

Agree in restructuring: evidence from auxiliary switch and clitic climbing in French and Italian

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Abstract: Auxiliary Switch (AS) is an under-studied phenomenon found in Romance restructuring clauses. It is contingent on the climbing of reflexive clitics, but sometimes remains insensitive to non-reflexive clitics. Drawing on the diachrony of French and comparative synchronic data from Italian and Sardinian, I argue that AS reflects a robust syntactic dependency between embedded and matrix domains, instantiated through Agree. The analysis adopts the hypothesis that auxiliary selection is governed not by argument structure but by person value identity. The main conclusions are that HAVE is the default auxiliary in these languages, restructuring is not a phenomenon *per se*, and the locus of variation resides in the featural make-up of functional heads (cf. Borer-Chomsky Conjecture).

Keywords: Agree, restructuring, auxiliary selection, Romance syntax, French, Italian, clitic climbing

1 Introduction

In this article I examine auxiliary selection in Romance restructuring clauses (Rizzi 1978), with particular attention to its development in the history of French – the formal analysis I develop is applied to French, Italian, and Sardinian.¹ Consider first simple cases of auxiliary selection in French: modal verbs like *vouloir* ‘want’ form their compound tenses with HAVE (1a), whereas unaccusative predicates like *venir* ‘come’ select BE (1b).² The same applies in Italian.

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²In French (as opposed to Italian), not all intransitives that can be diagnosed as unaccusatives are BE-selecting predicates.

- (1) a. *J'ai* voulu.
 I=have-PRS.1SG want-PTCP
 'I wanted.'
- b. *Je suis* venu.
 I be-PRS.1SG come-PTCP
 'I came.'

When a modal verb is conjugated in a compound tense and embeds an unaccusative, the auxiliary is chosen by the matrix predicate in Modern French (2a). In earlier French, in Italian, and in many other Romance languages, however, the infinitive appears to bypass the modal to determine auxiliary selection in the upper domain (2b). This phenomenon is known as Auxiliary Switch (henceforth, AS): the auxiliary 'switches' from HAVE to BE. AS occurs when a restructuring verb selects for an unaccusative or a reflexive verb (i.e., a BE-selecting predicate); with the latter, the clitic must climb to the auxiliary for AS to obtain (3b).

- (2) a. *J'ai* voulu venir.
 I=have-PRS.1SG want-PTCP come-INF
 'I wanted to come.' (Modern French)
- b. *Je suis* voulu venir.
 I be-PRS.1SG want-PTCP come-INF
 'I wanted to come.' (1450, *Le Mystère de S. Bernard de Menthon*, p. 137)
- (3) a. *Il avait* voulu *se* cacher.
 he have-PST.3SG want-PTCP REFL= hide-INF
 'He wanted to hide (himself).' (Modern French)
- b. *Il s'estoit* voulu cacher.
 he REFL=be-PST.3SG want-PTCP hide-INF
 'He wanted to hide (himself).' (1658, *La Prétieuse*)

Previous authors and grammarians have reported the presence of AS in earlier French, and its loss has been situated between the 17th century (Gougenheim 1929: p. 172) and the 19th century (de Kok 1985: 490–491, Benucci 2001: p. 88).³ AS has also been mentioned and discussed in the context of other Romance varieties,⁴ mainly from a synchronic perspective and often in the context of Standard Italian, although some authors adopt a diachronic viewpoint.⁵ To date, there exists no systematic inventory of the distribution of AS in Romance, and we do not know how prevalent this phenomenon was in the history of French,

³On AS in earlier French, see de Vogel (1927: p. 254), Gougenheim (1929: 172–173, 183–186), Galet (1971: p. 352), Moignet (1976: p. 190), de Kok (1985: 259–260, 490–491), Pearce (1990: 20–25), Benucci (2001: p. 75), Iglesias (2021: 271–272).

⁴Rohlf (1970: p. 224), Rizzi (1978), Rizzi (1982: 1–2, 18–23), Pearce (1990: 18–20), Jones (1993: p. 142), Roberts (1997: 433–435), Roberts (2016: p. 799), Benucci (2001: p. 75), Cinque (2004: 29–33), Cinque (2006: 29–30, 33), Cardinaletti & Shlonsky (2004: 521–523, 526–530, 536–541, 549), Romieu & Bianchi (2005: pp. 239, 244), Haegeman (2006: p. 487), Ledgeway (2012: p. 121), Ledgeway (2016b: 223–224, 265), Mensching & Remberger (2016: p. 289), Paradís (2019: 104–108), Parry (2022: 149, 151, 162–166), Amato (2023: 94–146), Amato (2024).

