On the morphological nature of person-driven auxiliation: evidence from shape conditions[1]

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Abstract

This chapter addresses the division of labour between morphology and syntax. The testbed is provided by perfective periphrases showing person-driven auxiliary selection in central-southern Italo-Romance, with forms of HAVE and BE within the same paradigm. Such mixed auxiliation systems have been subjected to alternative analyses: a syntactic analysis, tracing the selection of different auxiliaries in different persons (as well as variation in one and the same person) back to differences in syntactic structure vs morphological analyses claiming that the distribution across persons within the paradigm of one and the same verb lexeme is a matter of inflexional morphology, in the same sense as the selection of a specific personal ending contrasting with those from different inflexional classes. The chapter provides a crucial piece of evidence in support of the latter view drawing on an unusual case of phrase allomorphy in the split auxiliary systems of three dialects of central Apulia.

Keywords Comparative syntax, autonomous morphology, person-driven auxiliation, Italo-Romance, French, Sardinian, Relational Grammar.

8.1. Introduction

An interesting and much-debated topic in the study of Romance perfective periphrases is the analysis of person-driven variation and splits in mixed auxiliation systems, intermingling forms of HAVE and BE which occur in particular, though not exclusively, in central-southern Italo-Romance. The issue at the core of the controversy concerns the division of labour between morphology and syntax. On the one hand, studies in generative syntax generally strive for a syntactic account of person-driven splits, tracing the selection of different auxiliaries in different persons (as well as free variation in one and the same person) back to differences in syntactic structure which are sometimes compared (e.g. Manzini and Savoia 1998) with alignment splits in languages such as Dyirbal. On the other, an alternative line of research which I have contributed to shaping since Loporcaro (1999) claims that syntax goes as far as distributing contrasting auxiliation patterns across classes of constructions (unaccusative vs unergative, etc.), while the distribution across persons within one and the same pattern is morphological, in the same sense as the selection of a specific personal ending contrasting with those from different inflexional classes (e.g. 1PL -*amo* vs -*emo* vs -*imo* in Italo-Romance).

In the present chapter, I will bring into the debate a crucial argument in support of the latter view, discussing data from three dialects of central Apulia in which selection of HAVE vs BE in one paradigm cell (the third person singular of the compound perfect) is sensitive to the postlexical phonological context. This is – I will argue – a shared innovation a) that is unique, to the best of our knowledge, b) that would not have been possible in non-mixed systems, and c) whose successful (i.e. contradiction-free) analysis crucially rests on the linguist's assumptions about the boundary between morphology and syntax

The chapter is organized as follows. §8.2 introduces mixed auxiliation and considers it against the backdrop of current studies in Romance auxiliary selection. §8.3 moves on to consider the data from three Apulian dialects, explaining why they represent an unsurmountable problem for a syntactic approach to mixed auxiliation. §8.4 puts forward the solution, arguing that selection of the 'is'/'has' form depends on a shape condition comparable to that accounting for the *a/an* alternation in the English indefinite article. §8.5 discusses mixed auxiliation referring to the concepts of overabundance and heteroclisis, drawing on a parallel from (non-periphrastic) verb inflexion. §8.6 addresses what I take to be the limits of a morphological account of auxiliary choice, which has scope over person-related alternations and variation but whose extension to auxiliary selection *tout court* – with the

ensuing denial of the existence of a syntactic rule – is doomed to failure: the syntactic auxiliation rule is defended against recent claims that auxiliary selection in French should be viewed as a matter of inflexional class. Finally, §8.7 offers a brief conclusion.

8.2. Perfective auxiliation: syntax vs morphology

Consider the following data from the dialect of Altamura (province of Bari; cf. Loporcaro 1988; 2007):[2]

(1) Altamura

	i. transitive/unergative		ii. unaccusative		
a.	ˈsɔ mmanˈdʒɛi̯t/ˈaɟɟə manˈdʒɛi̯t (la ˈpast)B/H		ˈsɔ ˈddʒʊu̯t/ˈaɟɟə ˈʃʊu̯t B/H		1SG
	'I have eaten (the pasta).'		'I have gone'		
b.	ˈsɪ mmanˈdʒɛi̯t/ˈa manˈdʒɛi̯t (la ˈpast)	B/H	ˈsɪ ˈddʒʊu̯t/ˈa ˈʃʊu̯t	B/H	2SG
	'You have eaten (the pasta).'		'You have gone.'		
c.	ˈɛ/ˈa mmanˈdʒɛi̯t (la ˈpast)	B/H	ˈɛ/**ˈa ˈddʒʊu̯t	B/**H	3SG
	'He has eaten (the pasta).'		'He has gone.'		

In several articles over recent decades, I have argued that on the one hand the contrast between free variation in (1c.i) and categorical selection of BE in (1c.ii) must be dealt with in the syntax – on a par with the contrast in standard Italian between *ha/**è mangiato* 's/he has/is eaten' and *è/**ha andato* 'he is/has gone', see Table 8.1(a)) – while on the other hand the alternation between (1c.ii) (third person singular) and free variation in the first and second person must be considered a matter of inflexional morphology. This is what I term in (2a) a morpho-lexical approach to person-driven auxiliary choice, meaning that when person-alternating forms are selected by one and the same lexical predicate, these constitute the paradigm of a suppletive split lexeme (in the sense of Corbett 2013; 2015):[3]

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[2] Data are reported in a simplified IPA transcription, with CC instead of C: for geminates. Here and in what follows, I will concentrate on the compound present perfect, since perfective periphrases in which the auxiliary occurs in other tenses/moods display different distributions in this and the other dialects considered. Ledgeway (2019) is an example of a theory of Romance auxiliation which also encompasses tense/mood-related variation.

[3] Corbett (2013:184f.) includes data comparable to (1a-c).

(2)   Mixed (person-driven) auxiliary selection

a.   morpho-lexical approach: Loporcaro (1999:213; 2001:462, 470; 2007:186, 2104), Bentley and Eythórsson (1999; 2001:70f.), Štichauer (2018; 2019), Bach and Štichauer (this volume).

b.   syntactic approach: Kayne (1993), Cocchi (1994; 1995), Ledgeway (1998; 2019), Manzini and Savoia (1998; 2005; 2007).

In other words, in (1ii) there is no sense in which the syntactic rule for auxiliary selection operates directly on HAVE vs BE, a claim that comes in different flavours in the studies in (2b). Rather, auxiliary selection in (1) operates on mixed auxiliary paradigms (i.e. split lexemes) such as those introduced in (14a-b) in §8.4 below.[4]

This basic idea capitalizes on – and is intertwined with – what is labelled in Loporcaro (2007) a 'syntactic approach' to (non-mixed) auxiliary selection ((3a)), to be contrasted with the alternative approaches in (3b-c):

(3)   Auxiliary selection

a.   syntactic approach: Perlmutter (1989), La Fauci (1988; 1989; 1992; 2004), La Fauci and Loporcaro (1989), Rosen (1982; 1997), Loporcaro (1999; 2001; 2007; 2008; 2011; 2015; 2016), Formentin (2001; 2002), Vecchio (2006), Paciaroni (2009), Loporcaro and Putzu (2013).

b.   lexical approach: Diez (1843:293), Lois (1990), Manzini and Savoia (2007:151), etc.

c.   morphological approach: Bonami (2015), Štichauer (2018:9), Bach and Štichauer (this volume).

The line of research in (3a) is based on the definition of auxiliary in (4):

(4)   Auxiliary (Definition)

'Auxiliaries are a lexically designated closed class of verbs whose defining property is that they inherit a 1.' (1 = subject; Rosen 1997:192)

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[4] Obviously, this is not to deny that, in a trivial sense, syntax is relevant here too, as person inflexion, determined by agreement, pertains to contextual inflexion (Booij 1994; 1996).

