it happens when we consider the formalization of the UA: 'A pious man non troubled is a non-existent', indeed, becomes 'An existent non-troubled pious man is a non-Entity, i.e. impossible', which is logically equivalent to 'An existent troubled pious man is a necessary Entity' (*Pius existens tribulatus est Ens necessarium*).³⁶² Commenting on this point, Leibniz writes:

"But, you will say, necessity will be introduced in this way, when a proposition –for instance "Every man sins" –is assumed as existentially loaded: "A non-sinning man is non-existent". Or, which is the same: "An existent non-sinning man is a non-Entity, or impossible". Finally, one obtains: "An existent sinning man is a necessary Entity". But you have to understand this according to the necessity of the consequent [*necessitate consequentis*], i.e. once this series of things has been posited; and this is what is always denoted by the addition of the term "existent", which always makes the proposition an existential one, i.e. one involving the [actual] status of things. I designate this formula as necessity of the consequent, and assume it as universally valid in the treatment of propositions. For also the contingent propositions are necessary given the hypothesis of the existence of things. In the same way, it is impossible to steal Codrus' money, given that Codrus has none at all [...]. To tell the truth, when I say "An existent sinning man is necessary", I understand it as follows: the term "existent" adds something, i.e. that the sinning man has to be understood as he can be found

 $^{^{360}}$ The second step of the paraphrase is not provided by Leibniz for the PN, but can derived from what he says at A VI 4, 1632.

³⁶¹ *De propositionibus existentialibus*, A VI 4, 1632.

³⁶² A somewhat similar problem is briefly discussed by Suárez in his discussion of eternal truths. He has drawn the conclusion that the connection between subject and predicate in a necessary proposition "is nothing else than the identity of the terms which are in essential and affirmative propositions", which is conceived of by us in a propositional form, but, in reality, it is "nothing but the very entity of the thing" (which means, as Leibniz would put it, that Homo est animal is just the propositional form of Homo animal, where the latter is an entity, i.e. a thing, at least a possible one). This is the source of the necessity of necessary propositions (cf. DM XXXI, xii, 46). At this point, however, he objects that also the connection between subject and predicate as "Homo est", that is "Homo existit" (or "est existens") is a necessary one, "and consequently is true, even though it does not exist in act". But this consequence is clearly absurd (it would state the necessary existence of man). However, "the sequence is clear, because man and existing also have an identity, either objective or possible, or actual, if they are taken proportionally". At this point, Suárez observes that the necessity of a proposition like Homo est animal is what is called "composite or suppositional [ex suppositione]", i.e. it just means that a man cannot be created without being rational. The difference between the latter and *Homo est existens* is not a 'real' one (given the identification between existence and actual essence), but only one concerning "the manner of speaking": the consequence, however, "must be denied absolutely, because the word, existing, used simply, does not signify potency, but the exercise of existing. Consequently, that statement, Man exists, used simply, does not render a composite sense [as if one were to say: "if a man is, he is existing"] [...] but a simple and absolute sense. So, if it were necessary, it would indicate the absolute necessity of existing, which cannot belong to man". Cf. DM XXXI, xii, 47/Wells 206-7. The distinction between the composite and the simple sense of necessity is similar to that adopted by Leibniz in the passage from Inquirenda logico-metaphysica discussed above.

in this world now [*qualis in mundo nunc reperitur*]; even though such a man is a sinner only hypothetically, it is necessary nonetheless that man is a sinner".³⁶³

In the part I have omitted from the previous quotation, Leibniz explains the distinction between hypothetical and absolute necessity, and, therefore, that between contingent and necessary propositions, by resorting to his theory of infinite analysis. Whereas a proposition like "The circle is the most capacious isoperimetric figure" is a necessary one, and, thus, an *Ens necessarium*, since it can be demonstrated in a finite number of passages, this could not be said of a proposition like "Every man sins". In the latter case, indeed, "no demonstration at all can be found out this proposition [...] and the reason why it is contingent that every man [...] sins, depends on an certain infinite analysis that only God understands".³⁶⁴

The point that has to be stressed is that, in doing so, Leibniz emphasizes that, from a logical/linguistic point of view, the theory of conceptual containment holds in both cases ("*Utrumque vi terminorum verum est seu praedicatum utrobique inest subjecto; tam in necessaris quam in contingentibus*"); i.e. both necessary and contingent propositions are equally 'analytic' ones. The difference between the two lays only in the length of the demonstration which would be required in order to show that the predicate-term is actually contained in the subject-one. In the case of contingent propositions, no resolution is possible, properly speaking, since demonstrations for Leibniz must be of a finite length only.

Accordingly, the sense in which 'A sinner man exists necessarily' can be said to be true is not that of the essential reading, i.e. as if the concept 'sinner' were to be part of the concept 'man';³⁶⁵ rather, what the concept 'existent' adds to the concept 'sinner man' is the fact that necessity has to be assumed as involving the actual status of things, i.e. the series of things, which, having been chosen and posited into actuality by God, cannot be changed nor altered.

According to the existential reading, then, "sinner man" refers to the kind of man which can be found in this world, or, better, in the present state of the world: note the temporal reference, *qualis in mundo nunc reperitur*. Reference to time is an aspect which requires some further explanation.

9.5.4 Existential propositions de certo tempore and abstrahendo a tempore

The difference between the analysis of existential propositions that are focused on a certain time (normally: the present one) and that which makes abstraction from time, indeed, is

³⁶³ *Ibid.*, 1632-33.

³⁶⁴ *Ibid.*, 1632.

³⁶⁵ There is a (minor) problematic point here, which concerns the example chosen by Leibniz. In the text of *De propositionibus existentialibus*, A VI 4, 1632, he says that the proposition 'Every man sins' cannot be demonstrated (and, therefore, 'A sinner man is not a necessary being' is true, at least in its essential reading, without the addition of 'existent'). Even though indemonstrable (because it would require infinite analysis), 'Every man sins' is said to be true of every man, or, better, "of every man who is now living on this earth". Reference to 'now' is important, since 'Every man sins' would turn out to be false when applied to every existent man in general (because of the fact that Jesus Christ was a man and had never sinned, a thesis Leibniz would have subscribed). This is also the reason why this proposition cannot be taken be an absolutely necessary one. The interesting thing, however, is when dealing with the necessity of 'Every man sins', Leibniz is actually dealing with its necessary truth at this actual state of the world ("quae involvit [actualem] rerum statum", even though 'actualem' has been erroneously cancelled by Leibniz and re-integrated by the editors).

briefly mentioned in section 74 of the *GI*, where Leibniz distinguishes between (1) "Peter denies" (*Petrus abnegat*) understood of a certain time (*de certo tempore*) and (2) "Peter denies" taken as making abstraction from time (*abstrahendo a tempore*).

In both cases, Leibniz says that existential propositions "can be proved only from the complete concept of an individual, which involve infinite existents" (therefore, they cannot be demonstrated in a rigorous sense, as propositions concerning general essences). In case (1), that of existential propositions taken *de certo tempore*, "there is presupposed also the nature of that time, which also involves all that exists during that time". Understand it: reference to a certain time (like the present) involves everything that is simultaneous with that determinate event (i.e. the entire state of the world, as explained in Chapter 6 above).

On the contrary, in the case of propositions (2) which make abstraction from time, Leibniz says: "If I say 'Peter denies' indefinitely, abstracting from time, then for this to be true – whether he has denied, or is about to deny [*sive abnegaverit, sive abnegaturus*] –it must nevertheless be proved from the concept of Peter", but the concept of Peter involves the infinite, "so one cannot arrive at a perfect proof [...]", etc.³⁶⁶

Two remarks are in order here.

First, reading (2), which makes abstraction from time, i.e. makes abstraction from the present time ('now'), has to be interpreted according to Thomasius' reading of eternal truths, i.e. as making abstraction from a certain determinate time, and not in the sense of Suárez's reading of eternal truths (essential and necessary propositions), i.e. as making abstraction from time at all (be it present, past, or future). In this way, Leibniz is applying the theory of 'total denotation' to the case of existential propositions; which makes sense, since, after all, the theory of total denotation had been originally conceived in order to justify the necessity *ex hypothesi* of universal propositions, and was explicitly based on the notion of existence (as remarked by Thomasius, see 2.7 above).

Second, the distinction between (1) and (2) might, perhaps, be connected to the twofold reason Leibniz advances in another text for the introduction of infinite analysis. There, indeed, he states that in "every proposition which contains existence and time, the whole series of things is involved".³⁶⁷He also says that contingent propositions are not demonstrable for two reasons: because (a) they involve reference to the whole series of things (the whole world), and (b) they also involve a comparison between all the other possible series (possible worlds).³⁶⁸

³⁶⁶ GI, # 74, A VI 4, 763/LP 66.

³⁶⁷ De natura veritatis, contingentiae et indifferentiae, 1685-86 (?), A VI 4, 1517: "Hinc omnes propositiones quas ingreditur existentia et tempus, eas ingreditur eo ipso tota series rerum [...]".

³⁶⁸ At A VI 4, 1517 Leibniz identifies necessary propositions with essential ones, contingent with existential ones; the latter are those whose truth can be understood *a priori* by an infinite mind only (since they cannot be proved by any resolution at all). Among contingent propositions, Leibniz lists those "which are true only of a certain time [*quae certo tempore sunt verae*]", which do not express only what pertains to the possibility of things but also what exists in actuality (or what will exist in the future, given that certain things are posited now). Physical laws are counted among these contingent truths: if we look for the reason of a certain phenomenon, we go to the infinite, since its full reason could be explained only by taking into account "a perfect cognition of all the parts of the universe", which is impossible for us given the actual infinite division of matter. At A VI 4, 1518, however, Leibniz adds that "even if someone were able to know the whole series of the universe, nonetheless he would not be able to provide the reason for it, unless a comparison between this series and all the other possible ones could be instituted".

I am wondering, indeed, whether there is a connection between, respectively, (a) and (1), and (b) and (2), or not; in particular, the question is whether condition (a) may be referred to the temporally determinate reading of existential propositions, and condition (b) to the temporally undetermined reading.

The similarity between (a) and (1) is given by the fact that, in both cases, Leibniz is talking of contingent truths which are true "of a certain time", i.e. which include a reference to the *hic et nunc*. The main difference seems to be that in the case of (1), given a temporally determinate proposition p, the analysis of p is said to involve everything which is simultaneous with it, i.e. the whole state of the world at which what is described by p occurs; on the contrary, according to (a), the whole series of things is said to be involved the analysis of p. The two accounts can perhaps be reconciled by making reference to the universal connection of things; for, if every state of the world contains marks and traces of all the past and the future ones (those which are prior and posterior to the one at which what is described by p occurs), then there is way of conciliating the two conditions.

As far as the connection between (2) and (b) are concerned, things are much more complicate, since Leibniz does not say too much about that. Speculating at little bit, one could say that making abstraction from all temporal determinations (which is the condition expressed by (2)) has something in common with an analysis of what actually exists which makes abstraction from any indexical element as well (any reference to the *hic et nunc*).

As I have pointed out in Chapter 7 above, reference to an indexical (spatiotemporal or causal) element seems to be necessarily required to our knowledge of what is actual; this is what I have called the *a posteriori* account of existence, in contrast with the *a priori* one, which does not move from what does exist but only from the level of essence. The *a priori* derivation of existence (which is accessible to the divine mind only), therefore, should be explained in terms of that comparison between all possible worlds which is explicitly stated by condition (b). Where, of course, the final task of such a comparison is to determine which, among all the possible series, the maximally perfect one is (given that there should be one).

Furthermore, one can push the analysis one step forward, and interpret existential propositions *de certo tempore* as tensed one, especially as far as reference to present time is involved therein; whereas, existential propositions which make abstraction from temporal determinations might be regarded as a sort of tenseless version, which can be obtained by transforming propositions involving temporal indexes (like 'now') into eternal propositions (which, perhaps, involve only reference to relations of temporal priority, posteriority or simultaneity, as those explicitly mentioned in Leibniz's formal analysis of time-relations).

The last suggestion might find a confirmation (only an indirect one, however), in an interesting remark concerning the relation between time and copula, which occurs in a passage from one of the most important texts devoted to linguistic analysis.

Emphasis on the temporal reading of necessary propositions might be explained with the fact that the context of this passage is not metaphysics but, as I have already said, what Leibniz calls *grammatica rationalis*:

[&]quot;Copula always includes a certain *time*, and the same holds also in the case of every proposition or statement; and this is the reason why grammarians use to say that verbs are names that connote time. However, the cause why every statement connotes time is that the very same statement can be true and false at different times,

when all the other things remain the same. It is clear, of course, that there are also some necessary propositions, but grammarians are not accustomed to consider them; anyway, it will be useful to devise a certain tense like the aorist, which should be employed in the case of eternal propositions. Since, for instance, a triangle is always a trilateral, it will be useful to employ a certain tense which could signify perpetual being, i.e. the fact that a triangle had been, is, and will always be a trilateral, or, better said, the fact that even though no triangle at all exists now, nevertheless when it will exist or had existed it will be or had been a trilateral".³⁶⁹

Leibniz moves from the traditional account according to which copula 'connotes' time (the traditional view of the *consignifcatio temporis*, which dates back to Aristotle), in order to hint at a distinction between two different temporal readings of propositions. The first is the explicitly temporal, or, perhaps, *tensed*, reading of propositions concerning contingent events, for their truth-value changes from one moment of time to another (of course, this would not happen in the case of their translations into 'eternal propositions', i.e. when the temporal index is deprived of any indexical reference). The second one, which is regarded by Leibniz as an original one, consists of employing a certain particular tense (like the Greek aorist) which should be able to signify perpetual being, as the fact that necessary and essential propositions are always true and their true is independent from the existential import of their subject-terms. Notice how the claim that the fact that "a triangle had been, is, and will always be a trilateral" is immediately rephrased in the more correct view that "even though no triangle at all exists now, nevertheless when it will exist or had existed, it will be or had been a trilateral". Therefore, the introduction of a new temporal form (a new 'tense', like the aorist) is the device Leibniz envisages (at the linguistic level) to stress the non-tensed character (at the metaphysical level) of essential propositions.

9.6 De propositionibus existentialibus/2.

The 'very elegant sophism' at work

In the text on existential propositions, thus, the distinction between essential and existential sentences is ultimately (and exclusively) reduced to that between necessary and contingent ones; the latter, in turn, has to be explained by means of the infinite analysis account of truth. Necessary propositions are those which can be proved in a finite number of steps, contingent propositions are those which would require an infinite analysis in order to be demonstrated. The same account seems to be at work in many parts of the GI, where, as it has been pointed out, the distinction between the essential and existential reading is no longer regarded as one concerning the reference of terms, but as one between those propositions which can be finitely analysed and those which cannot.³⁷⁰

For the moment, however, let me stress another singular aspect of this short essay. In the passage quoted above, indeed, hypothetical necessity is clearly –and more than once –

³⁶⁹ *De lingua philosophica*, end of 1687-end of 1688 (?), A VI 4, 882-83. Cf. this passage with the temporal interpretation of eternal truths in 3.6 above.

³⁷⁰ Cf. Rauzy, *La doctrine leibnizienne de la vérité*, p. 83. The same idea is at a work in *De propositionibus existentialibus*. On the contrary, the question of the existential import of propositions will play a major role in the paper on *Difficultates logicae*. Cf. my discussion of the latter text in Chapter 3 above.

identified with the so-called 'necessity of the consequent' (*necessitas consequentis*) rather than, as one would expect, with the 'necessity of the consequence' (*necessitas consequentiae*). Of course, as it has been pointed out many times, until the formalization of logic in modern times, it was not uncommon that, under the name of 'hypothetical necessity', both necessity of the consequent and necessity of the consequence were confused together (according to what Mates called the "fallacy of the slipped modal operator").³⁷¹

9.6.1 Necessity of the consequent and the problem of double negation

Concerning our text, if, from the one hand, it is clear that Leibniz has clearly in mind the difference between absolute and conditional necessity (look at the example of Codrus' money), on the other hand, however, emphasis laid on the necessity of the consequent might have something to do with Leibniz's willingness to read 'Every man sins' as 'An existent sinning man is a necessary entity', that is, a 'necessary being'. Whereas necessity of the consequence is commonly understood as \Box ($A \rightarrow B$) –where to be necessitated is only the whole implication –necessity, of the consequent is usually read as ($A \rightarrow \Box B$), where to be necessitated is not the implication but the consequent. In the latter case, but not in the former, it makes sense to call the consequent a 'necessary being'. ³⁷²

Remember that, in the *Inquirenda*, Leibniz stressed the necessity of distinguishing between 'necessary being' (or 'necessary entity') and 'necessary existence', concluding that only the former (but not the latter) should be attributed to necessary propositions. If the dates proposed by the editors are correct, then one can make sense of Leibniz's denunciation of an 'elegant sophism' as a sort of implicit reference to his earlier attempt in *De propositionibus existentialibus*.

This fact can be confirmed by the problem Leibniz has to face in the second part of this essay. So far, indeed, one could say that the difference is not as much one concerning a substantial claim (after all, Leibniz has always maintained the distinction between absolute and conditional necessity), as one concerning terminological issues. The last part of the essay, however, points out a substantial difficulty implicit in Leibniz's formalization when this is applied to the case of propositions stating identities, like "A sinner man is a sinner" (*Homo peccator est peccator*).

Leibniz notes, indeed, that when expressed in terms of 'impossible' and contradiction, an identical proposition is correctly paraphrased, as in the following case, where *Homo peccator est peccator* becomes *Homo peccator non-peccator est non-Ens* (which corresponds to the second step of the paraphrase in table above, cf. the line of the UA). However, the passage

³⁷¹ Cf. Mates, *Philosophy of Leibniz*, p. 117.

³⁷² Leibniz's hypothetical necessity has been usually interpreted in terms of "necessity of the consequence" (cf. for example A VI 4, 2577: "Necessitas consequentiae est, cum quid ex alio necessaria consequentia sequitur, necessitas absoluta est, cum contrarium rei implicat contradictionem"). A different reading, however, has been suggested by Mondadori, "Necessity ex Hypothesi", where he states that the notion of hypothetical necessity has always been an ambiguous one (oscillating between necessity of the consequence and necessity of the consequent), and advances the possibility of reading Leibniz's interpretation thereof in terms of a particular version of the necessity of the consequent (see especially p. 196 and ff.). On this topic, see also Mates, *Philosophy of Leibniz*, 117-21; M. Mugnai, "Necessità *ex hypothesi* e analisi infinita in Leibniz", in Lamarra-Palaia, *L'infinito in Leibniz*, pp. 143-55.

from impossibility to necessity seems to produce a proposition which is not equivalent to the original one. For we have: *Homo peccator peccator est Ens necessarium*. Now, this expression of the UA is problematic because, applying Leibniz's axiom of idempotence, one can (apparently) simplify it in this way: *Homo peccator est Ens necessarium*, i.e. it exists necessarily (which, however, appears to be immediately problematic).

The only solution that Leibniz seems to envisage at this point is to give up the axiom of idempotence in the case of identical propositions:

"Therefore, "Every animal is animal" will become "Animal animal is a necessary Entity"; however, it does not follow from this that animal is a necessary entity. From this, it seems that it is not always possible to substitute a single term to a plurality of equivalent terms attached one to another [*here Leibniz adds a* nota bene]. Therefore, one should not say "Animal animal is a necessary Entity", but, rather: "(Non (animal (non-animal))" [*or, rather, "It is not the case that (animal is (non-animal))"*]".³⁷³

Leibniz's conclusion, however, is a little bit confused, or, at least, can be the source of some interpretative confusion. In order to reject the undesired consequence that the necessary existence of animals follows from the claim that "Every animal is an animal" through the interplay of (mutually inter-definable) modal operators and the possibility of transforming propositions into complex terms, he seems to be forced to restrict idempotence to the case of non-identical propositions. This is clear from the passage where he notes (and writes "nota bene"): *videtur non posse semper pro pluribus terminis aequivalentibus sibi appositis unum poni*.

However, the example he proposes in the last line above has to be interpreted as stating that "Animal animal is a necessary Entity" means only that "Animal (*qua* animal) is a necessary entity" (or that what is an animal is necessarily an animal); or, as he shows by resorting to the parenthesis, "It is not the case that an animal be a non-animal". As my translation makes clear, by distinguishing between *non* as "it is not the case that" and *non* as "non-animal", the main problem here seems to be not idempotence in itself as much as an illegitimate passage from propositional to predicative negation.

9.6.2. The Sophism explained: The interplay between modality and negation

The same mistake, notice, seems to be at work in the previous formalization of existentially loaded universal propositions like "Every man sins". Leibniz, indeed, assumes that one can read it as *Homo non peccans est non existens*, from which *Homo existens non peccans est non Ens* (*sive impossibile*) does follow. Now, for the sake of clarity, let us write *homo* = A, *peccans* = B, and *existens* = C. Leibniz moves from (1) (A non-B) est (non-C), to (2) (A C non-B) non est Ens, to (2*) (A C non-B) est non Ens, to (2**) (A C non-B) est Impossibile, and, finally, to (3) A C B est Ens necessarium.