⁵Jensen (1994: p. 204), Benucci (2001: p. 75), Batlle (2002: 99–100, 102, 112–113).

nor exactly when speakers ceased to produce it – contrarily to popular belief, I will show that they have not.

The formal literature on auxiliary selection in restructuring clauses remains sparse (although see Amato 2024, whose work I discuss in the paper). AS has traditionally been assumed to result from the fact that the modal verb and the infinitive form a single verbal domain due to restructuring (Rizzi 1978, 1982, Cinque 2004, 2006, Cardinaletti & Shlonsky 2004, Haegeman 2006), however it is not clear how this proposal fits within Minimalism. Building on recent advances in the study of auxiliary selection in Romance (D’Alessandro & Roberts 2008, 2010, D’Alessandro & Ledgeway 2010, Bjorkman 2011, D’Alessandro 2017, Amato 2021, 2022, 2023, Olivier 2025a), I take auxiliary selection to be the result of Agree (or lack thereof) between a functional head and an argument’s ϕ -features – more specifically, I demonstrate that person feature *identity* plays a key role. The advantages of this analysis is that it reduces AS to a syntactic operation that patterns alongside clitic placement, therefore successfully predicting the pattern in (3).

Before delving into the study, it is worth summarising that AS is a phenomenon that hinges on three structural conditions:

1. The matrix verb must be a modal verb.⁶
2. The matrix verb must be conjugated in a compound tense involving an auxiliary (HAVE/BE) and a participle.
3. The embedded verb must be an unaccusative or a reflexive (i.e., a BE-selecting infinitive).

In the case of reflexive verbs, the following also applies:

- α . If there is a *reflexive* clitic, it must climb for AS to obtain.

While conditions 1, 2, and 3 establish the structural context necessary for AS, condition α acts more as a trigger for AS rather than a strict structural requirement. Crucially, I will show that climbing of prepositional clitics (i.e., locatives, partitives, and non-reflexive datives) is partially independent from AS – this observation is not novel (Cardinaletti & Shlonsky 2004), but it has not been formalised yet. Lastly, I will argue that the presence of AS in a given (Romance) grammar is determined by the featural makeup of the relevant functional head that spells out the auxiliary.

The objectives of this article are threefold: (i) to offer a comprehensive overview of the distribution of AS in Medieval and Modern Romance, (ii) to provide an empirical description of AS in the diachrony of French based on quantitative data, and (iii) to develop a novel formal analysis that accounts for the phenomenon in French and in Italian (and which consequently should apply to other Romance languages with AS).

The paper is broadly divided into two halves: an empirical diachronic description focused on French and a formal synchronic analysis focused on earlier French and Standard Italian. Section 2 situates the phenomenon of AS within the broader Romance context, and section 3

⁶See Cinque (2006: 59 fn. 48) for a list of restructuring predicates that pattern with AS in Italian, which includes some aspectual verbs. In this article, I only consider clauses where the main verb is a modal.

then presents quantitative findings on the distribution of AS in the diachrony of French, with separate descriptions of reflexive and unaccusative verbs. Section 4 examines the interaction (and lack thereof) between AS and clitic climbing, highlighting the distinct behaviours of reflexive clitics on the one hand, and locative, partitive, and dative clitics on the other. Turning to the formal analysis, section 5 introduces the structure of restructuring assumed in the paper alongside a novel analysis of clitic climbing. Section 6 reviews previous approaches to auxiliary selection, while section 7 proposes a Minimalist analysis of AS centred on person feature identity.

2 Pan-Romance data

2.1 HAVE → BE

A variety of Romance languages show, or have shown, AS. It is mostly known as a switch from HAVE to BE with the structure [VP MODAL [VP UNACCUSATIVE/REFLEXIVE]], as we saw in the introduction (although see section 2.2 for another type of AS).

2.1.1 Medieval Romance

AS is found in Medieval Romance, notably in Old French (4), in Old Occitan (5), in Old Italo-Romance varieties (6), and in Old Catalan (7) – I provide examples with the pair *can/want* for each variety.⁷ The auxiliary associated with the modal verb appears to be ‘inherited’ from the infinitive, which in each case is a BE-selecting verb. When the infinitive selects a clitic, the latter climbs to the auxiliary – see (4a), (5b), (6b), (7a), and (7b).

