

# Auxiliary Selection Revisited



Gradience and Gradualness

Edited by  
Rolf Kailuweit and Malte Rosemeyer

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# Contents

Malte Rosemeyer and Rolf Kailuweit

**Introduction — 1**

## Section 1: (Limits of) Semantic and syntactic gradience

Antonella Sorace

**The cognitive complexity of auxiliary selection:  
from processing to grammaticality judgements — 23**

Michele Loporcaro

**Perfective auxiliation with reflexives in Medieval Romance:  
syntactic vs. semantic gradients — 43**

Pierre-Don Giancarli

**Auxiliary selection with intransitive and reflexive verbs:  
the limits of gradience and scalarity, followed by a proposal — 79**

## Section 2: Between constructional variation and auxiliary selection

Artemis Alexiadou

**On the irrealis effect on auxiliary selection — 123**

Ida Larsson

**The HAVE/BE alternation in Scandinavian – perfects, resultatives  
and unaccusative structure — 145**

Jaume Mateu and Mar Massanell i Messalles

**A constructional approach to auxiliary selection:  
evidence from existential constructions — 183**

Peter Öhl

**Periphrasis as a precursor of analytic inflection: auxiliation in the  
(pre-)history of German — 213**

### Section 3: **Mechanisms of Gradual Change: BE > HAVE and HAVE > BE**

Rolf Kailuweit

**BE or HAVE in Contemporary Standard French – residua of semantic  
motivation — 249**

Steffen Heidinger

**The auxiliary selection of French *monter* ‘move upward’ from the 16<sup>th</sup>  
to the 20<sup>th</sup> century — 277**

Malte Rosemeyer

**Entrenchment and discourse traditions in Spanish auxiliary selection — 301**

Melitta Gillmann

**Auxiliary selection in closely related languages: the case of German and  
Dutch — 333**

**General index — 359**

**Language index — 363**

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# Perfective auxiliation with reflexives in Medieval Romance: syntactic vs. semantic gradients\*

## 1 Introduction

Several studies have argued for a semantic account of perfective auxiliary selection and, more generally, of unaccusativity-related features. Sorace (1992, 2000), in particular, has recognized a semantically-based gradience in Romance and beyond. She observes that categorical ‘be’ vs. ‘have’ selection with intransitive verbs occurs at the two poles of the hierarchy in (1), defined in terms of the predicate semantics, while verbs belonging to the intermediate classes may show vacillation:

- (1) Sorace (2000):
- |                                     |                      |                   |                         |                      |                        |                    |                        |                          |                            |
|-------------------------------------|----------------------|-------------------|-------------------------|----------------------|------------------------|--------------------|------------------------|--------------------------|----------------------------|
| Auxiliary selection hierarchy (ASH) | CHANGE OF LOCATION > | CHANGE OF STATE > | CONTINUATION OF STATE > | EXISTENCE OF STATE > | UNCONTROLLED PROCESS > | MOTIONAL PROCESS > | NON-MOTIONAL PROCESS > | categorical BE selection | categorical HAVE selection |
|-------------------------------------|----------------------|-------------------|-------------------------|----------------------|------------------------|--------------------|------------------------|--------------------------|----------------------------|

For instance, verbs of emission like the one exemplified in (2), denoting an uncontrolled process, may take either auxiliary in Italian:

- (2) *L'eco ha/è risuonato nella caverna*  
‘The echo resounded in the cave.’

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\* Previous versions of this research were presented at the Universities of Leiden (May 2011), Roma Tre (October 2011) and Cambridge (November 2012). I thank the audiences there (as well as participants of the Freiburg workshop in June 2012), particularly Adam Ledgeway, as well as two anonymous reviewers for discussion and constructive criticism. I am also grateful to Rachele Delucchi for comments on a previous draft. The usual disclaimers apply. The following abbreviations are used in the examples: ASH = Auxiliary Selection Hierarchy, aux = perfective auxiliary, DO = direct object, E = auxiliary ‘be’, GR = grammatical relation, H = auxiliary ‘have’, It. = Italian, PtP = past participle, RG = Relational Grammar, RRG = Role and Reference Grammar, Sp. = Spanish.

For some of the studies in this line of research, one can speak of “semantic reductionism” (3a), as they try to reduce to semantic properties (telicity, agentivity, etc.) the unergative vs. unaccusative contrast first proposed by Perlmutter (1978) in a different perspective (3b):

- (3) a. (SEMANTICIST) REDUCTIONISM: syntactic unaccusativity is an epiphenomenon of semantic properties (telicity, agentivity; e.g. Van Valin 1990; Cennamo 1999);
- b. AUTONOMOUS SYNTAX: unaccusativity is an autonomous syntactic property, correlating with, but not reducible to, semantic properties like telicity, agentivity, etc. (e.g. Rosen 1984; Perlmutter 1989).

In this paper, I argue for an approach to auxiliary selection similar to type (3b). I will show that a syntactic representation of the unaccusative vs. unergative contrast is necessary, because in its absence, it becomes impossible to make sense of the data. In particular, I shall demonstrate the existence of a syntactic gradient in Romance, which is orthogonal to and independent from that in (1). Reflexive constructions play a central role in this demonstration: therefore, the paper begins by addressing the uneconomical way in which reflexives are treated, if at all, in semantically-based approaches to auxiliary selection (section 2). It then considers one such treatment in section 3 which focuses instead on reflexives, claiming that “the distribution of the two perfect auxiliaries with reflexive verbs in Old Spanish supports a semantic analysis of split intransitivity, and gives evidence against a syntactic analysis” (Aranovich 2003: 29). In section 4 I present the basics of Perlmutter’s (1978) Unaccusative Hypothesis, and then review in section 5 some of the evidence from empirical domains distinct from auxiliiation which show that unaccusativity-related effects require a syntactic representational contrast and cannot be reduced to the semantics. Given these premises, I return in section 6 to Aranovich’s analysis of Old Spanish and the role reflexives play within it. In section 7, I sketch my own account of perfective auxiliiation, and show how the different parametric options encountered in auxiliary selection with reflexives across Romance build up to constitute the syntactic gradient. Section 8 brings three Medieval Romance varieties into the picture and shows how auxiliary selection, in reflexives and in general, can be accounted for by means of a parametric syntactic rule which elaborates on the syntactic gradient introduced in section 7. Section 9 presents the conclusions of the previous discussion, pointing to the necessity of a syntactic rule for auxiliary selection in Romance, capitalizing in turn on a syntactic unaccusative vs. unergative representational contrast.

## 2 Semantic approaches to auxiliiation: the problem with reflexives

To exemplify the kind of claims on unaccusativity I will take issue with here, consider the following passage:

se il fenomeno [dell'inaccusatività, M.L.] sia *sintattico* (rifletta cioè la relazione sintattica del soggetto in un livello non finale della rappresentazione), *semantico* (determinato dal ruolo tematico del soggetto e dall'aspetto lessicale) o *sintattico-semantico* (determinato semanticamente ma rappresentato sintatticamente [...]). In questo lavoro seguiremo l'approccio semantico e sintattico-semantico. (Cennamo 1999: 303) [whether the phenomenon [of unaccusativity] is *syntactic* (and thus reflects the syntactic relation of the subject in a non-final level of representation), *semantic* (i.e. determined by the thematic role of the subject and by lexical aspect) or *syntactic-semantic* (i.e. semantically determined but represented syntactically [...]). In this research, we shall follow the semantic and syntactic-semantic approach.]

Much of the research of type (3a), claiming that unaccusativity is syntactically determined and trying to derive the auxiliary selection facts from the semantics, focuses only on intransitive predicates, whereas both transitives and reflectives feature only marginally, if at all. Indeed, such approaches have to postulate separate rules for the auxiliary choice in reflexives, as is the case for Van Valin (1990) on Italian, who first proposes a general rule for auxiliary selection (4a), then later proposes a distinct one that accounts for reflexives (4b):

- (4) a. AUXILIARY SELECTION WITH INTRANSITIVE VERBS  
(Van Valin 1990: 233)  
“Select *essere* if the LS [= logical structure, M.L.] of the verb contains a state predicate”.
- b. AUXILIARY SELECTION FOR ITALIAN VERBS  
(Van Valin 1990: 256)  
“Select *avere* if the subject is an unmarked actor (with respect to the Actor-Undergoer Hierarchy [...]), otherwise *essere*”.

The same applies to Bentley's (2006) account of French auxiliiation:

- (5) PERFECTIVE OPERATOR SELECTION IN FRENCH  
(Bentley 2006: 72)  
Select *avoir* 'have' unless
- a. The construction is marked by *se* or
  - b. The predicate is a telic intransitive.