³⁷³ De propositionibus existentialibus, A VI 4, 1633. (Note : here as well as in what follows, I employ parenthesis where Leibniz normally employs superscript lines over the letters, even though the meaning is the same). Idempotence (AA = A), is listed among the axioms of logical calculus at the end of the GI, cf. ## 156, 171, 189, and 198. Together with commutativity (AB = BA) is one of the two axioms of the calculus of 'real addition', developed by Leibniz after the GI, cf. Specimen calculi coincidentium et inexistentium, 1686-87 (?), A VI 4, 834 (axiom 2); Non inelegans specimen demonstrandi in abstractis, 1687 (?), A VI 4, 848 (axiom 1).

Now, if one interprets (as one should) (2) as "It is not the case that (*A C non-B*)", it is clear that, since two different senses of negation are at work here (one says that the proposition is false, the other denies a predicate or a concept), one is not allowed to eliminate the double negation, and, thus, to move from the impossibility of (*A C non-B*) to the necessity of (*A C B*).³⁷⁴

One may also note that Leibniz's preference for the predicative negation is already at work in his choice of reading 'An existent man is a sinner' (i.e. the existential reading of 'Every man sins'; remember that for Leibniz A is B generally means 'Every A is B'). Assumed 'An existent man is a sinner', it follows, by means of the rule of contraposition, that 'A non-sinner is a non(existent man)', where, however, to be negated is the conjunction of 'existent' and 'man'.

On the contrary, Leibniz seems to read it as 'A non-sinner man is non-existent', which seems to be just a mistake. For, given that the negation of a conjunction (non (a & b)) corresponds to a disjunction of the negated terms $(non a \ or \ non b)$, the right inference should be (assuming, with Leibniz, 'existent' as a normal predicate): $non \ S \ x \to non \ (Ex \& M \ x)$, where $non \ (Ex \& Mx)$ is equivalent to $(non \ Ex \ or \ non \ Mx)$. In other words, 'if something does not sin, either it is not a man or it does not exists'. Therefore, one cannot immediately conclude that 'A non-sinner man is a non-existent'.³⁷⁵

It is interesting, however, that Leibniz seems to be ready to give up idempotence rather than to acknowledge the invalidity of the passage from propositional to predicative negation. As I

After all, this seems to have been implicitly noted by Leibniz himself in section 71 of GI (quoted above), where the derivability of 'existent' or 'denier' from the complete concept of Peter is accepted, but the same derivation is rejected in the case of an incomplete concept (like 'man').³⁷⁶

³⁷⁴ Cf. Lenzen, "Zur Leibnizens Theorie der Negation", p. 30.

³⁷⁵ At A VI 4, 127, Leibniz explicitly acknowledges that, from the negation of a conjunction, one cannot conclude to the negation of the two conjuncts. On Leibniz's problem with the two negations, see also Appendix A below.

A below. ³⁷⁶ In GI # 71 Leibniz notes that, if we take 'Peter' as a complete individual concept, both 'denial' and 'existence' follows from 'Peter' (so that on can say 'Peter existent is a denier' or 'Peter-the-denier is an existent' or, also, 'Peter is an existent denier'). Note that if something is not a denier or not existent (or, if something is a non-denier or a non-existent) then it is not Peter. In the Notationes generales, concerning the cases in which the substitution salva veritate fails, Leibniz notes that 'Peter' and 'the Apostle who denied Christ', however identical (both refer to the same individual, Peter) cannot be mutually substituted in sentences like 'Peter, insofar as [quatenus] he was the apostle who denied Christ, sinned", since we cannot say 'Peter, insofar as he was Peter, sinned' (A VI 4, 552). However, this can make sense only from the point of view of our (incomplete) knowledge of the essence of Peter. From the point of view of complete notions, indeed, since 'Peter' and 'Peter-the-denier' are the same, a sentence like 'Peter, insofar as he was Peter, sinned' makes perfectly sense. What Leibniz says in the Notationes generales, therefore, makes sense only from the point of view of our way of 'fixing the reference' of the name 'Peter'. Cf. also Leibniz's remarks in the GI on our (epistemic) ways of fixing the reference of an individual (a particular this) through a mix of both ostensive and descriptive procedures (vel mostrando vel addendo notas distinguentes, quamquam enim perfecte distinguentes ab omni alio individuo possibili habere non *possint* [...]), see A VI 4, 744. In the text from *Notationes*, another remarkable point is Leibniz's emphasis on expressions like quatenus...eatenus, to stress that Peter's sin follows from Peter's denial of Christ, and not from other predicates of the notion of Peter (especially, if we take a finite number of predicates which are incapable of determining all the rest, as Leibniz says to Arnauld, GP II 54, which is probably the sense in which we do actually have a notion of Peter). E. g., this particular sin of Peter does not follow from Peter's being a man, but from his being the denier of Christ (i.e. from his being this particular man), and so on. Cf. also GP II, 44, where he distinguishes between derivative predicates of Adam and primitive ones (which form the complete notion properly said). On this topic, the seminal paper is F. Mondadori, "Reference, Essentialism, and Modality".

will show in what follows, the topic will come back again when dealing with the reducibility of the hypothetical to the categorical proposition.

Another source of confusion which might explain what is wrong with the passage above is the kind of interplay between the two senses of negation and modal concepts (impossible/necessary) in the passage from (2) to (2^*) and (2^{**}).

That passage (however incorrect) seems to be solicited by Leibniz's assumption (in the GI and elsewhere) that a false proposition corresponds to an impossible term and vice versa, i.e. that a proposition is false if it entails a contradiction and, accordingly, the corresponding propositional term (the term obtained by taking the whole proposition as a complex concept) is an impossible one.³⁷⁷ Notice, also, that the fallacious shift from the external to the internal negation has an equivalent at the modal level right in the shift from external (i.e. *de dicto*) modality to the internal (i.e. *de re*) one.³⁷⁸

Of course, 'animal not-animal' is an impossible term, therefore it seems reasonable that from 'It is impossible that an animal is not an animal' one conclude that 'It is necessary that an animal is an animal' (even though one does not want to conclude that, therefore, animals exist necessarily). But, if one states it as 'It is not the case that an animal is not an animal' (or 'It is not the case that an animal is non-animal') –where the negation is taken propositionally, i.e. as meaning 'it is false that...' –, then the distinction between the two sense of the negation is clear (and the two negations cannot be eliminated)³⁷⁹; but it looks like as if the modal strength of the argument has been lost, at least as far as the *de re* reading of modality is concerned.

The confusion in this case seems to be one between the simply assertoric and the modal interpretation of terms like *ens* (and of the predicate *true*), as one can see in Leibniz's reflections throughout the text of the GI (see the first part of Appendix B below, where I mention the most interesting passages).

It has been recently proposed, indeed, that Leibniz's reference to *ens* or *possibile* (taken as synonyms) in the GI has not to be interpreted modally (properly speaking), but only in an assertoric way. This is certainly true as far as Leibniz's logical calculus has to be regarded as way of interpreting the assertoric syllogism and not the modal one (in this sense, one should say that in Leibniz there is not something like a 'modal logic' properly said).³⁸⁰ However,

³⁷⁷ In the GI, the main problem concerns the fact that universal negative propositions, essentially interpreted, are necessarily false. Therefore, given that "No *S* is *P*" is necessarily false, and given an individual $a \in S$, it will follows that "*a* is not *P*" is necessarily as well. In order to do avoid this conclusion, Leibniz resorts to infinite analysis, so that necessarily true and false are only those propositions in which the inclusion of the predicate in the subject can be discovered in a finite number of steps. On this point, see Appendix B below.

³⁷⁸ The similarity has been noted, with reference to sections #92-94 of the GI, by M. Mariani-E. Moriconi, "Il quadrato logico aristotelico nell'interpretazione di Leibniz", in A. Civello (ed.), *Società, natura, storia. Studi in onore di L. Calabi*, Pisa 2015, pp. 137-58, especially p. 147. The similarity between the two shifts, however, plays its more relevant role in the text *De propositionibus existentialibus*, where it seems that these two shifts are placed side by side by Leibniz when coming to the formalization of propositions concerning the modal status of determinate entities.

³⁷⁹ The confusion between the two meanings of negation is at work in # 82 of GI, but it will be corrected in # 92, where, in particular, Leibniz rejects the consequence from 'Non (Every animal is non-man)' to 'Every animal is man', which is similar to the passage above.

³⁸⁰ Cf. Malink & Vasudevan, "The Logic of Leibniz's *Generales Inquisitiones*", pp. 36-7, where they criticize Lenzen's interpretation of Leibniz's logic as a system of strict implication. Cf. in particular what they say at p. 37. They acknowledge that Leibniz equates *true* with *possible* (the first is related to propositions, the second to terms), but conclude that: the fundamental laws of truth and falsity stated in the GI "indicate that, for Leibniz, truth and falsehood when applied to propositional terms [what Leibniz calls 'logical abstracts', which allow him

without a modal interpretation of *ens* as *possibile* (and of *non-ens* as *impossibile*), the kind of reasoning at work in our text could not have been started at all.

Therefore, such a confusion between the modal element and the assertoric one, is not only one of the main source of confusion here, but also the reason why, in order to avoid the (apparently unescapable) necessitarian conclusion, Leibniz resorts to (a) the conditioned sense of necessity in the case of existential propositions like 'Every man sins' ('An existing sinning man is a necessary being' is accepted but interpreted as necessary according to the *necessitas consequenti*, which can be distinguished from absolute necessity only by resorting to infinite analysis); (b) the restriction of the general applicability of the axiom of idempotence, which should not be applied in the case of identical propositions like *Animal animal est ens necessarium*, to avoid the conclusion to *Animal est ens necessarium*.³⁸¹

Both (a) and (b), however, are solutions Leibniz should have been seriously dissatisfied with. In this sense, the solution adopted in the *Inquirenda* should appear to him both more elegant and more in tune with the conceptualist assumptions of his views of abstract and ideal entities.

The connection between the *perelegans sophisma* and the argument in the paper on existential propositions can be confirmed also by another passage, taken from a paper written in the same period as the *Inquirenda*. It is a table of definitions, where 'necessary' is defined as that whose contradictory is impossible ("if *non-A* is impossible, *A* is necessary"). Leibniz's example is, once again: "*circulus non capacissimus isoperimetrorum* est Ens impossibile, ergo to: *non (circulus non (capacissimus isoperimetrorum))* est ens necessarium, adeoque semper existens, nam alterutrum dicit, vel non existere circulum, vel si existat, esse isoperimetrorum capacissimum"³⁸² The way in which Leibniz employs parenthesis (as in the last part of *De propositionibus existentialibus*) perfectly matches with the correct, disjunctive interpretation of the proposition.

As in the *Inquirenda*, indeed, the only legitimate sense in which the essence of circle (the proposition about circle) can be said to be a necessary being is that it "always exists"; where the latter, however, is correctly interpreted according to the conditional reading: either there are no instances of a circle at all, or, if a circle exists, it is the most capacious isoperimetric figure (where it is the implication to be necessitated).

to reduce propositions to terms] do not express possibility and impossibility but instead purely assertoric notions that impart no modal force to the propositions of the calculus". Note also that *possible* is said of a term which does not involve both *B* and *non-B*, where no modal characterization seems to be actually at work. Cf. also Appendix B below.

³⁸¹ The shift from *de dicto* to *de re* reading of necessity has been already connected with the contraposition between necessity of the consequence and necessity of the consequent in the logical tradition concerning sophisms. Cf. the anonymous text analysed by Maierù, *Terminologia logica della tarda scolastica*, pp. 517-18, where a proposition like "Socratem esse animal si Socrates est homo est necessarium" may be understood either *de sensu composito* or *de sensu diviso*. In the first case, necessity is attached to the whole proposition "Si Socrates est homo, Socrates est animal", and, therefore, it has to be understood as a case of necessity of the consequence; in the second case, necessity is read as attached to the consequent of the conditional proposition, i.e. as "Si Socrates est homo, Socratem esse animal est necessarium", but in this case such a proposition is clearly false.

³⁸² Definitiones, 1688-89 (?), A VI 4, 936.

9.6.3 Back to the conditional reading?

I think I have convincingly shown that the whole question discussed so far cannot be reduced just to a terminological question, or to a technical point related to the formalization of propositions. Leibniz's conception of essential propositions as a sort of necessary beings (existing *a parte rei*), indeed, is tightly connected with the development of his account of truth in terms of conceptual containment (which has to be grounded *a parte rei* as well). This view culminates in Leibniz's attempt at proving that hypothetical propositions can be reduced to categorical ones and, ultimately, to relations of containment among (complex) concepts, given that the equivalence between concepts and propositions has been taken for granted.

At the same time, however, the old view that categorical propositions have to be interpreted as conditional ones will never be abandoned by him, and it will emerge again, especially every time that Leibniz seems to be dissatisfied with some of the ontological consequences of his new account of truth (the same story might be told about Leibniz's commitment to the ontological status of possibilia, of course).

In the previous paragraphs, I have focused my attention on the very interesting passage from the *Inquirenda*. A similar point, however, had already been stated in another text, this time one dealing with theological more than logical questions (but, as shown above, the two issues are connected), *De libertate et gratia*, tentatively dated around 1680-84 (but only through external criteria).

What is interesting about this text is that the conditional reading of necessary propositions is explicitly stated in conjunction with the rejection of the 'necessity of the consequent' in the field of factual truths:

"The necessity of the consequence is that which is founded on the principle of contradiction, or on the hypothesis which already involves the very thing that is asked about [*here Leibniz adds a* nota bene]. From this it follows that in matters of fact no necessity of the consequent can exist, i.e. that these matters of fact already involve necessity without any hypothesis, for necessity cannot be demonstrated except through the principle of contradiction, i.e. from the fact that the matter is already supposed. But in propositions of eternal truth the matter is otherwise, because there is not a question of existence, but only of hypothetical propositions. Hence it can be said that no absolute proposition –except that which follows from the nature of God –is necessary. Indeed no being exists through its own essence or of necessity except God".³⁸³

This passage explicitly identifies hypothetical necessity concerning truths of fact (among which existential propositions are included) with 'necessity of the consequence'. Absolute necessity (or necessity without any hypothesis) cannot be ascribed to something existent, with the only exception of God. Consequently, the only absolutely necessary and categorical proposition is that which concerns the existence of God ("that which follows from the nature of God"). All the propositions of eternal truths are to be interpreted as hypothetical (since no question of existence is involved there).

³⁸³De libertate et gratia, 1680-84 (?), A VI 4, 1457-58; translated by L. Strickland (<u>http://www.leibniz-translations.com/freedomgrace.htm</u>).

Notice that the same view very clearly expressed in this passage had already been stated in a series of texts of the end of the 1670's, among which I remember the new version of the *Confessio philosophi*, the conversation with Steno, and the *Elementa verae pietatis*:

[1]"For in this place we call *necessary* only what is necessary *per se*, namely, that which has the reason for its existence and truth in itself. The truths of geometry are of this sort. But among existent things, only God is of this sort".³⁸⁴

[2] "[...] necessity is commonly understood of those things whose existence follows from their essence. And in this manner of speaking only hypothetical propositions are necessary. Of absolute, just this one: God exists, i.e., there is a ground of things".³⁸⁵

[3] "We must answer that [...] there is nothing without a reason, but that does not mean that there is nothing without a cause. For a cause is the reason for a thing outside the thing, or its reason of production, but it is possible that the reason for a thing is inside the thing itself. And this is the case in all those things which are necessary, like the truths of mathematics which contain their reason in themselves; likewise God, who alone among the actual things, is the reason for the existence of himself".³⁸⁶

[4] "With respect to propositions [*ex complexis*], all metaphysical and geometrical truths and any others that can be demonstrated on the basis of terms are necessary *per se*. [...] With respect to non-propositional entities [*Ex terminis incomplexis*], only God is a self-sufficient being, i.e. an absolutely necessary being, whose [essence] involves existence. All others are necessary *per accidens* through the will of God [...]".³⁸⁷

All these passages, [1]-[4], repeat the same point, i.e. that there is a similarity between God and metaphysically (or geometrically) necessary propositions *from the logical point of view*: they are absolutely necessary, i.e. the opposite involves a contradiction *in terminis* (in the case of God, of course, this has to be interpreted as referred to the proposition 'God exists'). However, there is a difference *from the ontological point of view*: whereas God is the only necessary being (in the sense of *necessario existens*), since he exists *per se* (his existence follows from his own essence), necessary propositions are not *per se*, but only hypothetically posited; or, as Leibniz says in [4], they can be said to be *per se* necessary only as 'complex terms' and not as 'incomplex' ones (the same distinction we have already found in Thomasius, by the way).

Understand: given the metaphysically necessary proposition 'All men are rational animal', it does not follow from this that rational men (or just men) exist from themselves, but only that, if God creates men, he cannot but create them according to their essence (which includes rationality). In this sense, God is said to be "the ground of things".

The same point will be furtherly clarified in the 1688 *Specimen inventorum*, where one can read: "The necessary being, if only is it possible, certainly exists. This is the pinnacle of the whole modal theory [*fastigium doctrinae modalis*], and *makes the transition from essences to existences, from hypothetical to absolute* [truths], *from ideas to the world*".³⁸⁸ The sense of this transition (*transitus*) from hypothetical to absolute truths (or from essence to existence)

³⁸⁴Confessio philosophi, end of 1677 (?)A VI 3, 128/CP55

 ³⁸⁵Ivi, textual apparatus at ll. 24 and ff. (this passage has been cancelled by Leibniz from the final version).
³⁸⁶Elementa verae pietatis, 1677/78, A VI 4, 1360/LST 192.

³⁸⁷Conversatio cum domino episcopo Stenonio de libertate, 7 December 1677, A VI 4, 1381/CP 125-27.

³⁸⁸ Specimen inventorum de admirandis naturae generalis arcanis, 1688 (?), A VI 4, 1617, emphasis mine.

has to be explained in terms of God's providing the possibles with a tendency toward existence, by means of which they are said to be 'realized' (see my discussion of *Existurientia* in the previous chapter).

This is what Leibniz states, for instance, in his 1697 *De rerum originatione radicali*, where he famously writes that the passage from eternal, essential, and metaphysical truths to temporal, existential, and physical ones can be explained only by taking into account that "there is an urge for existence [*exigentiam existentiae*] or (so to speak) a straining toward existence in possible things or in possibility or essence itself". Such a 'metaphysical mechanism', however, has to be distinguished from the physical one (the comparison with the heavy bodies discussed by Leibniz himself), since "possibilities or essences before, or rather outside of existence" does not possess this tendency toward existence *per se*, for "existing things cannot derive from anything but existing things". Therefore, "it is necessary that eternal truths have their existence in a certain absolute or metaphysically necessary subject, that is, in God, through whom those things which would otherwise be imaginary are realized [*realisentur*], to use a barbaric but meaningful expression".³⁸⁹

9.6.4 Addendum: Leibniz's account in the New Essays. Conditional or hypothetical propositions?

From the terminological point of view, Leibniz sometimes distinguishes between 'categorical' and 'hypothetical' propositions, other times between 'absolute' and 'conditional' ones. There seems to be no substantial difference between these two conceptual couples (in the passage from *De libertate et gratia* quoted above, indeed, Leibniz contraposes 'absolute' propositions with 'hypotethical' ones).

The only exception seems to be a passage in the *New Essays*, Book IV, xi, 14, where Leibniz maintains that eternal truths are fundamentally ("*dans le fonds*") just *conditional* truths. The example is that of the proposition "Every figure with three sides is also a figure with three angles", which has to be understood as 'If there is a figure which has three sides, then this very same figure will also have three angles'.

What Leibniz stresses is that it has to be the *same* figure (i.e. that, if something is a trilateral, this very same thing is also a triangle), and the identity of the subject is what constitutes the difference between (a) the case of categorical propositions that "can be enunciated without condition, even though they are fundamentally conditional", and (b) the case of those propositions "which are called *hypothetical*", where the subject of the antecedent is not the same as the subject of the consequent, like in the proposition "If a figure has three angles, its angles are equal to two right angles".

In case (b), says Leibniz, the antecedent ("the figure has three angles") and the consequent ("the angles of a figure with three angles are equal to two right angles") do not have the same subject, as it was in the case of the categorical proposition. He says, however, that also the

³⁸⁹ De rerum originatione radicali, 23 November 1697, GP VII 303 and 305 /AG 151-52. Notice the similarity between this passage and Leibniz's remarks to Wagner (quoted above), which belong, more or less, to the same period. Cf. also *Theodicy*, # 189, GP VI, 229: "ces verités mêmes [*eternal truths*] ne sont pas sans qu'il y a un entendement qui en prenne connaissance ; car elle ne subsisteroient point, s'il n'y avoit un entendement Divin, où elles se trouvent realisées, pour ainsi dire".

hypothetical proposition can be reduced to a categorical one, but only through a modification of its terms, like, for instance: "The angles of every triangular figure are equal to two right angles".³⁹⁰

This text is extremely interesting. According to it, indeed, one would have a distinction between hypothetical and categorical propositions based on their 'grammatical' form: hypothetical propositions are those of the form 'If *A* is *B*, then *C* is *D*', whereas categorical ones are those of the form '*A* is *B*', where, however, the latter has to be understood as 'If something is *A*, then this very same 'something' is *B*' (i.e. the conditional form). At the same time, hypothetical propositions can be transformed into categorical ones (reference is to Leibniz's theory of logical abstract as propositional terms, i.e. assuming that '*A* is *B*'= *L*, and '*C* is D = M')³⁹¹. Therefore, from the grammatical point of view, all propositions can be reduced to categorical ones, whereas, from the ontological point of view, all categorical propositions have to be interpreted as conditional ones.