Under this view, auxiliation in Romance perfective periphrases – for example, the occurrence of two auxiliaries in Italian vs one auxiliary in Spanish – is best described as the selection of what Bonami (2015) terms an 'ancillary lexeme', contributing finite verb morphology to the periphrasis and lacking an argument grid of its own. In Italian, this selection depends on the syntactic properties of the clause in terms of alignment of grammatical relations, as first recognized in the seminal work of La Fauci (1988), elaborating on Perlmutter's (1978) Unaccusative Hypothesis (and as shown in Table 8.1).

Table 8.1		INACTIVE	ACTIVE	
		unaccusative	unergative	transitive
a	Italian	BE		
b	Spanish		HAVE	

This view is incompatible with the many accounts inspired by the idea – as old as Diez (1843:293) at least – that a perfective auxiliary has the same properties as lexical predicates. This is termed the 'lexical approach' (3b) in Loporcaro (2007), to which the reader is referred for a discussion of its inadequacy (one example of such an analysis is cited below in note 14).

Once one agrees that perfective auxiliary selection must be accounted for in the syntax (cf. §8.5 for a refutation of the alternative view that perfective auxiliation *per se* is a fact of inflexional morphology), one still has to evaluate the merits of competing syntactic approaches, which brings us back to mixed auxiliation. In fact, Kayne (1993:3) – the first reference in (2b) – put forward an influential treatment of the distribution of HAVE/BE across Romance, both in mixed and in non-mixed systems, assuming that '[t]here is no auxiliary selection rule. "Have" is identical to "be" but for the incorporation of an abstract preposition'. Such incorporation is assumed in the presence of any distribution of HAVE and, conversely, non-incorporation is assumed wherever BE is selected, including mixed systems such as the dialect of Trento (Kayne 1993:21, based on Gatti 1990:174), where in reflexive constructions BE occurs in the first/second persons and HAVE in the third person.

The problem with this approach, as argued in Loporcaro (2007:185f., 193), is that it overgenerates and is hence non-predictive, since it could accommodate an infinity of datasets that, for non-mixed systems, do not seem to exist, such as those shown in Table 8.2.[5]

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[5] The abbreviations in Tables 8.2-8.3 read as follows: dir(ect) tr(ansitive) reflexive (Italian *Maria si è lavata* 'Maria washed herself'), indir(ect) tr(ansitive) (*Maria si è lavata le mani* 'Maria washed her hands'), indir(ect)

Table 8.2. Unattested auxiliary systems

		unaccusative	INACTIVE				ACTIVE
			reflexive				transitive/
			dir. trans.	unergat.	indir. tr.		unergative
a	*variety x	H	B	H	B		H
b	*variety y		B		H		B
c	*variety z	B	H	B	H		H

The structural reason why these do not occur is provided by the implicational scale first proposed in Loporcaro (1999:213; see Table 8.3) and further articulated in subsequent work mentioned in (2a):[6]

Table 8.3

		unacc.	INACTIVE				ACTIVE
			reflexive				trans./unerg.
			retr.	dir. tr.	ind. uner.	indir. tr.	
a	French	B					H
b	Logudorese Sdn.	B					H
c	Picernese	B					H
d	Old Florentine	B					H
e	Leccese	B					H
f	Spanish						H

This scale is the result of inserting the different subtypes of reflexive constructions between the two poles of unaccusatives and unergatives in Table 8.1. In Loporcaro (2001; 2007; 2014; 2016), I showed that systems displaying free variation and/or person-driven alternations can be elegantly plotted onto the same scale, as illustrated in Table 8.4:

Table 8.4

		unacc.	INACTIVE				ACTIVE
			reflexive				trans./unerg.
			retr.	dir. tr.	ind. uner.	indir. tr.	
a	?						
b	Pietrarolo						
c	?		mixed paradigm *y*			mixed paradigm *x*	
d	?						
e	Bitettese						
f	Aquilano						

uner(gative) (*Maria si è risposta* 'Maria answered (to) herself'), retr(oherent) (*Maria si è pentita* 'Maria repented').

[6] The implications are grounded in the structural representations assumed in Relational Grammar, though most of the representational assumptions involved, starting with the Unaccusative Hypothesis, have since been taken up in most other formal frameworks.

The scale generalizes over the following situation: a) there are very many possible combinations of B, H, or free variation of B/H: in Pescarini and Loporcaro's (forthc.) sample of 76 dialects with mixed auxiliation, 52 distinct combinations are attested; b) there are dialects in which just one such combination – whatever the distribution of B, H, or B/H across verb persons – is selected uniformly from unaccusatives to transitives/unergatives (f in Table 8.4) while there are others in which two different combinations occur (b, e in Table 8.4).[7] In addition, several dialects have been shown to display a three-way choice with (some subsets of) reflexives patterning differently with respect to both unaccusatives and unergatives.

This is spectacular evidence in support of the approach in (2a)/(3a). In fact, if mixed auxiliation were to be analysed under (2b) – for example, based on Kayne's (1993) assumptions – we would not be able to restrict possible options to the limited set in Table 8.4. Rather, as argued in Loporcaro (2007:186), assuming that person-driven auxiliation involves the two auxiliaries H/B and must be accounted for in the syntax in the same way as in Italian (a in Table 8.1), this would force us to treat in this component 729 conceivable options for systems such as (f) in Table 8.4, some half a million different options for those like (b, e) in Table 8.4, and over three billion options for triple auxiliation systems, a combinatorial explosion which is at odds with arrangements of alignment systems known to occur cross-linguistically.[8] By contrast, if person-driven auxiliation is a matter of morphology, then it is just the arrangements of inflexional morphology that vary wildly in these dialects. In other words, inflexion arranges forms originally pertaining to the two Proto-Romance ancillary lexemes ESSE 'be' and HABERE 'have' to form one, two, or three mixed auxiliary lexemes whose paradigm is suppletive. This can be expressed in several ways in current morphological theories (cf. §8.5): in Stump's (2016) terminology, each one of the mixed auxiliary lexemes has a heteroclitic form paradigm, while, following Thornton's (2018) application to inflexional morphology of Fradin's (2003) lexeme vs flexeme distinction, it maps onto a heteroclitic flexeme.

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[7] Whether the hitherto unattested combinations in (8a, c-d) occur is an empirical question which will be answered as the database expands.

[8] 729 represents the possible combinations of three values (E, H, or free variation of E/H) over six independent variables (the paradigm cells); for systems with two combinations, this figure must be raised to the power of two, and to the power of three, if there are three combinations. Many of these combinations do occur: extrapolating linearly from Pescarini and Loporcaro's (forth.) findings, in a sample of 729-dialects we should expect to find 499 different combinations.

With these admittedly rather lengthy preliminaries, we have now paved the way to move on to the crucial data demonstrating the inflexional nature of person-driven auxiliation.