- (4) a. le meschant ne s'est peu tenir aujourd'hui de
the unlucky.man NEG REFL=be-PRS.3SG can-PTCP hold-INF today to
venir deux fois devant ceste meson
come-INF two times before this house
‘the unlucky man could not refrain from coming twice before this house today’
(Middle French, *Les Quinze joies de mariage*, p. 152)
- b. je suis voulu venir.
I be-PST.1SG want-PTCP come-INF
‘I wanted to come.’ (Middle French, *Le Mystère de S. Bernard de Menthon*, p. 137)
- (5) a. e demandet li com era pogut intrar en Toloza
and ask-PST.3SG =him how be-PST.3SG could-PTCP enter-INF in Toulouse
‘and he asked him how he could have entered Toulouse’ (Old Occitan,
Jensen 1994: p. 204)

⁷Available literature and data are currently insufficient to determine whether AS existed in Old Romanian and in Old Portuguese – it is absent from these varieties today. It does not seem to have existed in Old Spanish (p.c. Olivier Iglesias) – where it is also absent today, since Spanish generalised HAVE to all predicates. Continental Catalan and Mallorcan Catalan later generalised HAVE to all predicates (cf. Pineda, Salvà & Cremades 2024).

- b. non s'es troubat degun i sio vougut
 NEG REFL=be-PRS.3SG find-PTCP someone LOC= be-SBJV.3SG want-PTCP
 venir
 come-INF
 'there was no one who wanted to come there' (Middle Occitan, Ronjat 1913: 160, fn. 1)
- (6) a. non era potuta andare alla chiesa
 NEG be-PST.3SG could-PTCP-F go-INF in=the church
 'she had not been able to go to church' (Old Senese, *Libro della divina dottrina*, 324.35)
- b. non s'era voluta rimaritare
 NEG REFL=be-PST.3SG want-PTCP-F remarry-INF
 'she had not wanted to remarry' (Old Florentine, *Libro di varie storie di Antonio*, 74.18)
- (7) a. ... que no s'era pogut levar
 who NEG REFL=be-PST.3SG could-PTCP raise-INF
 '... who had not been able to stand up' (Old Catalan, *Epistolari de la València Medieval*, p. 326)
- b. no hi era volgut venir
 NEG LOC= be-PST.3SG want-PTCP come-INF
 'He hadn't wanted to come there' (Old Catalan, *Chronik des edlen en Ramon Muntaner*, p. 158)

2.1.2 Modern Romance

AS persists today in various southern Gallo-Romance varieties (8), Standard Italian (9), Sardinian (10), and the variety of Catalan spoken in Sardinia (11). The latter, spoken in Alghero, is in close contact with both Italian and Sardinian, which may have influenced the continued presence of AS. At any rate, the phenomenon has disappeared from other Catalan varieties, and it is extremely rare in French (12) (see section 3.3 and Appendix 9 for more Modern French examples). It is also absent in several Gallo-Romance varieties that are in contact with French, notably in the Croissant dialectal area (Guérin 2019). Again, AS occurs with climbing – see (8a), (9b), (10b), (11a), (11b), and (12).⁸

- (8) a. Autres còps, òc, s'era pogut parlar de trafic maritime.
 other times yes REFL=be-PRS.3SG could-PTCP speak-INF of traffic maritime
 'In the past, yes, one could talk about maritime traffic.' (Lemosin, *Vautres que m'avetz tuada*, p. 114)
- b. Que son devuts partir.
 EXPL be-PRS.3PL have.to-PTCP-PL leave-INF
 'They had to leave.' (Southern Gascon, Romieu & Bianchi 2005: p. 244)

⁸In the present article, all examples without a source, like (9), are my own and have been checked with native speakers.