This is the passage where Leibniz comes closer to the distinction I have proposed above. However, one should also acknowledge that it is also a rather exceptional one (at least to my knowledge, and among texts published so far).

In all the other passages (at least those contained in the volumes of the Academy edited so far and in the collection by Couturat), indeed, there is no distinction between hypothetical and conditional propositions. Furthermore, there are passages where Leibniz explicitly calls 'hypothetical' a proposition where the subject of the antecedent is the same as that of the consequent³⁹², others where among hypothetical propositions only propositions of the form 'If *A* is *B*, *C* is *D*' are listed³⁹³, and, finally there is also one passage where a proposition like 'If a wise man is happy, then a just man is not miserable' is explicitly dubbed '*conditionalis simplex*'. And in a text to Des Bosses (discussed in what follows), Leibniz also says that propositions are "absolute or hypothetical, or compounded from these".³⁹⁴

³⁹⁰ New Essays, IV, xi, 14, A VI 6, 446-47. Notice also that the hypothetical proposition "If a figure has three angles, then its angles are equal to two right ones" seems to constitute a case of a conditional which encapsulates an inference *a rectis ad obliqua*, i.e. from a statement in the nominative case ('A figure has three angles') to one in a case different from nominative, in particular (in this case) genitive ('The angles of a figure with three angles are equal to two right angles'). This argument is one of those which are not reducible to the classical form of syllogism, as Leibniz remarks in another passage in the *New Essays*, IV, xvii, 4, A VI 6, 479. There, indeed, he says that there "non-syllogistic valid inferences, which one would not be able to demonstrate in a rigorous way without modifying a little bit the terms" (same thing Leibniz says in the text above concerning the transformation of the hypothetical into the categorical), as in the case of the following: "If Jesus Christ is God, then the mother of Jesus Christ is the mother of God". Notice: I have translated with 'inference' what Leibniz calls *consequence* (or, in Latin, *consequentia*), which, however, is explicitly formulated as a conditional. As many authors before him, indeed, Leibniz does not clearly distinguish between a conditional and an argument/inference, even though he might consider them as equivalent by resorting to the usage of logical abstracts, see below). On the topic of inferences *a rectis ad obliqua*, see Mugnai, "A Systematical Approach to Leibniz's Theory of Relations", pp. 61-65, where the influence of Jungius's *Logica Hamburgensis* is taken into account.

³⁹¹See A VI 4, 811, note 6, and below.

³⁹² See A VI 4, 126.

³⁹³ See A VI 4, 127.

³⁹⁴ GP II, 472/LDB/311. Here both propositions of the form "If *a* is *B*, then *a* is *C*" and "If *A* is *B*, then *C* is *D*" are regarded as hypothetical ones, and no explicit difference between the two is introduced. However, as in the passage from the *New Essays*, the reducibility of universal propositions to hypothetical one is exemplified by a proposition of the first form ("Every man is capable of blessedness", which becomes "If someone is a man, it follows that he is capable of blessedness"); the reducibility of the hypothetical to the categorical, on the other hand, is exemplified by a proposition of the second form ("If a man is capable of blessedness, then it follows that

9.7. Inesse, Conceptual Containment, and the Equivalence

Between Terms and Propositions

As I have shown, the young Leibniz –following a well-known nominalist tradition –privileged the hypothetical reading of necessary truths over the categorical one. At the end of the 1670's, it is still possible to find evidence of this earlier view of him: "Hypothetical propositions cannot be always reduced to categorical ones; however, all categorical propositions can be reduced to hypothetical ones".³⁹⁵ This claim, however, will be dramatically contradicted by what Leibniz will state in the GI and related texts, i.e. that one may reduce reduce hypothetical propositions to categorical ones, and, thus, all propositions to concepts (following a long-standing, Aristotelian view of logic, where terms or concepts are privileged with respects to propositions).³⁹⁶

9.7.1 Summary of the previous sections

In Chapter 3, I have shown how the conditional reading was connected with the idea that the true ontological subject (what the tradition called *subjectum inhaesionis*)³⁹⁷ has to be placed outside of the propositional tie, which, in its turn, is reduced to a connection between two concepts. I have also pointed out that such a view was perfectly in tune with the idea that existence is not a property, since what exists (the ontological subject, the substance) corresponds to the x in the expression 'If x is S, then x is P' (or, in the case of accidental propositions, 'The x that is S is also the x that is P').

Therefore, two relevant consequences are that (a) the dimension of inherence (*inesse*) is clearly detached and distinguished from that of predication; (b) what exists cannot be conceptualized in itself (but only by predicating something of it), since, in itself, it can only be perceived, where the perception of a 'that' is implicitly contrasted with the description of a

his soul is immortal", which becomes "For a man to be capable of blessedness is for the soul of the man to be immortal").

³⁹⁵ De varietatibus enuntiationum, 1678/79 (?), A VI 4, 126. See also Propositiones primitivae, A VI 4, 142-45 ; and

also Cout 252 : "This is the definition or the nature of the affirmative universal proposition, that the predicate of the predicate is the predicate of the subject. "Every B is C" means: if A is B, A is also C[...]".

³⁹⁶ See, for instance, *Specimina calculi rationalis*, 1686 (?), p. 811 (note): "A hypothetical [proposition] is nothing but a categorical, the antecedent being changed into the subject, the consequent into the predicate. For instance, "A is B, therefore C is D", take 'A's being B' as L, and 'C's being D' as M, we will say just "L is M". Therefore, categorical [...] propositions would be enough". See also GI, ## 75 and 137, A VI 4, 764 and 777.

³⁹⁷ Cf. *De abstracto, concreto, substantia, accidente*, 1683-1685/86 (?), A VI 4, 572: "Substantia est quod aliis substat, et cui aliud non substat, seu quod est subjectum inhaesionis aliorum, et cujus nullum aliud est subjectum inhaesionis. Subjectum autem inhaesionis est cum id quod inhaerere dicitur abstractum est, quod de ipso subject praedicatur in concreto".

'what' (the perceived 'thisness' is contrasted with the 'suchness', the knowledge of what a thing is).³⁹⁸

In the essays of August 1677, on the contrary, Leibniz explicitly writes: "Truths arises from natures, or essences [*Veritates oriuntur ex naturis seu essentiis*]".³⁹⁹ What is primarily here, apparently, are general essences (modelled on the example of the truths of geometry), not individual things (particulars). Of course, since in those texts the focus was on truths concerning specific and abstract notions (mathematical ones, in particular), it makes sense that Leibniz explained truth as in terms of conceptual connections (regardless of their existential import). However, it has to be pointed out that propositions which link together essences or natures are said to have an ontological status of their own, they are something *a parte rei*.

The same idea of a conceptual connection holding *a parte rei* will be at the ground of Leibniz's account of truth as conceptual containment, which is mentioned for the first time in his 1678 works on logical calculi. Also in this case, indeed, the inclusion of the (concept of the) predicate in the (concept of the) subject is not something holding just on a logical or linguistic level, but finds a correspondence on the ontological level of essences or natures (conceptual containment at the level of essences or natures).⁴⁰⁰

The preference accorded to the intensional reading of containment over the extensional one has been motivated by the fact that the former (but not the latter) does not imply the existence of individuals. The same result, however, had been achieved by the young Leibniz by resorting to the conditional reading of universal propositions.⁴⁰¹

As far as propositions concerning abstract notions or specific essences are concerned (as in the case of mathematical ones), Leibniz seems to look for a view which conciliates their hypothetical (or conditional) nature (the lack of existential import) with their character of independence and absoluteness. At least, in his notes to Foucher, as noted above, he points out that mathematical truths are among "the hypothetical truths which obtains even though no

³⁹⁸ A third consequence, (c), is the fact that, when the relation between the subject- and the predicate-term is explicitly conceived of as a relation between two concepts (both of them on the same level), then it is not difficult to efface the very same distinction between essential and accidental predication. This point is explicit in Hobbes. As to Leibniz, things are more complicate. In the essays devoted to linguistic and categorical analysis, he makes room for the distinction between essential and accidental properties, but he does not take position as far as the ontological question is concerned (see the passages listed in Chapter 8. 8 above, especially note 213). From the ontological point of view, a distinction between (specific) essential properties and accidental ones can be regained by reference to time, where, say, Socrates cannot cease to be a man as he can cease to be young or white. The question is furtherly complicated because, from the modal point of view, given Leibniz's commitment to super-essentialism, when the individual (and not the general species) is taken into account, it should be impossible for him to have properties which are different from the one it actually has and still be the same individual (or exist).

³⁹⁹ De veritatis realitate, A VI 4, 19.

⁴⁰⁰ The preference for the expression 'conceptual containment' can be explained by the fact that, given the impossibility of a real distinction between essence and existence, one might not talk of essences of purely possible (non-actualized) individuals. Therefore, reference to complete concepts *in mente Dei* is a sort of nominalist *Ersatz* for talking of individual essences before their actualization (a complete concept represents, or stand for, an individual essence, i.e. it would correspond to the latter were it to be actualized).

⁴⁰¹ Parkinson, *Logic and Reality*, pp. 18-9, correctly notes: "It may be replied to Leibniz that this is possible to deny existential import to a universal proposition, not by regarding it intensionally, but by regarding it as a hypothetical proposition. [...] Leibniz would not disagree; he himself sometimes regards the universal affirmative proposition in a similar way, though [...] he prefers the intensional approach". The preference for the intensional approach is motivated by the fact that the hypothetical proposition can be reduced to a categorical one and, thus, to the subject-predicate form (i.e. to conceptual containment). See *Ibid.*, 31-33.

one is thinking them, and they do depend neither on our thought nor on the existence of things".⁴⁰²Here, the hypothetical reading can be interpreted only as far as existence is concerned (the existence of circular things, of couples, etc.), whereas the connection holds at a purely conceptual level.⁴⁰³

9.7.2 PSR: from existence to truth

Things, however, get more complicated, since the conceptual containment account is not limited to the case of truths concerning general essences (as it was in 1677), but applied to the case of singular propositions (concerning individual essences) as well.⁴⁰⁴ Also in this case, truth is no longer conceived of as correspondence with what is actual, but with what is merely possible, insofar as the latter has an essence (i.e. is something holding *a parte rei*).⁴⁰⁵

The extension of truth to the domain of what is possible (which includes also what is actual as a proper part of it) requires also a transformation in the way in which Leibniz interprets PSR. That principle, indeed, has been originally formulated in terms of sufficient conditions for the existence of things (or events or states of affairs): roughly speaking, X is a sufficient condition for Y, if, when X is posited (where X has to be interpreted as a sum of requisites, i.e. necessary conditions), the existence of Y follows. According to the theory of the "full cause", the original idea behind the first formulation of PSR was that of providing a full (i.e. complete) explanation of the existence of something in terms of the conditions which give raise to that thing (a requisite of universal intelligibility, in the sense of Leibniz's universal determinism).

⁴⁰² A VI 3, 313.

⁴⁰³ According to the intensional reading, 'All S are P' is not meant to quantify over *objects* (as in the case of the extensional reading: 'All the objects that fall under S also falls under P'), but over *concepts*, i.e. it says that 'All the concepts which involve S also involve P'. The hypothetical reading, 'If something is S then it is also P', seems to be ambiguous, depending on whether the 'something' is interpreted as an object or as a concept (even though the first reading seems to be the most natural one). This, I think, can be (partially) explained by the fact that Leibniz is assuming that there are complete individual concepts, which are just 'copies' of the individual (object) at the conceptual level. Another reason can be that quantification over concepts is interpreted (from the metaphysical point of view) as quantification over what possibly exists (i.e. something having an ontological status, however weak it could be).

⁴⁰⁴ Cf. *De affectibus*, 12 April 1679, A VI 4, 1441: "A true predicate *a parte rei* is always contained in the nature of the subject; such as *A* is *B*, i.e. *B inheres to A*. Therefore if you perfectly understand *A*, you will also understand that *B* inheres to it, that is the concept of the existence of *A* involves this concept, i.e. that what exists as *A* is *B*. If, from the concept of the essence of *A* (i.e. from the mere possibility of *A*), it follows "*that which is A is B*", the proposition will be necessary or eternal. If, from the concept of the essence of *A*, when the concept of time is added, it follows the proposition: "*that which is A is B*", then the proposition will be contingent". Reference to the existence of a subject which is both *A* and *B* has to be stressed (it makes clear that the ontological subject does not necessarily coincide with the logical one).

⁴⁰⁵ Cf. again Leibniz to Wagner: "The connection between concepts arises from the connection between possible objects or ideas" (Grua 392). Also in this case, notice, one can stress the reference to 'possible objects' (falling into a sort of Meinongian ontology or something like that) or that to 'ideas', which should be read according to a counterfactual reading (something like: the connection between concepts corresponds to the connection which *would subsist* between objects, *had they been actualized* by God). I think the second reading should be preferred, also because it seems to fit better with Leibniz's theory of the striving possibles (where 'possible objects' have to be interpreted according to the *attributive* and not the *predicative* reading); however, I acknowledge that the letter of Leibniz's texts seems to be open to both interpretations.

In Leibniz's mature thought, however, PSR shifts from being a principle about (conditions of) *existence* to being a principle about *truth*. This transformation is only apparently strange, if one thinks that Leibniz's mature ontology makes place not only for existent things (or events or states of affairs), but also for merely possible ones. And, one should add, a merely possible event or state of affairs (or whatever other term you prefer to employ) is just the content (*a parte rei*) of a proposition; or, according to the conceptualist reading, a merely possible event or state of affairs (or whatever) is just a proposition about that, at least as at the level of ideas in God's understanding.⁴⁰⁶

For instance, the proposition 'Man is rational,' corresponds to the state of affairs or the fact 'That man is rational', i.e. is a possible thing (according the conceptualist reading: the proposition 'That man is rational', or, perhaps, the concept 'Rational man', is contained in God's understanding as a creatable one).⁴⁰⁷ Notice, also, that relations of derivation hold between these merely possible states of affairs, or propositions (e.g., 'That man is mortal' is derivable from 'That man is an animal', and so on).

And, given that possibility is to concepts what truth is to propositions, it follows that PSR can be rephrased in terms of every true proposition's being provable, i.e. the inclusion of the notion of the predicate in that of the subject can be perfectly understood by someone who is able to perfectly understand the notion of the subject; which, in the case of individual ones, is an infinite one and, thus, can be seen or intuited by an infinite mind only.

Once again, the question becomes more complex when one moves from general truths to truths concerning (possible or actual) individuals, but the principle is more or less the same. The intelligibility of individuals requires the intelligibility of their causes (in the case of possible individuals, possible causes); therefore, the explanation of what happens to a determinate individual at a determinate time etc., corresponds, at least in principle, to the demonstration that the proposition concerning that particular modification of a determinate individual is true (and, assumed that the complete concept takes the place of the totality of requisites, it is derivable from it).⁴⁰⁸

⁴⁰⁶ A minor problem here is whether God's knowledge is propositional or not. From what Leibniz says (and it is not very much), it seems that God's knowledge is fundamentally a knowledge of concepts/essences (this has to do with the fact that divine knowledge is 'intuitive' in Leibniz's sense, i.e. it is perfectly *adequate* –everything that enters into a distinct notion is also distinctly known, i.e. analysis has been carried to completion –, and is able to consider the notions which enter into a more complex one all together and at the same time); and propositions are in same sense derivative, or, better, they are said to 'result' (whatever this could mean) from merely conceptual knowledge. The sense is the same in which relations are said to 'result from' (or 'supervene on') the positions of their relata. See below.

⁴⁰⁷ Or, to quote the example proposed by Parkinson, *Logic and Reality*, p. 64, that the equality of the angles at the base of an isosceles triangle has a sufficient reason means that the proposition 'The angles at the base of an isosceles triangle are equal' is provable. The evolution of PSR from the requisites for existing to a theory concerning propositions is discussed by Piro, *Spontaneità e ragion sufficiente*, pp. 103-44.

⁴⁰⁸ Leibniz's emphasis on causal definitions, which are to be counted among the real ones, i.e. those which show that the *definiendum*, has to be stressed here. See, for instance, *Discourse*, # 24, where he distinguishes between *causal* definitions (containing the possible generation of the thing) and the *essential* ones (which pushes the analysis back to the primitive notions), A VI 4, 1569/AG 57; *De synthesi*, A VI 4, 542-43. Cf also the correspondence between Leibniz and Tschirnaus, especially Leibniz's letter to Tschirnaus, end of May 1678, A II 1, 413-4; and Leibniz's letter of December 1679, A II 1, 504, where he points out that not all real definitions are causal ones, at least as far as efficient causality is involved ("Itaque ipsa methodus generalis cogitandi me ad hanc optimae definitionis notam duxit [i.e. a real definition must show that the defined thing is possible]: cujus corollarium est tantum quod de causa efficient ajunt").

Of course, the existential dimension, which characterized the first version of Leibniz's PSR is not abandoned; rather, there is a sense in which one can say that it has been refined by Leibniz. The general form of the PSR, indeed, is referred to propositions and their provability, and is counted among the "intellectual first principles of the essence of things". A more specific formulation of the principle, which will be known as the "principle of the best", is concerned only with what is actual, and constitutes the most important among "the intellectual principles of the existence of things": "Of several incompatible possibles, the more perfect exists".⁴⁰⁹

9.7.3 Propositions as complex terms

Leibniz manages to show that the content of a (complex) concept always involves a propositional structure and that, vice versa, every proposition can be taken as a concept (at least, once the possibility of the latter is established). This is the non-problematic part of Leibniz's program. Furthermore, he aims to show that all hypothetical propositions might ultimately be reduced to categorical ones. The reducibility of hypothetical to categorical propositions requires the equivalence between concepts and propositions as a fundamental premise. This (alleged) reduction is more problematic, for several reasons.⁴¹⁰

First of all, it may seem that Leibniz counts among hypothetical propositions not only conditional ones (like "If *A* then *B*"), but, also inferences like '*A* is *B*; therefore *C* is *D*'.⁴¹¹ Something analogous to a 'deduction theorem' would be required in order to grant that the latter can be derived from the former. Something analogous to a deduction theorem, however, is what Leibniz expresses among the principles of his logical calculus in the GI: "For a proposition to follow from a proposition is nothing other than for the consequent to be contained in the antecedent as a term in a term. By this method we reduce consequences to propositions, and propositions to terms".⁴¹²

The principle works once it has been showed that it is possible to read a categorical proposition like a term, so that a proposition like 'If *A* is *B*, then *C* is *D*' can be expressed as '*L* is *M*', because both the antecedent and the consequent can be conceived as terms (i.e. (A = B) = L; (C = D) = M).

This process can be schematized as follows (where the arrows mean only that what is on the left can be 'reduced' to what is on the right):

Hypothetical Propositions \rightarrow Categorical Propositions \rightarrow Terms.

⁴⁰⁹ Definitiones cogitationesque metaphysicae, 1678-80/81 (?), A VI 1394-95/LC 237-39.

⁴¹⁰ See also my discussion of Leibniz's proof of the reducibility of the hypothetical to the categorical in Appendix A below.

⁴¹¹ Cf. Specimina calculi rationalis, 1686 (?), A VI 4, 811, note. The point has been noted by Parkinson, Logic and reality, 34.

⁴¹² GI # 198, 787/LP 85. This is dubbed as 'principle of propositional containment' by Malink and Vasudevan, "The Logic of Leibniz's *Generales Inquisitiones*", p. 18, who also stress the analogy with the deduction theorem: "When Leibniz says that one proposition follows [...] from another, he means that the latter is derivable from the former in the calculus. [...] In Leibniz's calculus, this principle [...] allows facts concerning the inferential relations between propositions in the calculus to be expressed by propositions in the language of the calculus itself". The principle is formalized as follows: $A = B \vdash C = D$ *iff* $(A = B) \rightarrow (C = D)$.

In this way, the entire logic can be understood as a logic of terms, which is the great result Leibniz achieved in the GI. That result was made possible by Leibniz's resorting to his theory of "logical abstracts" and his double reading of propositions .

In a later text (related to the correspondence with Des Bosses), Leibniz summarizes his views in the following way:

"Since abstract predicates are not beings, they are reducible to truths, for example, the rationality of a man is nothing but the truth of this proposition: "Man is rational". From this is evident that simple terms [incomplexa] are often based on complex terms, which nevertheless are posterior in nature to the simple themselves, namely, those between which they make a connection. And, in fact, every proposition, or every complex term, can be reduced, in turn, to a simple term through the "is" of the first predication [primi Adjecti], as it is called. Accordingly, in place of the proposition "Man is rational", I may say "Man's being rational, is", "A rose's being fragrant, is". For certainly this is true, even if by chance a rose does not exist, as in winter".413

The distinction between concepts and propositions is stated in terms of, respectively, cognoscibilia incomplexa and complexa, a traditional one (we have already met it in the discussion of Thomasius, as well as in a passage from the conversation with Steno (see text [4] above).⁴¹⁴

In the first line, Leibniz says that abstract terms are reducible to truths insofar as the former are not things. These are what Leibniz calls 'logical abstracts', which he contrasts with 'philosophical abstracts', i.e. the abstract terms of the Scholastic tradition. Whereas philosophical abstracts (whose acceptability in philosophy is regarded as suspect by Leibniz) are taken to be prior by nature to the concrete (as in the case of universals ante rem), logical abstracts are derived from concrete things, and, thus, posterior to them. If one bears in mind that logical abstracts -'to be wise' (esse sapientem) instead of the philosophical abstract 'wisdom' (sapientia) -are a sort of Leibnizian version of Hobbes' propositional abstracts (expressed in the infinitive form)⁴¹⁵, it will not be difficult to understand why they can be equivalent to truths (as Leibniz says in the New Essays, logical abstracts are le predications *reduites en termes*).⁴¹⁶

⁴¹³Supplementary study to a letter to Des Bosses, 12 December 1712, GP II, 472/LDB 311.

