

Overlapping suppletion and periphrasis: on HAVE, BE, and GO in Gallo-Romance

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Abstract: Overlapping suppletion, where two or more lexemes share identical forms taken from one of them, interacts in surprising ways with periphrasis. Based on evidence from dialectal data from Gallo-Romance varieties, the paper aims to study the interaction between the two. The first four sections describe the patterns of overlapping suppletion found to occur between the verbs ‘be’, ‘have’ and ‘go’ in Gallo-Romance varieties. Some theoretical conclusions are drawn, which show that incursion is directional for good historical reasons, on which semantics plays an important role, in particular paradigmatically local synonymy (see Maiden 2014). By examining periphrastic forms, a distinction can be made between overlapping suppletion that only targets the stem, that which only targets a wordform (participle), and that which targets the whole inflectional cell. All three situations are shown to be possible. A number of splits within periphrasis in these varieties call for considering periphrastic tenses as part of the paradigm in their whole extensions, not only as far as their lexical part (here the participle) is concerned.

Keywords: periphrasis; overlapping suppletion; Gallo-Romance; Spanish; inflection

1. Introduction

Suppletion is a pattern in a paradigm where some of the cells present one root (or stem), and others present another one. Said differently, it is a relationship between word forms where the semantics are maximally regular (they belong to the same lexeme), but the form is maximally irregular (Mel’čuk 1994). Suppletion can occur historically through sound change (for example in the present tense of the English verb ‘be’, Rudes 1980; Veselinova 2013), but most of the time instances of strong suppletion (where the formal relationship between two forms is maximally distant) will occur through the conflation of forms coming originally from two or more lexemes (Maiden 2004; 2014; Börjars & Vincent 2011 among others). When the two or more lexemes lend forms to a new common lexeme and cease to occur independently, there is an instance of suppletion. But in a number of cases, things happen slightly differently. A given lexeme ‘lends’ forms to another lexeme but does not cease to exist independently: in such a case one talks of ‘overlapping suppletion’ (Juge 1999). Spanish presents a good example of overlapping suppletion, occurring in the verbs ‘go’ and ‘be’, where historically forms of the verb ‘be’ (themselves suppletive for that verb) entered the preterit paradigm of the verb ‘go’ (Juge 1999), as shown in Table 1. The fact that other tenses also show suppletion for both verbs is not relevant here.

Table 1 Overlapping suppletion in Spanish

	ser ‘be’		ir ‘go’	
	present	preterite	present	preterite
1SG	soy	fui	voy	fui
2SG	eres	fuiste	vas	fuiste
3SG	es	fue	va	fue
1PL	somos	fuimos	vamos	fuimos
2PL	sois	fuisteis	vais	fuisteis
3PL	son	fueron	van	fueron

The phenomenon of overlapping suppletion has been studied in some detail for (Ibero)-Romance languages (Juge 1999; 2019; see also Corbett 2007 for a canonical perspective on the phenomenon). It has not been analysed when combined with the phenomenon of periphrasis.

Gallo-Romance varieties present a range of periphrastic tenses, for which one of two auxiliaries is chosen depending on the lexeme and the variety (with sometimes mixed auxiliiation paradigms within a single variety, see Bach & Štichauer 2022). Highly grammaticalized periphrases, such as the Romance system of periphrastic perfective tenses, have been shown to belong to the inflectional paradigm of a lexeme, even though they are made of two grammatical words: the periphrasis occupies a cell in a featurally defined paradigm (see e.g. Ackerman & Webelhuth 1998; Ackerman & Stump 2001; Sadler & Spencer 2001; Brown et al. 2012; Bonami 2015; Spencer & Popova 2015; Štichauer 2018). Auxiliary alternations have been shown to be modelled easily as inflectional classes, in French for example (Bonami 2015; Bach 2018), but also in Italian dialects (Bach & Štichauer 2022). As part of the paradigm, lexical splits (a structuring of the paradigm of a lexeme in distinct yet related areas of formal relatedness) within periphrasis are expected and indeed found (Corbett 2016; Štichauer Ms.). This is often in the form of auxiliary alternations within the periphrastic paradigm of a group of lexemes forming periphrastic inflectional classes and sometimes even heteroclisis (Bach & Štichauer 2022), as shown in Table 2 where one class of verbs takes auxiliary ‘have’, another class auxiliary ‘be’, and the class of reflexives takes a mixed paradigm alternating ‘have’ and ‘be’ for different person and number combinations:

Table 2. The present perfect of unaccusative, reflexive and transitive verbs in Altomonte (Calabria, Italy, reconstructed after Manzini and Savoia 2005:652f and checked with native speakers, see Bach & Štichauer 2022)

	TRANSITIVES	REFLEXIVES	UNACCUSATIVES
1SG	<i>aju la 'vatu</i> I.have wash. PTCP	<i>maju la 'vatu</i> myself= I.have wash. PTCP	<i>sugnu vi 'nutu/a</i> I.am come. PTCP.M/F
2SG	<i>a la 'vatu</i> you.have.sg wash. PTCP	<i>ti si lla 'vatu/a</i> yourself= you.are.sg wash. PTCP. M/F	<i>si vvi 'nutu/a</i> you.are.sg come. PTCP. M/F
3SG	<i>a lla 'vatu</i> S/he.has wash. PTCP	<i>s ε lla 'vatu/a</i> himself/herself= s/he.is wash. PTCP. M/F	<i>ghε vvi 'nutu/a</i> s/he.is come. PTCP. M/F
1PL	<i>amu la 'vatu</i> we.have wash. PTCP	<i>n amu la 'vatu</i> ourselves= we.have wash. PTCP	<i>simu vi 'nuti/e</i> we.are come. PTCP.M.PL/F.PL
2PL	<i>ati la 'vatu</i> you.have.pl wash. PTCP	<i>v ati la 'vatu</i> yourselves= you.have.pl wash. PTCP	<i>siti vi 'nuti/e</i> you.are.pl come. PTCP. M.PL/F.PL
3PL	<i>anu la 'vatu</i> they.have wash.PTCP	<i>si su lla 'vati/e</i> themselves= they.are wash. PTCP. M.PL/F.PL	<i>su vvi 'nuti/e</i> they.are come. PTCP. M.PL/F.PL

These patterns of alternation forming lexical splits can be called morphomic following Štichauer (2018). Some patterns have been found to parallel other patterns found in non-periphrastic inflection (see Cruschina 2013 who shows that periphrases in Sicilian are distributed according to an N-pattern distribution, a distribution opposing the singular and 3PL of the present indicative and sometimes subjunctive to the rest of the paradigm, Maiden 2018). I show in this paper that lexical splits within periphrasis can also obtain with patterns of lexical suppletion, a fact that had not been reported.