8.3. Perfective auxiliation depending on the phonology in three dialects of Apulia

The crucial data come from three dialects in central Apulia, those of Ruvo, Gravina, and Bitetto, whose perfective auxiliation is described in Manzini and Savoia's (2005,II:724-726; III:29f.) monumental monograph. Since I will use their data to prove that their analysis is incorrect, let me first point out how their enormously detailed empirical and theoretical contributions have been instrumental in advancing the scientific community's understanding of morphosyntactic variation within Italo-Romance.[9]

The three dialects, spoken in the province of Bari (see Map in Appendix), display, like Altamurano (see 1), both person-driven alternations and free variation in some paradigm cells. For Bitettese and Ruvese, this is schematized as shown in (a), Table 8.5 from Manzini and Savoia (2005,II:728), where H/B stands for free variation of HAVE/BE:

Table 8.5 Ruvo and Bitetto

		1SG	2SG	3SG	1PL	2PL	3PL
a	Manzini and Savoia (2005, II:728, table (79), type (xiv)):	H/B	B	H/B	H	H	H
b	Manzini and Savoia (2007:226):	H/B	B	H~B	H	H	H

In schematizing the same data in (b) in Table 8.5, Manzini and Savoia (2007:226) add a further symbol, which occurs in the third person singular only: H~B, explained as 'selection of *essere* [BE] and *avere* [HAVE] neither free nor (entirely) according to verbal class'. This paradigm cell will be our main concern, but I will first sketch the entire auxiliation patterns in these dialects.

First of all, for Bitettese, Manzini and Savoia's (2005,II:725f.) own data are actually at odds with the schemas (a-b), in Table 8.5, as this dialect, contrary to Ruvese and Gravinese, still contrasts unaccusatives (5a) with unergatives/transitives (and all reflexives, (5b)) in the second person singular:[10]

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[9] In particular, recent comparative papers on mixed auxiliation all capitalize on this invaluable mine of data: cf. Štichauer (2018; 2019), Ledgeway (2019), Pescarini and Loporcaro (forthc.).

[10] My consultants diverge from Manzini and Savoia's: see Tables 8.8-8.9 and examples (9a-b).

(5)   a. ˈsi   vəˈneu̯tə (Bitettese)

be.2SG   come

'You have come.'

   b. ˈa   dərˈmeu̯tə / t=   ˈa   laˈvɔːtə / u=   ˈa   caˈmɔːtə

have.2SG slept   REFL.2SG= have.2SG washed   him= have.2SG called

'You have slept/washed yourself/called him.'

This qualifies Bitettese as a dialect of type (e) in Table 8.4, while Ruvese and Gravinese are of type (f) in Table 8.4, since they show one and the same mixed auxiliation pattern in all constructions, as exemplified for the second person singular in (6):[11]

(6)   a. ˈa   vəˈnuu̯tə / dərˈmʊu̯tə / caˈmɜːt a ˈffrat=tə   //

have.2SG come   slept   called   to brother=2SG

t=   ˈa   laˈvɜːtə (Gravinese)

REFL.2SG= have.2SG   washed

'You have come/slept/called your brother/washed yourself.'

   b. ˈsi   vəˈnɪu̯tə / drəmˈmɪu̯tə //

be.2SG come   slept

u=   ˈsi   caˈmɔːtə // tə=   ˈsi   laˈvɔːtə (Ruvese)

him= be.2SG called   REFL.2SG= be.2SG   washed

'You have come/slept/called him/washed yourself.'

By contrast, free variation occurs in both dialects in the first person singular:

(7)   a. ˈsɔ   / ˈaɟɟə   vəˈnuu̯tə / dərˈmʊu̯tə / caˈmɜːt a ˈffrat=tə   //

be.1SG have.1SG come   slept   called   to brother=2SG

mə=   ˈsɔ   / m=   ˈaɟɟə   laˈvɜːtə (Gravese)

REFL.1SG= be.1SG   REFL.1SG= have.1SG washed

'I have come/slept/called your brother/washed myself.'

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[11] Manzini and Savoia's transcriptions have been revised following conversations with my consultants. Transcriptions diverge especially for stressed vowel, which is partly explained by the fact that vowel systems are quite instable all over this area (cf. the recent monograph by Manzari 2019).

b. ˈsɔ   vvəˈnɪu̯tə / ddrəmˈmɪu̯tə // ˈaɟɟə   vəˈnɪu̯tə / drəmˈmɪu̯tə

   be.1SG come   slept   have.1SG come   slept

   u = ˈsɔ   ccaˈmɔːtə / ˈaɟɟə   caˈmɔːtə //

   him= be.1SG called   have.1SG called //

   mə =   ˈsɔ   llaˈvɔːtə / m =   ˈaɟɟə   laˈvɔːtə (Ruvese 1SG)

   REFL.1SG= be.1SG washed   REFL.1SG= have.1SG washed

   'I have come/slept/called him/washed myself.'

Bitettese, on the other hand, according to Manzini and Savoia (2005,II:725f.) has free variation only in the first person plural (8a) and categorical selection of either B or H in the remaining persons but the third person singular, as exemplified with the first person singular in (8b):

(8)   a. ˈsiːmə / ˈaːmə   vəˈneu̯tə / dərˈmeu̯tə //

       be.1PL   have.1PL come   slept

       nə =   siːmə / n=   amə   laˈvɔːtə (Bitettese)

       REFL.1PL= be.1PL   REFL.1PL= have.1PL washed
       'We have come/slept/washed ourselves.'

    b. ˈaɟɟə   vəˈneu̯tə/ dərˈmeu̯tə //**ˈsɔ   vvəˈneu̯tə / ddərˈmeu̯tə //

       have.1SG come   slept   be.1SG come   slept

       m =   ˈaɟɟə   laˈvɔːtə / **mə =   ˈsɔ   llaˈvɔːtə

       REFL.1SG= have.1SG washed   REFL.1SG= be.1SG washed
       'I have come/slept/washed myself.'

Summing up, in Tables 8.6-8.8 we provide the overall distributions of perfective auxiliaries in the compound perfect in the three dialects, based on Manzini and Savoia's data (H-B = HAVE/BE according to the phonological context, which will be addressed in (10)-(12)):

Table 8.6 Ruvese (Manzini and Savoia 2005,II:724f.):

	1SG	2SG	3SG	1PL	2PL	3PL
unaccusatives = unergatives	H/B	B	H-B	H	H	H

Table 8.7. Gravinese (Manzini and Savoia 2005:III:29f.):

	1SG	2SG	3SG	1PL	2PL	3PL
unaccusatives = unergatives	H/B	H	H-B	H	H	H

Table 8.8. Bitettese (Manzini and Savoia 2005, II:725f.):

		1SG	2SG	3SG	1PL	2PL	3PL
a.	unaccusatives	H	B	H-B	H/B	B	H
b.	unergatives	H	H	H-B	H/B	B	H

For Gravinese and Ruvese my consultants' judgments confirm Tables 8.6-8.7 while for Bitettese I have found two different distributions (divergencies from Table 8.8 are in boldface):

Table 8.9 Bitettese (consultant #1):

		1SG	2SG	3SG	1PL	2PL	3PL
a.	unaccusatives	**B**/ˀH	B	H-B	B/ˀH	B	**B**/H
b.	unergatives	**B**/ˀH	H/B	H-B	H/B	**H**/B	H

Table 8.10 Bitettese (consultant #2):

	1SG	2SG	3SG	1PL	2PL	3PL
unaccusatives = unergatives	**B**/(H)	**B**/(H)	H-B	B/H	B/**H**	H

Consultant #1 preserves the contrast between unaccusatives and unergatives (plus all remaining constructions), though this contrast is realized differently and extends also to the second person plural and third person plural. Consultant #2, by contrast, has one and the same auxiliation scheme throughout, as exemplified for the second person singular in (9), where BE is always the preferred option, with HAVE marginally acceptable:[12]

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[12] The acceptability of HAVE seems to be affected by various factors here, lexical as well as syntactic: for instance, while ˀ*'a 'ʃeʊ̯t* 'you.SG have gone' is judged as slightly awkward, *nan 'a 'ʃeʊ̯t* 'you.SG haven't gone' and *tə n 'a 'ʃeʊ̯t* 'you.SG have gone away' are perfect. Note that one motive behind consultant #2's eliminating the auxiliation contrast may be the influence of urban Barese, which, as shown by Andriani (2017: 158), (2018), has a stable unary auxiliation system of type (f) in Table 8.4 with HAVE selected in third persons and BE elsewhere. Among the centres whose dialects are considered here, Bitetto lies next to Bari, only 16 km WSW from its centre, and much less from its outskirts.