⁴¹⁴ Other times Leibniz distinguishes between *cogitabile complexum* and *cogitabile simplex*, cf. Introductio ad encyclopaediam arcanam, 1683-85, A VI 4, 528-29. For the connection between this distinction and the Scholastic theory of *complexe significabile*, see the references in Appendix B. ⁴¹⁵ Cf. Di Bella, "L'astratto e il concreto", pp. 252-53, and my discussion in Chapter 3 above.

⁴¹⁶ Cf. De abstracto et concreto, end of 1688 (?), A VI 4, 989, note 2, and 992-93; New Essays, III, viii, 1, A VI 6, 333-34. In the latter text, especially if compared to the former, Leibniz seems to show a somewhat positive attitude towards real abstracts as parts of essences or "incomplete beings signified by real abstract terms", saying that they "also have their genera and species, and these are equally expressed by real abstract terms". On the other hand, in Book II, xxiii, 1, A VI 6, 219, he questions the reality of accidents and suggests that they can be reduced to relations. Since relations for Leibniz are to be considered as truths, this view is the same as that he expresses at the end of *De realitate accidentium*, concerning the way of dispensing with abstracts: "Sufficit solas substantias tamquam res poni, et de ipsis enuntiari veritates" (A VI 4, 996). Note, however, that the reality of accidents is strongly defended in a theological context, cf. A VI 4, 2423: "And, in general, it is necessary that, either there are real or, which is the same, absolute accidents, which do not differ from the substance only modally (as usually do those items which we call 'relations'), or every real change will be also an essential one, i.e. a substantial one; a conclusion that is not accepted, even by those who reject real accidents". On this problem, see A. Pellettier, "Leibniz et les accidents réels", in Id. (ed.), Leibniz and the Aspects of Reality, pp. 41-

The other point that has to be stressed is Leibniz's reference to the possibility of transforming propositions (complexa) into concepts (incomplexa) "through the 'is' of the first predication", i.e. through a formulation *primi adjecti*. The same idea has been very briefly presented in *De* abstracto et concreto when Leibniz said that he is able to reduce categorical propositions (like 'A is B') to simple terms "affected by the copula est" (like in 'AB is').⁴¹⁷ This copula has to be taken according to the essential sense, or interpreted as *de possibili*, as the example of the "rose in winter" makes clear. In a marginal note added to this point, Leibniz observes: "Just as every term states a possibility, so every proposition states a truth. [...] From this is evident also how every simple term can be conceived as involving something complex, insofar as it affirms a possibility".⁴¹⁸

If A is a genuine concept (i.e. one not involving a contradiction), then, by means of a reflexive expression, we can immediately state the proposition 'A is possible' (or, equivalently, 'A is an entity').

Already in *De affectibus*, Leibniz has written:

"The definition of *possibility* contains the definition of this *to-be-something* [esse aliquid]. Those things, therefore, have to be explained by what we have said [reference to what he says few lines above that a proposition like 'A is B' means that the concept of B is contained in that of A]. For that thing which is said to be something is the subject, the other is the predicate. A proposition 'A is B' means: if something is A, it is B. With 'is B' one means that the concept of that involves the concept of B. The subject, or that which is said to be something, is that in whose concept [...] the concept of the other (i.e. the predicate) is contained".⁴¹⁹

This does not mean, however, that Leibniz wants to establish the primacy of propositions over concepts, since, as he himself remarks in the passage above, even though "simple terms are often based on complex terms" (i.e. we can express simple terms only in a propositional way), nonetheless, from the logical-ontological point of view, propositions "are posterior in nature to the simple themselves, namely, those between which they make a connection".

9.6.4 From hypothetical propositions to conceptual inclusion

^{59.} Another important text is De abstractis, A VI 4, 573-74, where logical abstracts are discussed in connection with the reduplicative contexts they give rise to. ⁴¹⁷ Cf. A VI 4, 992. See also GI # 109, A VI 4, 770. On the propositions *primi adjecti*, see Mates, *The*

Philosophy of Leibniz, pp. 54-55.

⁴¹⁸GP II, 472, note/LDB 311.

⁴¹⁹ De affectibus, 12 April 1679, A VI 4, 1441. In a marginal note Leibniz adds: "From this it clearly appears that simple notions cannot be understood if not by means of propositions [sine accedentibus propositionibus], at least considered in a reflexive way".' Simple notions', here, refers to primitive notions, which, being not furtherly analysable, can be expressed only by means of a (reflexive) proposition which states their possibility. In the table of definitions, indeed, the notion of *something (aliquid)* or *being (ens)*, a simple, primitive and positive term (according to the GI), is always introduced in predicative way; and the same holds for the negative term nothing (nihil). On the definition of ens in the table of definitions, see A VI 2, 487. The original text is dated 1671-72, but originally Leibniz had written only that "Something is whatever can be conceived". In a later addition, he wrote: "that is, if A is B or C or D, and therefore it is said to be something". On the other hand, "if N is not A and N is not B and N is not C, therefore N is said to be nothing. And this is the sense of what people [vulgo = Scholastic tradition] commonly say, that Nothing has no properties [Non entis nulla esse attributa]" (Ibid. note 2). The same definition will be repeated in almost all the table of definitions of the 1680's, see, for instance, A VI 4, 306, 551, 570, 625, 1506.

The second step of Leibniz's argument (i.e. the reducibility of hypothetical propositions) is stated in the passage which immediately follows:

"Complex terms, or propositions, are absolute or hypotheticals, or compounded from these. [...] All universal propositions can be reduced to hypothetical propositions, just as "Every man is capable of blessedness" is the same as saying "If someone is a man, it follows that he is capable of blessedness". On the other hand, hypothetical propositions can be reduced to absolute propositions by the fact that we have reduced complex terms to simple terms. For example, "If a man is capable of blessedness, it follows that his soul is immortal"; this proposition can be reduced to the following: "For a man to be capable of blessedness is for the soul of the man to be immortal" [hominem esse beabilem est animam hominis esse immortalem]. In this way, as well, every hypothetical syllogism is reducible to the laws of the categorical syllogism. It is preferable to translate everything from terms and propositions into things and truths".⁴²⁰

As the Latin text between brackets makes clear, Leibniz employs logical abstracts in order to obtain the transformation of the hypothetical into the categorical. In this text, however, Leibniz seems to consider on a par the possibility of going from the hypothetical to the categorical as well as that of going from the categorical to the hypothetical.

The survival of the latter (i.e. the interpretation of the categorical as an hypothetical) is important, since it does not conceal the necessity to refer to something as an extra-logical concept (the 'something' which is both man and capable of blessedness can be only an individual). On the other hand, the former seems to be preferred from the logical point of view, since it makes it possible to reduce "every hypothetical syllogism [...] to the laws of the categorical syllogism".

In the first text appended to this Chapter (see Appendix A), I will show that the reduction of the categorical to the hypothetical proposition (a formal proof of which is presented by Leibniz) falls short because is based on the passage from the propositional to the conceptual negation (the reduction works only in the case of complete concepts, not in every case). As far as I can see, this problem is connected with Leibniz's general reductionist program of dispensing with abstract terms (as far as possible) in order to employ only concrete ones (or, better, dispensing with oblique terms in order to employ only terms in the straight case).

On the other hand, however, although Leibniz himself speaks of reducing hypothetical propositions to categorical ones, his reductionism has not to be taken in a very strong sense, i.e. as a form of eliminativism.

First of all, indeed, Leibniz himself acknowledges (in the text to Des Bosses) that reduction can go in both directions, even though, from a certain point of view, the one going from the hypothetical to the categorical seems to be naturally prior, given the primacy of terms over propositions. Second, as shown in the Appendix A, the alleged reduction (the proof of equivalence) succeeds only when individual concepts are taken into account (whereas it fails when general concepts are considered).

Third, as it has been noted, Leibniz does not state that propositions are just terms (or concepts) in disguise, but only that all propositions can be conceived of as terms (thanks to the introduction of logical abstracts). In this sense, in the GI, Leibniz maintains that the logical abstract B esse A (A's being B) "arises" (oritur) from the proposition A est B. In a

⁴²⁰GP II, 472-73/LDB 311-13.

similar way, there is no passage where Leibniz states that hypothetical propositions are just categorical ones in disguise, as if they might be explained away.⁴²¹

However, there is a sense in which Leibniz aims to show how everything can be grounded on the basic logical/ontological structure of conceptual containment. The scheme presented above, concerning the reducibility of propositions to terms, indeed, can be paired with the following one:

Syncategorematic Terms \rightarrow Categorematic Terms \rightarrow Conceptual Inclusion (*Inesse*)

In this sense, I agree with the view of those who emphasizes that Leibniz's intention is that of showing that all ontological relations (especially those between individual concepts and general ones, and also those between species and genera, and so on) may be ultimately understood as grounded on the general relation of *inesse* as conceptual containment, but without completely blurring the differences between these levels (like the difference between the genus-species and the species-individual relation).⁴²² This program was probably connected with the other one (also discussed in the GI and elsewhere) of a language in which all terms are expressed in a direct case, dispensing with all particles and oblique terms. Again, this program might be also connected with Leibniz's (more or less) reductionist program about relations, especially when the latter is aimed to show that "Every extrinsic difference is grounded in an internal one, and every perceptible difference is grounded into an intelligible one".⁴²³

Once again, I think, the main problem is that of correctly understanding the sense of this 'grounding', or, which is the same, how propositions can be said to 'arise from' terms. If one understands it in a strongly reductionist or eliminativist sense, indeed, it seems that Leibniz's program has to face insuperable obstacles. For instance, the possibility of dispensing with oblique terms and particles (which makes the pair with a pure combinatorial account) seems to be blocked by the impossibility of a complete reduction of relations of connection to relations of connections, however, stand to relations of comparison as individuals (actually or possibly existing ones) stand to general essences. Now, that existence is grounded on essence is a well-known Leibnizian thesis (to exist is nothing but to be the most perfect, and perfection is only a degree of essence). However, concluding that, therefore, existence is reducible to essence would not be correct (at least without destroying the distinction between

⁴²¹ This has been remarked by both Parkinson, *Logic and Reality*, 32-33, and Malink & Vasudevan, "The Logic of Leibniz's *Generales Inquisitiones*", pp. 38-39.

⁴²² Cf. Rauzy, *La doctrine leibnizienne de la vérité*, pp. 105-06. See also S. Di Bella, "Leibniz et l'inhérence", *Archives de Philosophie*, 77, 1, 2014, pp. 17-42.

⁴²³ "Omne discrimen ab externo fundatur in discrimen interno, et omne discrimen perceptibile, fundatur in cogitabili" (A VI 4, 870). As always in Leibniz, logical and metaphysical questions, however distinct, should not be dissociated. The reason of certain technical solutions, indeed, makes much more sense from the point of view of a monadological metaphysics. The idea is that something like the proposition 'If Caesar is victorious therefore Pompey will be angry', when translated as 'The victoriousness of Caesar contains the future angriness of Pompey' seems to fit very well into a metaphycal context in which, after all, everything which ultimately exists are series of monadic states, i.e. in which the cause-effect relationship or, on another level, the antecedent-consequent relationship, has to be properly understood as the relation of containment between two monadic states .

the possible and the actual, the complete concept and the corresponding individual, and so on).

9.8. Is Existence a Reducible Notion?

If I added those previous reflexions is only because there are passages where Leibniz seems to describe a connection between the derivability of propositions from the concept-inclusion with the derivability of existence (or, better, existential propositions) from essence (essential propositions).

One of these passages is to be found at the very beginning of an important paper of Leibniz's middle period:

"An affirmation in which the predicate is included in [*inest*] the subject is true. Therefore, in every true affirmative proposition, necessary as well as contingent, universal or singular, the notion of the predicate is contained in a certain way in the notion of the subject; therefore, someone who perfectly understood the notions of both of them –in the way in which God understands them –, he, for this very same reason, would see the inclusion of the predicate in the subject. It follows from this that every knowledge of propositions which takes place in God –be it knowledge of simple understanding (concerning the essences of things), or knowledge of vision (concerning the existence of things) or middle knowledge (concerning conditional existences) –immediately results from the perfect understanding of each term which can be the subject or the predicate of a certain proposition. In other words, the *a priori* knowledge of complex things arises from the understanding of incomplex ones".⁴²⁴

This passage explains why the primacy of terms over propositions does not concern only Leibniz's logical calculi. As remarked in the last line, indeed, "the *a priori* knowledge of complex things arises from the understanding of incomplex ones". The latter is explained by the long sequence where Leibniz describes God's knowledge of simple understanding (which concerns the essences of things), middle knowledge (which concerns conditional existence, i.e. purely possible individuals), and knowledge of vision (which concerns actual individuals) in terms of his knowledge of necessary and contingent propositions (knowledge of general essences is necessary, knowledge of individual essences, possible and actual, is contingent, being connected with the idea of creation).

9.8.1 Divine knowledge again: A place for 'scientia media'?

The main problem is that all divine knowledge "immediately results from the perfect understanding of each term which can be the subject of the predicate of a certain proposition" (notice the connection with the truth as conceptual containment, stated at the beginning of the text). The reduction of the so-called 'middle knowledge' (*scientia media*) to God's knowledge of the possible (*scientia simplicis intelligentiae*) is a well-known Leibnizian move, which resorts to his idea that each possible world is completely determined, i.e., which is the same, that each individual is completely determined at the level of mere possibility. In

⁴²⁴De natura veritatis, contingentiae et indifferentiae, 1685-86 (?), A VI 4, 1515.

this way, one would have three distinct objects, the essences of things (i.e. specific essences), conditioned existences (i.e. possible individuals) and actual existences (i.e. actual individuals), but only two kinds of knowledge, since the first two objects are both included under God's knowledge of what is possible (i.e the presence of an infinity of possible worlds in God's understanding), while the latter (actuality) is the object of God's knowledge of vision.⁴²⁵

A first difficulty arises here, however; for, according to the traditional theological account (which Leibniz seems to follow quite faithfully), the distinction between knowledge of the possible and knowledge of the actual corresponds to that between God's pre-volitional knowledge and his post-volitional knowledge, where reference to 'divine will' has to be understood in terms of the causal efficacy of the latter. What actually exists, indeed, is what the Scholastic tradition called *esse rei extra causas*, where, however, to exist 'out of the causes' requires the intervention of divine will. This explains why, according to the traditional bipartition, while the object of knowledge of vision, i.e. what is actual, is contingent, the object of knowledge of simple understanding, i.e. what is possible, is necessary (one can understand it as the idea that what is possible is necessarily so, whereas what is actual, being an object of free creation is contingent).

Now, the domain of conditioned existences (e.g., what would have happened to Peter had God created another world), was regarded by Jesuit theologians as the object of a third and distinct kind of knowledge (middle knowledge), exactly because it has to be conceived of as both pre-volitional (prior to God's act of creation) and contingent. By rejecting the existence of a distinct kind of knowledge, intermediate between that of the possible and that of the actual, however, Leibniz is at pain at making sense of the situation in which there is something which is the *contingent* object of a *necessary* knowledge; this is one of the reason why, sometimes, Leibniz prefers to reduce middle knowledge to knowledge of vision.⁴²⁶

That conditioned existences (i.e. possible individuals, or, better, non-actualized individual concepts) correspond to what Leibniz sometimes calls "contingent possibles" clearly emerges from those passages in which he discusses the topic of *scientia Dei*. For instance, in a text connected with the discussion with Bayle, he noted that knowledge of the possibles is called knowledge of simple understanding, and that it embraces both (a) possibles and their mutual connections (therefore, all necessary truths), and (b) "contingent possibles and their mutual

⁴²⁵ This is the kind of solution officially presented in # 42 of the *Theodicy*, GP VI, 126/H 149-50. On middle knowledge see also M. J. Murray, "Leibniz on Divine Foreknowledge of Future Contingents and Human Freedom", *Philosophy and Phenomenological Research* 55, 1, 1995, pp. 75-108; F. Mondadori, "Leibniz against the Society: Futuribilia without Scientia Media", in *Leibniz und Europa. Akten des VI Int. Leibniz-Kongr.*, pp. 495-504; M. Mugnai, "Leibniz e i futuri contingenti".

⁴²⁶ Cf. A VI 4, 1660-61/AG 99, and Grua 349. The distinction seems to be based on the mismatch between ontology and modality I have already pointed out above. When the distinction at stake is one between necessary and contingent propositions, i.e. between those propositions which are grounded on general essences and propositions which are grounded on singular, individual essences, middle knowledge (being knowledge of contingent propositions about merely possible individuals) must be paired with knowledge of vision (for the latter is contingent). On the contrary, when the distinction is one between the possible and the actual, middle knowledge must be paired with knowledge of simple understanding, for the latter is knowledge of what is merely possible. Concerning the first point, see also Leibniz's remarks on Twisse, Grua 350: "Knowledge is twofold, i.e. of what can be demonstrated and what cannot be demonstrated. Knowledge of what cannot be demonstrated is either middle knowledge or knowledge of vision; the former is of possible things, the latter of actual ones". This is also the main reason why middle knowledge is paired with knowledge of vision in those texts where Leibniz emphasizes his infinite analysis account of contingency.

connections, and, therefore, also conditional futures, i.e. what would follow from a given contingent thing, even though in this kind of connection is also contingent, and not necessary", and that is why what is commonly called "middle knowledge" has to be recollected under knowledge of simple understanding.⁴²⁷

Therefore, as Leibniz makes clear, the connections between possibles which constitute a possible world consist of both 'necessary' connections between essences of kind (a) and of 'contingent'⁴²⁸ connections between individual essences of kind (b), among which one should count relations of connection between possibly existing individuals (the order which constitutes the very same possible world as a *series rerum*), and, therefore, also relations of cause and effect (taken as possible).

This is why, in the correspondence with Arnauld and other texts concerned with the issue of contingency, the topic of 'intrinsic-but-contingent' connections is discussed by resorting to "possible decrees" (i.e. possible causes again). Notice also the way in which Leibniz formulates the kind of connections involved in (b), i.e. the example of a counterfactual about a future contingent event: "quid ex dato aliquo contingenti sit secuturum", where the future form of the participle (which has to be interpreted as 'what would follow', or, better, 'would have followed, had another world been actualized') recalls the way in which Leibniz characterizes the kind of existential possibility that is proper of purely possible individuals, i.e. their existurientia (since, as I have shown in Chapter 8 above, existurientia is a substantive derived from existiturus sum).

9.8.2 Contingency, individuality, and possible existence

In a sense, Leibniz himself seems to acknowledge that knowledge of what is possible can be taken in a large as well as in a strict sense, depending on whether one wants to consider contingent possibilities (those which concern possibly existent individuals) as part of the 'realm of the possibles', and, thus, ascribe them to the domain of the understanding; or, on the contrary, to stress the distinction between necessary possibilities (i.e. general essences and

⁴²⁷ GP III, 30. Cf. also the similar presentation in *Causa Dei*, ## 14-15, GP VI, 440: "Possibilium est, quae vocatur Scientia simplicis intelligentiae, quae versatur tam in rebus, quam in earum connexionibus, et utraque sunt tamen necessariae quam contingentes. [...] Possibilia contingentia spectari possunt tum ut sejuncta, tum ut coordinata in integros mundos possibiles infinitos [...]".

⁴²⁸ Once again, remember that here 'necessary' and 'contingent' should not be understood in terms of possible worlds semantics, i.e. as true at every/true at some possible worlds (otherwise, given Leibniz's commitment to the view that individuals are world-bound, it clearly follows that truths about merely possible individuals are necessary). In the latter sense, however, there is no way to make sense of Leibniz's claim that connections between possible things can be contingent, since actual existence only has to be regarded as contingent (i.e., in the case of 'Peter is a denier', it is only the existence of Peter to be contingent, whereas the inclusion of denial in the concept of Peter must be necessary). In this case, I believe, the conflation between the couple 'necessary/contingent' and the couple 'essential/accidental' is only a source of confusion. Without prejudice to the fact that it is very difficult to provide a non-modal definition of what is an essential property; the only alternative, indeed, is to assume that 'essence' and 'essential' are primitive and modal notions are derivative ones. The latter seems to be the perspective adopted in the texts of 1677, cf. A VI 4, 17: "Necessary truths follow from natures. Therefore, also natures are eternal, not only truths"; and A VI 4, 19: "Truths arise from natures or essences". Those passages show some resemblance with the view, now defended by Kit Fine and others, that necessity is grounded on essence, not vice versa. As far as Leibniz is concerned, however, this perspective seems to be limited to the domain of specific and general essences. See my discussion in the Introduction above.

eternal truths in a proper sense) and truths which concern possible individuals, which might be equally ascribed to the field of conditional existence (as the proper object of the middle knowledge).