The data used in this study are first and foremost taken from the *Atlas linguistique de la France* (henceforth ALF, Gilliéron & Edmont 1902–1910), which covers the entire Gallo-Romance area with data elicited from 649 places. Unfortunately, the ALF does not provide full paradigms for the periphrastic tenses of these verbs, and one is left with a couple forms at most. But even these forms can be revealing, in that they sometimes show patterns of alternation, repeated over a number of points. Whenever possible, data from the ALF have been supplemented from further sources. Data in the ALF are transcribed with an idiosyncratic system, predating the IPA, often called the Gilliéron-Rousselot alphabet, from the names of its proponents. For ease of reading, this is here converted into IPA¹.

Many place names and varieties are referred to in this paper. Figure 1 collates all of them on a map of France and neighbouring countries. Individual survey points of the ALF receive only a number on the map, but they can be retrieved easily from the maps on the online digitized version of the ALF.

¹ The transcription system used in this paper is broadly similar to that developed for the SYMILA project in Toulouse (http://symila.univ-tlse2.fr/alf/notation_phonetique), except that some idiosyncrasies of Gilliéron's system are not kept: three degrees of opening are distinguished for mid-vowels instead of two in IPA. Examination of varieties I know well tend to show that the mid and closed degree are not distinguished much, and at least not phonologically.



Figure 1 Areas mentioned in this paper

I analyse four main patterns of overlapping suppletion in Gallo-Romance, concerning the three verbs ‘be’, ‘have’, and ‘go’. For these, it is possible to indicate a directionality in which verb gives forms to

the other, because of our knowledge of the Latin source of these varieties. I treat these patterns in turn: incursion of the ‘have’ past participle into the paradigm of ‘be’, as well as the opposite pattern which is more surprising historically; another pattern of incursion of forms of ‘be’ into the periphrastic tenses of ‘go’, present in most of the Oïl area (northern Gallo-Romance); and finally a very interesting pattern of overlapping suppletion spanning these three verbs with forms originally from ‘have’.

After describing these four patterns of suppletion, I draw some theoretical conclusions. One point is about directionality in incursion, and the historical reasons for suppletion. Another concerns the question of the scope of incursion into another paradigm: in cases of suppletion, is it incursion of a stem or a root, of a word-form, or even of the content of a whole cell in the paradigm (see Maiden 2018:5)? Because I look at periphrastic tenses, these three levels can be distinguished, stem, word-form, and cell. I show that all three possibilities are attested. Finally, the last point is about the way periphrastic tenses are conceptualized: even within theories that consider periphrastic tenses as part of the paradigm, there is a tendency to treat the past participle as part of the network of interrelations within the paradigm, rather than the whole set of cells of the periphrastic tenses (see e.g. Loporcaro 2011, Vincent 2011, Maiden 2018). I show that some of the attested splits within periphrasis (Corbett 2016; Štichauer 2018) argue in favour of analysing the periphrastic section of the paradigm as a set of cells with differential behaviour.

2. HAVE into BE

The verb ‘be’ in Romance is generally highly suppletive, and there are cases of incursion of forms of the verb ‘have’ into the synthetic paradigm of ‘be’, particularly in the imperfect (see Esher ms; Berchem 1973: 73–97). In a number of Gallo-Romance varieties, mostly in the centre and east, the past participle of ‘have’ is used for the verb ‘be’. This is overlapping suppletion in that in the same varieties, this participle is also used by the verb ‘have’: both verbs share a past participle. For example, in Autoreille (Haute-Saone), point 25 of the ALF, this shared participle is [ɛvy].

The following map shows the geographical distribution of varieties exhibiting this type of overlapping suppletion, for its maximal extension, based on maps 521 and 522 of the ALF. The distribution is mostly in the south-east corner of the Oïl area: Nièvre, Haute-Marne, Haute-Saone, Doubs, the Swiss border to the Doubs mostly. There are also three points in the Francoprovençal area (60 Billens, 70 Gruyère, and 935 Surjoux) to which I return below because of their peculiar distribution. Finally, it is also attested here for Occitan varieties in the southern Alps, in Levens Plan-du-Var (898), though not in Saint-Sauveur-de-Tinée (991), although it is attested in recent work on the variety of the Tinée valley (but not the whole valley, for example in Valdeblorre, Domenge 2014:549):

- 1) *ielo es aguò malato*
 she is been(=had).FSG ill.FSG
 ‘She has been ill’ (Domenge 2014: 26)

The more recent data on the Tinée valley is also a way to confirm that this past participle suppletion is present for all periphrastic tenses, not only the compound past, as seen in Example 2, where *serè agu* is a periphrastic future anterior with a modal value:

- 2) *e pi serè agu belèu un pòu pèr lous lous atout*
 and then it.will have.PPmaybe a little because the wolves also
 ‘...and that would also have been because of the wolves’ (Domenge 2014: 285)

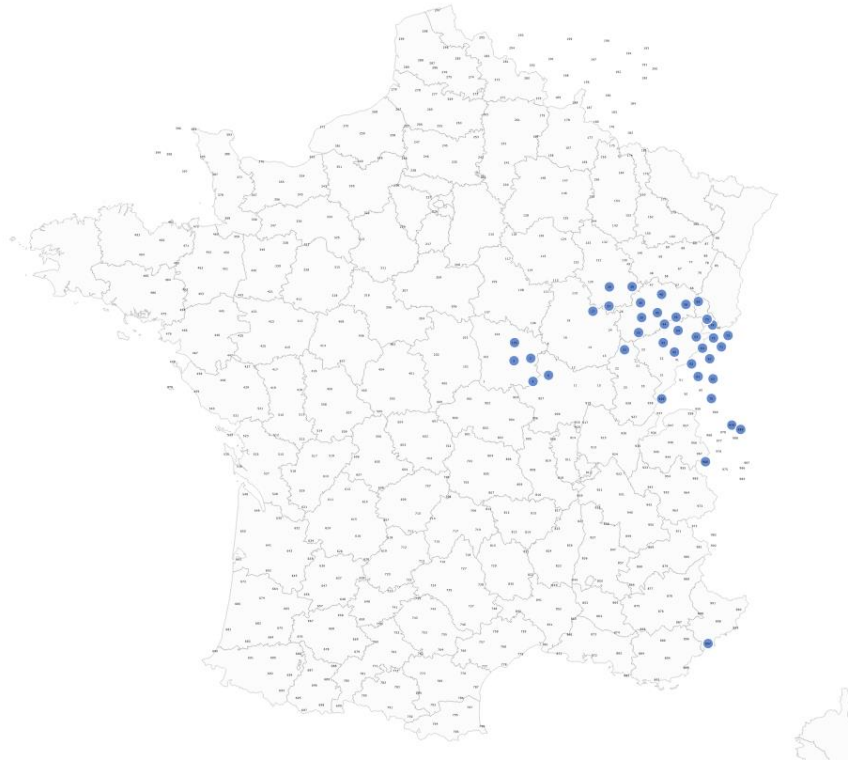


Figure 2 Distribution of overlapping suppletion in 'be' and 'have', with forms from 'have'