(9) a. ˈsi   vvəˈneu̯tə /ddərˈmeu̯tə // tə =   ˈsi   llaˈvəːtə   (Bitettese 2SG)

be.2SG come   slept   REFL.2SG= be.2SG washed

'You have come/slept/washed yourself.'

  b. ˀˈa   vəˈneu̯tə /dərˈmeu̯tə / t =   ˈa   laˈvəːtə

  have.2SG come   slept   REFL.2SG= have.2SG washed

'You have slept/washed yourself/called him.'

This is an often-encountered situation in the whole area, where even asking several informants does not guarantee that one is describing anything but a collection of idiolects among many, which may differ crucially in the relevant aspects in this quite shaky area of grammar.[13]

Be that as it may, my data coincide with those of Manzini and Savoia (2005) on the point which is of crucial concern for us, namely, auxiliary choice in the third person singular. Here, the three dialects behave uniformly, as exemplified in (10)-(12) (data from Manzini and Savoia 2005):

(10) a. ˈɛ   ddərˈmeutə / vvəˈneutə // s =   ˈɛ   llaˈvəːtə (Bitettese)

      be.3SG slept   come   REFL.3= be.3SG   washed

  b. ˈav   arrəˈvəːtə /aˈpirtə   // s =   ˈav   aˈpirtə

    have.3SG arrived   opened   REFL.3= have.3SG   opened

    'S/he has slept/come/washed him-/herself/arrived/opened // it opened (up).'

(11) a. ˈɛ   drəmˈmeutə / vəˈneutə //s =   ˈɛ   laˈvɔːtə (Ruvese)

      be.3SG   slept   come   REFL.3= be.3SG   washed

  b. ˈɔv   aspətˈtɔːtə / arrəˈvɔːtə // ˈs =   ˈɔv   asˈsɛi̯sə

    have.3SG waited   arrived   REFL.3= have.3SG sat

    'S/he has slept/come/washed him-/herself/waited/arrived/sat down.'

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(12) a. ˈje   ddərˈmuu̯tə / vvəˈnuu̯tə / mˈmurtə // s =   ˈe   laˈvɜːtə (Gravinese)

           be.3SG slept   come   died   REFL.3= be.3SG washed

      b. ˈav   aˈpirtə la ˈportə   // s =   ˈav   asˈsiːsə

           have.3SG opened the door   REFL.3= have.3SG sat

           'S/he has slept/come/died/washed him-/herself/opened the door/sat down.'

The two auxiliary verb forms *ˈɛ/ ˈavə* in (10), *ˈɛ/ ˈɔvə* in (11), and *ˈje/ ˈavə* in (12) are unambiguously identified as the third person singular of the present indicative of BE and HAVE, respectively. In an unexpected way, though, their selection, with predicates of any syntactic kind, depends on the initial segment of the lexical verb: the third-person singular form of BE *ˈɛ/ ˈje* is selected before consonant-initial participles, and the third-person singular form of HAVE *ˈavə/ ˈɔvə* before vowel-initial participles. Describing these facts, the authors do not seem to realize how problematic these are for their own approach, according to which the choice between B/H depends on properties of clause structure.[14] Rather, they comment (for Ruvese and Bitettese):

> We can analyse this phenomenon in terms of the model already proposed. The fundamental fact from a syntactic point of view is represented by the alternation between *essere* [BE] and *avere* [HAVE] in the third person singular, which we can interpret as a reflex of the possibility of treating the third person singular as eventive when *avere* [HAVE] is inserted. This syntactic base had grafted onto it a phonological restriction, which however is independent of it.' (Manzini and Savoia 2005,II:744; Gravinese is analysed along the same lines in Manzini and Savoia 2005,III:17).

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[14] Manzini and Savoia (2007:151) follow Kayne (1993) in maintaining a 'bi-sentential analysis' supported, in their view, 'by the fact that participial clauses and auxiliary verb may be found independently of each other, with recognizably the same basic characteristics, so that *auxiliary–past participle* constructions appear to be an ordinary case of embedding a non-finite sentence beneath a main verb'. Note in passing that this is a clear instance of a type (3b) stance, where auxiliaries are represented, contrary to the definition in (4), as verbs endowed with an argument grid of their own.

However, this description is not true to the facts, as the phonological contrast is not 'grafted' onto a(n alleged) syntactic condition but clearly has priority over it: in the third person singular, HAVE can be selected if and only if the following word begins with a vowel. Consequently, under their approach, Manzini and Savoia are creating something which does not (and arguably cannot) exist in the languages of the world. Under their account, the data in (10)-(12) violate the phonology-free syntax principle (Zwicky 1969; Zwicky and Pullum 1983; Zwicky 1996):

(13)   Phonology-free syntax principle
        'strictly phonological information is never required for the operation of the syntactic component' (Zwicky 1969:411).

   In fact, the normal state of affairs in the syntax-phonology relationship is that:

> syntax can be sensitive to abstract properties realized in the distribution of phonological features, but not to the specific phonological features. Though the conditions in a syntactic rule can have certain sorts of indirect or ultimate phonological consequences (like the temporal ordering of the parts of an expression), these conditions never seem to distribute phonological properties directly; no language has a syntactic rule stipulating that some constituent begin with an obstruent, or have no more than two syllables, or contain only unrounded vowels, or have stress on its penultimate syllable. (Zwicky 1996:4477)

   Elaborating on this list of syntactic impossibilities, imagine a Romance language in which a given verb takes a (prepositionally marked) indirect object if the relevant argument begins with a consonant, but a direct object if the argument begins with a vowel. Such a language would look like (14), invented by varying an existing language, Logudorese Sardinian, whose real data (from the variety of Bonorva, in the province of Sassari) are displayed for comparison in (15) (the initial single asterisks in (14a-d) are meant to indicate that the whole system is impossible):[15]

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[15] The name *ba'indzu* has its initial /b/ deleted when preceded by a final vowel, owing to a general rule, while *is'tɛvɛnɛ*, stemming from the Greek vocative *Stéphane* (Wagner 1997:294), has undergone *i*-epenthesis, like all words originally beginning with an *s*+C cluster in Logudorese.

(14) a. *ˈappɔ   ˈiːðu **(a   bb)aˈindzu (*Bonorvese)

        have.1SG seen   to Gavino

        'I have seen Gavino.'

   b. *ˈappɔ   ˈiːðu a   ˈkkaːnɛzɛ / **ˈɣaːnɛzɛ

        have.1SG seen to   dogs   dogs

        'I have seen dogs.'

   c. *ˈappɔ   ˈiːðu (**a)   isˈtɛvɛnɛ

        have.1SG seen   to   Stefano

        'I have seen Stefano.'

   d. *ˈappɔ   ˈiːðu (**a) ˈɛspɛzɛ

        have.1SG seen   to wasps

        'I have seen wasps.'