The first account is nicely exemplified by the following passage from the *Theodicy*:

"Evil springs from the Forms themselves, in their detached state, that is, from the ideas that God has not produced by an act of his will, any more than he produced numbers and figures, and all possible essences which one must regard as eternal and necessary; for they are in the ideal region of the possibles, that is, in the divine understanding. God is therefore not the author of essences in so far as they are only possibilities. But there is nothing actual to which he has not decreed and given existence; and he has permitted evil because is involved in the best plan existing in the region of possibles, a plan which supreme wisdom could not fail to choose".429

Since the time of the *Confessio philosophi*, this strategy is functional to the justification of the presence of the evil in the world, as Leibniz clearly asserts in the last part of the quotation. Evil is unpreventable since it belongs to the very same 'essence' of that series of things which, from the global (and not from the local) point of view, is the most perfect one; and since God himself cannot modify the essences of things, he cannot but permit the existence of evil when he decided to actualize such a world. From the claim that "God is [...] not the author of essences in so far as they are only possibilities", the conclusion seems to follow that all truths about possibles are all necessary.⁴³⁰

The second account, on the contrary, is typically exemplified by the following passage from the Causa Dei:

"Knowledge that is commonly called 'intermediate' has to be collected under knowledge of simple understanding [...]. However, if someone prefers to posit a certain intermediate knowledge between that of pure understanding and that of vision, he could do that; he could also conceive of that in a way different from the way in which it is commonly understood [by the Schoolmen], i.e. not as concerning only conditioned futures, but the entire field of contingent possibles in general. In this way, knowledge of simple understanding will be assumed in a restricted sense, i.e. as dealing with truths which are both necessary and possible, whereas middle knowledge will deal with truths which are both contingent and possible, and, finally, knowledge of vision of truths which are both contingent and actual. And the intermediate one will have in common with the first the fact of dealing with possible truths, and with the second the fact of dealing with contingent ones". 431

As always, Leibniz seems to believe that this second account is perfectly compatible with the first one. According to the former, however, contingent possibles are taken on a par with general essences (necessary truths), since they both inhabit the domain of 'eternal truths', and contrasted with the domain of the actual. In this case, however, one does not see how one can

⁴²⁹ *Theodicy*, # 335, GP VI, 313-4/H 330.

⁴³⁰ Commenting the passage above, Blumenfeld observes that "Leibniz denies that God can affect the possibles and asserts flatly that truths about pure possibles are necessary" ("Leibniz on Contingency and Infinite Analysis", p. 506. The claim that what is possible has the property of being possible in an absolute way and in the region of the ideas is equivalent to the claim that it is contradictory for an element A of this region of ideas (i.e. of possibles in themselves) not to be possible; therefore, it follows that, if A is possible, it is necessarily possible ($\Diamond p \rightarrow \Box \Diamond p$ is the characteristic axiom of *S5*). Cf. Poser, *Zur Theorie der Modalbegriffe*, p.59. ⁴³¹ *Causa Dei*, # 17, GP VI, 441. The same view is presented in the notes to Burnet, # 16 a (DPG 75-76/ Lalanne,

^{61).} In # 49 middle knowledge is simply reduced to knowledge of simple understanding.

possibly avoid the conclusion that necessity corresponding to the pre-volitional character of God's simple understanding be transferred to the truths concerning possible individuals as well. Accordingly, the conclusion would follow that truths about merely possible non-actualized things are necessary, as many interpreters –from Russell onwards –have constantly repeated. Furthermore, it seems to be in tune with the Russellian view that existence is the only contingent feature an individual (or a world) can have.

The other account (the one sketched in the *Causa Dei*), on the contrary, makes room for contingent predicates at the level of what is purely possible (i.e. of what is true of a possible individual). The drawback, however, is that it seems to be in contrast with the univocal reading of existence as 'actuality', which is the core of what (in Chapter 7 above) I have dubbed Leibnizian actualism.

If we go back to what I have shown in the previous chapter concerning 'possible existence', however, there is a way to weaken the contrast between these two apparently irreducible accounts.

First of all, even in those passages in which Leibniz puts forth the strategy based on reduction of both possible individuals and possibilities to eternal truths, he does so (paradoxically as it may be) not in order to blur necessary and contingent truths, but, on the contrary, to strengthen the distinction between these two. One of the main reasons why Leibniz insists that the actual decree (i.e. "the resolution he forms, after having compared all possible worlds, to choose that one which is the best, and bring it into existence with all that this world contains") changes nothing in the constitution of things is just because this means that God's will (i.e. efficient will) cannot alter it in the passage from possibilities remains necessary as well as what is contingent at the level of mere possibilities remain contingent. God leaves everything "just as they were in the state of mere possibility, that is, changing nothing either in the essence or nature, or even in their accidents [...]", therefore, "that which is contingent and free remains no less so under the decrees of God that under his prevision".⁴³²

The confusion, I think, originates from the fact that, on the one hand, Leibniz associates the distinction between necessary and contingent properties with that between essential and accidental ones, where the latter are not defined in modal terms (i.e. in terms of truth at possible worlds); on the other hand, however, the connection between his theory of complete concepts and the idea of possible worlds invite us to think that his main account of what is essential has to be defined in modal terms, i.e. in terms of what is true at every possible world (or, perhaps, at every world in which the subject of the proposition occurs). In the latter case, however, it is easy to see that all the properties of an individual turn out to be essential to him, and that the distinction between necessity and contingent is provided by existence alone.

Conversely, even when taking into account the point of view defended in the *Causa Dei* and in all the other texts in which emphasis on the existence of a class of contingent possibles is stressed, one can still conclude that contingency is primarily something which has to do with the idea of existence, since the fundamental notion at stake here is that of a 'possible creation', which involves in itself the idea of the 'possibility of existence' (which is the same thing that, in the text above, is called 'conditioned existence').

⁴³² *Theodicy*, # 52, GP VI, 131/H 154-55.
Leibniz, indeed, regards the "knowledge of the possible" as involving both possibles in themselves and their connections (connections are said to be what should be followed when something else is posited into actuality: another reference to the conditional account of propositions); but connections can be either necessary or contingent. Necessary connections, as those exemplified by the definitions of geometrical notions, are exactly those which imply no reference to an individual, i.e. to something which either actually exists or can be conceived of as existing (as something with an exigency toward existence, Leibniz would say). The very same notion of an individual, indeed, presupposes the notion of existence, since what distinguishes the former from the notion of an abstract notion (an essence) is exactly that relation-with-a-subject (*subjectio*) which brings within itself all the system of relations of connexion which hold among the members of each possible world. (All these relations are contingent in the sense of being not metaphysically but just hypothetically necessary).

9.7.3 An objection concerning necessary predication

A problem with this solution, which ultimately connects contingency with existence only through individuality (the level of individuals, possible or actual, vs. the level of general essences), is that it seems to make contingent a class of truths that one would normally like to take as necessary. According to what I have said so far, indeed, the only absolutely (or metaphysically or geometrically) necessary propositions would be those of the form "Man is rational"(or "The circle is the most capacious isoperimetric notion"); but propositions like "Peter is rational" or "Peter is a man" would turn out to be contingent.

This criticism has originally been moved against Russell's interpretation of contingency in terms of existence:

"On Russell's view, then, 'Caesar crossed the Rubicon' is necessary in the hypothetical sense that anyone who answered to the individual concept of Caesar would cross the Rubicon; but it is a contingent fact that such a person exists, and so 'Caesar crossed the Rubicon' is only contingently true in the real world. This account of contingency would not have satisfied Leibniz. One symptom of the problem is that all the properties of a contingent existent are contingent. For example, 'Caesar is a man' would be counted just as contingent as 'Caesar crossed the Rubicon', and so it would be said that Caesar is only contingently a man''.⁴³³

First of all, let me say that for Russell 'Caesar crossed the Rubicon' is contingently true because Caesar does exist in the actual world, whereas a proposition like 'Pegasus is a winged horse' is necessarily false since there is no world where Pegasus actually exists. According to what I have said before, assuming that Pegasus stands for a complete concept (and not for the

⁴³³ P. Maher, "Leibniz on Contingency", *Studia Leibnitiana*, 12, 1980, 236-42, p. 238. Cf. also Vailati, "Leibniz on Necessary and Contingent Predication", p. 200: "In general, any attempt to find the root of contingency in existence is bound to fail for the following reason. If one says that [the proposition "Peter denies Christ"] is contingent because Peter could have not existed, then all propositions having Peter as a subject are contingent. But [...] Leibniz allows necessary predication of contingently existent individuals". I suspect, however, that necessary predication of contingently existent individuals has to be interpreted in an existential, not in an essential sense.

incomplete description of a generic winged horse), also the proposition 'Pegasus is a winged horse' should be taken as contingent (in the Leibnizian sense). The main idea, indeed, is that, necessarily, if God had created a thing which is Pegasus, he would have created a winged horse (assuming that the notion of a 'winged horse' is not a contradictory one, as I suspect it would be for Leibniz, at least if he was still committed to a form of essentialism based on the Porphyrian tree).

That said, the main objection raised in the passage above hits my interpretation as well, since it seems that one must conclude that 'Peter is a rational animal' is as contingent as 'Peter denied Christ', but this seems to be at odd with the idea that Peter cannot exist without being a rational animal (or, alternatively, Peter cannot be Peter without being a rational animal), whereas Peter could exist without denying Christ.

A first way to answer this objection is to show that Leibniz makes room for a distinction between temporal and permanent properties even within the framework of what has been called his 'superessentialist' theory.⁴³⁴ For instance, B. Mates clearly states that there is no implausibility in assuming that 'Caesar is a man' is contingent, when the latter is equivalent to 'Caesar the man is an existent'. That said, "Leibniz would add, however that [...] the attribute of being a man is essential to Caesar, as it is an attribute that he has *at all times*"⁴³⁵, whereas the property of crossing the Rubicon would something which holds only *de certo tempore*. I have also showed that, in his analysis of existential propositions Leibniz seems to envisage a distinction between existential propositions *de certo tempore* and *abstrahendo a tempore*.

As Leibniz himself remarks, after all, one should distinguish between those properties which belong to the essence of a thing and those which belong to its notion (i.e. to its complete concept): "Those properties which belong to a thing necessarily and perpetually, belong to the essence of it; on the contrary, those which belong to it contingently or accidentally, or those which God sees when he has perfectly understood the thing itself, belong to the notion of a singular thing".⁴³⁶ The 'also' makes clear that the complete notion of an individual thing involves both accidental and essential (=perpetual) properties, but, as Leibniz himself writes

⁴³⁴ Resorting to the distinction between two ways of charactering the notion of 'essential property' discussed in the previous chapter, one could say that, given a proposition like 'Peter is the denier of Christ', 'to be a denier of Christ' is an essential property of Peter (in the sense of Leibnizian *superessentialism*), for it is true: ' \Box (\exists y (y = Peter) \rightarrow Peter is a denier of Christ)'. Assuming that the notion of Peter is a consistent one, one might also say that ' $\Box \exists$ y (y = Peter) & Peter is a denier of Christ', for we are assuming a logical notion of 'existence', one which picks out a notion in the space of possibilities (divine understanding), and we are saying that that notion cannot be different from what it actually is. In this sense, note, the same notion of essential property holds in the case of individual as well as of general essences, and, moreover, one makes sense of the claim that what is possible is necessarily possible (since this is just the trivial fact that the complete concept of Peter cannot be different from what it is, otherwise it would be the concept of a different individual). On the other hand, if we read 'Peter is a denier of Christ' according to the second reading of an essential property, that is, replacing the logical notion of existence with that of actuality, we have that 'denier of Christ' is an essential property of Peter (assumed that the notion of Peter is a consistent one) means ' \Box (Peter is actual \rightarrow Peter is a denier of Christ), from which one cannot conclude that Peter might refrain from being a denier of Christ, but only that Peter might not have existed (the existential notion of contingency).

⁴³⁵ Mates, *The Philosophy of Leibniz*, p. 113 note 29. It has been pointed out that, if one accepts Leibniz's claim about the fact that what we call 'death' is just a transformation, even a proposition like 'Caesar is a man' would be no longer true *at all times*. Cf. G. Rodriguez Pereyra-P. Lodge, "Infinite Analysis, Lucky Proof and Guaranteed Proof in Leibniz", *Archiv für Geschichte der Philosophie*, 93, 2011, 222-36, p. 230. The topic is a very delicate one, since it involves Leibniz's reflections concerning the preservation of identity true time and the ontology of change. Cf. his discussion in *De mutationibus*, VE 172-75, as well as in the *New Essays*. ⁴³⁶ *De libertate creaturae rationalis*, 1686 (?), A VI 4, 1593.

in the last lines on the paper on existential propositions (discussed above): "*In veris individuis existentibus omnes propositiones etiam essentiales sunt simul existentiales*". It is plausible to conclude, then, that Leibniz would subscribe the view that, even though it is true that individuals have essential properties (in the temporal sense clarified above), this does not mean that he also assumes that propositions about individuals (be they actual or not) are necessary.⁴³⁷ As it has been pointed out, this seems to be "confirmed by the fact that [Leibniz] typically does not mention any propositions about individual things (other than God) as being necessary", whereas the typical example of "metaphysical or absolutely necessary truths are those of Logic, Mathematics, Geometry and similar ones".⁴³⁸

Once again, this seems to fit well with the perspective, adopted by Suárez and others, according to which "All the men are animal" has to be interpreted as: "If God does create something that is a man, he cannot but create also an animal", where the connection between 'man' and 'animal' is an absolutely necessary one, whereas to be contingent (i.e. connected with the idea of creation) is the possible existence of human individual.⁴³⁹

Of course, this whole account fails if one adopts the perspective at work in Leibniz's *De* propositionibus existentialibus, where the possibility of reading 'existent' as a constitutive term of the notion of the subject –and not just as a sort of meta-linguistic predicate (depending on whether you read the predicate 'is an Entity'/'is a Thing' as referred to a domain of existent or merely possible things) –allows you to move from the truth of (1) ' \Box (Peter exists \rightarrow Peter denies Christ)' to that of (2) ' \Box (Peter-existent denies Christ)', even though this derivation seems to follow from Leibniz's assumption concerning the mutual convertibility between the categorical and the hypothetical proposition (note, however, that (2) is problematic only if one assumes Leibniz's controversial ideas about 'necessary existence' adumbrated in *De propositionibus existentialibus*). ⁴⁴⁰ Be it as it may, this is another reason

⁴³⁷ Cf. Rodriguez Pereyra & Lodge, "Infinite Analysis", p. 231. They refer to a very interesting passage from the *New Essays*, III, vi, 4, A VI 6, 305: "I believe that there is something essential to individuals, and more than there is thought to be. It is essential to substances to act, to created substances to be acted upon, to minds to think, to bodies to have extension and motion. That it, there are sorts or species such that *if an individual has ever been of such sort or species it cannot (naturally, at least) stop being of it*, no matter what great events may occur in the natural realm" (italics mine). As pointed out by Rodriguez Pereyra & Lodge (p. 230), what Leibniz means here is that "it is necessary that, if something is a substance, it acts, and that it is necessary that, if something is a natural is another reference to the domain of God's ordained power (as I have pointed out in Chapter 7).

⁴³⁸ Rodriguez Pereyra & Lodge, "Infinite Analysis", p. 232. This conclusion find another confirmation in what Leibniz says in #130 of the GI, cf. Appendix B below.

 $^{^{439}}$ This reading, however, would be in contrast with the passage from DM V, v, 3, which I have quoted in Chapter 1 above, where Suárez assumes a strong super-essentialist position, claiming that: "It is as necessary for Peter to be this man, as it is for man to be under animal", i.e. the relation of inclusion between species and genera has the same modal status of that between the individual and the species. The first part of the quotation (the same necessity holds in 'Peter is man' and 'Peter is this man') might be compatible with what I say in the main text, but the second is not; notice that Leibniz's oscillations concerning the similarity/difference between these two kinds of relations (species-to-genus, individual-to-species) has been already discussed by Russell, who correctly notes that the idea that "there is no difference between these two relations [...] is inconsistent with his [Leibniz's] notion of individual substance", cf. Russell, *A Critical Exposition*, # 26, p. 73.

⁴⁴⁰ Vailati, "Leibniz on Necessary and Contingent Predication", p. 199 employs the derivation of (2) from (1) as a counterexample to the Russellian view (arguing that, since the notion of 'existence' cannot contain that of 'denier of Christ', it follows that the notion 'denier of Christ' must be necessarily contained in the notion of Peter). Furthermore, he also points out (p. 200) that Leibniz uses the ontological argument, which would be circular if every true predicate presupposes the existence of the subject. In my reconstruction above, I have also pointed out that Leibniz's doubts about the notion of 'necessary existence' seem to be in contrast with the

for not taking Leibniz's reduction of the hypothetical propositions to the categorical ones as a strong reductionist (or even eliminativist) attempt.

9.8.4 Existence and Actuality

Summarizing what I have tried to show so far, I have suggested a way of conciliating Leibniz's apparently contrasting views concerning middle knowledge and the occurring of contingent predicates at the level of what is merely possible (when we are talking of possible individuals). Once again, this is only apparently in contrast with the univocal account of 'existence', since Leibniz himself implicitly suggests of reading "conditioned existences" in a counterfactual way. This is particularly clear in another passage of Leibniz's remark on Burnet:

"Foreknowledge both preceding a decree concerning the existence of the foreseen thing and obtaining independent of the decree is not pure, that is, representing something absolutely future. Instead it arises out of the bare consideration of possibles; and it does not involve actual existence, but hypothetical, as though God sees what there is in a given thing and, once it is admitted as part in a given series, he sees it in the whole series. And once having admitted one of them into the state in a temporal series, it will take place in the future time [= in actuality]".⁴⁴¹

The counterfactual reading has been already presupposed in the account of creation provided in section 14 of the *Discourse*, where he says that the "result of each view of the universe, as seen from a certain position [the 'point of view'] is a substance which expresses the universe in conformity with this view, *should God see fit to render his thought actual and to produce this substance*".⁴⁴² The passage above adds to this picture the clear distinction between actual existence and conditioned one, where the latter represents just God's act of seeing what happens in a possible world (taken *in toto*) if a given individual is assumed as a part of it, and what would happen if that very same individual were to be actualized, i.e. admitted into "the series of time".

Note also that these counterfactuals (concerning God's alternative creations) are to be taken as primitive ones, i.e. they cannot be analysed in terms of the possible-worlds analysis of

ontological argument. I think that Leibniz's way of keeping together these two issues was represented by his theory of the exigency of existence, which allows him to conclude that existence follows necessarily in the case of God, and only conditionally in the case of created things. From the theoretical point of view, admittedly, the solution is not a very convincing one, although I suspect that this is Leibniz's considered view on the argument. ⁴⁴¹ Notes to Burnet, # 25 e, DPG 89/Lalanne 83: "Praescientia decretum de rei praescitae existentia praecedens et a decreto independens non est pura <aut aliquid futurum absolute repraesentans>, sed orta ex nuda consideration possibilium; et existentiam <non> actualem involvit, <sed hypotheticam: ut scilicet videat Deus, quid, data re, et datae seriei parte admissa, in toto; et unius in serie temporis statu admisso, in relinquo tempore sit futurum>". As usual, sentences between angled brackets have been added only successively by Leibniz. The interesting element here is that Leibniz has originally written that divine foreknowledge, preceding the actual decree and independent from the latter, arises from the consideration of the pure possibles and does involve actual existence. At this point, however, Leibniz should have realized that this formulation was extremely ambiguous, since it says that foreknowledge arises from the possible, i.e. it precedes existence, but, at the same time, involves existence itself. Then, Leibniz corrects the original formulation, by making it explicit that existence which is involved (in God's knowledge of the possibles) is not 'actual existence', but only hypothetical one, i.e. what would have happened to a possible individual, had it to be actualized. ⁴⁴² Discourse, # 14, A VI 4, 1550/AG 46-7 (italics mine).

counterfactuals sketched by Leibniz in section 42 of the *Theodicy* (as well as in the fable at the end of the book), and which has been correctly regarded as an (informal) ancestor of the Lewis-Stalnaker analysis of counterfactuals.⁴⁴³

Alternatively, if one wants to stick at Leibniz's way of employing the distinction between 'essential' and 'existential' properties as both relative to each possible worlds –where existential are those properties that distinguish possible individuals from purely specific essences, and among which Leibniz counts positional properties, spatiotemporal determinations, etc. –, then one can relativize the notion of 'existence', indexing it to what exists at a determinate world (as 'existence at W'), and employ 'actuality' for referring to what exists at the most perfect possible world only (which, however, is the only thing which can be said to exist in a proper sense, at least from the actualist point of view). Such a distinction between 'existence' and 'actuality' is diametrically opposed to that suggested by Lewis (see Chapter 7 above), since 'actuality' is now taken as an absolute property, and existence as merely relative one (as 'existing-at-a-merely-possible-world', which amounts to the kind of *diminished being* of what is contained in God's understanding only). In other words, what is actual exists both in God's understanding (since what is actual is also possible) and in reality (*in rerum natura, esse extra causas*), whereas what exists at a (merely) possible world exists in the understanding only.