The fact that 'be' may use the past participle of 'have' is known (e.g. Berchem 1973: 122–147), in particular for medieval varieties of Occitan, Poitevin, French, and northern Italian varieties (Lombard for instance), but it has not very obviously been analysed in terms of suppletion. One of the diachronic explanations put forward for such suppletion (e.g. Dauzat 1900: 193–194; see also Maiden 2018: 296 n. 3) is the fact that in Latin, the verb 'be' does not have a past participle, but that early Romance developments meant that one was needed for a number of periphrastic forms: most varieties in Gallo-Romance took it from the verb STARE 'stand up', Ibero-Romance varieties innovated an analogical form mainly from SEDERE 'sit', and some varieties took it from HABERE.

Unfortunately, the ALF only provides two cells of the perfect for the periphrastic tenses of 'be', map 521 'a été' and map 522 'nous avons été', and one for the verb 'have', map 102 'j'ai eu'.² An added complication is the fact that the subject of map 521 is feminine while others are masculine, which can create some discrepancies in the form of the past participle due to agreement in some varieties. A good number of varieties present overlapping suppletion for 'be' with forms coming from 'have'. Table 3 shows some of the forms. In the following tables, forms with auxiliary 'be' will be indicated in bold, while greying of cells will give information about the form of the past participle. There is a small area in Lorraine and the Vosges where forms of both auxiliaries are virtually identical in 3SG, and it is not possible to decide which it is on the basis of the limited data presented in the ALF. In such cases, forms have been left without bolding. In Tables, missing forms will be indicated with a slash.

Table 3 Overlapping suppletion in 'be' and 'have' with forms from 'have'

Data point	ALF521 'a été' '[she] has been'	ALF522 'nous avons été' 'we have been'	ALF102 'j'ai eu' 'I had'
6 Mesvres	oz ø	3 sōz ø	3ɛz ø

² There is in fact another map, map 103 'il y a eu' 'it there have.3SG have.PP 'there has been' but a number of places use the verb 'be' for presentatives.

36 Gourgeon	a evy	i sō evy	ja evy
53 Saint-Hippolyte	o evy	sā avy	ja avy
61 Estavayer	lɛz yva ^a	no sɛz y	lɛz y
897 Le Cannet	/	sjā agy	aj agy
979 Lens	jɛ awʃa	nu ʃɛ aup	ɛj aup
989 Vissoye	lɛθa auk	no ʃɛ avuk	jɛ auk

^a Agreement for that form is in the feminine, which explains the difference of form.

The diversity of forms from each variety is considerable, but in each, the same past participle is used for forms of ‘be’ and ‘have’, and clearly originates in the ‘have’ paradigm. The slight differences, in vowel quality in particular, should not be considered a major problem, as the ALF transcriptions are famous for their slight imprecision in vowels (let us remember that they were made before sound recordings were available widely, and all sentences were transcribed in the field by Edmond Edmont). Two points are worth noting in this table. If the past participle is identical, this is not the case with the auxiliary. Forms of the verb ‘have’ make use of the auxiliary ‘have’ with the past participle of ‘have’, while forms of the verb ‘be’ use the auxiliary ‘be’ with the past participle of ‘have’. The corresponding cells are thus not identical, and suppletion seems to operate at the word level. In some cases, like varieties 61 Estavayer and 979 Lens, it even seems to operate only at the stem level, as agreement patterns are different with each auxiliary: with auxiliary ‘be’ there is subject agreement in number and gender (here in the feminine 61 Estavayer [yva] versus masculine [y], in 979 Lens [awʃa] versus masculine [aup]), while there is no agreement in these varieties for the auxiliary ‘have’.

Although the ALF only provides some of the forms of the compound past for these varieties, it is possible to assert the accuracy of the data with some more developed descriptions of varieties in the same area, in particular Pierrecourt (Juret 1917). In Pierrecourt, the past participle of both ‘be’ and ‘have’ is [ɛvy], but compound tenses are built with the auxiliary ‘have’ for ‘have’ and ‘be’ for ‘be’. Suppletion thus operates at the word level, or maybe at the stem level, but not at the level of the full contents of a cell. What is truly interesting in Juret’s account is that he confirms that this is the case for the entirety of the periphrastic paradigm, not just the compound past: in Pierrecourt, the pluperfect of ‘be’ is [ʒ eto ɛvy] I be.IMPF have.PP ‘I had been’, its past conditional [i sro ɛvy] I be.COND have.PP ‘I would have been’ (Juret 1917: 654). This is confirmation that the data exhibited by the ALF have to be taken at face value (minus some inconsistencies in the notation of vowels).

A number of data points in the area showing overlapping suppletion present splits, but only some can be ascertained: a number of points lack data for map 521. Interestingly, the splits within periphrasis are of a different type from those already described in the literature. Whereas in various Italo-Romance dialects (but also Gallo-Romance) these splits are created by mixed auxiliiation patterns (Štichauer 2018; Bach & Štichauer 2019a, b), in those varieties where there is a split here it is an alternation between two different, suppletive forms of the past participle within the lexeme ‘be’. Figure 3 shows the geographical distribution of these varieties.