(15) a. ˈappɔ   ˈiːðu a   isˈtɛvɛnɛ / a bbaˈindzu (Bonorvese)

        have.1SG seen to   Stefano   to Gavino

        'I have seen Stefano/Gavino.'

   b. ˈappɔ   ˈiːðu ˈɣaːnɛzɛ / ˈɛspɛzɛ

        have.1SG seen dogs   wasps

        'I have seen dogs/wasps.'

   c. lɔz=/**liz= ˈappɔ   ˈiːðɔzɔ (sɔs   ˈkaːnɛzɛ / a isˈtɛvɛnɛ ɛ bbaˈindzu)

        them.DO/IO= have.1SG seen:M.PL the:M.PL dogs   to Stefano and Gavino

        'I have seen them (the dogs/Stefano and Gavino).'

    Back in the real world, Logudorese Sardinian has both *a*-marked and unmarked direct objects, but these are direct objects in both cases, since this is required by the predicate valency regardless of the phonology. That this is so is attested, for instance, by the fact that the objects in (15a-b) are both cliticized by a direct object clitic, and not an indirect object clitic (see 25c). Furthermore, selection of an object with or without the marker *a* depends on a syntactic rule (differential direct-object marking) which is well known to be sensitive to

semantic-referential properties (animacy, definiteness), not to the phonology. Arguably, cases such as (14) do not exist in the languages of the world, as they are ruled out by (13).

Thus, observing that 'has'/'is' selection in Bitettese, Gravinese, and Ruvese is sensitive to the initial segment of the following lexical verb is incompatible with maintaining that auxiliary selection is driven by the syntax here.

Though the data provided by Manzini and Savoia invariably display the string auxiliary+participle, some tests come to mind which further demonstrate that the phonological condition takes precedence. For instance, one should check what happens when one and the same verb lexeme possesses two variants with C-/V- – such doublets occur in Apulian dialects (e.g. Alt. *(at)tʃə'vars* 'eat one's fill') – and when another word is interposed between the auxiliary and the participle. If the phonological condition has priority, we expect a) doublets to behave differently in spite of their semantic/syntactic identity, and b) the interposition of a C-/V-initial word to affect HAVE/BE selection in the third person singular.

Starting with the second test, this is not easy to carry out, since temporal adverbs are the best candidates, but Apulian dialects are more restrictive than standard Italian when it comes to allowing their collocation in the relevant position, as seen in (16)-(17) for Gravinese and Ruvese:

(16) a. l= ˈaɟɟə   / ʊ = ˈsɔ   ˈffatt   arˈrɜːtə (Gravinese)

          it=have.1SG   it=be.1SG   done   again

     b. **l   ˈaɟɟə   ʊ   ˈsɔ   arˈrɜːtə ˈfattə

          it have.1SG   it   be.1SG done   again

          'I did it again.'

(17) a. ˈkɛːra   waɲˈɲau̯nə sə=   n=   ˈɛ   / ˈɔːvə   ˈʃɾu̯tə arˈrɛːtə (Ruvese)

          that:F.SG girl(F).SG REFL.3=hence= be.3SG have.3SG gone   again

     b. **ˈkɛːra   waɲˈɲau̯nə sə=   n=   ˈɛ   / ˈɔːvə   arˈrɛːtə ˈʃɾu̯tə

          that:F.SG girl(F).SG REFL.3=hence= be.3SG have.3SG again   gone

          'That girl has gone away again.'

However, at least the local counterparts of It. *già* 'already', *sempre* 'always', and *mai* '(n)ever' can be interpolated and, when they separate the auxiliary from the participle, they affect selection of 'has'/'is' as predicted:

(18) a. maˈrɪ   nan dz=   ˈaːvə   /**ˈe   asˈsɪːsə   ˈmɛ   ˈddo (Gravinese)

       Maria   NEG REFL.3= have.3SG be.3SG sat   never   here

    b. maˈrɪ   nan dz=   ˈe   ˈmmɛ / **ˈaːvə   ˈmɛ   asˈsɪːsə   ˈddo

       Maria   NEG REFL.3= be.3SG never   have.3SG   never   sat   here

       'Maria has never sat here.'

    c. pəpˈpɪˈnə   s=   ˈe   ˈssemb / **ˈaːvə   ˈsemb asˈsɪːsə   ˈddɛ

       Peppino   REFL.3= be.3SG always   have.3SG always sat   there

       'Peppino has always sat there.'

(19) a. la   ˈportə   s =   ˈaːvə / **ˈe   aˈpɛrtə   ˈddʒɛ (Gravinese)

       DEF:F.SG door(F).SG REFL.3= have.3SG be.3SG opened.F   already

    b. la   ˈportə   s =   ˈe   /**ˈaːvə   ˈddʒɛ   aˈpɛrtə

       DEF:F.SG door(F).SG REFL.3= be.3SG have.3SG   already   opened.F

       'The door has already opened.'

In the Gravinese examples (18a) and (19a) the adverb follows the V-initial participle, which results in selection of *ˈaːvə*, while in (18b-c) and (19b) *ˈmɛ, ˈsembə* and *ˈddʒɛ* precede the participle and the auxiliary form is consequently switched. The same situation is observed in Bitettese:

(20) a. ˈfraːtəmə   ˈɛːvə   arrəˈvəːtə (Bitettese)

      brother=1SG have.3SG   arrived

      'My brother has arrived.'

    b. ˈfraːtəmə   ˈɛ   ˈddʒə   arrəˈvəːtə

      brother=1SG be.3SG already   arrived

      'My brother has already arrived.'

Note that my Bitettese consultants have the alternative form *ˈɛːvə* in (20), distinct from *ˈaːvə* recorded by Manzini and Savoia. This form results diachronically from a blend of the relevant forms of the two auxiliaries (*ˈaːvə* < Lat. HABET 'have.3SG' vs *ˈɛ* < Lat. EST 'be.3SG'),

a fact often observed in Italo-Romance dialects with mixed auxiliation (cf. Cennamo 2010; Manzini and Savoia 2005,III:17f.; Loporcaro 2016:814f.), itself evidence for their belonging to one and the same lexeme. However, contrary to, for example, the blended form ˈɛ 'be = have.2SG' reported by Manzini and Savoia (2005,II:774, 3.9f.) for the dialects of Cerano and Trecate – which functions both as a copula and verb of possession – Bitettese ˈɛːvə belongs synchronically to the paradigm of HAVE, as shown by its occurring in free variation with ˈaːvə (21a-b) as the third person singular of the periphrastic future (also a deontic periphrasis), which is regularly formed with HAVE (cf. the further forms from the same paradigm in (21c-d), Manzini and Savoia 2005,II:725):[16]

(21) a. ˈjiddə   s   ˈɛːvə   a llaˈvə   lə   ˈməːnə   (Bitettese)

      3SG   REFL.3= have.3SG   to wash.INF DEF.F.PL hand(F).PL

      'He will/has to wash his hands.'

   b. la   ˈportə   aŋˈgoːrə l   ˈaːv   a   aˈprai̯

      DEF.F.PL   hand(F).PL still   it=   have.3SG   to   open.INF

      'The door, s/he still has to open it.'

   c. u   ˈaʧ   /**ˈsɔ   a   ˈfə

      it   have.1SG   be.1SG   to   do.INF

      'I will/have to do it.'

   d. u   ˈa   /**ˈsi   da   ˈfə

      it   have.2SG   be.2SG   to   do.INF

      'You.SG will/have to do it.'

   e ˈjiddə   ˈɛ   /**ˈɛːvə   ˈjirtə

      3SG   be.3SG   have.3SG   tall

      'He is tall.'