The most explicit admission that semantically-based approaches have to postulate several quite disparate rules is to be found in Bentley and Eythórsson (2003: 468), who formulate the following bipartite rule:

- (6) PERFECT FORMATION RULE IN MODERN ROMANCE  
(Bentley and Eythórsson 2003)
- (i) if V is [+pronominal] > ‘be’ + past participle
  - (ii) a. if P is marked [+Fn] > ‘be’ + past participle
    - b. elsewhere > ‘have’ + past participle

Having claimed that “perfect formation involves two rules [...] in modern Romance” (Bentley and Eythórsson 2003: 468) – one for reflexives (6i), the other for intransitives (6ii) – they have to posit nonetheless a third distinct rule (select ‘avere’ invariably) for transitives: “It should be stressed that the rule in (22) [i.e. (6) here, M.L.] regards auxiliary selection with all intransitives, but not with transitives” (Bentley and Eythórsson 2003: 461). Of these three rules, (6ii) is the only one which is sensitive to the semantics, since “[Fn] is a subset of {F} including the properties which are relevant for ‘be’ selection in a particular language [...]: dynamicity, telicity, stativity” (Bentley and Eythórsson 2003: 460).

As we shall see in section 4, a syntactic approach to auxiliation offers a much simpler account.

### 3 Old Spanish: first part

One notable exception to the marginality of reflexives for studies on perfective auxiliary selection of type (3a) is Aranovich (2003). This is an often-quoted study on the gradual replacement of perfective auxiliary *ser* through *haber* in the history of Spanish, which does take reflexives into account and even argues that their behaviour with respect to auxiliation is crucial in order to disconfirm a syntactic approach to unaccusativity à la Perlmutter (3b). Aranovich shows that this gradual replacement was driven by semantic factors, since intransitives whose argument is a prototypical patient preserved auxiliary *ser* longer than other intransitive predicates (Aranovich’s 2003: 11 “Semantic Displacement Hypothesis”).

From this gradual displacement, however, Aranovich (2003: 29, 31) concludes that one has to *substitute* a semantic explanation of Romance auxiliation for the syntactic explanation made available by Perlmutter’s Unaccusative Hypothesis. The selected data in (7) summarize the evidence which brings Aranovich to this conclusion:

(7)	a. intransitive verbs	b. reflexive verbs
time ↓	<i>holgar</i> ‘idle about’	<i>vengarse</i> ‘take revenge’
	<i>ser</i> not later than the 14 <sup>th</sup> c.	<i>ser</i> not later than the 13 <sup>th</sup> c.
	<i>morir</i> ‘die’	<i>arrepentirse</i> ‘repent’
	<i>ser</i> not later than the 17 <sup>th</sup> c.	<i>ser</i> not later than the 17 <sup>th</sup> c.

As seen in (7a), the spread of *haber* affected first verbs like *holgar* ‘idle about’, agentive and non-telic, and only later affected verbs like *morir* ‘die’ (non-agentive and telic). In (7b), furthermore, it is shown that the same happened in pronominal verbs too. This, according to Aranovich (2003: 29), “supports a semantic analysis of split intransitivity, and gives evidence against a syntactic analysis”. The argument goes as follows. Considering that “reflexive verbs in Italian and French select the ‘be’ auxiliary is often offered as evidence for the unaccusative analysis of auxiliary selection (Rosen 1981 [1988]; Legendre 1989; Perlmutter 1989; Grimshaw 1990), under the assumption that all reflexive verbs have subjects which are also objects at an underlying level of representation”, Aranovich (2003: 29) feels that his findings disconfirm the Unaccusative Hypothesis for the following reason: “In Old Spanish [...], aside from a handful of quasi-reflexive verbs [to be described in section 6, M.L.], I have found no instances of reflexive verbs with the auxiliary *ser*. The generalization that supports the unaccusative analysis in French and Italian [...] does not hold for Spanish, robbing the syntactic analysis of split intransitivity of crucial evidence for Old Spanish”. The reason “[t]he evidence [...] about quasi-reflexives selecting *ser* in Old Spanish also supports the semantic analysis of auxiliary selection” is that the loss of *ser* with reflexives obeyed the “semantic displacement hypothesis” just as well as intransitives, as shown in (7b): *arrepentirse* ‘repent’ is more patientive than *vengarse* ‘take revenge’, and therefore it keeps auxiliary *ser* longer.

There are good reasons for discussing Aranovich’s account of Old Spanish here. Firstly, as I said, this is the only semantically-based treatment of Romance auxiliiation that crucially capitalizes on the syntactic behaviour of reflexives, rather than focusing on intransitives only (perhaps devoting just an afterthought to reflexives, or a separate stipulation, as shown in 4–6 above). Secondly, among the studies of type (3a), this is one of the most explicit pleas for semantic reductionism, concluding with the bold claim that the “Old Spanish data may have consequences for a semantic analysis of cross-linguistic variation in split intransitivity, providing the blueprint of an argument to overcome Rosen’s objections against a semantic approach to split intransitivity in general” (Aranovich 2003: 31). Thirdly, it is an influential and much quoted



(9)	a.	2		P		b.	1		P
		1		P			1	P	Cho
		1	P	Cho			Gianni	ha	lavorato
		La nave	è	affondata			‘John worked.’		
		‘The boat sank.’							

Based on the structural contrast in (9), Perlmutter (1989: 81) proposed a simple generalization which accounts for the distribution of auxiliaries *essere/avere* in all types of clauses in Italian:

(10) PERFECTIVE AUXILIATION IN ITALIAN

(Perlmutter 1989: 81)

The perfective auxiliary is *essere* iff: the final 1 is a 2.

Otherwise the perfective auxiliary is *avere*.

This generalization also accounts for the selection of *essere* in reflexives (11), which was problematic for semanticist accounts, as seen in (3)–(6):<sup>2</sup>

(11)		1,2		P					
		1		P			<b>direct transitive reflexive</b>		
		1	P	Cho					
		Maria	si è	lavata					
		‘Mary washed herself.’							

The view of unaccusative and auxiliary selection summarized in (8)–(11) has several theoretical implications. The fundamental one is the one Aranovich would like to dismiss, i.e. the fact that the contrast between unaccusative and unergative predicates has to be expressed in syntactic terms, rather than be reduced to some semantic property.

However the contrast is exactly encoded structurally – be it as shown in (9a–b) or some other way – one cannot dispose of it, unlike suggested e.g. by Dowty (1991: 612–613) and Van Valin and La Polla (1997: 257). The latter study

<sup>2</sup> In Relational Grammar, reflexiveness is represented as multiattachment of the final subject (i.e. its bearing two grammatical relations) at some previous stratum (cf. Rosen 1981 [1988]). In the Romance languages, multiattachment must be resolved before the final stratum, since no nominal can display both subject and object surface properties at the same time (e.g. a subject precedes the finite verb in the unmarked word order and controls its agreement, while neither is true of a direct object).

is worth commenting on in this context, since it is a general typological study whose discussion of unaccusativity-related properties is doubly tied to our Romance topic: on the one hand, it provides inspiration for Bentley's (2006) account of Romance auxiliation within the framework of Role and Reference Grammar, mentioned in section 2; on the other, the authors – like Aranovich – dismiss a syntactic view of unaccusativity, and they do so by invoking the results of previous semanticist studies of Italian auxiliary selection within Role and Reference Grammar.

## 5 On the syntactic nature of unaccusativity

Van Valin and La Polla (1997: 255–260) discuss verb agreement in Acehnese (Malayo-Polynesian, Aceh, Sumatra; data from Durie 1985, 1987), which displays an intransitive split, as illustrated in (12):

- |         |                                   |    |                              |          |
|---------|-----------------------------------|----|------------------------------|----------|
| (12) a. | <i>geu-jak</i> ( <i>gopnyan</i> ) | b. | <i>lôn</i> <i>rhët(-lôn)</i> | Acehnese |
|         | 3-go (3SG)                        |    | (1SG) fall(-1SG)             |          |
|         | '(S)he goes'                      |    | 'I fall'                     |          |

This can be realized by comparing transitive clauses, exemplified in (13a–b), in which core arguments are expressed through independent and/or clitic pronouns:

- |         |                    |                  |            |    |                |                     |          |
|---------|--------------------|------------------|------------|----|----------------|---------------------|----------|
| (13) a. | ( <i>gopnyan</i> ) | <i>geu-mat</i>   | <i>lôn</i> | b. | ( <i>lôn</i> ) | <i>lôn-mat-geuh</i> | Acehnese |
|         | (3SG)              | 3-hold           | 1SG        |    | (1SG)          | 1SG-hold-3          |          |
|         |                    | '(S)he holds me' |            |    |                | 'I hold him/her'    |          |

Among pronominal clitics, the subject is proclitic (*geu* [gu] in 13a, *lôn* [lon] in 13b), whereas the direct object is enclitic (*geu* [guh] in 13b). Much like in the Romance pro-drop languages, free subject pronouns may be omitted without affecting subject-marking on the predicate, since the proclitic subjective pronoun must be there anyway. On the other hand, just like in Romance, enclitic and free object pronouns are in complementary distribution.

As for intransitive clauses, there is a split in core argument cross-referencing on the verb by means of clitic pronominals, since active predicates, whose core argument is semantically an agent (or has an actor macro-role in Role and Reference Grammar terms), get the same proclitic marking as transitive subjects, as shown by (12a) and (13a). Arguments of inactive intransitives, on the other hand (12b), are treated like transitive direct objects, since they cannot

trigger pronominal proclitic marking on the predicate. This is exactly the kind of intransitive constructions for which Perlmutter's Unaccusative Hypothesis proposed an underlying representation of the core argument as an initial direct object, assuming unaccusative 2→1 advancement. However, Van Valin and La Polla (1997: 257) dismiss such a syntactic analysis for the Acehnese facts: "In order to interpret these facts in terms of grammatical relations, it would be necessary to say that verbs like *rhët* 'fall' have only an object without a subject, or that there is a subject, but is really an object. This is possible, but complicates the theory unnecessarily. The most straightforward account is to say simply that there is one kind of cross-referencing for actors and another for undergoers" (Van Valin and La Polla 1997: 257).