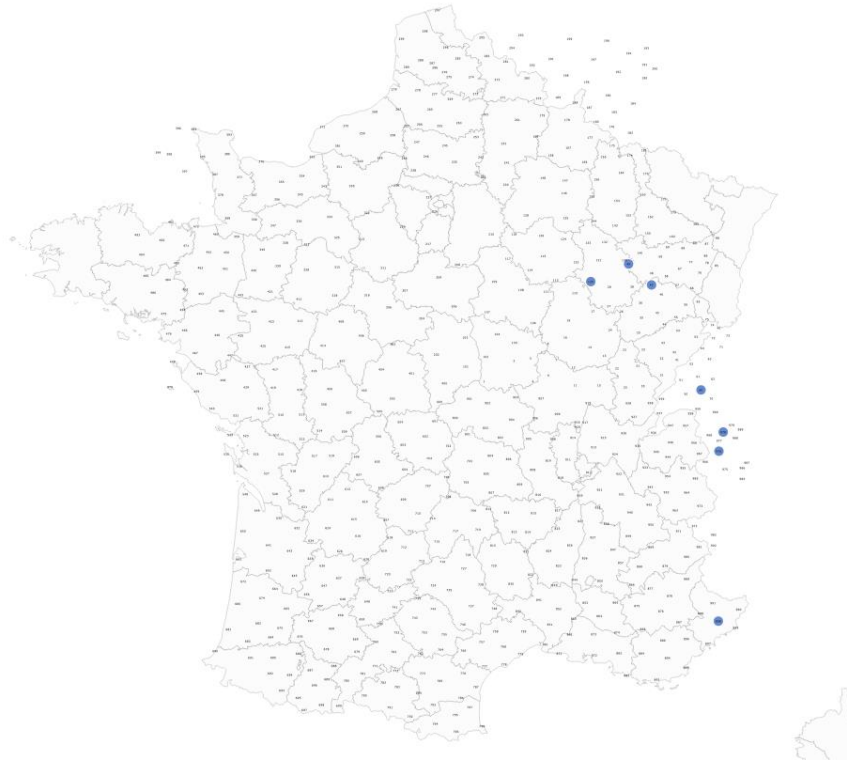


Figure 3 Distribution of suppletive splits in past participles

Limitations about the number of forms available in the ALF still apply, but there are some clear patterns: in a number of varieties, one cell of ‘be’ uses a past participle reflex of STARE while the other cell uses a reflex of HABERE, as shown in Table 4 (shading for reflexes of STARE):

Table 4 Lexical splits in overlapping suppletion (‘be’ and ‘have’)

Data point	ALF521 ‘a été’ ‘[she] has been’	ALF522 ‘nous avons été’ ‘we have been’	ALF102 ‘j’ai eu’ ‘I had’
5 Château-Chinon-Campagne	a ato	in sōr ø	jēr ø
49 Graffigny-Chemin	oz æj ^a	zō ete	za y
120 Cour-l’Évêque	æz ø	zō ete	jez ø
898 Plan-du-Var	ez agyda	sjam esta	aj agy
966 Courmayeur	le eta	no sē ehy	dzi jy
976 Bourg-Saint-Pierre	dez y	nœ sē eto	jez y
978 Nendaz	e3 y	nē eta	/

^a Here the difference in form is explainable by the fact that there is feminine agreement on this past participle, not in the one in map 102.

The data are important, because they tell us that we should consider the periphrastic paradigm as a series of (related but independent) cells, not as the simple concatenation of auxiliary and past participle. This is already the case for mixed auxiliiation patterns, but here lexical suppletion is extreme in the split of cells. Within this pattern, some examples of ‘be’ present an auxiliary, ‘be’, even when the past participle alternates: the past participle does not co-vary with the auxiliiation pattern.

To be absolutely complete, there is also a further pattern of overlapping suppletion with a mixed paradigm for ‘be’, but in this case something very strange has happened: ‘have’ seems to have taken over some of the forms of ‘be’, and ‘be’ the reflexes of have, as shown in Table 5:

Table 5 Past participle switch, 'be' and 'have'

Data point	ALF521 'a été' '[she] has been'	ALF522 'nous avons été' 'we have been'	ALF102 'j'ai eu' 'I had'
47 Demangevelle	e œ	/	ʒa ety

3. BE into HAVE

In the preceding section, the original defectiveness of 'be' in Latin provided a ready explanation for the numerous cases of overlapping suppletion in perfective tenses (or at least for the fact that there was suppletion, but not that 'have' should be selected). No such easy explanation can be found for overlapping suppletion in perfective tenses where the donating lexeme is 'be', taking over some forms of 'have'. This pattern of suppletion is less frequent than the preceding one. Figure 4 shows the geographical distribution.

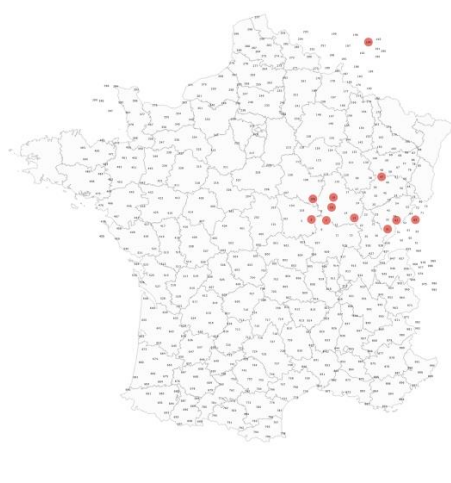


Figure 4 Distribution of overlapping suppletion in 'be' and 'have', with forms from 'be'

Most attestations of this pattern of overlapping suppletion are in central eastern France, where the past participle of 'have' is a clear reflex of STARE, taken from the periphrastic paradigm of 'be'. There is also the odd point in Belgium, where the same phenomenon occurs (194 Beaufays). Table 6 presents some of the forms:

Table 6 Overlapping suppletion in 'be' and 'have', with forms from 'be'

Data point	ALF521 'a été' '[she] has been'	ALF522 'nous avons été' 'we have been'	ALF102 'j'ai eu' 'I had'
16 Martrois	e ete	i ã ete	jɛ ete
19 Gissey-sous- Flavigny	/	i õ ete	jɛ ete
31 La Rivière	et ete	n sõ ete	jɛ ete
41 Gilley	/	no sõ ete	jɛ etø
106 Magny	/	j õ ete	jɛ ete
194 Beaufays	a stø	noz avã sty	dʒj a sto

Regarding the construction with auxiliaries, forms of the verb ‘have’ always use auxiliary ‘have’, whatever the choice of auxiliary for ‘be’ (‘be’ in point 31 La Rivière and 41 Gilley, ‘have’ elsewhere). This means that in some cases only the participle is suppletive and is common to the two lexemes (31, 41), but in others the whole cell must be shared between the two verbs. That is evidence once more that the domain for suppletion can be either the wordform or the full content of the inflectional cell.

4. BE into GO

The next pattern of overlapping suppletion in periphrasis is the most widespread. In an overwhelming number of Oïl varieties, the periphrastic tenses of ‘be’ and ‘go’ are shared between the two lexemes, with a form taken originally from ‘be’. Figure 5 shows the geographical distribution: a large majority of Oïl varieties show this pattern, but Occitan varieties are largely exempt from it. The map very nearly draws the Occitan area in negative. The only Oïl dialects that do not seem to present that form of suppletion are some varieties of Gallo, and most Picard varieties, as well as dialects from Franche-Comté. The phenomenon is only attested sparingly in the Francoprovençal area.