For comparison, (21e) shows the third-person singular form of the copula, which is

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[16] The local outcomes of Lat. HABERE 'have' have been generally ousted by those of TENERE 'hold, keep' in their functions as verb of possession and support verb across all of this area, e.g. Bitettese ˈteŋgə/**ˈaʧə ˈtrend ˈannə 'I am (lit. 'have') thirty'.

distinct from HAVE in all persons.[17] In Ruvese, finally, my consultants do not rule out ˈɔːvə 'has' remaining even before ˈmɛ and ˈddʒaː:[18]

(22) a. maˈrɛjə s=   ˈɔːvə   / **s= ˈɛ   asˈsɛi̯sə ˈddʒa (Ruvese)

        Maria   REFL.3= have.3SG   REFL.3=be.3SG sat   already

    b maˈrɛjə s =   ˈɛ   / ?s=   ˈɔːvə   ˈddʒa asˈsɛi̯sə

        Maria   REFL.3= be.3SG   REFL.3=have.3SG already sat

        'Has Maria already sat down?'

(23) a. pəpˈpɛi̯nə nan dz=   ˈɔːvə   /**dz= ˈɛ

        Peppino   NEG REFL.3= have.3SG   REFL.3= be.3SG

        asˈsɛi̯sə   ˈmɛ ˈsɔːp a ˈkkɛːra   ˈsɪʒddʒə (Ruvese)

        sat   ever on to that:F.SG chair(F).SG

    b. pəpˈpɛi̯nə nan dz=   ˈɛ   ˈmmɛ /dz=   ˈɔːvə   ˈmɛ

        Peppino   NEG REFL.3= be.3SG   ever   REFL.3= have.3SG   ever

        asˈsɛi̯sə   ˈsɔːp a ˈkkɛːra   ˈsɪʒddʒə

        sat   on to that:F.SG chair(F).SG

        'Peppino has never sat on that chair.'

The further test with verbal doublets whose lexical shape comes in two variants also gives the same result for the one relevant verb I was able to identify for Ruvese:

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[17] This answers the legitimate concern aired by Corbett (2013:185) in commenting on Loporcaro's (2007) data from one mixed-auxiliation dialect of Abruzzo: 'we would need to be reassured about the behaviour of the two verbs independently'.

[18] My Ruvese consultants share the same judgements reported by Manzini and Savoia in (11), with complementary distribution of 'is'/'has' when the auxiliary immediately precedes the participle, but the (at least marginal) acceptability of preconsonantal ˈɔːvə 'has' in (22b) seems to indicate an incipient weakening of the phonological conditioning (thanks to Adam Ledgeway for discussing this point). This auxiliary form is usually ˈaːvə in connected speech, where the velarization that affected stressed /a/ tends to regress, but can also be realized as ɔːvə, as recorded by Manzini and Savoia, in slow speech.

(24) a. pəpˈpɛi̯nə s=   ˈɔːvə   attʃəˈvɔːtə   ˈbbuːnə (Ruvese)

      Peppino   REFL.3= have.3SG filled   good.M

    b. pəpˈpɛi̯nə s=   ˈɛ   ttʃəˈvɔːtə   ˈbbuːnə

      Peppino   REFL.3= be.3SG   filled   good.M

      'Peppino has eaten his fill.'

8.4. A shape condition on the distribution of 'is'/'has'

This undesired, and highly problematic, violation of (13) evaporates under the morpho-lexical
approach to mixed auxiliation advocated here (2a), assuming that split-auxiliary distributions
across verb persons are a matter of inflexional morphology, not syntax. Under such an
alternative theory, HAVE vs BE selection in Tables 8.9-8.10, examples (10)-(12) and in (17)-
(24) is best analysed as obeying a shape condition, of the type constraining phrase allomorphy
in well-known cases such as French liaison. Such a condition 'specifies aspects of the
phonological shape of *i*[nflexional]-forms, but "postlexically" – by reference to triggers at
least some of which lie outside the syntactic word' (Zwicky 1986:310). Consider the
statement on the derivation of the English prevocalic form of the indefinite article *an*:

> It is not part of the lexical entry for the word, because it refers to the following
> syntactic context. It is not a phonological rule of English, for it applies only to the
> indefinite article and has no general applicability to phonological domains. It is a
> condition on shape that overrides the lexical entry for the indefinite article and
> stipulates that another shape is called for. (Pullum and Zwicky 1988:262)

    This perfectly suits our case too:[19] the complementary distribution of 3SG *ˈɛ* 'is' and
ˈɔːvə/ ˈaːvə 'has' prevocalically does not follow from any phonological rule of the dialects but,
rather, is sensitive to the postlexical phonological context, in a way syntactic rules cannot be.
Rather, it has to be analysed as a matter of phrase allomorphy, obeying a shape condition, but
this is only possible under the assumption that the choice between forms of HAVE and BE in a
mixed paradigm has nothing to do with the syntax, as maintained in (2a). Conversely, such an
unproblematic description of the observed data would be out of reach for theories which
derive the specific forms of auxiliaries from syntactic factors such as Kayne (1993) or

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[19] The parallel is quite compelling indeed: compare (15)-(23) with English *a closer union/an ever closer union*.

Manzini and Savoia (2005).

8.5. From complementary distribution via overabundance to heteroclisis and suppletion

Since I have argued that the syntactic account of mixed auxiliation makes a typological oddity out of the Apulian data analysed here, I owe the reader a demonstration that the present analysis is free from such flaws and analyses these highly unusual data in terms of facts that are independently known to occur in the languages of the world. Indeed, under (2a), dialects such as those of Bitetto, Gravina, and Ruvo showing the mixed auxiliation patterns in Tables 8.6-8.8 are one more example of the type of change described by Maiden (2004:227) in his inquiry into 'the genesis of suppletion', according to which 'distinct lexemes come to acquire the status of synonymous paradigmatic alternants'. BE/HAVE entering mixed auxiliation patterns are one more case where 'lexemes become allomorphs' comparable to that which Maiden (2004:242) adduces from some Romanian dialects of Maramureş (in north-western Romania) as illustrated in Table 8.11, where the verb GO mixes forms across different persons which, in standard Romanian, belong to the two distinct lexemes MERGE and SE DUCE (25):

Table 8.11 The verb GO in some Romanian dialects of Maramureş (Maiden 2004:242)

	1SG	2SG	3SG	1PL	2PL	3PL
a. Fundătura	mə duk	t'ə duc	sə ˈduce	ˈmɛrem	ˈmɛrets	sə duk
b. Tăureni	mə duk	ce duʃ	ˈmɛre	ˈmɛrem	ˈmɛrets	sə duk

(25) a Liana   merg-e   acasă. (Ro.)

     Liana   go.3SG   home

     'Liana is going home.'

   b Liana   se   duc-e   acasă.

     Liana   REFL.3=   bring-3SG   home

     'Liana is going home.'

Our mixed paradigms are also instances of lexeme splits just like that in Table 8.11. Prior to the change which brought mixed auxiliation systems into being, HAVE and BE must also have been in syntactically-determined complementary distribution in (the diachronic

ancestors of) these dialects, as shown by abundant comparative evidence. The change pushed them into the realm of inflexional morphology.[20]

Following the lines of argument developed so far, we can add that, if in mixed systems BE/HAVE are a matter of inflexional morphology, free variation between them within a paradigm cell can be equated to overabundance (i.e. 'multiple forms realizing the same cell', Thornton 2011; 2012) while person-driven alternation can be viewed as heteroclisis (viz. 'the property of a lexeme whose inflectional paradigm involves two or more distinct inflection classes', Stump 2006:279);[21] on overabundance and heteroclisis, see also §1.2.3 in Ledgeway, Smith, and Vincent, this volume. Since '[h]eteroclitic paradigms are exceptions set against a backdrop of nonheteroclitic paradigms' (Stump 2016:184), it is essential to keep in mind that, even in dialects showing just one mixed auxiliation pattern in all syntactic constructions (such as Aquilano in 8f), the whole paradigms of BE and HAVE remain as a relevant 'backdrop' in their roles as a copula and future/deontic auxiliary respectively, as shown for Bitettese in (21).