Thus, the argument against a syntactic analysis à la Perlmutter is that it would be less economical. By the same reasoning, in the case of Romance auxiliation, one is entitled to dismiss the semantic accounts discussed in section 2 above – including Van Valin's (1990) – since they are less economical. Romance auxiliation is all the more relevant because in Van Valin and La Polla's (1997: 662 fn. 3) discussion of Acehnese, the killer argument against a syntactic analysis – and, more broadly, for the dismissal of grammatical relations as a cross-linguistically valid construct – involves two Role and Reference Grammar papers on auxiliary selection in Italian:

One could claim that there are multiple levels at which grammatical relations are represented and that at the abstract level the single argument with verbs like *rhët* is an object in a clause without a subject but that while it is a subject in the overt structure, the verb agrees with it as if it is still an object. This proposal, known as the 'Unaccusative Hypothesis', was originally put forward in Perlmutter (1978) and a number of other works; see Van Valin (1990) and Kishimoto (1996) for detailed critiques from the perspective of RRG (Van Valin and La Polla 1997: 662 fn. 3).

Thus, Romance auxiliary selection is, in the authors' own view, a crucial empirical domain for assessing the correctness of the Unaccusative Hypothesis. By their own line of reasoning, if the Unaccusative Hypothesis was proven indispensable to account for Romance auxiliary selection, it may account for the Acehnese data as well (and for cross-linguistic generalizations on alignment phenomena in general). Consequently, I shall recapitulate in section 5.1 some of the Romance evidence (cf. e.g. Loporcaro 2008) – independent from auxiliary selection – which shows that a syntactic unaccusative vs. unergative contrast is needed and cannot be simply reduced to a semantic contrast.

### 5.1 Unaccusativity vs. telicity: the evidence from Italian participial clauses

Participial clauses tend cross-linguistically to host only telic predicates, as observed for Romance in several studies:

(14) SEMANTIC CONSTRAINT ON PARTICIPIAL CLAUSES

The verb occurring in a participial clause must be telic

(e.g. Šabršula 1963; Bertinetto 1986: 266–267; Rosen 1987; Legendre 1987: 9; Van Valin 1990: 239; Hernanz 1991; Dini 1994; etc.)

This semantic constraint explains a large set of facts, like the non-occurrence of dependent participles with argumental bare nouns, negation or predicates like *possedere* ‘possess’, as exemplified in (15) (cf. Dini 1994):

- (15) a. \**Mangiato salame, Gianni riprese il cammino*  
 ‘Having eaten salami, Gianni set off again.’
- b. \**Cadute pietre, la strada è rimasta bloccata*  
 ‘(Some) rocks having fallen, the road was blocked.’
- c. \**Non mangiato (il) salame, Gianni riprese il cammino*  
 ‘Not having eaten salami, Gianni set off again.’
- d. \**Non arrivata Maria, la festa cominciò*  
 ‘Maria not having arrived, the party began.’
- e. \**Posseduta quella villa, Gianni si trasferì*  
 ‘Owned that villa, Gianni moved.’

Alongside this semantic constraint, however, it is necessary to recognize independent syntactic conditions. This becomes apparent if one compares participial absolutes (17, below) and dependents, viz. participial clauses with EQUI deletion (i.e., deletion of a subject coreferential with that of the matrix clause, in Perlmutter’s 1984: 308–311 terminology):

- (16) a. \*?(*Una volta*) *lavorato, i contadini non si fecero più vedere*      DEPENDENT  
 ‘Having worked, the farmers did not show up anymore.’      non-telic
- 
- b. (*Una volta*) *vendemmiato, i contadini non si fecero più vedere*  
 ‘Having harvested (grapes), the farmers did not show up anymore.’

- c. *(Una volta) partiti, i contadini non si fecero più vedere*                    telic  
 Having left, the farmers did not show up anymore.’
- d. *Raccolta l'uva, i contadini non si fecero più vedere*  
 ‘Having picked the grapes, the farmers did not show  
 up anymore.’

In participial dependents, an unergative predicate may occur (16b) provided it is telic, like *vendemmia* ‘harvest grapes’, which shows that the ungrammaticality of *lavorare* in (16a) has a semantic motivation, aptly expressed in the constraint (14).<sup>3</sup> On the other hand, in participial absolutes (17), any unergative is ungrammatical, be it telic or non-telic (17a–b):

---

<sup>3</sup> One anonymous reviewer observes that the telicity of *vendemmia* “results from an inferable object of the activity (note that in the English gloss ‘harvest grapes’, it is indeed expressed): one can only harvest grapes as long as there are grapes to harvest. This suggests that if we accept that *vendemmia* is telic, we also need to characterise it as semantically transitive. Thus, it would fall out of the theory”. The answer to this query is that I am of course aware that there is a long tradition of defining transitivity in semantic terms (e.g. Hopper and Thompson 1980) and/or as a prototypical notion, with reference to several distinct parameters (cf. e.g. Malchukov 2006; Næss 2007, and much other work in the functional-typological approach). Yet, I am following here a different line of research which, within RG, defines transitivity in purely syntactic terms, with reference to propositional strata, whereby a stratum is *transitive* if and only if it contains both a 1 and a 2 (Perlmutter 1989: 65, with modifications). In this perspective, there is no such thing as a distinction between semantic and syntactic transitivity (cf. the definition of *initialization*, in fn. 12 below). Note that if such a notion as “semantic transitivity” were adopted, it is unclear what could prevent one from claiming, for instance, that also *lavorare* is semantically transitive, and that this goes hand in hand with telicity, since “one can only work as long as there is work to be done”. Conversely, under a syntactic view of (in)transitivity, clear diagnostic criteria are available for ascertaining that both *lavorare* ‘work’ and *vendemmia* ‘harvest grapes’ are syntactically intransitive in Italian, but differ in (semantic) telicity, as demonstrated by the standard “in x time” test:

- (i) a. *I contadini hanno vendemmiato in tre ore*  
 ‘The farmers have harvested grapes in three hours.’
- b. *\*I contadini hanno lavorato in tre ore*  
 ‘The farmers have worked in three hours.’

Note that as soon as *lavorare* is used within a (syntactically) transitive construction, a definite object telicizes it, as is usually the case with activities:

- (ii) *Hanno lavorato tutto il legno disponibile in tre ore*  
 ‘They worked all the available wood in three hours.’



- (17) a. \**Lavorati/-o i contadini, il vigneto sembrava un campo di battaglia* ABSOLUTE  
 ‘The farmers having worked, the vineyard looked like a battle field.’
- b. \**Vendemmiati/-o i contadini, il vigneto sembrava un campo di battaglia*  
 ‘The farmers having harvested, the vineyard looked like a battle field.’
- 
- c. *Partiti i contadini, il vigneto sembrava un campo di battaglia*  
 ‘The farmers having left, the vineyard looked like a battle field.’
- d. *Raccolta l’uva, il vigneto sembrava un campo di battaglia*  
 ‘The grapes having been picked, the vineyard looked like a battle field.’

Clearly, telicity alone cannot explain all the data here: it does explain why only telic predicates are fine in participial dependents (16b–d), but the behaviour of participial absolutes, where all unergatives are barred, regardless of their being (a)telic (17a–b), cannot be explained with telicity, nor with other semantic–pragmatic devices like e.g. the Immediate Cause Linking Rule vs. the Directed Change Linking Rule assumed by Rappaport Hovav and Levin (2000) to account for the unergative/unaccusative contrast. Rather, what is needed is a purely syntactic generalization, as formulated in (18) (slightly simplified, from Loporcaro 2003: 240):

(18) PARTICIPIAL ABSOLUTES IN ITALIAN

The verb in participial form is accompanied by a nominal which is

- (i) its P-initial 2 [excludes unergatives and auxiliaries]  
 (ii) the final 1 of the participial [excludes non-passivized transitives] clause.

This descriptive result is out of reach for accounts of type (3a) that reduce unaccusativity to telicity and/or non-agentivity.

## 5.2 Telic unergatives: a puzzle for semantic approaches to perfective auxiliiation

Note that the very existence of verbs such as It. *vendemmia* ‘harvest grapes’, unergative but telic, shows that reductionist approaches to unaccusativity cannot be right in claiming that “in Italian [...] intransitive ‘have’-selecting predicates (‘unergatives’) are not telic” (Bentley and Eythórsson 2003: 461). Admittedly, this is true for most verb lexemes, but crucially not for all of them. There is a statistical correlation, since most syntactically unaccusative predicates are telic and most syntactically unergative predicates are atelic (the gray cells in 19 correspond to the “normal” case). But the fact that all four combinations occur shows that the unaccusative/unergative contrast cannot be reduced to semantics:

		SEMANTICS	
		telic	atelic
SYNTAX	unaccusative	<i>morire</i> ‘die’	<i>rimanere</i> ‘stay’
	unergative	<i>vendemmia</i> ‘harvest grapes’	<i>lavorare</i> ‘work’

Consider the behaviour of a predicate like Italian *traslocare* ‘move’, which seems to pose a problem for the Auxiliary Selection Hierarchy (1). This verb, in fact, denotes a telic change of location, and therefore should be a core unaccusative by (1). Indeed, *traslocare* may show unaccusative syntax, as seen in (20) by the occurrence of past participle agreement (compare the unaccusative participial clause in 16c above).