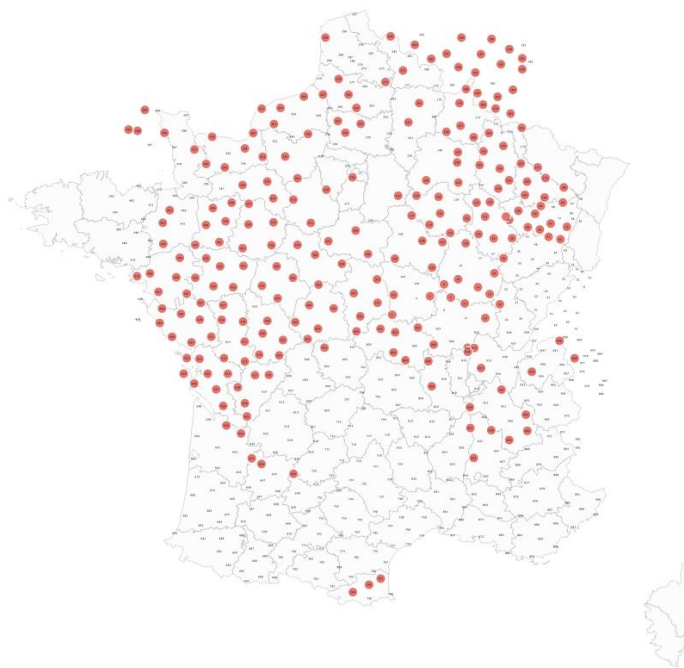


Figure 5 Overlapping suppletion between 'be' and 'go'

One should note that this kind of suppletion is also attested in Standard French as an overabundant form: a number of (perfective) past tenses allow the use of the paradigm of *être* along that of *aller* for the lexical verb *aller* ‘go’ (this is not allowed when *aller* is used as a future auxiliary). This concerns all compound tenses in the past, as well as the simple past and imperfect subjunctive (Grévisse & Goosse 1986: paragraph 803). From the ALF it is not possible to know whether this is the case of the varieties examined, as the atlas data does not contain other periphrastic forms than the compound past, nor the simple past and imperfect subjunctive for the verb *aller* ‘go’.

For this pattern, there is not much variation in the form of the past participle. Table 7 gives a range of possibilities for periphrastic forms of ‘go’ and ‘be’:

Table 7 Overlapping suppletion between 'be' and 'go'

Data point	ALF521 ‘a été’ ‘[she] has been’	ALF522 ‘nous avons été’ ‘we have been’	ALF32 ‘sont allés’ ‘[they] have gone’
110 Vanvey	e te	ʒõ ete	õ ete
69 Essegney	ɛ ty	ʒa ety	õ ety
153 Ville-Issey	e etø	ʒõ etø	õ etø
199 Wavre	a sti	noz avõ sti	õ sti
533 Sainte-Marie	a ete	javã ete	avãt ete
827 Vion	ɛ eta	sjæ eta	sũ eta

Both ‘go’ and ‘be’ generally make use of the same auxiliary. In the immense majority of cases this auxiliary is ‘have’, as is expected for the verb ‘be’ in Oïl varieties (note that in Table 6 above, point 827 Vion presents auxiliary ‘be’ but it is a rare occurrence in the Occitan speaking area). This means that it is truly a case of overlapping suppletion in that the contents of cells are copied from one verb to the other. The pattern is not entirely exceptionless though, as points 101 Flavigny and 106 Magny present a ‘have’ auxiliary for ‘be’ and a ‘be’ auxiliary for ‘go’.

The pattern is so widespread and coherent that it indicates a common origin. The directionality is always the same: periphrastic forms of ‘be’ take over the periphrastic paradigm of ‘go’. It is interesting to note that this is a pattern close to that exemplified for Spanish in the introduction: in that case as well, as past tense of ‘be’ took over the past tense of ‘go’, with the same directionality. It is in fact rather important that in both cases it has to do with the past tense or perfective aspect. In a way, to have been somewhere implies that one went there (and presumably came back): there is a relation of containment, or even of synonymy, between the two verbs. But note that this synonymy is paradigmatically restricted: it does not hold at all in the present tense, where to be somewhere implies that one may have gone (ast, perfective) there earlier, not that one goes there, or in any other future, conditional, irrealis tenses where the implied going is still perfective although not specified in time.

Synonymy or some sort of lexical relationship such as hyponymy or containment has been shown to be a prerequisite of suppletion (Börjars & Vincent 2011). It is thus not surprising to find that there may be a relation of containment in the semantics of the two verbs involved in this pattern of overlapping suppletion. Beyond this point, Maiden (2014) has clearly shown that in many cases it is paradigmatically restricted synonymy that favours suppletive patterns. In the case of Megleno-Romanian adjectives treated by Maiden (2014), there was a local synonymy between small in the plural only and a word meaning ‘made up of small parts’, which favoured the development of suppletion in that variety. Here ‘be’ and ‘go’ stand in a relation of (partial) synonymy or containment only in the perfective tenses, and this paradigmatically restricted synonymy has certainly played a role in the development of overlapping suppletion, both in the Gallo-Romance and the Ibero-Romance cases.

5. Mixing patterns of overlapping suppletion

The three patterns analysed in the previous sections can in fact combine, and give rise to an extraordinary overlapping suppletion spanning the periphrastic tenses of three lexemes, with some variations that are examined in turn now.

5.1. HAVE into BE into GO

The patterns described in section 1 (‘have’ periphrastic forms used in ‘be’) and section 3 (‘be’ periphrastic forms used into ‘go’) can combine. The result is essentially the use of the same past participle for the three verbs ‘have’, ‘be’, and ‘go’. Figure 6 gives the geographical distribution of this

complex pattern of overlapping suppletion, sporadically present in the *départements* Nièvre, Saone-et-Loire, Jura, Doubs, and Haute-Saone, forming two geographically coherent zones.

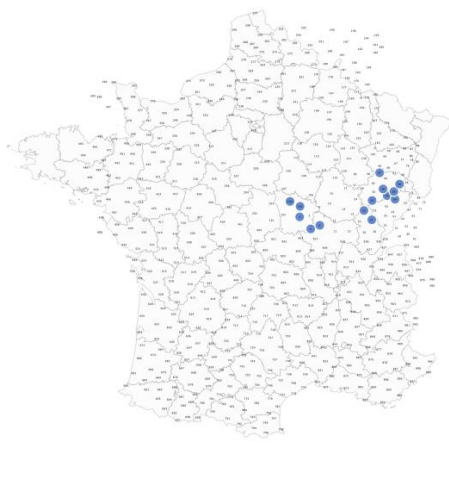


Figure 6 Distribution of overlapping suppletion in 'be', 'go' and 'have', with forms from 'have'

The phenomenon of overlapping suppletion over three lexemes is sufficiently important to give the full range of data available from the ALF in Table 7. Shading indicates past participles reflexes of STARE 'stand up' (see below).