A comparable case from Italian verb inflexion is that of COMPIERE/COMPIRE 'fulfil', which displays – as it has ever since the earliest documentation of the language – forms of both classes 2 (*-ere*) and 3 (*-ire*) and hence, together with near-synonymous ADEMPIERE/ADEMPIRE, 'represent the best example of overabundance in all cells' in Italian (Thornton 2018:319). Class 3 forms were much rarer in old Italian throughout the paradigm, as documented in Table 8.12(a) for a selection of paradigm cells with the number (in brackets) of occurrences in the *Opera del Vocabolario Italiano* (*OVI*) corpus.

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[20] This change has not completely eliminated all traces of the former system, as argued in Pescarini and Loporcaro (forthc.) where it is shown that, in mixed systems, uniform selection of BE in all persons exclusively occurs in unaccusatives, never in unergatives, while the reverse is true of uniform selection of HAVE. This and other distributional skewings are due to inertia and are to be interpreted as residues of a once productive former stage of syntactically-conditioned auxiliary choice.

[21] The former terminological point is made by Štichauer (2018:16; 2019:91) in two papers where he mentions Bentley and Eythórsson (2001) as well as my own work on mixed auxiliation, although I could not find in those papers any acknowledgment of the fact that the idea itself, eloquently advocated there, that mixed auxiliation belongs to inflexional morphology and is best analysed as involving one (split) lexeme is put forward in exactly these terms (except for the label 'split lexeme', for which see Corbett 2013; 2015) in Loporcaro (1999:213); Bentley and Eythórsson (2001:70f.); Loporcaro (2001:462).

Table 8.12 COMPIERE/COMPIRE 'fulfil'

Italian	Class 2	Class 3a (-*isc*-)	'fulfil'
a.	*compiere* (590)	*compire* (4)	INFINITIVE
Grammar 1	*compie* (599)	*compisce* (4)	3SG PRS_IND
(attested, *OVI*	*compiete* (5)	*compite* (1)	2PL PRS_IND
corpus, 13th-14th	*compieva* (14)	*compiva* (Ø)	3SG IPFV_IND
centuries)	*compiesse* (80)	*compisse* (25)	3SG IPFV_SBJV
	compiuta (639)	*compìta* (113)	PST_PTCP_F.SG
b.	***compiere*** (115)	??*compire* (Ø)	INFINITIVE
Grammar 2	***compie*** (43)	??*compisce* (Ø)	3SG PRS_IND
(my own;	??*compiete* (Ø)	***compite*** (Ø)	2PL PRS_IND
CoLFIS)	??*compieva* (Ø)	***compiva*** (1)	3SG IPFV_IND
	compiesse (Ø)	*compisse* (Ø)	3SG IPFV_SBJV
	compiuta (54)	***compìta** (Ø)	PST_PTCP_F.SG

In contemporary standard Italian things have changed, as seen in Table 8.12(b), where, in addition to grammaticality judgements, I add figures from the *Corpus e Lessico di Frequenza dell'Italiano Scritto* (*CoLFIS*) in brackets (extensive data from the larger *La Repubblica* corpus are provided in Thornton's 2018:317-19 study of this and other Italian overabundant verbs): most class 3 forms have fallen out of use, which is not unexpected, given that, for this lexeme, they were rarer from the outset. However, this is not without exceptions. In particular, in the imperfect indicative -*iva* is favoured over -*ieva*, and in the present indicative there is a similar effect for the second person plural, yielding the heteroclitic paradigm in Table 8.13.

Table 8.13 COMPIERE (present indicative): from overabundance to heteroclisis

	1SG	2SG	3SG	1PL	2PL	3PL
Class 2	*compio*	*compi*	*compie*	*compiamo*	??*compiete*	*compiono*
Class 3	**compisco*	**compisci*	**compisce*	*compiamo*	*compite*	**compiscono*

Note that *compio, compi*, *compiono* can, in principle, be analysed as inflected according to the subclass of class 3 without augment (compare *riempire* 'fill': 1SG *riempio*, 2SG *riempi*, 3PL *riempiono*), which is not at odds with the fact that COMPIRE class 3 forms (also) inflected according to the complementary subclass showing augment in the present (*compisce*; cf. the double inflection in e.g. *esegue* 'carries out' alongside the now outdated *eseguisce*, the only form documented in the OVI Old Italian corpus).[22] Moreover, if not including the augment in the N-pattern cells (the singular plus the third-person plural of the present tense, see Maiden

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[22] Thornton (2018:316) considers all present indicative forms except the 2PL as non-distinct for class.

2018:ch. 6), the first- and second-persons singular are non-distinct for class as they display superstable endings (Wurzel 1984:139-142) common to all classes, which is the case also for the first-person plural.

In conclusion, once the many paradigm cells hosting syncretic forms are factored out, COMPIERE shows a tendency towards heteroclisis, which arranges weakly suppletive allomorphs according to the N-pattern (at leas if the N-pattern-cell forms are interpreted as inflected according to Class 2). This helps explain why in the present indicative class 3 *compite*, despite its being rarer in Old Italian, emerged as the winning form while the rest of the present stayed as it was (*compie* ecc.), be it class 2 or 3: namely, with the sole exception of the participle, it was the whole partition class complementary to the N-cells which won out. This confirms that the autonomously morphological organizing principle 'N-pattern' can overrun sheer token frequency in driving morphological change, which once again emerges, as Maiden (2018:16) puts it, 'as a way of diagnosing the fact that some phenomenon already diagnosed as "morphomic" really exists in the minds of speakers'.[23]

The parallelism with mixed auxiliation is strengthened by the latter's displaying the N-pattern morphomic distribution in several Italo-Romance dialects, as observed by Štichauer (2018:17f.; 2019:88-93).

8.6. The limits of morphology

I have not commented on (3c) yet: this is an approach to (non-mixed) auxiliation which, within a theory of periphrasis, claims that

> auxiliary selection is literally a matter of inflection class: just as different classes of lexemes may trigger the use of distinct rules of synthetic exponence for the expression of the same feature, they may likewise trigger the use of distinct rules of periphrastic exponence. To take a concrete example, let us consider the situation in French.
> (Bonami 2015:97, followed by Štichauer 2018:9, Bach and Štichauer, this volume)

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[23] Note that the non-productivity of class 2 cannot be invoked as an alternative explanation, since the non-augmenting subclass 3a is just as non-productive: had class-productiveness been the driving force in the change, one would have ended up with a consistent class 3 regular lexeme **compisco* 1SG, **compisci* 2SG, *compite* 2PL, etc.

This means that selection of ÊTRE/AVOIR 'be/have' in French is not by syntactic rule. The reason why French is treated this way is that just 'a few dozen intransitive verbs use *être* 'be'.' Thus, 'auxiliary selection tends to correlate with lexical semantics, but has to be recognized as partially arbitrary', which 'is reminiscent of the status of inflection classes: similar lexemes tend to cluster in the same classes, but there are exceptions'. Note that mention of lexical semantics alone and the references cited, starting with Sorace (2000), make it clear that the author endorses a non-syntactic view of unaccusativity (for discussion, see Loporcaro 2015; 2016:817f.). However, there is an alternative view of unaccusativity (in the wake of Perlmutter 1978; Rosen 1984) and, elaborating on the latter, there is an available syntactic account of the French auxiliation facts exemplified in (26):

(26) a. Le   soleil   est   apparu   à   8 heures. (Fr.)
          DEF.M.SG sun(M) be.3SG   appeared at   8 hour.PL
          'The sun appeared at 8.'

      b. Le   soleil   a   disparu   à   8 heures.
          DEF.M.SG sun(M) have.3SG disappeared at   8 hour.PL
          'The sun disappeared at 8.'