(20) It. *traslocare* ‘move’: unaccusative syntax

(Google search June 21, 2012)

- a. *Quando, una volta traslocata, ho visto la struttura della casa e cioè che al primo piano è situata la clausura delle suore (dove noi non possiamo accedere)*

‘When, once having moved, I (1 fsg) saw the structure of the house’  
etc.

<http://www.cestanahoru.org/blog/wp-content/koinonia-eliska.pdf>

- b. *tanto una volta traslocata lavavo sempre tutto! i bicchieri ...*

‘Anyway, once having moved, I (1 fsg) always washed all glasses’

[http://forum.alfemminile.com/forum/f107/\\_f286319\\_f107-](http://forum.alfemminile.com/forum/f107/_f286319_f107-)

[Ot-bicchieri-e-trasloco.html](http://forum.alfemminile.com/forum/f107/_f286319_f107-Ot-bicchieri-e-trasloco.html)

- c. *Enel che al contrario una volta traslocata da Terni, Papigno è finita da anni all'Endesa, sta radicandosi a Perugia*  
 'Enel [a public service company] which, on the contrary, once having moved from Terni-Papigno ended up years ago at Endesa, is putting down roots in Perugia'  
<http://quindici.federutility.it/default.aspx?Y0=2006&N0=14>

However, one also finds the same verb with unergative syntax, as shown in (21) by the lack of past participle agreement (*una volta traslocato*) with the plural (unrealized) argument of the participial clause:

- (21) It. *traslocare* 'move': unergative syntax  
 (Google search June 21, 2012)
- a. *anche E. mi ha detto che è uno degli acquisti che hanno già deciso di fare anche loro, una volta traslocato nella casa nuova*  
 'Also E. told me that this is one of the things they have already decided to buy, once they will have moved to their new home'  
<http://gitementali.wordpress.com/2011/09/01/un-simpatico-insettone/>
- b. *una volta traslocato creare una tabella di orari per i primi mesi di lavori di casa, spese, etc.*  
 'Once having moved, create a timetable for the first months of work that the house needs doing on it, purchases, etc.'  
<http://www.stupidaggini.net/vado-a-vivere-da-solo>

As for auxiliation, however, whenever this verb is used in the compound perfect, 'have' is selected invariably, as one would not expect, given (1), for a verb denoting a telic change of location:<sup>4</sup>

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<sup>4</sup> That a compound perfect is involved in (22a) is guaranteed by the punctual time adverbial *ieri* 'yesterday'. This and other similar adverbials, as shown in (22b), are incompatible with 'be'-selection. This qualification is necessary, since strings like *è traslocata* do indeed occur:

- (i) *a chi serviremo questi spazi se la moda è già traslocata altrove*  
 'Who will need all those spaces if fashion has already moved somewhere else?'  
 (<http://ricerca.repubblica.it/repubblica/archivio/repubblica/2007/11/29/zona-tortona-avra-il-marchiodoc-la.html>)

However, these are examples of stative-resultative constructions, as shown by their co-occurrence with the adverbial *già* 'already'.

- (22) a. *la donna che ha traslocato ieri*  
 ‘The woman who has moved yesterday.’  
 (Google search November 27, 2012)
- b. no examples of:  
 \**è traslocato/-a ieri*, \**siamo traslocati/-e ieri/un anno fa etc.*  
 ‘(He) is moved/(she) is moved yesterday/(we.M/F) are moved  
 yesterday/one year ago etc.’

I do not doubt that this exception can be accommodated somehow, for instance by assuming that telicity for telic change of location verbs such as *arrivare* ‘arrive’ is “deeper” (in some structural sense) than for *traslocare* ‘move’.<sup>5</sup> But any such account, however elegant, would miss an interesting generalization: not only are unergative telic verbs like *traslocare* or *vendemmiare* less numerous, but they also are less likely to resist diachronic change, as shown by the fact that (late) Latin *vindemiare* ‘harvest grapes’ survives into Italian but not into any other Romance language. Under the view defended here, *traslocare* or *vendemmiare* are telic on a par with core unaccusatives like *cadere* ‘fall’ or *arrivare* ‘arrive’, but given the correlation in (19), their non-corresponding to the statistically prevailing type represents an adaptive disadvantage, and explains their fading as synthetic verb lexemes in most Romance languages.

More generally, although the Auxiliary Selection Hierarchy-based line of research has revealed interesting regularities, it is hard to escape the impression that it has grossly overstated the case for gradience in auxiliary selection, on occasion even by inventing gradualness where it does not exist, at the cost of forcing empirical data into a Procrustean bed. Two such examples are the following:

- (23) a. *ne hanno venuto tre*  
 ‘Three of them have come’  
 (Conti Jiménez 2005: 1091, 1096, quoting Bentley 2004)
- b. *sono/’ho rimasto solo*  
 ‘I remained alone’  
 (Legendre and Sorace 2003: 196)

Actually, the selection of ‘have’ in both (23a–b) is utterly ungrammatical in standard Italian, to which the quoted sources ascribe those examples (albeit

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<sup>5</sup> For instance, something along these lines would be possible in Mateu’s (2009) semantic theory of argument structure, elaborating on Hale and Keyser (2002).

with a question mark, in the second case): needless to say, they can occur in Italo-Romance dialects (or regional substandard varieties of Italian) in which e.g. all unaccusatives select ‘have’ or in which free variation occurs, but of course this is entirely orthogonal to the semantics, whereas Legendre and Sorace (2003: 196) argue that, in standard Italian, *ho rimasto solo* is predicted to be less ungrammatical than, say, *\*ho andato* ‘I came’ precisely on account of its semantics.<sup>6</sup> This is plainly false: any native speaker of standard Italian will confirm that *\*ho rimasto solo* is just as ungrammatical as *\*ho andato*. A further example of “invented” semantically-driven gradualness in auxiliary selection, concerning Old Neapolitan, is discussed in section 8.1.

## 6 Old Spanish: second part

That said, let me revert to Old Spanish auxiliation to see why Aranovich’s strong claims cannot be correct. In what follows, I shall prove him wrong by reanalysing his own data and showing that a syntactic generalization is not only possible but indeed necessary in order to make sense of them.

Reflexives, as recalled in section 3, are claimed to provide conclusive evidence against an unaccusativity-based account of perfective auxiliation. More precisely, what would crucially disconfirm such a syntactic account is the fact that auxiliary *ser* was selected in Old Spanish – not in all reflexive constructions but rather only in those Aranovich calls quasi-reflexives, as exemplified in (24):

- (24) a. *A Maimino, que se era alçado con tierra de oriente*  
 ‘To Maimino, who had rebelled with the Eastern lands’  
*(Primera crónica general, 13<sup>th</sup> c.)*
- b. *Estonçe Rruy Diaz apriessa se fue levantado*  
 ‘And then Ruy Diaz had risen in a hurry’  
*(Mocedades de Rodrigo, 14<sup>th</sup> c.)*

In all other reflexive (and/or reciprocal) constructions, *ser* has not occurred since the earliest Spanish texts:<sup>7</sup>

<sup>6</sup> Yet this piece of fake Italian data circulates widely in the literature proposing semantic accounts of Romance auxiliary selection, including e.g. Mateu and Masanell (this volume, 1c).

<sup>7</sup> Note that (25b) is actually an instance of reciprocal, not reflexive, construction. Consider, however, that in all Romance clitic *se/si*-constructions the contrast between reflexives and reciprocals is purely interpretive. As for morphosyntactic properties, including auxiliary selection, they all pattern the same, as shown by the complementary examples in (ia–b):

- (25) a. *y algunos se han ahorcado de desesperados*  
 ‘And some of them have hanged themselves out of despair’  
 (Alonso de Zorita, *Relación de los Señores de la Nueva España*, 16<sup>th</sup> c.)
- b. *la palabra que entrambos a dos se habían dado*  
 ‘The word that each had given to the other’  
 (Cervantes, *La española inglesa*, 17<sup>th</sup> c.)

The objection is obvious: (24) and (25) are instances of different syntactic constructions. In fact, Aranovich’s (2003: 16) characterization of “syntactic analyses” – ascribing them to “the assumption that all reflexive verbs have the same syntactic representation” and therefore “will show a uniform behaviour with respect to auxiliary selection” – is a misrepresentation that stretches credibility to the limit. Since at least Rosen (1981 [1988]) (referenced in Aranovich’s bibliography), it is clear that reflexive constructions all share the property of having two grammatical relations (later, further constrained as 1,2, since La Fauci 1988) borne by the final subject in one and the same stratum of propositional structure, which by no means implies that all reflexive constructions “have the same syntactic representation”. Indeed, a host of studies (including e.g. La Fauci 1988; Loporcaro 1998: 45–48, 1999, 2001, etc.) have shown that different structural subclasses of reflexive predicates can and must be distinguished by assuming distinct syntactic representations, lest one miss a number of relevant generalizations.