Table 8 Overlapping suppletion in 'be', 'go' and 'have', with forms from 'have'

Data point	ALF521 'a été' '[she] has been'	ALF522 'nous avons été' 'we have been'	ALF102 'j'ai eu' 'I had'	ALF32 'sont allés' '[they] have gone'
104 Oudan	a ete	3õ ete	3e y	sõ y
105 Chitry-les-Mines	a ete	in ã y	je y	sõ y
3 Alluy	/	in sõ y	jε y	sõ y
4 Luzy	/	in sõ ete in sõr ø	jεr ø	sõr ø
6 Mesvres	oz ø	3 sõz ø	3εz ø	sõz ø
21 Mouchard	εt evy	noz ã ete	jo evy	sõ ævy
23 Amange	o evy	nu sõ vy	ja evy	sõ εvy
25 Autoreille	a evy	i sã evy	ja εvy	sõ ævy
44 Montbozon	o evy	i sõ avy	ja evy	sã evy
45 Échenoz-la-Méline	ε evy	i sõ avy	ja εvy	õ evy
54 Clerval	/	nu sõ avy	ja evy	sõ εvy
55 Villers-la-Ville	ɔ evy	no sõ avy	ja avy	sõ εvy
56 Ronchamp	o evy	nø sõ εvy	ja evy	sõ avy

Table 8 warrants a number of comments. First of all, there are a number of varieties which present the same past participle for the three verbs. Patterns of auxiliation follow those observed for the two lexeme patterns above: ‘have’ uses auxiliary ‘have’, ‘be’ mostly uses ‘be’, and ‘go’ uses the same auxiliary as ‘be’. This means that ‘be’ and ‘go’ share a whole periphrastic paradigm, while ‘have’ only shares with them the past participle. The only exception is variety 105, which is exceptional in many respects: here ‘have’ and ‘be’ share the use of auxiliary ‘have’, while ‘go’ uses auxiliary ‘be’. But while the auxiliary remains constant for ‘be’, there is a split in the periphrastic tenses with two different past participles being used. A similar kind of split is observable for varieties 4 Luzy (albeit with overabundance) and 21 Mouchard. In variety 21 Mouchard, the two forms of ‘be’ differ from both auxiliary and past participle: the 3SG shares its past participle with ‘have’, and full cell with ‘go’, while the 1PL shares with have the use of auxiliary ‘have’. Variety 104 Oudan should not appear in this table, as there is only overlapping suppletion between two lexemes: it is a reminder that things are always more complicated than anticipated, as it is the only variety where ‘have’ and ‘go’ share their past participle without ‘be’ sharing it as well. This might be due to contact with neighbouring varieties.

Once again, the variety of Pierrecourt (Juret 1917) can help us shed some light on the phenomenon. In that variety ‘go’ can have a regular past perfective with expected auxiliary ‘have’ and past participle [alɛ]. But there is another, concurrent pattern, with auxiliary ‘be’ and the past participle of ‘have’: [i sɔ̃ ɛvy] ‘I have gone’, [ʒ ɛtɔ̃ ɛvy] ‘I had gone’. As shown in section 1, the variety of Pierrecourt has the same forms for the periphrastic tenses of ‘be’, which also present auxiliary ‘be’ and the past participle of ‘have’. Juret (1917) is proof that this is the case throughout the range of periphrastic tenses, not only in the compound past.

5.2. BE into HAVE and GO

The two patterns described in section 2 (‘be’ periphrastic forms used by ‘have’) and section 3 (‘be’ periphrastic forms taking over the periphrastic forms of ‘go’) can also combine, with forms of ‘be’ taking over into both ‘have’ and ‘go’. This is a more limited pattern, but still attested in a number of varieties, as shown in Table 9:

Table 9 Overlapping suppletion between ‘be’, ‘have’, and ‘go’, with forms from ‘be’

Data point	ALF521 ‘a été’ [she] has been’	ALF522 ‘nous avons été’ ‘we have been’	ALF102 ‘j’ai eu’ ‘I had’	ALF32 ‘sont allés’ ‘[they] have gone’
106 Magny	/	j ɔ̃ ete	je ete	sɔ̃ ete
16 Martrois	e ete	i ɔ̃ ete	jɛ ete	jɔ̃ ete
47 Demangevelle	e ø	/	ʒa ety	sɔ̃ ety
48 Attigny	ɔ̃ ety	ʒɔ̃ ety	ʒa ty	ɔ̃ ety
194 Beaufays	a stɔ̃	noz avɔ̃ sty	dʒj a sto	ɔ̃ sty

The patterns of auxiliation are different here, in that both ‘be’ and ‘have’ take auxiliary ‘have’, but while in some varieties ‘go’ also copies the whole cell form (16 Martrois, 48 Attigny, 194 Beaufays), two varieties show an auxiliary alternation for ‘go’. This is important, because the three varieties 16, 48, and 194 presumably exhibit exactly the same periphrastic paradigm for the three verbs.

6. Theoretical implications

The data analysed in the preceding sections all concern the link between overlapping suppletion and periphrasis. They call for some theoretical considerations about their diachronic development, the question of lexical splits within periphrasis and the status of the past participle, and finally the domain of suppletion.

6.1. The diachronic origins of overlapping suppletion

Two possible diachronic scenarios have been alluded to in this paper, and they belong to two, largely opposite, lines of historical explanation in the literature. The first concerns the sharing of periphrastic forms between ‘have’ and ‘be’. It is often proposed that suppletion for the past participle of ‘be’ may have originated in the defectiveness of this verb in Latin: ESSE does not have a past participle, and one is innovated later on because of structural pressures in early Romance such that one is required for all perfective tenses (Dauzat 1900: 193–194; Berchem 1973; Maiden 2018: 296 n. 3). That could explain why forms of ‘have’ are found in the paradigm of ‘be’, in those varieties where they share a past participle, just as other varieties took their past participle of ‘be’ from a reflex of STARE that then disappeared (although it does not explain why ‘have’ should be selected). But that is not explanation enough for the fact that a number of varieties have forms of ‘be’ into the paradigm of ‘have’. The fact that ESSE was originally defective explains why any form found in those cells is in any case an innovation, through analogy, suppletive or not. It does not explain why the choice was made of forms of STARE or HABERE. The choice of STARE is maybe less surprising: both STARE and ESSE probably functioned as copulas in early Romance, as evidenced by the fact that Ibero-Romance and southern Italo-Romance varieties keep both copulas, and the two merged, with STARE not only giving forms for the periphrastic tenses but also for the imperfect in northern Gallo-Romance. Concerning ‘have’, the two verbs ‘have’ and ‘be’ have a lot in common: both are used as auxiliaries in Romance, for perfective tenses and the passive, but they are also used sometimes interchangeably in some varieties, for examples in presentatives (there is some equivalence it seems between *il y a X* and *X est* and *il est un X*). A large number of Romance varieties alternate ‘have’ and ‘be’ for existentials and both have copular uses (attributive for ‘be’, possessive for ‘have’, see Bentley & Ciconte 2016; Bentley 2017). It also has to be noted that in such overlapping suppletion, only part of the form is in fact common, the past participle. The form taken globally with its inflectional markers (auxiliary) is different, except in three cases of incursion of ‘be’ into ‘have’. It seems that in such cases, it is the functional equivalence between ‘have’ and ‘be’ (and ‘be’ and STARE) that drives the directionality of the changes, beyond the simple defectiveness of ‘be’.