These two notions are not unrelated, since what is actual is characterized as what exists at the best among all possible worlds.⁴⁴⁴ This distinction makes sense of Leibniz's characterization of what is actual in terms of maximum of perfection;⁴⁴⁵ on the other hand, however, it seems to go against Leibniz's actualist tendency to ascribe 'existence' to what is actual only, whereas everything else is only possible. At this point, however, the disagreement seems to be

⁴⁴³ They are primitive because they are counterfactuals concerning what God would have done, if..., and God is one and the same for all possible worlds (there are no counterparts of God). Cf. Wilson, "Possible Gods"; and M. Griffin, "Leibniz on God's Knowledge of Counterfactuals", *The Philosophical Review*, 108, 3, 1999, pp. 317-43. ⁴⁴⁴ This account makes clear the relational element involved in the notion of existence, even though it does not follow that Leibniz's notion of actual existence is a relative one (as in the case of the indexical theory) .See Chapter 8 above.

⁴⁴⁵ Note that the passage from existence (at a certain possible world) to actuality (the actualization of that world) follows only if the world in question is the best possible one. However, not only the existence, but the very same possibility of something like that (the idea of a maximum of perfection in the series of created things) seems a very questionable concept. The theological tradition, indeed, accepted the idea the relation 'more perfect than', when applied to created things (worlds, where God is not included), is a serial one. Thus, the principle holds that "for every possible world W, there is a world W^* such that W^* is more perfect than W". However, from the latter it does not follow that "There is a world W* such that, for every world W, W* is more perfect than W" (i.e. the claim that there is something like a best possible world). This is just the fallacy of the quantifier switch, one of which Leibniz was well aware of (as shown by his criticism of notions like the greatest number). However, contrary to other maximal notions (for instance, the "most perfect being"), Leibniz has never seriously envisaged the task of providing a proof of possibility (logical consistency) of the notion of a "best possible world". The only hint at this question, in the Theodicy, is not very illuminating. Cf. ## 195-96, which have been discussed in Scribano, "False Enemies", pp. 170-78, who shows their dependence on a passage from Suárez, which, however, defends the very opposite claim. From the philosophical point of view, Leibniz's commitment to the principle of reason (there must be a reason why God chose this world and not another one) seems to be the only argument in favour of the possibility of the best world. However, since reference to the 'best possible world' is explicitly included in Leibniz's account (or nominal definition) of 'existence', this means that, ultimately, it is only the existence of God which can be the ground of what actually exists. Cf. R. M. Adams, "Must God create the Best?", The Philosophical Review, 81, 3, 1972, pp. 317-32; D. Blumenfeld, "Is the Best Possible World possible?", The Philosophical Review, 84, 2, pp. 163-77. See also H. Schepers, "Ist unsere die beste der möglichen Welten?", Rechtstheorie, 42, 1, 2011, pp. 1-20.

only a verbal and not a substantial one, at least if one assumes (with Leibniz and other early moderns, like Thomas White and, perhaps, Malebranche, and against the theological tradition) that God must actualize only the most perfect among all possible worlds.

9.8.5 Resultare. What kind of dependence?

Coming back to the *incipit* of *De natura veritatis*, where Leibniz states God has *a priori* knowledge of all propositions, one can see that the problem concerns not only the ambiguous state of middle knowledge, but may be extended to knowledge of vision as well, since Leibniz explicitly says that knowledge of vision (*circa rerum existentias*) 'results' from the perfect understanding of each term, be it the subject or the predicate of any proposition whatsoever, or, in other words, that *scientiam a priori complexorum oriri ex intelligentia incomplexorum*.

Should we take this as an attempt to reduce even knowledge of vision to knowledge of the possible? Once again, I think the answer depends on the interpretation one gives of Leibniz's expressions as 'to arise' (*oriri*) or 'to result' (*resultare*).

First of all, however, let me point out that Leibniz's 'reductionist' argument here is restricted to propositions; in particular, it is not the existence of things which is said to be 'reducible' to the pure being of the possibles, but, rather, it is God's knowledge of propositions "concerning the existence of things" that is said to derive from his *intelligentia incomplexorum*. This might be a minor point, but it is required in order to avoid confusion. For this is the same text where Leibniz clearly states that the notion of a created mind does not involve existence (*Possibilitas enim seu Notio mentis creatae existentiam non involvit*).⁴⁴⁶

If read together with the passages I have quoted in the previous paragraphs (when discussing middle knowledge and possible individuals), also these two apparently conflicting passages are not to be taken as mutually opposed ones. The sense in which Leibniz says that God's *a priori* knowledge of propositions *circa rerum existentias* arise from the simple understanding of the subject- and predicate-term, indeed, is the same in which he (in the *Theodicy* and elsewhere) says that there can be no conceptual difference between the world as actually existing and the same world taken *sub ratione possibilitatis* (the actual decree "changes nothing in the constitution of things [...] neither in their essence or nature, or even in their accidents, which are represented perfectly already in the idea of this possible world").⁴⁴⁷

⁴⁴⁶ A VI 4, 1522. Adams, *Leibniz*, pp. 43-44, does not take this statement too seriously, since it "seems flatly inconsistent with what [Leibniz] asserts at the beginning of the same paper about existences", i.e. that knowledge of existence results from the perfect understanding of terms. Therefore, he believes that the most consistent reading is "one in which the *complete* concept of any existent thing does involve its existence, and "the possibility or Concept of a created mind" that "does not involve existence" is understood in a narrow sense [...]". This distinction (as that between 'basic' and 'complete' concept of a possible world) seems untenable to me, not to mention the fact that it can be found nowhere in Leibniz's texts.

⁴⁴⁷*Theodicy*, # 52 (GP VI 131/H 154). Cf. the same *De natura veritatis*, A VI 4, 1523-24, where Leibniz explains the distinction between possible decrees and the actual one. When God is decreeing to create this series, i.e. when he decides to bring something (a world) from the level of possibility to that of actuality, "he also does an infinity of decrees, concerning all the things which are involved in that series of things, and, therefore, concerning his possible decrees or the laws which are to be transferred from possibility to actuality. Therefore, it is clear that one thing is the decree that God takes into account when he is taking a decision, another thing is the decree through which God decides to make actual that [series], i.e. the decree through which he chooses this series of things, and brings to the existence this particular mind contained therein and the decree already contained in that. In other words, one thing is the possible decree involved in the series (and in the notion of

What the actual decree adds to this picture is God's *reflexive* knowledge that such a world is the best possible one, since this fact does not depend only on the constitution of things in this world, but from the comparison between this world (and all things contained therein) with all the other possible worlds. This depends on the fact that, as Leibniz observes, the first principle concerning existence is God's commitment to the principle of the best (which presupposes a comparison between all possible worlds).⁴⁴⁸

The second point to stress concerns Leibniz's usage of the verb *resultare* and its cognates. It seems to be a sort of technical term of Leibniz's philosophy, and, more particularly, of his formal ontology. In what follows, I will list four texts in which Leibniz provides us with different definitions of 'resulting'. The first three are taken from table of definitions of the middle period, the last one from one of Leibniz's latest writings, the *Initia rerum mathematicarum metaphysica*:

[1] "That something is said to be given [Dari] from other given things means that the generation of that thing is given.

To be determined [determinari] is when it is at least possible to find that generation in those things.

To result [*Resultare*] is when something else is uniquely determined by a certain relations with another thing or with few other ones [*quando quid suae ad aliqua relationis unicum est vel cum paucis*]".⁴⁴⁹

[2]"If *C* is *A* and the same *C* is *B*, and *A* and *B* are incompatible, and there is a certain entity which results from *C* and *A*, and another one which results from *C* and *B*, *C* will be the *matter*, *A* or *B* will be the *form*, the entity resulting from them will be the composite. With *result* I understand that which is immediately understood to be posited when the things from which it results have been posited".⁴⁵⁰

[3] "*Relation* is an accident which is in many subjects, and it is something resulting only, or which supervenes to other things when no change occurs, if only many things are thought of together: it is con-cogitability".⁴⁵¹

[4] "I use the world 'to result' [*Prosultandi*] to indicate the determination of a new idea; that is, when on the basis of a certain assumed data, something else is uniquely determined by a specific relation to these data [*ex quibusdam positis aliquid aliud determinatur eo ipso quod suae ad ipsa relationis unicum est*]".⁴⁵²

things which compose the series); another is the decree through which he decides to make the first decree [the possible one] actual"(ibid., 1523). ⁴⁴⁸ Cf.*De libertate a necessitate in eligendo*, 1680-84 (?), A VI 4, 1454, where the proposition "God wills what is

⁴⁴⁹ *Definitiones*, 1678-79 (?), A VI 4, 77.

the most perfect" is regarded as "the origin of the passage from the possibility to the existence of creatures [origo transitus possibilitate ad existentiam creaturarum]". Notice, however, that this text has been regarded as an eccentric one, for Leibniz is apparently committed to the view that "God [...] wants to will to choose the most perfect, and wants the will to will [Deus enim vult velle eligere perfectissimum, et vult voluntatem vellendi]". This seems to be in contrast with Leibniz's well known anti-voluntarist (and anti-libertarian) claim that infinite regress in the causes of will is contrary to PSR. Here, on the contrary, infinite regress is accepted by Leibniz "because an infinite number of these reflections occur in God, even though they do not occur in the creature. In this, indeed, the mystery consists, i.e. that God has not only decreed to create the most perfect, but he has also decreed to decree". The connection between God's act of reflecting on himself and the multiplication of decrees is connected with the 'puzzle of existence' in a note on Arminian theology: "You will object to me: the actual decree can also be conceived as merely possible [sub ratione possibilis], and, so on, to infinity. I concede that. For God exercises all his reflexive activities simultaneously and at once" (Grua, 345). The question whether this can be taken as Leibniz's considered view on the topic has received different answers in the scholarship. For a favourable reading, see Curley, "The Root of Contingency"; N. Rescher, "Contingence in the Philosophy of Leibniz", The Philosophical Review 61, 1, 1952, pp. 26-39; Id., "Leibniz on God's Free Will and the World's Contingency", Studia Leibnitiana 34, 2, 2002, pp. 208-20. For a criticism, see Adams, Leibniz, pp. 36-42.

⁴⁵⁰ *Definitiones*, 1679 (?), A VI 4, 310, note 2.

⁴⁵¹ De illatione et veritate atque de terminis, 1687-1696 (?), A VI 4, 866.

Passages from [1] to [4] are all focused on the same notion; even though in [4] Leibniz employs *prosultare* instead of *resultare*, indeed, it is straightforward that it is the same notion that in [1] he has called *resultare* (for the two characterizations are quite similar, which is curious for these two texts are very distant from the chronological point of view). The characterization provided in [1] or [4], however, is not immediately equivalent to those introduced in [2] and [3].

Concerning [3], however, the notion that Leibniz defines is that of relation, and the notion of 'resulting' is only employed in the explanation of the nature of relations. When saying that a relation is something which results or 'supervenes' on other things "when no change occurs" if many things are conceived together, Leibniz is just rephrasing the Schoolmen's idea that relations arise from singular substances, together with their modifications, as in the case of two individual substances, like Socrates and Plato, among which the relation of similarity immediately occurs because of the fact that Socrates is white and Plato is white. As Mugnai has pointed out, "to 'result' in this case means 'to emerge', 'to come out', and implies that which 'results' or 'emerges' completely depends from the entities [...] from which it results. For the relation [...] is something consequent to the supposition of certain conditions".⁴⁵³

Talking of "conditions" means, for Leibniz, talking of requisites, and this is the point stressed in text [2] and also in text [3]. In [2], in particular, he makes the example of a composite thing as resulting from form and matter. 'To result', in this case, means "to be immediately understood as posited when things which from which it results from have been posited". Text [3] specifies that this consequence takes place when no change at all occurs, and this is just what Leibniz characterizes as the nature of what he calls an *immediate requisite*, in order to distinguish it from *mediate ones*, which require actual change and, therefore, some causally efficacious modification.

According to texts [2] and [3], then, the notion of 'resulting' must be characterized in terms of a relation of supervenience or emergence, i.e., roughly speaking, as the idea that, given a certain system of things, a determinate class of upper-level properties are determined by the lower-level ones. Generally, the idea is that a set of A properties supervenes upon another set of B properties, just in case no two things can differ with respect to the A properties without also differing with respect to their B properties.

In our case, however, A properties (i.e. the supervenient ones) must be characterized as the upper-level ones, i.e. the relation of supervenience cannot be symmetrical (the differences between B properties explain those between A properties but not the reverse). In the case of existence and essence, this is obvious, for the difference between what exists and what does not exist are to be explained in terms of differences between their corresponding degrees of essence (or perfection), but the converse does not hold. Furthermore, texts [1] and [4] add a more restrictive condition, i.e. they prescribe that, in order to have B properties as resulting from A properties, the former must be *uniquely determined* by the latter.

As Leibniz points out in [4], under the presupposition that some things have been posited [A properties], something else is determined for this very same reason [i.e. B properties], but this something must be uniquely determined as far as the relation (of dependence) with the

⁴⁵² Initia rerum mathematicarum metaphysica, after 1714, GM VII, 21-22/L 669.

⁴⁵³ M. Mugnai, *Introduzione alla filosofia di Leibniz*, p. 89.

determining things is concerned. That something *else* must follow is highlighted by Leibniz when he says that a *new idea* has been thus determined.

The idea that something new with respect to the original data immediately follows from their position, or, better, from their com-position (remember in [3] reference to *concogitabilitas*) makes the pair with the idea, stressed many times by Leibniz, that when many things are taken together, something else, which is not originally contained in the data (taken one by one), will follow. This is what Leibniz calls a "general axiom": *ex duobus quibuslibet simul sumptis semper aliquid novi determinetur, plus enim est simul ponere, quam eum ponere singulatim.*⁴⁵⁴ Once again, this axiom is at the basis of Leibniz claim that, even though existence is grounded on essence, something more (i.e. something else, or something new) is posited by existence which had not been already posited at the level of essences. This is why, I would prefer to employ the idea of existence as an 'emergent' property, for the idea traditionally connected with *emergent properties* is exactly that of properties which (a) arise out of more fundamental ones and, however, (b) are novel or irreducible with respect to them (therefore, even though existence does actually depend on essence and the degrees of essence, it cannot be explained away in terms of it, at least not completely).

That said, however, one must acknowledge that Leibniz's explanation of what *resultare* means sounds a little bit generic, but I suspect this is not something he would have disliked. The notion of 'resulting', indeed, is a very general one since it belongs to the level of Leibniz's formal ontology, and, as such, it can be applied to a variety of different domains. In the *Initia rerum mathematicarum*, indeed, the notion is introduced in order to explain Leibniz's definitions of the most basic geometrical entities, i.e. the idea that, from two points, something new results, i.e. "the locus of all the points which are uniquely determined by their situation in relation to the two given points, that is, the straight line which passes through the two points". Or, the definition of the *plane*: "From three points there results a *plane*, that is, the locus of all points whose situation is uniquely determined in relation to three points not falling in the same straight line".⁴⁵⁵

Again, in his mereological considerations, Leibniz says that the notion of the whole 'results' immediately from the position of the parts, i.e. once the parts are given, it immediately follows –without any change –that the whole is posited as well. The same story will be told by the late Leibniz in order to explain how bodies and, in general, extended things, arise from monads, which cannot be said to compose bodies (since monads are not extended), but are their "immediate requisites", i.e. bodies results once monads have been posited.

Finally, in a previous paragraph above I have remarked how, in the GI, Leibniz writes that logical abstracts are said to follow from a proposition, i.e. *B* esse *A* is said to arise from *A* est *B*, and he also says that hypothetical propositions have their ground (*fundamentum*) in the categorical ones, i.e. the theory of *inesse* as conceptual containment. This must also be the sense in which, in the text quoted above, Leibniz writes that "*a priori* knowledge of propositions [*complexorum*] follows from the understanding of concepts [*ex intelligentia incomplexorum*]". Analogously, God's *a priori* knowledge of propositions concerning actual

⁴⁵⁴ Demonstratio axiomatum Euclidis, A VI 4, 175, note 10.

⁴⁵⁵ GM VII, 21/L 669. These definitions belong to Leibniz's foundational project of the *analysis situs*, on which one can see De Risi, *Geometry and Monadology*, p. 215 and ff.

and conditioned existences is said to *result* "from the perfect understanding of each term, which can be the subject or the predicate of any proposition whatsoever".

Contrary to what appeared at first glance, this idea cannot be regarded as just a reductionist attempt, since, as shown above, Leibniz insists that in the case of the relation of *resulting*, something new must be posited. This cannot but mean that, in the knowledge of individuals, be they possible or actual, something else and something more must be posited than in the knowledge of possibles as general essences (even though, from the explanatory point of view, nothing else than essence and degrees of essence can be invoked in order to account for existence, i.e. to answer the question why some things exist and other do not).

9.8.6 Conclusion. On Leibniz's reductionism

Should we conclude, then, that (contrary to what appeared to us at first) the level of existences possesses in itself something irreducible to that of purely general essences? The answer, I am sorry, should be something like yes and no.

Let me start from the distinction between merely possible worlds and the actual one. From this point of view, it seems to me that there is something which clearly distinguishes the actual world from its counterpart at the level of possibility, and, therefore, cannot be entirely reduced to it.

In a few worlds, whereas the best possible world at the level of pure possibility (before creation) is just a *series rerum*; the actual world, on the other hand, consists in that very same *series rerum*'s being multiplied an infinitely number of times, insofar as it is represented by infinitely many created minds.

The same *series rerum*, indeed, represents the cognitive content of each compossible mind, and this cognitive content can be further clarified in terms of the phenomena which are peculiar to each particular mind. The differences between the phenomena of different minds ultimately rest on the difference between the points of view which each created mind consists in. Now, it might seem that, talking of *phenomena*, one is talking of something having diminished reality; this is true insofar as phenomena are just the objects of this or that mind (intentional objects). However, as Leibniz suggests, the fact that the same 'series of things' is mirrored by an infinite numbers of minds means that the same reality (i.e. the degree of perfection that correspond to the best series of things) is increased an infinite number of times by the fact of being perceived by each mind in its own manner (with a certain degree of clarity and confusion, which is always different from that of every other mind, even though the difference can be an infinitesimal one, and so on). The sense in which this act of mirroring can be said to *increase* the reality (in the actual) with respect to the reality which holds at the level of what is purely possible can be understood by means of a parallel with some contemporary (non-reductionist) account in the field of the philosophy of mind. I think, in particular, of Thomas Nagel's fundamental observation that the subjective point of view (an intrinsically situated one, distinct from what he calls 'the view from nowhere') cannot be excluded from the catalogue of the world, and, at the same time, cannot be completely explained away in terms of physical facts concerning the constitution of our brain⁴⁵⁶

Now, for the sake of the argument, let me substitute Nagel's claim to the irreducibility of the mind to the level of physical explanation with what I take to be Leibniz's claim to the irreducibility of the dimension of actuality (which, according to his metaphysics, is composed by mind-like substances) to that of mere possibility, i.e. of the merely descriptive and qualitative content of this world taken as merely possible. What actuality adds to the mere content of the world taken as possible is the point of view of the subjective mind, or, better, the infinitely many points of views that correspond to the infinity of minds God has chosen to create.⁴⁵⁷

Each mind is nothing but a recapitulation of the same content (the same "series of things") from its particular point of view. But each point of view is not a mere 'nothing,' i.e. is something and something real, it adds something new to the level of individual essences as merely possible. I suspect this could be also a reliable way to conciliate Leibniz's formal account of time as a B-series (which is the favourite account from the 'eternalist' point of view of the theory of complete concepts) with the phenomenal account of time as an A-series which characterizes the life of the mind. Note that the passage from the first to the second account of time is fundamental in order to grant the reality of 'change'.⁴⁵⁸

That said, however, as I have shown in Chapter 7 above, the dimension proper of each mind is known by God's knowledge of vision, although by a sort of indirect knowledge. Phenomena are the products of our minds, but minds are the products of divine creation (and the object of his knowledge); thus, by knowing the minds he created, God also knows the phenomena of each mind. Not only does he know the phenomena of each mind, but, so to say, it integrates all these partial perspectives in what Leibniz calls *phenomena Dei*, which allow him to known also relations between contingent entities (spatiotemporal and causal relations). Moreover, the very same reality of these relations between the individual substances in the

⁴⁵⁶ The parallel has been already suggested by Look, "Leibniz and the Shelf of Essence", p.36 and following, in order to explain what our knowledge of actuality might consist in. See also T. Nagel, *The View from Nowhere*, Oxford 1989; Id., *Mortal Questions*, Cambridge 1979, esp. p. 147 and ff.

⁴⁵⁷ Cf. Mathieu, "Die drei Stufen des Weltbegriffes", pp. 15-17. On the notion of "point of view", see M. R.

Levin, "Leibniz's Notion of Point of View", *Studia Leibnitiana*, 12, 2, 1980, pp. 221-28; A. Michaelis, "Leibniz on Point of View", in *Leibniz. Tradition und Aktualität*, pp. 557-65.