La Fauci (2000) proposed an analysis in which unaccusative advancement, responsible for BE selection throughout Romance, occurs in the predicate sector of the auxiliated participle, as in Italian, for French BE-selecting unaccusatives such as APPARAÎTRE 'appear', which are known to represent the conservative option (see, for example, Heidinger 2015:282f. and references therein on the gradual replacement of ÊTRE 'be' by AVOIR 'have'). By contrast, verbs such as DISPARAÎTRE 'disappear' have switched to HAVE but still test as unaccusatives on other diagnostics such as the availability of participial absolutes:

(27) Une fois le   soleil disparu   derrière   les   arbres,
      one time the sun   disappear.PTCP behind   the   trees,
      de   gros nuages sombres commencent à   se   regrouper dans le   ciel.
      INDF big   clouds dark   start.3PL   to   REFL=gather.INF in   the   sky
      (Fr., http://exo-terra.com/fr/expeditions/expedition2007_journal.php)
      'Once the sun has disappeared behind the trees, large dark clouds begin to gather in
      the sky.'

For this latter subclass, La Fauci's analysis proposes that unaccusative advancement has moved to the predicate sector of the verb root. This hypothesis accommodates the (increasing) depletion of the set of BE-selecting verbs – which goes even further in Laurentian French and in many *oïl* dialects (Loporcaro 2016:812f.) – without losing the host of unaccusativity-based generalizations exemplified in (27), which would be left unexplained under the assumption, at the core of the morphological approach (3c), that HAVE- vs BE-selecting verbs belong to 'two [morphologically defined, *M.L.*] classes of lexemes with two different realizations' (Bach and Štichauer, this volume, §7.2.2).

With this proviso, the French auxiliary selection rule finds its natural place among the perfective auxiliation rules so far described for the Romance languages (modified from Loporcaro 2011:82; 2 = direct object, P = predicate; the reader is referred to the cited source for details):

(28) Perfective auxiliation in Romance (non-mixed systems)
    The perfective auxiliary is ESSE 'be' iff the final 1:
    a. is a 2   [Italian]
    b. is the first 2 in the clause   [Logudorese Sardinian]
    c. is a P-initial 2   [old Romanesco][24]
    d. is: i. a 2;
             ii. not the P-initial 1 of the auxiliated participle [old Florentine]
    e. is: i. a 2;
             ii. not multiattached   [Engadinian, Leccese]
    f. is a 2 in the P-sector of the auxiliated participle   [French]
    Otherwise the perfective auxiliary is HABERE 'have'.

The evidence from mixed auxiliation systems discussed in §§8.2-3 militates in favour of this view of French auxiliation. In fact, the analysis proposed in §8.4 for HAVE/BE selection in the third person singular in Bitettese, Gravinese, and Ruvese in terms of a shape condition, is based crucially on the assumption that such selection is a matter of inflexional morphology. Assuming that the same is true of French, the cautious statement of Bonami's (2015:97) that French auxiliary selection 'is reminiscent of the status of inflection classes', would obscure

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[24] P-initial is a technical term of Relational Grammar (cf. Davies and Rosen 1988) meaning 'initial in the predicate sector', in turn defined as the set of strata in which a given predicate bears the P-relation.

the difference between non-mixed systems, such as French, Italian, or the remaining examples in (28), and mixed systems. Only in the latter, in fact, do we expect that such cases may occur at all, while the impossibility of shape conditions switching forms of HAVE/BE in non-mixed systems is correctly predicted under (3a), the syntactic approach to auxiliation endorsed here.

To exemplify, consider the Logudorese Sardinian examples in (29) (from La Fauci and Loporcaro 1993), which show how perfective auxiliary may be affected by sandhi processes in non-mixed auxiliation systems:

(29) Bonorvese (Logudorese Sardinian)

a	Pedru est partidu	['ɛs palˈtːiðu]	'Pietro has left'	B
b	ch'est bénnidu Pedru	['ɛl ˈbenniðu]	'Pietro has come (here)'	B
c	b'est annadu Pedru	['ɛst anˈnaːðu]	'Pietro has gone there'	B
d	**b'at annadu Pedru	['að anˈnaːðu]		**H
e	ch'at bénnidu unu pastore	['a ˈbbenniðu]	'There came a shepherd'	H

The third person singular of BE, phonologically /ˈɛst/ as seen in the spelling on the left-hand side, is realized in different ways depending on the following initial segment: it undergoes /t/-deletion before consonants (29a-b), and its /s/ is realized as [l] before voiced consonants (29b), while its underlying form /ˈɛst/ emerges unmodified before a vowel (29c).

Note however that this auxiliary form does not change to /ˈat/ (the third person singular of HAVE) prevocalically, as shown by the ungrammaticality of (29d). The latter may occur with the same unaccusative verb, but only if selected in the appropriate syntactic context, which is the case (given the auxiliation rule proposed in La Fauci and Loporcaro 1993:164) in impersonal presentative clauses whose argument is indefinite, as in (29e). On the contrary, when the argument is definite (as in 38a-c), the clause cannot be impersonal and auxiliary BE is selected, whatever the initial segment of the word following the auxiliary.

The reason why it is so in Sardinian is that we are facing a well-behaved Romance variety in which auxiliation depends on syntax alone: this language, like most other Romance varieties, does not feature any free variation, mixing, or person-driven alternations in the selection of HAVE/BE. The latter is precisely what happens in the three Apulian dialects we

have focused on in this chapter.[25] This is a rare phenomenon, which need not be misconceived though as an otherwise unheard-of oddity in which the phonology drives a syntactic process, an error from which the morpho-lexical approach to person-driven auxiliation protects us. By the same token, the syntactic approach to auxiliation in (3a) automatically explains the reason why the phonologically selected HAVE/BE alternation seen in the three dialects of central Apulia cannot extend to well-behaved non-mixed systems such as Bonorvese (29), French (26), or Italian (Table 8.1(a)), an undisputable fact that however becomes mysterious under Bonami's (2015) morphological account of auxiliary selection (3c).[26]

8.7. Conclusion

In conclusion, the bottom line of the present contribution is that, while it is beyond doubt that periphrases fall naturally across the boundary between syntax and morphology (for in-depth discussion, see Ledgeway, Smith, and Vincent, this volume) and a satisfactory treatment must address both syntax and morphology, one must be careful to treat all and every aspect of perfective auxiliary selection with the appropriate tools. In essence, what I have shown is that, in the domain of perfective auxiliation, one has to give to (inflexional) morphology what belongs to morphology – in our case, person-driven auxiliary selection – and to syntax what belongs to syntax, that is, all the rest.

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[25] The geographical position of the three dialects (see Map 1) suggests that this was a shared innovation, which reduces this to just one isolated exception, the only one attested to date in the hundreds of Romance varieties whose auxiliary selection systems have been investigated.

[26] This is a new argument adding to the others already developed to rebut non-syntactic analyses of Romance auxiliary selection in Loporcaro (2015). Not unlike the semantic accounts discussed there, Bonami (2015) is forced to lump together the BE-selecting unaccusatives with reflexives, which uniformly take *ÊTRE* 'be', thus missing the generalization which, more economically, states just one syntactic rule (see (28f)) accounting for BE selection in all the contexts where it occurs.

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Map 8.1: The towns in the province of Bari (Apulia) whose dialects are mentioned in the chapter.