Things are different for suppletion involving forms of ‘be’ into ‘go’: here the full cells are identical between the two lexemes, and it is thus not possible to know which lexeme is referred to when using a periphrastic form, other than contextually. This is, with the addition of periphrasis, another instance of the classical Spanish example involving the same two lexemes. I have indicated that in that case, the literature offers some sort of explanation. For Börjars & Vincent (2011), it is some sort of hyponymic relation that creates suppletion, with a giving and a receiving lexeme. Here, there is clearly a giving lexeme, as is usually the case in overlapping suppletion: forms originally belonging to the paradigm of ‘be’ are used in both lexemes. There is also a lexical relation of mutual entailment between the two verbs (or at least between ‘go’ and the locative reading of ‘be’), but it is crucially restricted to past/perfective contexts: *I am* has little to do with *I go*, but *I have been to Prague* implies that I went there (and possibly came back), just as the fact that I went there implies that I was there. It is exactly this principle of paradigmatically restricted synonymy (or in this case entailment) that Maiden (2014) determines as the driving factor in suppletion in Megleno-Romanian adjectives. This is a nice explanation, because it accounts for the fact that such overlapping suppletion is prevalent in Oil varieties, and also accounts for the classical example from Spanish: the combination of ‘go’ and past perfectivity entails a reading as ‘be’ is possible. This is further proven by data on Standard French,

where past perfective tenses show overabundance for *aller*: it is also possible to us forms taken from ‘be’ for these subparts of the paradigm. Crucially in Standard French, all perfective past tenses show this behaviour. The ALF data are too scarce to check if that was the case for other Oil varieties, unfortunately.

It is not possible to observe the development of overlapping suppletion in Gallo-Romance varieties (undocumented for the most part before the ALF, or at least with little historical documentation ascribable to the precise places where overlapping suppletion is observed), but some hypotheses can be made. The first is that the two patterns just discussed are independent in their development, but can cumulate in some varieties. There are varieties where three verbs share forms originating in either ‘have’ or ‘be’. Secondly, there is a directionality in the transfer of forms: forms from ‘have’ take over the paradigm of ‘be’, and forms from ‘be’ take over the paradigm of ‘go’, which in the end creates paradigms where all three verbs share a past participle originating from ‘have’. This fact is informative in that probably the first pattern (‘have’ into ‘be’) is older than the second one ‘be’ into ‘go’, so that forms of ‘have’ end up within the paradigm of ‘go’. There is no such diachronic ordering when two patterns are conflated and both ‘have’ and ‘go’ take forms from ‘be’.

In any case, the use of forms of ‘have’ in ‘go’ has to be mediated through the verb ‘be’ or receive no explanation, which leaves the pattern of variety 104 (with forms repeated in Table 10 for ease of reference) as a problem: presumably here as well ‘be’ acquired forms of ‘have’ and transferred them into ‘go’, but successive changes (possibly a reformation of the perfective tenses of ‘be’ due to contact with nearby varieties where forms resemble the end point) have obscured this mediation. This fact is further confirmed by the fact that there is only one such variety. Another possibility would be to initially posit a mixed paradigm of the type of variety 105, with later regularization (at least within the available forms from the ALF: nothing prevents that verb to present forms of ‘have’ in other person and number combinations).

Table 10 Problematic splits

Data point	ALF521 ‘a été’ ‘[she] has been’	ALF522 ‘nous avons été’ ‘we have been’	ALF102 ‘j’ai eu’ ‘I had’	ALF32 ‘sont allés’ ‘[they] have gone’
104 Oudan	a ete	3õ ete	3e y	sõ y
105 Chitry-les-Mines	a ete	in ã y	je y	sõ y

6.2. Lexical splits within periphrasis and how periphrasis is included within the paradigm

It has long been demonstrated that periphrasis, when grammaticalized, is part of the inflectional paradigm of a lexeme (Ackerman & Webelhuth 1998; Ackerman & Stump 2001; Sadler & Spencer 2001 to quote only the first references to this fact). This has implications that have not always been implemented fully: each cell should be considered as independent yet related, just as in any paradigm. Splits in auxiliation have been shown to operate on restricted sets of cells within periphrasis, making it important to distinguish the cells and not to treat the periphrases as unitary (Corbett 2016; Štichauer 2018).

In section 1 I have analysed some cases where there is only partial suppletion for the verb ‘be’, with some cells within the periphrastic paradigm using a reflex of STARE, and others a reflex of HABERE (Table 3 repeated below in Table 11 for ease of reading).

Table 11 Lexical splits within periphrastic overlapping suppletion

Data point	ALF521 ‘a été’ ‘[she] has been’	ALF522 ‘nous avons été’ ‘we have been’	ALF102 ‘j’ai eu’ ‘I had’
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5 Château-Chinon-Campagne	a ato	in sōr ø	jēr ø
49 Graffigny-Chemin	oz œj	zō ete	za y
105 Chitry-les-Mines	a ete	in a y	je y
120 Cour-l'Évêque	æz ø	zō ete	jez ø
898 Plan-du-Var	ez agyda	sjam esta	aj agy
966 Courmayeur	le eta	no sē ehy	dzi jy
976 Bourg-Saint-Pierre	dez y	nœ sē eto	jez y
978 Nendaz	e3 y	nē eta	/

These eight varieties present a phenomenon that had not been described: a lexical split within periphrasis made as suppletive alternations on the lexical part of the construction, the past participle. Lexical splits within periphrasis have already been explored, in particular with respect to patterns of auxiliary alternation according to person/number within the past perfective (Corbett 2016; Štichauer 2018; Bach & Štichauer 2022). Note that patterns of split can cumulate, such as in variety 21 Mouchard, where two suppletive participles for ‘be’ co-alternate with the use of two different auxiliaries: ALF521 [et evy], ALF 522 [noz ã ete]. These various patterns of alternation, be it at the level of inflection or at the level of the lexical element, indicate that periphrasis has to be treated fully paradigmatically, as a set of cells, obviously related by implicative patterns (if only because they are all built on the same periphrastic model) but also potentially independent from each other, and amenable to splits.