⁴⁵⁸ Cf. Dummett's criticism of four-dimensionalism, and his remarks on Mc Taggart's thesis. See Dummett, Truth and the Past, pp. 86 and ff, in particular p. 87: "On the four-dimensional conception [the idea of temporal parts], there is no real change: there is only "Cambridge change", the analogous of saying, "The landscape changes as you travel to east." The landscape does not change: it is simply different here and east of here. [...] The four-dimensional model [...] deprives the world we observe of genuine change; there is only that of our awareness as we travel into the future. The model is grounded on the conception of our consciousness as moving through the static-four dimensional reality along the temporal dimension". A Leibnizian answer would be an acceptance of this conclusion, but with the remark that consciousness is something 'real', a particular perspective (one among infinitely many) on the same series of things. The charge of being unable to grant the reality of change has been moved by De Volder against Leibniz's theory of complete concepts. Cf. De Volder to Leibniz. January 5, 1704, GP II, 260: "Moreover, in laws of series is just the same. All the terms are contained in the very nature of the series in an unique and invariant way, and nothing successive can be conceived of in that" [De Volder refers to the exampled adduced by Leibniz in GP II 258, i.e. that of the "laws of the series or the nature of curves, where the entire progression is already contained in the very beginning"]. The connection between complete concept and time has been discussed by Di Bella, cf. in particular The Science of the Individual, pp. 117-27, especially p. 124 where he stresses the A-series of time proper of the 'life of the mind'. For a rejection of attempts to reading Leibniz as a 'presentist', see Futch, Leibniz's Metaphysics of Time and Space, pp. 139-42.

world amounts to their being the object of God's *scientia visionis* (as Leibniz explains to Des Bosses in the passage commented in Chapter 7 above).

This, however, lead us back to the fact that, according to what Leibniz says in *De natura veritatis*, also God's knowledge of vision must be grounded on (or to result from) God's perfect understanding of terms. Once again, the point to be stressed is that it is neither easy to fully characterize this notion of 'grounding' or 'dependence', nor to say how it does properly work. From the point of view of human knowledge, indeed *–pace* Leibniz's commitment to the principle of the continuity among forms –, there is a sort of jump or a gap between the level of mere possibilities and that of individuals; a gap which is only partially weakened by Leibniz's assumption of individuals *sub ratione possibilititatis*.

From this point of view, then, there seems to be something substantially irreducible in the field of existence (but even in the field of what is to be an individual with respect to the level of non-particularized essences). From the point of view of divine knowledge, however, this irreducibility should be ultimately denied because of the idea that truths about individuals should be ultimately regarded as supervenient on (emerging from) truths about general concepts.⁴⁵⁹ Another point connected with these two different points of view (divine vs. human one) concerns Leibniz's suggestion that propositional knowledge must be ultimately reducible to conceptual one, because of the intuitive (non-discursive) character of divine knowledge, for God knows everything at once (a point that had been already stressed by Suárez in his account of eternal truths).⁴⁶⁰

⁴⁵⁹ This point has been acknowledged even by Cover & Hawthorne, and is the main reason why they ascribe to Leibniz a form of 'weak' haecceitism instead of a 'strong' one: "The weak haecceist [...] does indeed admit singular propositions [in the Russellian sense], but insists that they supervene on general propositions" (*Substance and Individuation*, p. 160). Note, however, that they understand this notion of supervenience without building in it any claim of logical asymmetry or explanatory direction. This is correct insofar as 'explanatory' is understood in the sense that truths about general proposition must explain away truths about singular ones; however, it seems that something more in Leibniz's own way of understanding the notion of *resultare*.

⁴⁶⁰ Unfortunately, Leibniz does not say too much on this point. Throughout this chapter and the previous one, I have stressed some hints at the fact that divine knowledge should not be taken as a propositional one. The only text in which Leibniz seems to tackle the question of the difference between human and divine cognition in this sense is one of his earliest Paris notes, De mente, de universo, de Deo, dated December 1675, where he introduces the distinction between "process by means of ideas" and "process by means of characters", and applies it to the case of our cognition of God as the most perfect being. The point of departure is the claim that "We have the ideas of the simples, [but] we have only the symbols of the composite. [...] So it does not therefore follow that, when we have the ideas of those things that enter into the definitions of some thing, we thereby have the idea of the whole –unless we think of them all at the same time". In this sense, Leibniz says we do not have the idea of God, nor that of the circle: "And so we do not have any *idea* of the circle, such as there is in God, who thinks all things at the same time. There is in us an image of the circle, and also the definition of a circle, and there are in us the ideas of those things which are necessary for a circle to be thought [scil. its requisites]. We think about a circle, we provide demonstrations about a circle: its essence is known to us -but only part by part. If we were to think of the whole essence of a circle at the same time, then we would have the idea of a circle. Only God has the ideas of composite things; in the meantime, we know the essence of a circle by thinking of its requisites part by part" (A VI 3, 462-63/DSR 5-7). The main contraposition here is between characters/images/definitions which occur in the human mind, and ideas which occur in God's mind; and between a knowledge of ideas which take place only *per partes* and one which takes place *simul*. In this early piece, notice, the term 'idea' is reserved only to divine ideas, there is no mention of the distinction between nominal and real definitions, and the notion of 'expression' has not been introduced yet. According to the mature Leibniz's terminology, God's knowledge of ideas tota simul will become his 'intuitive cognition', the latter is contraposed to our 'discursive cognition' (corresponding to knowledge per partes). If I am not mistaken, knowledge of ideas tota simul should be equated with what Leibniz will call "intuitive cognition", i.e. the state when the "mind understands all the primitive ingredients of a notion at once and distinctly", which, however, is distinct (conceptually, at least) from "adequate cognition" (when all the elements of a definition are distinctly

9.8. 7 Epilogue: A schematic summary

In what follows, I will provide a recapitulation of what I have said so far, by presenting a table which illustrates the mutual connections between three different levels of Leibniz's discourse, the theological, the ontological and the modal one.

The following table is modelled on the articulation of the different 'regions' of Leibniz's ontology originally sketched by Gueroult in his seminal paper⁴⁶¹, although it integrates it, especially as far as the connections between theological and properly philosophical aspects (both ontological and modal) are concerned.

Of course, the following account is based on what I take to be Leibniz's considered view on the topic (oscillations on this or that point will be briefly appointed in the following discussion):

Divine Essence and Faculties	Theology (1)	Theology (2)	Ontology	Modality
Divine Essence			Divine Attributes	
			Primitive	
			Possibles	
Divine	Absolute Power	Knowledge of	Possibility	Absolute Necessity
Understanding		Simple	-Purely logical	
		Understanding	notions	
			-Eternal Truths	
			-(General	
			Essences)	
(Divine Wisdom)	Ordained Power	(Middle	Compossibility	
	Possible decrees	Knowledge)	-Possible	Contingency =
			Individuals	Hypothetical

known). The claim (in December 1675) that "we do not have any *idea* of the circle" might be ambiguous, when regarded from the point of view of Leibniz's considered account, given that he distinguishes between ideas in our mind and ideas in God's mind; and, among ideas in our mind, between those of which we have a nominal definition only and those of which we have a real definition as well. A point that remains unaltered, however, is the conclusion that the "deficiency of the idea that we have [then we have ideas, after all??] is made good by some sensible image, or by definition", i.e. the necessity of sensible characters to the very possibility of human thought (cf. A VI 3, 463/DSR 7). On the necessity of sensible signs for thinking, see M. Mugnai, "Idee, espressioni delle idee, pensieri e caratteri in Leibniz", *Rivista di filosofia*, 64, 3, 1973, pp. 219-31.

Cf. Gueroult, "Substance and the Primitive Simple Notion in the Philosophy of Leibniz", pp. 244-49, where he sketches a whole hierarchy of ontological regions. In his original account, these are 1) the region of the pure essences (in their absolute intrinsic and non-relational aspect): the absolute attributes of God or prima possibilia; 2) the region of the understanding, characterized by the appearance of relational considerations. This region has to be internally distinguished into several different levels: 2.1) a system of relations of purely logical natures, without any reference to existence at all (a metaphysical absolute space of possibilities), 2.2) the principle of identity, non-contradiction, and of continuity (to which the region of specific essences is attached). These first two regions corresponds to divine understanding without any intervention of will, whereas the following regions imply a reference to divine will and, from the ontological point of view, to existence (both possible and actual): 3)the region of compossibility and incompossibility, i.e. possible worlds; 4) the region of actual existence (the best possible world). In my table above, (1) corresponds to the level of divine essence as such, (2) to that of divine understanding (in a narrow sense); (3) to that of divine wisdom ; (4) to that of divine will (in a narrow sense). Alternatively, one can read (3) as belonging to the domain of divine understanding in a broad sense, and/or that of merely possible divine decrees (i.e., middle knowledge, as knowledge of possible individuals, oscillating between simple understanding and vision); therefore, (4) has to be read as belonging to divine will in the sense of the actual divine decree.

			(Conditioned Existences) -Possible Worlds	Necessity
Divine Will	Ordained Power Actual decree	Knowledge of Vision	Actual Existence -Best possible world -Actual Individuals	Contingency= Moral Necessity(Principle of the Best)

This table is meant to provide a comprehensive account of topics I have discussed separately in Chapters 7, 8, and 9.

The table should be tripartite, but I have added the level of divine essence since Leibniz (in his notes on Twisse) distinguishes between divine essence as such and divine understanding, the first containing everything in an eminent way, the second only in representative way. The level of divine essence as such is also required to distinguish between divine attributes (sometimes called "primitive possible") and the level of possibilities (both general essences and individual essences).

Furthermore, one could object that the table should contain only two levels, that of divine understanding and that of divine will, since divine wisdom (the level of possible worlds) might be reduced either to divine understanding or to divine will. The same ambiguity also holds in the case of middle knowledge, about which Leibniz is uncertain whether it should be reduced to knowledge of simple understanding or that of knowledge of vision.

I have discussed the reasons why Leibniz oscillates between these two accounts, and also why I prefer to add both the level of wisdom and that of middle knowledge to the picture (Divine Wisdom has been discussed in Chapters 5 and 7; Middle Knowledge in this Chapter above). The main reason, in a nutshell, is that it helps to distinguish between the level of abstract essences and that of possible individuals, i.e. between the level of bare possibility and that of compossibility (or, again, the level of necessary possibles and that of merely contingent ones).

Another thing to observe is that, from the theological point of view, Leibniz seems to reduce divine wisdom to one between understanding or will (and middle knowledge to one between knowledge of simple understanding or knowledge of vision). This makes the pair with the bipartition between God's absolute power and his ordained power (for no tripartion is possible is the field of God's power); even though one could object that, within ordained power, one should distinguish between the level of merely possible decrees and that of the actual decree as well.

From the ontological point of view, on the contrary what might be questioned is the subsistence of an (independent) level of general essences over and above that of individual essences. I have shown how for Suárez and other early modern theologians God, properly speaking, has no ideas of universals, but only of individuals (individual essences).

On the latter point, however, Leibniz is extremely reticent, and his indirect statements seem to be a little bit ambiguous: his reflections on the nature of universals seem to go in the direction of a substantial agreement with the Suárezian account; on the other hand, his theory of ideal entities, especially as far as mathematical concepts and eternal truths are concerned, has an unmistakably Platonic flavour. Concerning God's knowledge of eternal truths, I have suggested that it should be grounded on reflection rather than on abstraction, i.e. eternal truths would be the objects of God's reflexive knowledge.⁴⁶² Concerning the question of the (autonomous?) intermediate state of divine wisdom (middle knowledge), the point can be understood stressing Leibniz's idea that truths about individuals are said to supervene on (or to result from) truths about general concepts.

Since I am not too inclined to understand this relation as an extremely reductionist one –and, on the other hand, emphasis on the distinction between the abstract and the concrete is fundamental for Leibniz's ontology in general –I have preferred to add such an intermediate level to my table, putting both divine wisdom and middle knowledge between brackets (Of course, as it should be evident now, the possibility or impossibility to add a distinct level for wisdom and middle knowledge makes the pair with the preference for, respectively, a non-reductionist or a reductionist approach to Leibniz's philosophy).

Appendix A:

Leibniz's Formal Proof of the Equivalence between the Categorical and the Hypothetical Proposition

The double implication, from the categorical to the hypothetical, and vice versa, can be approached also from a formal point of view. There is a text (an essay of calculus, probably written in the same year of the GI), where Leibniz provides us with a formal proof of the equivalence between 'A is B' and 'if L is A, it follows that L is also B'.⁴⁶³ (Note the identity of the subject, L, in the hypothetical is clearly presupposed).

The implication from the categorical to the conditional (assumed 'A is B', one can derive 'if L is A, then L is B') is proved as follows: since we have assumed that 'A is B',

- 2. *A* is $B \leftrightarrow A = LB$ (principle);⁴⁶⁴
- 3. *A* is $B \leftrightarrow A = AB$ (from 2);
- 4. A = AB (from 2, 3);
- 5. *L* is A (assumption);

^{1.} A is B (assumption);

⁴⁶² Cf. also *Rationale fidei catholicae*, 1685 (?), A VI 4, 2317: "For God knows possibilities or essences of things from the consideration of his own understanding alone, which, being the most perfect one, expresses everything which can be thought of by means of his own ideas. He knows contingencies or the actual existences of all things (with the only exception of himself) from the contemplation of his own will, i.e. from the free decrees [...]".

⁴⁶³ Specimina calculi rationalis, 1686 (?), A VI 4, 808-9. The proof is discussed also by Rauzy,*La doctrine leibnizienne de la vérité*, pp. 104-6. I am indebted to Rauzy's commentary on this the proof, even though my conclusions are different from his own.

⁴⁶⁴ The principle is given by Leibniz in section 8 of the same essay, where he states the equivalence between A is B and A = LB, with L indefinite term(whatever letter can be substituted to it), therefore one can also write A = AB. Cf. A VI 4, 808. In the derivation above, then, (2) has to be read as an axiom (or, better, an axiom schema).

6. L = LA (from 5, 2);

7. L = LAB (from 6, 4)

8. *L* is *AB* (from 7, 2);

9. *L* is *B* (from 8, 2).

Therefore, it has been demonstrated that If L is A, L is B can be derived from A is B.

This side of the proof is not problematic. The only point to be clarified is (2), where a principle is assumed that allows reading conceptual containment in terms of identity (and vice versa). The principle is briefly exposed in section 8 of this draft. However, in the second version of this text, Leibniz proposes a new and much clearer version of it:

"A is B is the same as A contains B and this holds simpliciter, to the point that it is allowed to say that A is B is the same that A = AB; for, since it holds that A = A (according to #2), and A contains B simpliciter by hypothesis, in the place of A, one can always substitute AB, because (according to # 7 [idempotence]) repetition does not change anything, or, which is the same, from A = A one can always derive A = AB. Thus, when one says "God is zealous", he can also say "God is zealous God", and these two things are coincident with each other. In this way, the same thing is translated from a predication to an equivalence, which fits much better in our calculus. The same thing can be obtained also in this other way: when A is B, it can be said A = LB, i.e., in the case that A and B are equivalent, one can understand L as an entity or something else which is already contained in A; if they are not equivalent, L will be everything which is in A except B. Now, since A = LB, it will also be A = LBB (according to 7). Therefore, positing A instead of LB, one will obtain A = AB. Anyway, I prefer to employ A = AB than A = LB, since there is no need to assume a third thing".⁴⁶⁵

The other side of the equivalence, i.e. the implication from 'If L is A, then L is B' to 'A is B', is more interesting, at least for what concerns our topic. Leibniz proceeds by noting that L stands for any term whatsoever of which one can say that L is A, i.e. L is a variable for concepts which plays the same role of the universal quantifier. The demonstration, then, proceeds by *reductio ad absurdum*, i.e. by assuming that 'If L is A, then L is B' is true and 'A is B' is false, and that a contradiction follows from these two assumptions taken together. Also in this case, Leibniz employs an indefinite term, this time called Q (which should be an abbreviation of quoddam), a variable for concepts which plays the role of the existential quantifier.⁴⁶⁶

The proof given by Leibniz is the following:

- 1. *L* is $A \rightarrow L$ is *B* (assumption);
- 2. *A is not B* (assumption);
- 3. *QA is non-B* (from 2 by the rule of obversion);

⁴⁶⁵ Specimina calculi rationalis, Zweiter Versuch, # 8, A VI 4, 811-12.

⁴⁶⁶ Cf. Lenzen, "Zur Leibnizens Theorie der Negation", 18. Lenzen translates them as, respectively, $A \ e \ B \equiv \forall L$ (*LeA* $\rightarrow LeB$), and $AeB \equiv \exists \ Q \ (A = BQ)$, where '*AeB*' means '*A contains B*' (I have employed *Q* instead of *Y*, since *Q* is the symbol used by Leibniz in the text commented above, whereas *Y* is employed in the GI, where Leibniz, however, distinguishes between *Y*, to indicate just one thing whatsoever (*unum incertum*) and *Y* with a superscript line, indefinite term for any thing whatsoever (*quodlibet*). Cf. GI # 81. Concerning the choice of *Q*, there are texts where Leibniz abbreviates the PN as *qu. A est B*. Cf. *Calculi universalis investigations*, April 1679, 220-21; *Ad Vossii Aristarchum*, 1685 (?), A VI 5, 623 ("*Quoddam A* vocetur: *qu. A*").

- 4. *QA is A* (from the identity: *A is A*);
- 5. *QA* is *B* (from 4, 1, assumed that QA = L);
- 6. QA is B non-B

Therefore, it has been demonstrated that A is B can be derived from If L is A, L is B.⁴⁶⁷

This proof is less clear than the preceding one. The contradiction at point 6 (which is just the conjunction of 5 and 3) is obtained by deriving both QA is B and QA is non-B. The indefinite term Q in QA has to be read as 'a certain, specific A'; thus, QA is B is derived from QA is A plus the first assumption (1), by assuming QA = L.

The derivation of *QA* is not-*B* from assumption (2), however, is more problematic. In the logical tradition, the rule of obversion was a particular kind of immediate (i.e. non syllogistic) inference, in which a sentence of the form 'Every/Some *S* is *P*' is transformed into an equivalent one in which (a) the quality of the proposition is changed, and (b) the predicate *P* is substituted with the negated one, *non-P*. Thus, 'Every *S* is *P*' becomes 'No *S* is *non-P*'.⁴⁶⁸ However, the passage from negative to positive sentences seems to require the validity of the inference from '*a* is not *P*' to '*a* is *non-P*' (i.e. from the propositional to the predicative negation), which is highly questionable.⁴⁶⁹

The rule is stated by Leibniz as the equivalence between *A* is not *B* and *QA* is non-*B*. It has been originally introduced in section 9 of this essay, but it has not yet been proved there. The demonstration will be provided in section 18, where he writes:

"In section 9 above we have said that it has to be demonstrated that *A* is not *B* and *QA* is non-*B* are coincident, or that to say *A* is not *B* is the same as saying: there is a *Q* such that *QA* is non-*B* [datur *Q*, tale ut *QA* sit non *B*]. If it is false that *A* is *B*, then it is possible *A* non-*B* (according to n. 6).⁴⁷⁰ non-*B* will be called *Q*; therefore it is possible *QA*. Therefore, *QA* is non-*B*. In this way, posited that is *A* is *B* is false, we will show that *QA* is non-*B*. Conversely, from this we can show that if *QA* is non-*B* the *A* is *B* is false. For, if *A* is *B* were true, *B* could be substituted in place of *A*, and it would be *QB* is non-*B*, which is absurd ".⁴⁷¹

The main point here is the translation of QA is non-B with (literally) it is given a Q such that QA is non B, which in my translation I have explicitly interpreted as a sort of existential generalization.⁴⁷² Furthermore, from the falsity of A is B, Leibniz derives that term A non-B is possible, i.e. it does not imply a contradiction. By taking non-B as Q, it follows that QA is a

⁴⁶⁷ A VI 4, 808-9. Cf. Rauzy, 104-05.

⁴⁶⁸ Cf. A VI 4, 126, where *No b is c* is reduced to the universal affirmative *Every b is non-c* (and, therefore, to *If a is b, then a is not c*).

⁴⁶⁹ Cf. Aristotle, *Prior Analytics*, A, 46: "For these do not signify the same thing, nor is 'to be not white' the denial of 'to be white': instead, 'not to be white' is" (51b, 9-10). See also *Categories*, 10, 13b 20-36. Aristotle's point of view in connection to Leibniz's is briefly discussed by Mariani & Moriconi, "Il problema del quadrato logico". Cf. the Appendix on syllogistic in Mugnai (ed.), *Ricerche generali*, pp. 252-53. On immediate inferences in traditional syllogistic, see J. N. Keynes, *Studies and Exercises in Formal Logic*, third edition, London 1894, Chapter III (on obversion, see especially p. 100 and ff.).

⁴⁷⁰ Cf. A VI 4, 807: "A sentence is false if from its assumption follows that A = L...B non-B". And cf. also # 10: "It is the same to say: *the proposition A is B is false*, and to say *A is not B*" (Ibid. 808).

 $^{^{471}}$ A VI 4, 809-10. Cf. also A VI 4, 813, # 21: "*A is not B* is the same as *A is non-B*. For, if *A is not B*, it is false *A is B*. Therefore, it is also false *A* =*AB*. Therefore, for # 4, *AB is a non Entity*, or *A* = *A non-B*. Therefore, for #8, *A is non B*". Again, the proof is not valid when not referred to individual concepts.