Thus, the fact that *ser* occurs only in (24), not in (25), can be explained by invoking a syntactic condition, *pace* Aranovich. To see how, it is necessary to introduce another kind of gradualness – syntactic rather than semantic in nature.

- 
- (i) a. *no se hubieran destruido los unos a los otros*  
 ‘They would not have destroyed each other’  
 (Alonso de Zorita, *Relación de los Señores de la Nueva España*, 16<sup>th</sup> c.)
- b. *y me he comido su pan*  
 ‘And I have eaten up his bread’  
 (Baltasar Gracián, *El comulgatorio*, 17<sup>th</sup> c.)

(ia) is a reciprocal (as opposed to the direct transitive reflexive in 25a), while (ib) is a dyadic reflexive (as opposed to the reciprocal in 25b). Yet, nothing changes as far as auxiliary selection is concerned.

## 7 The syntactic gradient

In Loporcaro (2007, 2011), I have elaborated on the binary contrast in (9) above (unaccusative vs. unergative), showing that (9a–b) are actually two poles of a scale, starting from the observation that reflexive constructions sometimes pattern uniformly with unaccusatives (say, in standard Italian), but sometimes part ways, so that one subset goes with unaccusatives and the complementary one with unergatives.

Alongside direct transitive reflexives (cf. 11 above), more types of reflexive constructions should be distinguished. The crucial one for my reanalysis of the Old Spanish data is that of retroherent unaccusatives (in Rosen’s 1981 [1988], 1982 terminology), corresponding to Aranovich’s “quasi-reflexives”:<sup>8</sup>

(26)	2 2,1 1	P P P		<b>retroherent unaccusatives</b>
	1	P	Cho	
	<i>Maria</i>	<i>si è</i>	<i>alzata</i>	‘Mary got up’
	<i>Ruy Diaz</i>	<i>se fue</i>	<i>levantado</i>	‘Ruy Diaz had risen’ (24b)

There are then two structural subtypes of indirect reflexives: viz. (27a), monadic indirect reflexives (i.e. reflexive constructions which involve only one nominal core argument, like in unaccusatives 9a); and (27b), indirect transitive (dyadic) reflexives (i.e. reflexives in which two distinct nominals bear the subject and the direct object relations initially, like in plain transitive constructions):

(27)	a. 1,3 1,2 1	P P P		b. 1,3 1,2 1	P P P	2 Cho Cho	<b>indirect reflexives</b>
	1	P	Cho	1	P	Cho	Cho
	<i>Maria</i>	<i>si è</i>	<i>risposta</i>	<i>Maria</i>	<i>si è</i>	<i>lavata</i>	<i>le mani</i>
	‘Mary answered herself’			‘Mary washed her hands’			

Once these different classes of reflexives are distinguished, one can move on to classify their behaviour with respect to auxiliation (and other unaccusative-

<sup>8</sup> As seen in the representation in (26), Romance *si/se*-predicates of this kind are argumentally just like monovalent unaccusatives such as It. *partire*/Sp. *partir* ‘leave’. The occurrence of the reflexive clitic is determined by a purely syntactic process, i.e. the resolution of 2,1 multiattachment (cf. fn. 2) between the second and the third stratum.

ty-related properties) across Romance. This has been done for past participle agreement in Loporcaro (1998) and for perfective auxiliiation in Loporcaro (2007, 2011, 2014), resulting in an implicational scale (here exemplified with auxiliiation) in which unaccusatives and unergatives occupy the two extremes:<sup>9</sup>

(28)	INACTIVE				ACTIVE
	unacc.	reflexive			trans./ unerg.
		retro-herent	dir. trans.	indir. unerg.	
a. Italian	E				H
b. Log. Sardinian	E				H
c. Old Romanesco	E				H
d. Old Florentine	E				H
e. Leccese	E				H
f. Spanish					H

This is an implicational scale, since no Romance variety described so far seems to show options that are arranged discontinuously along it.<sup>10</sup> For instance, standard Italian (28a) (like French) has auxiliary ‘be’ in plain unaccusatives and all reflexives, whereas Logudorese Sardinian (28b) minimally differs in selecting ‘have’ in dyadic reflexives, as exemplified in (29e):

(29) a.	<i>maria es palti:ða</i>	Logudorese Sardinian	<b>unaccusative</b>
	Mary is left.FSG		
b.	<i>maria z est arrenya:da</i>		<b>retroherent</b>
	Mary REFL is gotten-angry.FSG		
c.	<i>maria z el besti:ða</i>		<b>dir. trans. reflexive</b>
	Mary REFL is dressed.FSG		
d.	<i>maria z er rispösta</i>		<b>indir. unerg. refl.</b>
	Mary REFL is answered.FSG		<b>aux E</b>

<sup>9</sup> The headings on the first line (active/inactive) are motivated by the circumstance that, as already stressed by Perlmutter (1978), the unergative/unaccusative contrast corresponds to what in linguistic typology is called active/inactive alignment.

<sup>10</sup> At least, this seems to hold in all systems described so far in which auxiliary selection is not subject to massive free variation, whereas in transitory systems in which variation is pervasive, violations of the implications in (28) can be observed, as discussed at the end of section 8.2 below.



									<b>aux H</b>
e.	<i>maria</i>	<i>z</i>	<i>a</i>	<i>ssamuna:ðu</i>	<i>zal</i>	<i>ma:nɔs</i>	<b>aux H</b>	<b>indir. trans. refl.</b>	
	Mary	REFL	has	washed.MSG	the	hands			
f.	<i>maria</i>	<i>a</i>	<i>mmaniya:ðu</i>		<i>(za</i>	<i>minestra)</i>		<b>unergative/</b>	
	Mary	has	eaten.MSG		(the	soup)		<b>transitive</b>	

The scale is motivated deductively, on structural grounds (cf. fn. 13 below), but it is also intuitively plausible.<sup>11</sup> Thus, among the constructions displaying a reflexive clitic on the predicate, retroherent unaccusatives (26) are closest to plain unaccusatives, given that both have just an argumental DO relation. Consequently, it is to be expected that if reflexives do not pattern all the same, retroherent unaccusatives will be most likely to behave like plain unaccusatives. Next come direct transitive reflexives (29c) where, as seen in (11) above, the final subject is also an argumental direct object, namely the one initialized by the transitive predicate.<sup>12</sup> Thus, if reflexives differ with regard to some syntactic property and the rule is sensitive to initial objecthood, then plain transitive reflexives will pattern together with unaccusatives, while if it is sensitive to initial subjecthood, they will pattern together with the following constructions along the scale, viz. (29d–g).

One step further, indirect unergative reflexives (29d) share with the preceding constructions the property of being monadic, given that just one noun phrase, the final subject, is initialized as argument by the predicate also in another grammatical relation, which, however, is not the direct object relation. In being monadic, they differ with respect to the next class (29e, dyadic reflexives), where in addition to the final subject there is a distinct nominal that bears the direct object relation argumentally. Thus, if some syntactic property defines two complementary subsets of reflexive constructions, one will expect dyadic reflexives to pattern rather like transitives (29f) with which they share the property of having a subject which is distinct from the initial direct object.<sup>13</sup>

**11** It has also been adopted recently within other frameworks such as Role and Reference Grammar (Bentley 2010) and Minimalism (Ledgeway 2012: 321).

**12** Initialization (Dubinsky 1985) is the attribution of grammatical relation and semantic role by a predicate to its argument(s).

**13** As shown in Loporcaro (2011: 82), the options in (28a–e) can be formalized by stating different structural requirements on the agreement controller. In order of increasing restrictiveness, these are the following:

- (i) a. the final 1 is a 2 = (28a)
- b. the final 1 is the only nuclear-term argument = (28b)
- c. the final 1 is an initial 2 = (28c)

This syntactic gradient is orthogonal to the semantic one in (1). It is in principle possible that both may be relevant to the synchronic description of Romance auxiliary selection systems as well as to the illustration of diachronic change. Which one of them is indeed relevant is an empirical issue and, as I will show, the empirical evidence demonstrates that (28) always is and that semantic constraints play a more marginal and subordinate role for auxiliary selection.<sup>14</sup>

## 8 Perfective auxiliiation in Romance: diachronic variation along the syntactic gradient

The scale in (28) has proven instrumental in classifying different auxiliiation options found across space and time in the Romance languages and dialects, and Old Spanish is no exception. Actually, it closely resembles Old Florentine (28d), except that Old Spanish texts already show from the outset that the system is in a transitory state, which eventually results in (28f). In Old Florentine, as reflected in Dante's texts, auxiliary *avere* is selected with all reflexives, including direct transitive ones (30c), but with the exception of retroherent unaccusatives (30b):<sup>15</sup>

- (30) a. *Fuggito è ogni augel che 'l caldo segue* **unaccusative**  
 'All birds that follow the heat have fled'  
 (*Rime* c 27)

- 
- d. the final 1 is an initial 2, not a P-initial 1 = (28d)  
 e. the final 1 is an initial 2, not multiattached = (28e)

The notion "P-initial x" denotes that the nominal at issue bears the grammatical relation x in the first stratum of the P(predicate) sector of the predicate P. The P-sector is defined in turn as the set of strata in which a given predicate bears the P-relation (cf. Davies and Rosen 1988: 57).