This has implications for the treatment of the past participle. It is one of the building blocks of the periphrastic tenses. It is also one particular synthetic form of the verb, used as a verbal adjective, and as such occupies a (set of) cells within the paradigm that mediates between a verbal and an adjectival paradigm (see Bach & Esher 2015 for a similar treatment of the infinitive). Recent works have shown that in Romance languages the two forms can be split, and are not necessarily identical (see Thomas 2018 for a reassessment). Such a split is (partially at least) motivated by the somewhat different nature of the two uses of the past participle, that warrant its double appearance within the paradigm. This is not the case when the split occurs within the periphrastic paradigm and some cells use a participle [ato] and others [ø] like in variety 5 Château-Chinon-Campagne. In such a case, a morphomic pattern is probably taking shape (although we cannot know its exact contour yet), with some cells stipulated as taking one form, and other cells another form, as in any other case of suppletion.

6.3. The domain over which suppletion operates

It is sometimes difficult to distinguish what the precise domain of non-canonical patterns is in morphology. One question that we can ask is whether suppletion operates on a stem, word-form or the full contents of a paradigmatic cell basis. Corbett (2007) alludes to that question by stating that forms that replace the expected wordform are more canonically suppletive than forms which keep the affixation pattern of an inflected form where only the stem is taken. Within synthetic paradigms it is impossible to distinguish the level of the word-form and the level of the cell. In such synthetic cases it is impossible to decide whether the word level and the cell level indeed form different levels. The fact of examining suppletion in periphrastic paradigms gives a way of distinguishing these three levels with some degree of certainty.

In the data analysed in this paper, there are examples of the three domains operating with overlapping suppletion. Sometimes two lexemes only share a stem: this is in particular the case where patterns of agreement differ between the two auxiliaries, and the paradigm of the past participle is richer in ‘be’ than it is in ‘have’ because of subject verb agreement (in map 521 in the feminine singular, in maps

522 and 102 a default masculine singular), as shown in Table 12. Obviously, this could be said for cases where the stem is shared but not the inflection class in its affixal marking. One can precisely consider this here: if both auxiliiation patterns form two different inflection classes (as shown in Bonami 2015 and Bach 2018), distinguished by overdifferentiation for gender values, only the stem is shared. Even more, in a variety such as 979 Lens, only the masculine stem is shared, as the feminine form in lexeme ‘be’ is not identical and not derivable by synchronic phonological rules.

Table 12 Overlapping suppletion and agreement: evidence for a stem level

Data point	ALF521 ‘a été’ ‘[she] has been’	ALF522 ‘nous avons été’ ‘we have been’	ALF102 ‘j’ai eu’ ‘I had’
61 Estavayer	lɛz yva	no sɛz y	lɛz y
979 Lens	jɛ awʃa	nu ʃɛ aup	ɛj aup

Sometimes, the two lexemes share a word-form, the past participle. This is for example the case of cases of suppletion where forms of ‘have’ are used for the paradigm of ‘be’, where the pattern of auxiliiation (and thus the overall cell in the form paradigm) is different.

In yet other cases, one can prove that the whole cell is being copied by another lexeme, not just a word-form. This is the case for varieties where ‘be’ and ‘go’ share forms, and where ‘be’ has ‘have’ as an auxiliary. In a number of these varieties, ‘go’ should logically present an auxiliary ‘be’, just like the very similar verb in terms of semantics and syntax *venir* ‘come’ (for which we know the pattern of auxiliiation from map 507). Thus in datapoint 194 Beaufays (Table 13), all three verbs share full cell realizations, with both ‘have’ auxiliary and ‘be’ past participle, while ‘come’ takes auxiliary ‘be’.

Table 13 Overlapping suppletion and auxiliiation: evidence for a cell level

Data point	ALF521 ‘a été’ ‘[she] has been’	ALF522 ‘nous avons été’ ‘we have been’	ALF102 ‘j’ai eu’ ‘I had’	ALF32 ‘sont allés’ ‘[they] have gone’	ALF 507 ‘vous êtes (venus)’ ‘you (PL) have [come]’
194 Beaufays	a stø	noz avã sty ³	dʒj a sto	õ sty	voz ɛste

7. Conclusions

This article has shown that overlapping suppletion can occur within the realm of periphrasis, with a wealth of data taken from Gallo-Romance varieties, and has advanced our understanding of suppletion. It is also a sort of proof of concept: even with very limited atlas data (one or two cells for the periphrastic paradigm of each lexeme), it is possible to pursue morphological enquiries with some profit (see also Maiden 2020 for similar results on atlas data). ALF data are neither easily accessible, with their idiosyncratic transcription, nor easy to analyse because of the missing forms. Although the data are scarce for each variety, the number of varieties examined for just three verbs is very high, and patterns of overlapping suppletion are shown to be prevalent in at least northern Gallo-Romance. Although the data were available, not all patterns here described had previously been: in particular,

³ An anonymous reviewer notes that it might be possible to analyse these forms differently, as a concatenation of a liaison form *-st-*, common in Liégeois, and a past participle of ‘have’ [y]. Although I am not in favour of this analysis, it makes no difference to the present line of argument: under both analyses, all three lexemes share both the same past participle and the same auxiliiation pattern.

pattern of ‘be’ incursion into ‘go’ had only been described briefly for Standard French, and incursion of ‘have’ into ‘go’ had gone unmentioned.

Atlas data are diverse, but they show clear and coherent patterns: overlapping suppletion is a constrained phenomenon, with identifiable directionalities of change that correspond to principles of motivation: forms of ‘have’ take over forms of ‘be’, forms of ‘be’ take over forms of ‘have’ and ‘go’, and these patterns can combine to give rise to exceptional patterns where the whole set of periphrastic cells is shared by three lexemes. These principles are shown to be similar to those identified by Maiden (2014), in essence local synonymy in a section of the paradigm. Complex patterns of suppletion implicating three verbs are also shown to proceed from the combination of smaller patterns only involving two lexemes: depending on the combination, a different pattern of past participle suppletion is observed.

Another important point concerns lexical splits within periphrasis. Splits have been known to occur on auxiliary selection, in particular in Italo-Romance, but also in Gallo-Romance, but here a new type of lexical split is identified: patterns of split suppletion on the past participle of ‘be’, some cells taking one past participle, other cells taking a different form. This adds to the growing body of evidence (e.g. Štichauer 2018) showing that periphrastic tenses have to be treated as a set of (potentially independent but also interdependent) cells within the paradigm, rather than simply a syntactic construction or an invariably unitary set of cells.

Finally, there is the question of the level at which suppletion operates within the paradigm, whether it is stem, word, or whole cell suppletion. All three levels are shown to be a possible domain for overlapping suppletion, and the two lexemes can either share a stem, a word form or a whole cell in their paradigm, this last instance being the only case where there is full synonymy between the two lexemes taking part in overlapping suppletion.

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