⁴⁷² Cf. Primaria calculi logici fundamenta, Cout 235, # 10: "If A = AB, it may be assumed a Y such that A = YB".

non-contradictory, i.e. possible term as well. Finally, Leibniz derives that *QA is non-B* follows from *A is not B* (i.e. from "it is false that *A is B*").

Notice that, once again, in order to work, this proof requires the possibility of passing from propositional to predicative negation. If the Q is chosen as a general concept, however, the proof above is not valid. Once again, as in the case of the passage from the paper on existential propositions commented above, Leibniz assumes that *A* is non-*B* follows from *QA* is non-*B*, when, however, only the latter (but not the former) follows from the assumption that *A* is *B* if false (i.e. *A* is not *B*) and by the side assumption that *QA* is a consistent concept. Or, better, the proof is correct only in the case the *Q* which has been introduced (and which is said to be both *A* and non-*B*) stands for an individual, i.e. is a complete concept. If a notion *C* is complete, indeed, of any pair of contradictory concepts (*B*, non-*B*), either *C* contains *B* or *C* contains non-*B*; in this case, and only in this one, it follows that, if it is not the case that *C* is *B*, then *C* is not-*B*. In all the other cases, however, the derivation is not logically valid.

The interesting point, however, is that, at least in the period when he was working at these essays on calculus, Leibniz was aware of this fact, and of the distinction between propositional and predicative negation. In a draft, whose conclusions are condensed (and almost literally quoted) in section 185 of the *GI*, Leibniz analyses what he takes to be a tension between the logical and the common way of employing negation. He clearly acknowledges, indeed, that the negation of a UA corresponds to a PN, i.e. from 'Non (Every man is learned)', it follows that 'Some men are not learned', i.e. 'It is false that every man is learned' (in this case, he says, *non* "affects the whole proposition, not just the sign *every* which pertains to the subject alone"). However, he also adds that a proposition like "Some man is not learned" has to be interpreted not as "It is false that every man is learned", but, rather, as "Some man is non-learned", when the negation is a predicative and not a propositional one.

Therefore, Leibniz concludes:

"One thing is to deny a proposition, another is to deny a predicate. Therefore, we will say: *non*, when is prefixed to the sign [i.e. the quantifier] denies the proposition, when is prefixed to the copula denies the predicate, in order to obtain a definite rule. Something wrong, however, is occurring here, for another reason. For, in the UN the predicate is denied, *Every man is non stone*, and the same also in the PN, *Some man is non stone*. But everything can be conciliated: UN and PN derives from UA and PA, when *non* is prefixed to the predicate. But it is not their contradictory. *Non* prefixed to a proposition means the contradictory of that proposition, prefixed to the copula denies the predicate".⁴⁷³

In the second part of the passage, Leibniz is 'rediscovering' the distinction between contrary and contradictory propositions in the Aristotelian square ("Every man is white" and "Every man is not-white" can be both false but not both true, whereas "Every man is white" and

⁴⁷³ De negatione, A VI 4, 300. There are no external elements to date this piece. The editors suggest 1679, but I suspect it is closer to the period of composition of the GI, since the passage above is similar to # 185. Anyway, the editors' preface to this piece (see Ibid. 299-300) provides a very clear account of the development of Leibniz's ideas about negation until the *GI*. Cf. also *Ad Vossii Aristarchum*, A VI 4, 622, where Leibniz exceptionally distinguishes between three kinds of negation, (1) negation of the proposition ("It is false that *A is B*"), (2) negation of the subject ("Every *non-A is B*"), and (3) negation of the predicate. Further texts on the topic are quoted by Lenzen, "Zur Leibnizens Theorie der Negation", *passim*. In particularly, he shows how the confusion between propositional and predicative negation is clearly at work in early texts from the end of the 1670's.

"Some man is not white" are contradictory, one of them is true and the other is false). However, the interesting part is the crystal clear distinction between negation prefixed to the "sign" of quantity (propositional negation) and negation prefixed to the copula (predicative negation).

As I said, it will be repeated in section 185 of the GI. However, in section 186, Leibniz will add that for him "Some man is not stone" means "Some man is not-stone" (as well as "Every man is not stone" means "Every man is non-stone"), showing a neat preference for the predicative negation over the propositional one. Furthermore, other texts show that the passage from propositional to predicative negation is accepted. In the text of the *GI*, the passage is initially accepted (see sections 21 and 82) and the error will be corrected only in section 92.

At the same time, however, there are texts in which Leibniz clearly acknowledges that the passages holds only in the case in which individual concepts are taken into account.⁴⁷⁴ This is clearly understood, for instance, in a passage where Leibniz notes: "In every term *A* or *non-A* is involved. If *A* is not involved, *non-A* will be involved, and vice versa, and therefore one can be taken as equivalent *non involving A* and *involving non-A*".⁴⁷⁵ The same remark, after all, is already implicit in what Leibniz says in section 80 of the *GI*, where he says that *non-A* amounts to the same as "*is qui non est A*", i.e. the subject of the negative proposition whose predicate is *A*, as in *omnis qui non est A*.⁴⁷⁶ This matches perfectly with what Leibniz says elsewhere, when noting that a categorical proposition like *Every b is c*, can be reduced to the following hypothetical: *If a is b, a will be c*; e.g., "Every man is animal" is to be read as "If someone is man (b), he (a or Titius) is also animal (c)"⁴⁷⁷ Leibniz writes "Titius" in order to show that the genuine subject of the proposition has to be taken as a particular individual (or, in the case of the intensional version of the calculus developed in his mature years, an individual concept).

Therefore, it seems that, as far as the attempt to reduce the categorical proposition to the hypothetical one is based on the passage from propositional to predicative (or conceptual)

⁴⁷⁴ Cf. *Calculi universalis investigationis*, April 1679, A VI 4, 217-18: "Contradictory terms are those one of which is positive, the other is the negative of this positive, like *man* and *non-man*. Concerning these, the following rule has to be observed: if two propositions regarding precisely the very same singular subject are stated, of which, given a couple of contradictory terms, one is predicated of the first, the other of the second, then necessarily one of these propositions will be true, the other false. However, I say: *regarding precisely the very same singular subject*, like, for instance, *This gold is a metal* and *This gold is a non-metal*". Notice, also, that Leibniz had originally written (and then cancelled) that the rule can be applied to the case of singular propositions are concerned (*Every man is learned*/*Every man is non-learned*), it seems that the rule cannot be applied correctly ("*Imo hic patet me errasse, neque enim procedit regula*"). Cf. also *Ad specimen calculi universalis addenda*, 1679 (?), A VI 4, 292, where Leibniz, among "propositions true in themselves", lists: "(5) *Qui non est a est non-a. Qui non est animal est non-animal.* (6) *Qui non est non-a est a. Qui non est non-animal est non-animal.*

⁴⁷⁵ *Primaria calculi logici fundamenta*, Cout 237.

⁴⁷⁶ GI, # 80, A VI 4, 765.

⁴⁷⁷ *De varietatibus enuntiationibus*, A VI 4, 126 (I have corrected a small point: Leibniz writes *si quis est homo* (*b*) *is* (*a vel Titius*) *est c* (*animal*).

negation, the reduction at stake can be attained only in the case of individual concepts (complete notions), and not in every case at all.⁴⁷⁸

Appendix B:

Essential and Existential Propositions in the Generales Inquisitiones (1686)

Discussing the text *De propositionibus existentialibus*, I have hinted at a problematic point concerning necessitation and the possibility of distinguishing between contingent and necessary predication. Let me show here that such a problem has already emerged when Leibniz was working at the composition of the GI (which can be regarded as a sort of work-in-progress more than a systematic exposition). The same problem emerges at different stages of Leibniz's composition of the work. In section 32bis, Leibniz states the equivalence between impossibility in the case of non-complex terms (concepts), which corresponds to 'non-Entity', and in the case of complex terms (propositions), which corresponds to 'false': is a proposition 'A is B' is false, then the concept AB is a non-Entity (i.e. impossible).

The topic of necessary and contingent propositions, and the basis of their distinction, is introduced in section 60 and ff. In particular, in section 61 Leibniz introduces for the first time the idea of infinite analysis in order to characterize the proper aspect of contingent propositions. However, this first formulation does not satisfy him (in the margin, indeed, he will write: *Haec male, postea correcta*]. In this paragraph, notice, Leibniz says that true propositions are those of which (by means of resolution) can be showed that a contradiction between the subject and the predicate will never occur. It is implicit that, if a contradiction occurs during the resolution, a proposition is false. Therefore, "it will follow [...] that everything possible is true. For my part, I call an incomplex term which is possible 'true', and one which is impossible I call 'false'"⁴⁷⁹

An interesting point concerns the note Leibniz subsequently adds to section 66, which runs as follows:

"A doubtful point: is everything true which cannot be proved false, or everything false which cannot be proved true? What, then, of cases of which neither of these holds? It must be said that both truth and falsity can always be proved, at any rate by an analysis which is carried to infinity. But then it is contingent, i.e. it is possible that it is true, or that it is false. The same is the case with concepts: namely, that in an analysis which is carried to infinity they are manifestly true or false, that is, to be admitted to existence or not. N. B. In this way, will a true concept be existent, a false one non-existent? Every impossible concept is false, but not every possible concept is true; so that the concept will be false which neither exists nor will exist, as a proposition of such a kind is false, etc. Unless, perhaps, we prefer to take no account of existence in these cases, and a true

⁴⁷⁸ On this point, I side with the interpretations given by Mates and Lenzen, and against Rauzy's attempt to show that the hypothetical and the corresponding categorical proposition have the same truth value in every case. Cf. Rauzy, *La doctrine leibnizienne de la vérite*, p. 127 and note 2. See also the discussion between Rauzy and Mugnai . See Mugnai's review of Rauzy's book in *The Leibniz Review*, 12, 2002, especially p. 57, and Rauzy's reply in the same issue, especially p. 67. Generally speaking, I think that such a question does not plainly emerge in the GI only because Leibniz assumes from the beginning that the terms of the calculus have to be taken as complete ones (see A VI 4, 740). Henceforth, one can see that this problem is clearly connected with Leibniz's attempt to reduce abstract talk to concrete talk.

⁴⁷⁹ GI # 61, A VI 4, 758/ LP 61.

concept here is the same as a possible one, and a false concept the same as an impossible one –except when, for example, 'Pegasus existing' is said''.⁴⁸⁰

This note is added because section 66 (dedicate to the infinite analysis account of contingency) tacitly introduces a distinction between a *possible contingent truth* and *true contingent one*. The first refers to the case in which the analysis of the proposition has not showed the coincidence between the subject and the predicate, but only that a contradiction will never occur; the second is a contingent proposition in which, furthermore, the resolution has reached a point "at which the difference between what should coincide is less than any given difference"⁴⁸¹, and, thus, the proposition can said to be true. Such a distinction is in contrast with what Leibniz has said above about the equivalence of 'true' and 'possible'. The note makes clear that the perspective of section 66 is that of the existential and not the essential reading of propositions (even though the distinction will not be explicitly introduced before section 144).

After having rejected the possibility of giving up bivalence also in the case of infinite analysis, the distinction between 'true' and 'possible' is made clear by reference to the case of concepts. Given that the analysis is carried to infinity, a given concept will be manifestly true or false, that is, to be admitted to existence, or not". At this point, since he has to reject the equivalence between possible and existence, he has also to break that between 'true' and 'possible': "not every possible concept is true", and there will be false concepts (where 'false' refers to non-existent entities) which, however, are still logically possible ones (and the same can be said about propositions). In the last part of the note, however, the original perspective is presented as a valuable alternative in the case in which we make abstraction from existence at all: "a true concept here [i.e. the intensional perspective] is the same as a possible one, and a false concept the same as an impossible one". The concept of Pegasus, then, will said to be true, and, thus "Pegasus is a horse" will be true when interpreted *de possibili*. The same does not hold in the case of the concept 'Pegasus existing'.

The question resurfaces again later on in the course of the text, in a note added to section 128, where, commenting his way of translating the Particular Affirmative as "AB = AB", Leibniz adds that he understands "the proposition "Some man is learned" only if this is possible, for we are here considering abstract concepts, not the data of experience", where, of course, 'abstract notions' have to be interpreted in terms of 'abstraction from existence'. It follows that, "if a particular affirmative is false, it is impossible that there should be such a concept [*i.e. the concept 'learned man'*]".⁴⁸²

This approach is repeated in section 130 where Leibniz gives the following truth conditions for propositions:

1) *p* is true if *p* can be proved;

2) *p* is false if *p* is not true;

3) *p* is impossible if *p* contains a contradictory term;

⁴⁸⁰ A VI 4, 761 note/LP 64.

⁴⁸¹ GI # 66, A VI 4, 761/LP 62. It is Leibniz's famous analogy with the Euclidean algorithm; cf. Mates, *The Philosophy of Leibniz*, pp. 107-117.

⁴⁸² A VI 4, 774/LP 76.

4) *p* is possible if *p* is not impossible;

At this point Leibniz asks: "Is every universal negative, then, impossible?" (given that the UN has been formalized as AB = /= AB). "It seems that it is because it is understood of concepts, and not of existing things; thus, if I say 'No man is an animal', I do not understand this of existing man alone". However, since what is denied of a species is denied also of all the individuals falling under that species, it will follow that humanity will be necessarily denied of an individual, say Peter. "Therefore", concludes Leibniz, "it must be denied that every universal negative is impossible". And the only way to do this is to stress that a proposition like 'A contains *non-B*' is contingent only if it cannot be proved by means of finite analysis (note that in the example above Leibniz seems to assume that "Peter is animal" or "Peter is non-animal" should be taken as contingent propositions; this supports the reading I have proposed in 9.8.3).

Therefore, in section 130bis, the previously given conditions of truth will be partially modified. In particular, (3) will be changed into (3^*) :

 $(3^*) p$ is impossible if p is reduced by analysis to a contradictory term.

This very same solution, as showed above, is at work in the paper on existential propositions, where the distinction between the existential and the essential reading of propositions is justified only by the fact that existential propositions are contingent ones (and contingenty is explained in terms of infinite analysis). In this way, notice, the only way to distinguish between existential propositions and contingent ones (assumed that existential propositions are referred to what actually exists, and, thus, constitutes only a proper subset of the set of all contingent propositions) is by making reference to time ("the present state of the world", and so on).

On the contrary, the old problem of the (lack of) existential import will pop up again in the text of the GI, immediately after the introduction of the new formalization of the propositional square based on the *secundi/tertii adjecti* distinction (as well as on that between existential and essential reading).

In particular, Leibniz is concerned with the formalization in terms of identical propositions he proposes in section 152:

Particular Affirmative	AB = AB (i.e. AB and AB coincide, that is AB is a res)
Particular Negative	A not-B = A not-B (i.e. $A not-B$ is a res)
Universal Affirmative	A not $B = = A$ not-B (i.e. A not-B is not a res)
Universal Negative	AB = AB (i.e. AB is not a res)

As Leibniz makes clear at the beginning of section 152, "identical propositions themselves can be trusted only in the case of real concepts [*in notionibus realibus*], so that no truth can be asserted without fear of the opposite except concerning the reality of their concepts themselves –*at any rate their essential reality, though not their existential reality*".⁴⁸³

⁴⁸³ GI, #152, A VI 4, 781/LP 82 (italics mine).

Reference to the *res* in the table above, then, has to be understood in terms of the 'essential reality' of concepts, which means that *res* is the same as *ens* or *possibile*. In the following section, Leibniz notes:

"But this presupposes that every proposition which has an ingredient term which is not a thing is denied [*as it is clear from the formalization of UA and UN*]. So it remains that every proposition is either true or false, but every proposition which lacks a consistent subject [*cui deest constantia subjecti*], i.e. a real term, is false. In the case of existential propositions this is far removed from the way we speak; but this is no reason for concern, since I am seeking appropriate signs, and I do not intend to apply generally accepted names to these".

Thanks to the distinction between the existential and the essential reading of propositions (which is now clearly understood as one external to logical calculus, or, at least, to its syntax), the question already discussed in the note to section 66 can be posed again in the clearest way. As far as the solution is concerned, however, Leibniz seems still to be a little bit uncertain.

In section 153, where the problem of the *constantia subjecti* is explicitly invoked, he seems to consider preferable the essential reading, where "every proposition which lacks a consistent subject, i.e. a real term [*in the sense explained in the previous section*] is false". This is particularly true in the case of the UN, which, as we have seen above, represented the main problem when it is taken as ranging on concepts and not on existing things.

Leibniz adds that this reading of universal propositions is "far removed from the way we speak" when we turn to the existential reading of propositions. When we say (existentially) "Every man sins", indeed, we usually do not understand it as if the concept of a 'non-sinning man' be a contradictory one (also because, as Leibniz would have certainly acknowledged, there is an exception represented by Jesus Christ; this is why, in order to come out true, the proposition has to be indexed to a certain time). However, Leibniz seems to regard this contrast with the common way of speaking as a minor issue, since he is looking for an appropriate set of signs only, which allows him to depart from the way in which names are generally employed.

In the following two sections (154-55), however, Leibniz's pendulum seems to oscillate in the other direction again, since he makes room for the possibility of an unrestricted interpretation of his calculus, in which the PA (AB = AB) can be stated "whether AB is a thing or not, and, in the case in which AB is not a thing, B and *not-B* can coincide –namely, *per impossibile*".⁴⁸⁴ Such an unrestricted reading finds a correspondence in those passages in which Leibniz assumes that 'term' (or 'something') does not immediately coincide with 'thing' (or 'possible'), since there can be both possible and impossible terms. This approach, notice, has been already adopted at the beginning of the GI, where Leibniz introduces the expression 'term', writing: "*Terminus* (quo comprehendo tam Ens quam non-Ens)".⁴⁸⁵

⁴⁸⁴ GI, # 153, A VI 4,781 /LP 82

⁴⁸⁵ GI, A VI, 4, 744. Leibniz's oscillations concerning the equivalence (or the non-equivalence) between *aliquid* and *possibile* may be connected with the traditional doctrine of the so-called *complexe significabile*. This doctrine, as originally proposed by Gregory of Rimini, immediately required three different sense of taking the word *aliquid* (or *ensor res*), which perfectly correspond with Leibniz's own understanding of *term* (as a linguistic entity which can refer to what is possible as well as to what is impossible), *ens* properly said (i.e. as what is *possible*) and *existent* (i.e. what is actual). Again, exactly as in Gregory of Rimini, the sense in which the content of a statement (or proposition) is something, even though not necessarily something actually existing, coincided with the second acceptation of *aliquid/ens*, i.e. what Leibniz calls 'possible'. On Gregory's doctrine,

The same remark is repeated now at the end of section 154: "This [the unrestricted reading] will have as a consequence the need to distinguish between a term and a thing or entity".⁴⁸⁶ In this case, indeed, 'term' refers to a linguistic entity only, where it is not necessary that something corresponds to it at the conceptual/ontological level.

This path is followed also in the following section, where he notes that, "it will perhaps be better for us to say that, in symbols at least, we can always put A=A, though nothing is usefully concluded from this when A is not a thing".⁴⁸⁷ The idea, which Leibniz refers to many times, is that from a contradiction (in this case, a contradictory term), it can follow everything (for any *B*, both *B* and *not-B*), and, thus, a system which would include a contradictory term would be completely useless from the logical point of view.

The connection between the doctrine of the *constantia subjecti* and the square of opposition of the traditional logic, with particular reference to the possibility of interpreting both the UA and the PA as having or not having existential import, however, is not discussed in the context of the GI.

The problem will be discussed and solved only in the later paper on 'logical difficulties', where Leibniz will also come back to discuss the relation between the intensional and extensional interpretation of propositions (cf. the Introduction).

see G. Nuchelmans, *Teories of Propositions. Ancient and Medieval Conceptions of the Bearers of Truth and Falsity*, Amsterdam 1973, Chapter 14, "The Theory of *Complexe Significabile*", pp. 227-42. On the reception of this theory in the late-medieval period, see Ashworth, *Language and Logic*, pp. 55-62. For Leibniz, see in particular *Divisio terminorum ac enumeration attributorum*, 1683-85 (?), A VI 4, 558.See also A VI 4, 394 and 744. Originally, Leibniz had equated terms with concepts (as non –linguistic items), and since for him there are no concepts of impossible things, there were also no impossible terms. Cf. *Specimen calculi universalis*, 1679 (?), A VI 4, 288. However, as showed above, the distinction between things and terms is at work in the GI. In a late text written for Des Bosses (GP II, 471), Leibniz will assume that 'term' refers to a linguistic entity, and, therefore, will distinguish between possible and impossible ones. ⁴⁸⁶ A VI 4, 781/LP 82.

⁴⁸⁷ GI, # 154, A VI 4, 781/LP 82. Cf. also *Definitiones*, 1688-89 (?), A VI 4, 938: "*Something* [*Aliquid*] is whatever can be thought, like *A*, or *B*, or *C*, or any other term whatsoever. This notion is the most general one, and embraces also those impossible things which can be thought only in a confused way, even though never be explained distinctly; like *square triangle* or *indivisible body*". Same approach in A VI 4, 934 and 939, all belonging to the same period.