**14** One anonymous reviewer comments: "Unfortunately, this descriptive statement is not explicit enough". He/She may have written this before reading the following section, where I show that in Old Florentine, Old Sicilian and Old Neapolitan the syntactic scale (29) is indispensable for modelling diachronic change in auxiliary selection, whereas no conclusive evidence for the relevance of the semantically-based hierarchy in (1) has been adduced yet. (Cf. in particular section 8.2 and fns. 15–16 for a rebuttal of putative evidence in support of such relevance for Old Neapolitan.)

**15** Cf. La Fauci (2004) and Loporcaro (2004: 57–61) for a more detailed discussion of auxiliary selection in Old Florentine.

- |       |   |  |
|-------|---|--|
| b.    | <i>io mi sarei bruciato</i><br>'I would have burnt myself'<br>( <i>If</i> XVI 49)   | <b>retroherent</b><br><b>aux E</b>         |
| <hr/> |   |  |
| c.    | <i>la donna che [...] ci s'hae mostrata</i><br>'The woman that showed herself to us'<br>( <i>Vn</i> XXXVIII 3)                                | <b>aux H</b><br><b>direct trans. refl.</b> |
| d.    | <i>Quand'io m'ebbi dintorno alquanto visto</i><br>'After I looked around me for a while'<br>( <i>If</i> XXXII 40)                             | <b>indirect unerg. refl.</b>               |
| e.    | <i>poscia che tanti/speculi fatti s'ha</i><br>'After he has made (for himself) so many<br>mirrors'<br>( <i>Pd</i> XXIX 143–144)               | <b>indirect trans. refl.</b>               |
| f.    | <i>Ma i Provençai che fecer contra lui/non hanno riso</i><br>( <i>Pd</i> VI 130–131)<br>'But Provençals, who slandered him, did<br>not laugh' | <b>unergative</b>                          |

As shown in (26), this is the very same subclass of reflexives which Aranovich calls “quasi-reflexives”, i.e. the only one in which auxiliary *ser* occurs in Old Spanish (although already in competition with *haber*), as seen in (24) above. Now, as evident from what has been said in section 7, this is a syntactically defined class, which makes a syntactic analysis of Old Spanish auxiliatio[n] possible. This can be shown starting from thirteenth-century Florentine. The rule accounting for the observed facts is simpler here, since Dante’s corpus represents a steady state with no significant variation. It can be stated as in (31) (from La Fauci 2004: 252, with the slight modifications proposed in Loporcaro 2011: 77):

(31) PERFECTIVE AUXILIATION IN DANTE’S FLORENTINE

The perfective auxiliary is *essere* iff the final 1:

- (i) is a 2;
- (ii) is not a P-initial 1.

Otherwise the perfective auxiliary is *avere*.

The difference lies in the fact that the Old Spanish system, ever since the earliest texts, already appears to be undergoing a transition from stage (32a) to stage (32b), with *haber* fully generalized:

## (32) PERFECTIVE AUXILIATION IN THE DIACHRONY OF CASTILIAN

**stage (a):** Aux *ser* iff the final 1: > **stage (b):** Aux *haber*.

(i) is a 2;

(ii) is not a P-initial 1.

Aux *haber* elsewhere.

In this transition, semantic factors like those spotted by Aranovich did play a role, so that among both plain and retroherent unaccusatives, loss of auxiliary *ser* occurred earlier for those predicates that were from the outset semantically closer to the semantic type that prevails in unergatives (non-telic, with an agentive argument). But the semantic factors at play are clearly subordinate to the syntax, in that their scope is defined syntactically in the first place, as shown in (32a): in fact, all predicates that do not satisfy those syntactic conditions select only *haber* from the outset.

In refuting Aranovich's analysis in Loporcaro (2011: 79–81), I hinted at the fact that two other well-studied medieval Italo-Romance varieties actually provide a closer match to Old Spanish in that they too show variation in perfective auxiliation with unaccusatives. In what follows, I shall elaborate on this point and assess whether a) a syntactic rule can be formulated for those varieties and whether b) the predicate's semantics plays a role in auxiliary choice.

### 8.1 Old Neapolitan

Formentin (2001) has shown that in 14<sup>th</sup>- and 15<sup>th</sup>-century Neapolitan texts, plain unaccusatives overwhelmingly select *essere* (with very few exceptions: 1.8%), whereas 'have' occurs in 45% of retroherent unaccusatives (cf. the absolute figures in 33i) and is selected categorically elsewhere: only (33i), mirroring the medieval situation, reports absolute figures; (33ii–iii) concern two further diachronic stages, to be addressed at the end of this section.

(33) Old Neapolitan	(i) 14 <sup>th</sup> –15 <sup>th</sup> c.		(ii) 16 <sup>th</sup> –19 <sup>th</sup> c.		(iii) 20 <sup>th</sup> –21 <sup>st</sup> c.	
	E	H	E	H	E	H
a. unaccusatives	552	10	E		E/H	
b. retroherent unacc.	17	14	E	(H)	E/H	
c. direct transitive refl.	3	19	E	(H)	E/H	
d. indirect unerg. refl.	0	2	no data		E/H	
e. dyadic reflexives	2	49	(E)	H		H
f. unergatives	0	61		H		H
g. transitives	0	all		H		H

Note that the figures in (33i) do not include, for unaccusatives, examples like the following (from a late 14<sup>th</sup>-century text), in which the verb is in the pluperfect subjunctive or past conditional:

- (34) a. *si li Grieci no l'avessero andato in soccorso*  
 'Had the Greek not come to his aid'  
 (De Blasi 1986: 72.30)
- b. *nde averria insuto acqua in quantitate*  
 'Plenty of water would have gotten out of there'  
 (De Blasi 1986: 184.13)

The reason for this exclusion is that auxiliary choice with unaccusative verbs in just those tenses/moods has been shown to be in free variation (cf. Formentin 2001: 98–99; Ledgeway 2003: 609).<sup>16</sup> This is relevant for my study, given that auxiliated verb forms in the pluperfect subjunctive or past conditional feature in most of the examples adduced by Cennamo (1999: 322–325) in order to substantiate her claim that in Old Neapolitan auxiliary 'have' spread to non-core unaccusatives in compliance with the Auxiliary Selection Hierarchy (1). This claim has been refuted conclusively by Formentin's (2001: 98–99) systematic study of the Old Neapolitan corpus:

la variazione tra *essere* e *avere* [...] non è una caratteristica degli inaccusativi "centrali" [...] l'alternanza dell'ausiliare che si osserva in *averria socciesso* [...] e *tutte quelle cose che erano soccese* [...] ha le stesse ragioni dell'alternanza che si osserva in *si li Grieci no l'avessero andato in soccorso* e *cortesemente lo ademandao perché era andato*; e tali ragioni appaiono di rilievo squisitamente morfosintattico, non già lessicale o semantico (Formentin 2001: 98–99). [variation between 'have' and 'be' [...] is not a characteristic of "central" unaccusatives [...]. The alternance in auxiliary that is observed in *averria socciesso* 'it would have happened' [...] and *tutte quelle cose che erano soccese* 'all those things that had happened' [...] has the same reasons as the alternance that is observed in (34a) [here, M.L.] and in *cortesemente lo ademandao perché era andato* 'courteously did he ask him

<sup>16</sup> Cennamo (2002: 198) refuses to take stock of this straight fact, claiming that "È difficile stabilire se *avere* si diffonda inizialmente in alcuni contesti modali e temporali (congiuntivo trapassato e condizionale passato) veicolanti la modalità irrealis" [It is hard to establish whether 'have' spreads initially in some modal and temporal contexts (pluperfect subjunctive and past conditional) which vehiculate irrealis modality]. In fact, quite to the contrary, as Ledgeway (2009: 602) puts it, "Difficile sarebbe [...] non riconoscere in tale sistematicità la spia di un modello di alternanze condizionate da considerazioni modali di tipo reale/irreale" [One cannot fail [...] to acknowledge in such systematicity the unmistakable signs of a pattern of alternation conditioned by a realis/irrealis modal opposition]. Ledgeway (2009: 613) also shows that since the 16<sup>th</sup> century the modal constraint on auxiliary selection no longer seems to apply in Neapolitan.

why he had gone'; and those reasons appear to be of a purely morphosyntactic, rather than lexical or semantic, nature.]

As it happens, Cennamo's (1999) account manages to present Old Neapolitan data as though the Auxiliary Selection Hierarchy did constrain perfective auxiliiation, only thanks to lack of control of a relevant variable (the modal constraint). As soon as one does control for it, it turns out that there are no examples of auxiliary 'have' with "central" unaccusatives in Old Neapolitan, which would support the claim.<sup>17</sup>

Note that the modal constraint on auxiliiation Formentin (2001) revealed for Old Neapolitan receives comparative support from Old Spanish (Stolova 2006) and Old Sicilian (to be discussed in section 8.2, example 37).<sup>18</sup>

Having ascertained that the Auxiliary Selection Hierarchy (1) played no role in the spread of 'have' with plain unaccusatives in Old Neapolitan, one might still wonder whether the same was true of retroherent unaccusatives, where free variation is an indisputable fact (with 17 occurrences of 'be' vs. 14 of 'have' in 33ib). Adopting Aranovich's (2003) grid and procedure, the following results are obtained:

(35) Perfective auxiliary with Old Neapolitan retroherent predicates

	<i>essere</i>	<i>avere</i>
(TELIC) CHANGE OF LOCATION (Aranovich 2003: "directed motion", e.g. <i>salirse</i> 'go out')	<i>irese</i> 'go', <i>partirese</i> 'depart', <i>ponerese</i> ( <i>in via</i> ) 'hit the road', <i>sollevarese</i> 'rise', <i>tirarese</i> 'head'	<i>adunarese</i> 'gather', <i>arroccharese</i> (irr.) 'take refuge in a fortress', <i>dellongarese</i> 'depart', <i>fugirese</i> (irr.) 'flee', <i>moverese</i> (irr.) 'move', <i>partirese</i> (irr.) 'depart'

<sup>17</sup> Faulty readings of the textual evidence (e.g. transitive *anno partuto* 'they have shared' interpreted erroneously as unaccusative 'they have departed') account for the rest of Cennamo's putative evidence, as shown by Formentin (2001: 98–99 fn. 41) (cf. the discussion in Loporcaro 2011: 81 fn. 31).

<sup>18</sup> One anonymous reviewer observes that "the paper is not explicit on why the "irrealis effect" favours a syntactic approach to auxiliary selection". To clarify, let me emphasize that what I intend to show here is that *lack of control* for irrealis modality was instrumental in paving the way for (demonstrably wrong) claims to the relevance of the Auxiliary Selection Hierarchy (1) for the change in auxiliary selection in the history of Neapolitan. Once this independent factor is controlled for, it emerges clearly, as shown in (33i–iii), that both the synchronic distribution of auxiliaries in Old Neapolitan and diachronic change in the subsequent stages were constrained by the syntactic scale (28), not by the semantics.

CHANGE OF STATE	<i>adonarese</i> ‘realize’	<i>adonarese</i> (irr.) ‘realize’, <i>compirese</i> ‘come true, be over’, <i>farese (bella)</i> ‘beautify oneself’, <i>imbullarese</i> ‘wrap oneself up’, <i>spezarese</i> ‘break’
CONTINUATION/ EXISTENCE OF STATE	<i>trovarese</i> ‘find oneself’	<i>fissicarese</i> ‘remain’ (irr.), <i>romanirese</i> ‘stay’, <i>trovarese</i> (irr.) ‘find oneself’
UNCONTROLLED PROCESS		<i>allegrarese</i> ‘rejoice’, <i>mutarese</i> (irr.) ‘change’, <i>reposarese</i> ‘relax’, <i>contentarese</i> ‘content oneself with’, <i>maravigliarese</i> ‘be astonished’, <i>penzarese</i> ‘think’
NON-MOTIONAL PROCESS	<i>accompagnarese</i> , <i>aconciarese</i> <sub>1</sub> ‘get set’, <i>portarese</i> ‘behave’, <i>restrengerese</i> ‘restrain oneself’	<i>adastarese</i> ‘hurry up’, <i>delectarese</i> ‘take delight of’, <i>faticarese</i> ‘get tired’, <i>fidarese</i> (irr.) ‘trust’, <i>inclinarese</i> ‘be inclined’ (irr.), <i>solazarese</i> ‘amuse oneself’
VOLITIONAL ACHIEVEMENT (Aranovich)	<i>acconciarese</i> <sub>2</sub> ‘agree with’, <i>chiavarese</i> ‘lock oneself’, <i>rebellarese</i> ‘rebel’	<i>inpaciarese</i> ‘meddle in’, <i>potrestarese</i> ‘protest’

The abbreviation “irr(ealis)” means that ‘have’ occurs only in the pluperfect subjunctive and/or past conditional with that given verb. Once those cases are factored out, it is still clear that ‘have’ and ‘be’ are distributed over all semantic classes, including the two extremes of the Auxiliary Selection Hierarchy.

One might argue, however, that the Neapolitan situation is more complex than the Castilian one, since its auxiliiation system did not eventually evolve towards the generalization of ‘have’, as shown by the two subsequent dia-

chronic stages in (33ii–iii).<sup>19</sup> However, there is another well-investigated southern Italo-Romance variety which yields an even closer match to Old Spanish: Old Sicilian.

## 8.2 Old Sicilian

The history of Sicilian is more similar to that of Spanish in that the modern dialect only uses ‘have’ as a perfective auxiliary with all kinds of predicates (e.g. *tò suoru ha nisciutu* ‘your sister has gone out’, Loporcaro 1998: 161). The change away from the Proto-Romance double auxiliary system was already near to completion by the time of the earliest extant texts, as shown by La Fauci’s (1992) study of a 14<sup>th</sup>- and 15<sup>th</sup>-century corpus. The results are summarized in (36), where quantification is added only to illustrate variation, but is omitted whenever auxiliary choice is categorical in the corpus:

(36)	aux E	aux H	%H	Old Sicilian
a. unaccusatives	319	57	15.1	
b. retroherent unacc.	13	72	84.7	
c. dir. trans. refl.	never	always	100.0	
d. indir. unerg.	never	always	100.0	
e. dyadic reflexives	never	always	100.0	
f. unergatives	never	always	100.0	
g. transitives	never	always	100.0	

(La Fauci 1992)

The situation closely parallels the Old Spanish one in that ‘have’ is selected categorically not only with transitives/unergatives (36f–g) but also with all reflexives except retroherent unaccusatives (36b). In the latter, as well as in plain unaccusatives (36a), free variation is observed instead, as shown by the following examples:

<sup>19</sup> The data for 16<sup>th</sup>–17<sup>th</sup> century Neapolitan in (33ii–iii) are drawn from Vecchio (2006) and Ledgeway (2009: 612), whose results diverge a bit. In Ledgeway’s (2009: 612–613) corpus, ‘have’ is categorical with dyadic reflexives (33e) and occurs in just a handful of cases with unaccusatives (33a), while free variation is found with retroherents and monadic reflexives (33b–c). Vecchio (2006: 70–75), on the other hand, reports a slightly fuzzier picture, with only scarce occurrences of ‘have’ in (33b–c) and of ‘be’ in (33e): this is why the corresponding abbreviations appear in brackets in some cells in (33ii). As for the modern stage, Ledgeway (2000: 228, 2009: 618–620) and Vecchio (2006: 75) report free variation in all unaccusatives and pronominal verb constructions, except for dyadic reflexives, where ‘have’ is selected categorically as in transitives and unergatives.



- (37) a. *unu homu chi havia andatu a lu lectu*  
 ‘A man that had approached the bed’  
 (di Girolamo 1982: 48.10)
- b. *lu quali era andatu ad visitari lu corpu di lu beatu Iheronimu*  
 ‘(The one) that had gone to visit the body of beatus Jerome’  
 (di Girolamo 1982: 59.2)

Also parallel to Old Spanish (cf. Stolova 2006) is the relevance of the modal constraint already seen at work in Old Neapolitan. This is shown by the fact that the pluperfect subjunctive and past conditional verb forms have a higher incidence in the subset of ‘have’-auxiliated examples (38i) than in the complementary one of ‘be’-auxiliated ones (38ii):

(38) Old Sicilian	(i)	aux E		(ii)	aux H	
		irrealis (%)			irrealis (%)	
a. unaccusatives		319	19 (4.1%)		57	11 (19.3%)
b. retroherent		13	1 (7.7%)		72	10 (13.9%)

Finally, (39) shows (with just some selected examples) that in Old Sicilian, too, predicates located at all steps of Sorace’s Auxiliary Selection Hierarchy occur with both auxiliaries. Contrary to Neapolitan, I present the results for plain unaccusatives here:<sup>20</sup>

**20** Retroherent unaccusatives offer much less ground for comparison, since there are only 13 occurrences of auxiliary ‘be’ in the corpus. Among these, however, one finds clear instances of verbs which are not “core unaccusatives” semantically, such as *confessarisi* ‘confess’ (relig.), or *guardarisi* ‘guard (against)’, as shown in the following examples (from La Fauci 1992: 66):

- (i) a. *tostu ti sia confessatu*  
 ‘Do confess soon!’  
 (Cusimano 1951–52: w.70)
- b. *di quilli di ki illu si est guardatu*  
 ‘Of them against whom he has guarded’  
 (Bruni 1973: 70.14)

Conversely, auxiliary ‘have’ occurs also with “core unaccusatives” (verbs denoting telic change of location) such as *tornari* ‘return’:

- (ii) *in lu primu locu undi si avia tornatu*  
 ‘In the first place where it had returned’  
 (di Girolamo 1982: 42.13)

## (39) Perfective auxiliary with Old Sicilian unaccusatives

	<i>essiri</i>	<i>aviri</i>
(TELIC) CHANGE OF LOCATION	<i>andari</i> ‘go’, <i>cadiri</i> ‘fall’, <i>cascari</i> ‘fall’, <i>dixindiri</i> ‘go down’, <i>exiri</i> ‘get out’, <i>fugiri</i> ‘flee’, <i>intrari</i> ‘enter’, <i>muntari</i> ‘go up, rise’, <i>naxi- ri</i> ‘be born’, <i>passari</i> ‘pass through/by’, <i>tornari</i> ‘re- turn’, <i>veniri</i> ‘come’	<i>andari</i> ‘go’, <i>cadiri</i> ‘fall’, <i>cascari</i> ‘fall’, <i>xindiri</i> ‘go down’, <i>exiri</i> ‘get out’, <i>fugiri</i> ‘flee’, <i>intrari</i> ‘enter’, <i>muntari</i> (irr.) ‘go up, rise’, <i>naxiri</i> ‘be born’, <i>passari</i> ‘pass through/by’, <i>turnari</i> ‘return’, <i>veniri</i> ‘come’
CHANGE OF STATE	<i>accadiri</i> ‘happen’, <i>adve- niri</i> ‘happen’, <i>intraveniri</i> ‘happen’, <i>moriri</i> ‘die’, <i>resursitari</i> ‘rise (from the dead)’, <i>trapassari</i> ‘pass away’	<i>accadiri</i> ‘happen’, <i>adve- niri</i> ‘happen’, <i>intraveniri</i> ‘happen’, <i>moriri</i> ‘die’, <i>resussitari</i> ‘rise (from the dead)’, <i>trapassari</i> ‘pass away’
CONTINUATION/ EXISTENCE OF STATE	<i>campari</i> ‘live’, <i>plachiri</i> ‘please’	<i>campari</i> ‘live’, <i>plachiri</i> ‘please’
UNCONTROLLED PROCESS	<i>crixiri</i> ‘grow’	<i>crixiri</i> ‘grow’

To be sure, it cannot be excluded that finer-grained quantification (by number of occurrences for verb lexemes as well as by date of text) may show some semantically-driven skewing of the auxiliary data, and thus reveal some semantic effects on the spread of ‘have’ of the type detected by Aranovich for Old Spanish. What my quantifications certainly (and above all La Fauci’s 1992 study) do show, is that the gradual spread of *aviri* ‘have’ in Old Sicilian was sensitive to the syntactic gradient (28), illustrated above in section 7, the same that proved relevant to describe auxiliary selection in Old Spanish, Old Florentine and Old Neapolitan: in Old Sicilian, selection of ‘have’ is categorical in (36c–g), whereas plain unaccusatives in (36a) show only 15% occurrences of ‘have’ and, in between, retroherent unaccusatives (36b) are already close (84.7%) to being annexed to the province of categorical ‘have’ selection.

Summing up, it is clear from the above that both the Old Neapolitan and the Old Sicilian data demonstrate the relevance of the syntactic scale in (28) for modelling diachronic change in auxiliary selection. In both cases, variation in auxiliary selection over transitional stages has been shown to be sensitive to the syntactic factors mirrored in (28).

As hinted in fn. 10 above, this need not be universally the case, since systems displaying free variation occasionally do reveal violations of the implications in (28). Thus, for instance, in the variety of Acadian French studied in Balcom (2005: 86–87), *avoir/être* occur variably with the same unaccusative verbs which select *être* in standard French, whilst with retroherent unaccusatives (*s'étendre* 'spread', *se briser* 'break', *se promener* 'stroll', etc.) her informants use *être* categorically.<sup>21</sup> Consider however that – as Balcom herself observes – other studies on Acadian French report uniform selection of *avoir* with all unaccusative predicates, included those with clitic *se* (cf. Péronnet 1991; King and Nadasdi 2001). Note, on the other hand, that as for plain unaccusatives, Balcom (2005: 86) reports the highest rates of selection of *être* with *arriver* 'arrive' (85 %) and *mourir* 'die' (52 %), whereas other change of location and change of state verbs display much lower rates, thus showing that the subclasses in Sorace's hierarchy (1) are not crucial for the description of this variable behaviour. Consider also that with *rester* 'stay' (continuation of state), *être* is selected in 46 % of the occurrences, thus unexpectedly (given that hierarchy) outranking change of location verbs like *descendre* 'go down' (20 %), *monter* 'climb' (18 %) or *tomber* 'fall' (36 %). Obviously, verb semantics is only a partial predictor of variation in auxiliary selection in this variety.

## 9 Conclusion

Concluding one of the most influential semanticist reanalyses of unaccusativity, Dowty (1991: 612–613) wrote: “To be sure, the extensively-argued advancement analyses, such as those of Rosen 1984, Burzio 1986, and others for Italian demand to be answered in detail – either to argue that each unaccusativity phenomenon is semantic or to provide a plausible monostratal alternative for any grammatical unaccusativity – to follow through on this suggestion”. The suggestion was that unaccusativity phenomena can – and indeed should – be explained “without invoking ‘grammatical object’ in the description of intransitives at all” (Dowty 1991: 612), i.e. dispensing with the Unaccusative Hypothesis.

Two decades later, the situation has not changed substantially. Despite the bulk of work which has pursued this goal, some of which I have discussed

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<sup>21</sup> This can be formalized, within the framework adopted here, by assuming a condition [+multiattached] (cf. fn. 2) to be still enforced categorically in the auxiliary selection rule for this variety, whereas the basic condition seen in (10) above (final 1 is a 2) is only optionally enforced.

here, semanticist reanalyses of Romance perfective auxiliiation cannot match the descriptive economy and empirical accuracy of those proposed in the line of research inaugurated by Perlmutter's (1978, 1989) seminal work on the Unaccusative Hypothesis.

In fairness, one must recognize that semantic factors have been shown to play a role in auxiliary selection in both synchrony and diachrony. Synchronically, they play a role in the way the predicate valency of an intransitive verb is defined in the lexicon: thus, if e.g. verbs of emission like It. *squillare* 'ring' show variable auxiliiation, this must mean that the lexical entry for such verbs provides for both an unergative and an unaccusative syntactic construction.<sup>22</sup> That this kind of variation does not occur with telic *cadere* 'fall' is predicted by the Auxiliary Selection Hierarchy in (1), and the contrast between such classes of verbs represents a bona fide illustration of the relevance of semantic factors. Diachronically, semantic factors have been shown to play a role in transitory stages such as those studied by Aranovich for Old and Classical Spanish.<sup>23</sup> However, this is not to say that those factors must either necessarily play a role in diachronic change or, worse, may "giv[e] evidence against a syntactic analysis" (Aranovich 2003: 29). The diachronic evidence reviewed here, in fact, shows that semantic factors have been demonstrated to be irrelevant for perfective auxiliiation in Old Neapolitan (section 8.1) and that for Old Sicilian the relevance of the syntactic auxiliary selection gradient is an ascertained fact (section 8.2), while sensitivity to the semantics does not seem to be observed.

The foregoing discussion has also shown that claims to the superordinate, or even exclusive, role of semantic conditions on auxiliary selection have been based on a mix of the following ingredients: a) blatant misrepresentation of

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<sup>22</sup> Sorace (2000: 833), discussing analyses of this kind, claims that this "burdens the lexicon with a proliferation of multiple entries that make it unlearnable". I am not aware of any conclusive demonstration (computational or other) that this should indeed be the case. In recent work in theoretical syntax, several different formalizations of this kind of unaccusative/unergative alternations have been proposed, all of them entailing a complication of both syntactic structure and the lexicon. Cf. e.g., most recently, Acedo-Matellán and Mateu (2013: 231–233) and the earlier references quoted there, who analyse *John danced into the room* as an instance of "syntactic compounding of a manner root *vdance* with a phonologically null event (i.e. GO)", also termed a "phonologically null unaccusative verb".

<sup>23</sup> A similar case has been made for Romanian by Dragomirescu and Nicolae (2009: 19), who see a last remnant of a binary perfective auxiliiation rule in the occurrence of *a fi* 'be' with the participle of unaccusative verbs denoting change of location/state to form a periphrasis which is usually interpreted as a stative resultative periphrasis involving a copula (cf. e.g. Sandfeld and Olsen 1936: 316, 23; Avram 1994: 509; Loporcaro et al. 2004: 23) but which they analyse as a compound (resultative) perfect.

syntactic unaccusativity-based analyses, as exemplified by Aranovich's (2003: 16) misleading statement that, under syntactic analyses, "all reflexive verbs have the same syntactic representation" (section 6); b) ignorance of the relevant literature, as exemplified by Cennamo's (2008: 126) assertion that auxiliary selection in "early Italian vernaculars [...] still awaits investigation"; c) disregard for selected portions of the available empirical evidence, as exemplified by Bentley and Eythórsson's (2003: 461) statement that "In Italian [...] intransitive 'have'-selecting predicates ('unergatives') are not telic" (section 5.1); and, last but not least, d) primary data-twisting, as exemplified by Legendre and Sorace's (2003: 196) contention that (ungrammatical) *\*ho rimasto solo* is marginally acceptable in standard Italian (section 5.2).

An unbiased analytical procedure which is exempt from the above flaws must lead to the conclusion that a purely syntactic unaccusative vs. unergative contrast, and the syntactic gradient based upon it in (28), play a decisive role in perfective auxiliary selection in most documented stages of most Romance languages.

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