- c. *Soi* *volut* *anar* *a la chimenèia*.
 be-PRS.1SG want-PTCP go-INF to the fireplace
 ‘I wanted to go to the fireplace.’ (Aveyronais, *Las bèstias que volián partir a Roma*)
- (9) a. *Sono* *dovuto* *uscire*.
 be-PRS.1SG have.to-PTCP go.out-INF
 ‘I had to go out.’
 b. *Ci sono* *potuti* *venire*.
 LOC= be-PRS.3PL can-PTCP-PL come-INF
 ‘They could come here.’ (Standard Italian)
- (10) a. *So* *póttitu* *andaré*.
 be-PRS.1SG could-PTCP go-INF
 ‘I could go.’ (Nuorese, Jones 1993: p. 143)
 b. *No si sun* *chèrfidos* *frimmare*.
 NEG REFL= be-PRS.3PL want-PTCP-PL stop-INF
 ‘They didn’t want to stop (themselves)’ (Logudorese, Mensching & Remberger 2016: p. 289)
- (11) a. *Los algheresos no hi són* *volguts* *anar*.
 the Algheresi NEG LOC= be-PRS.3PL want-PTCP-PL go-INF
 ‘The Algheresi did not want to go there.’ (Algherese, Paradís 2019: p. 106)
 b. *No s’és* *pogut* *confessar*.
 NEG REFL=be-PRS.3SG could-PTCP confess-INF
 ‘He could not confess.’ (Algherese, Pineda, Salvà & Cremades 2024: p. 139)
- (12) *Pour s’être* *voulue* *faire* *plus grosse que le boeuf de la fable*,
 to REFL=be-INF want-PTCP-F make-INF more big than the ox in the fable
elle s’essouffle *à nouveau*
 it REFL=get.out.of.breath-PRS.3SG at new
 ‘Having wanted to be bigger than the ox in the fable, [the flea market] became smaller once again.’ (French, *Radio France*)

I will exclusively focus on the construction illustrated from (4) to (12), where the auxiliary switches from HAVE to BE. For the sake of completeness, the following subsection briefly illustrates another type of AS where the switch occurs in the other direction.

2.2 BE → HAVE

The switch from BE to HAVE is much more restricted crosslinguistically (Parry 2022: 149, 151, 162–166), yet not unattested. It occurs in restructuring clauses headed by a motion verb (typically selecting BE in Romance varieties with a split auxiliary system) that selects for a transitive infinitive (i.e., HAVE-selecting): [_{VP} MOTION [_{VP} TRANSITIVE]]. Consider data from Old Catalan (13), Gascon (14), and Cosentino (15), where the auxiliary has switched

to HAVE. A similar construction is found with the Corsican *turnà* ‘return’ and *stà* ‘be’ (16), which would otherwise select BE.⁹

- (13) que l’*haviem* vengut veer
 that him=have-PRS.1PL come-PTCP see-INF
 ‘whom we had come to see’ (Old Catalan, Paradís 2019: p. 107)
- (14) qu’*as* anàt cuélhe aigo
 EXPL=have-PRS.2SG go-PTCP get-INF water
 ‘You went to fetch water’ (Gascon, Rohlfis 1970: p. 224)
- (15) L’*aju* jutú a piglià
 it=have-PRS.1SG go-PTCP to take-INF
 ‘I went and took it’ (Cosentino, Parry 2022: p. 165)
- (16) a. m’*anu* turnatu à chjama
 me=have-PRS.3PL return-PTCP to call-INF
 ‘They called me again’ (Corsican, Ledgeway 2016a: p. 1022)
 b. v’*aghju* statu à senta
 you=have-PRS.1SG be-PTCP to listen-INF
 ‘I’ve been listening to you’ (Corsican, Ledgeway 2016a: p. 224)

This construction is practically unattested in the diachrony of French, although see (17) and (18). The matrix motion verb *venir* ‘come’ commonly forms compound tenses with BE, yet in these two examples the lexical infinitives are HAVE-selecting verbs. Elsewhere in available databases, the auxiliary BE is overwhelmingly present in this context.

- (17) jusques ad ce qu’il eust venu dire ce que dit est
 until at that that=he have-PST.3SG come-PTCP say-INF what said be-PRS.3SG
 dessus
 above
 ‘until he had come to say what has been said above.’ (Middle French, *Registre criminel du Châtelet*, p. 312)
- (18) il y avoit . IIII . mois et demi que Tristrans
 EXPL LOC= have-PST.3SG four months and half that Tristrans
 l’*avoit* venu veoir
 her=have-PST.3SG come-PTCP see-INF
 ‘It had been four and a half months since Tristrans had come to see her.’ (Middle French, *Ysaïe le Triste*, p. 27)

The extreme rarity of this construction in French necessitates caution. In fact, examples (17) and (18) might just as easily be analysed as cases of non-standard auxiliary selection, with HAVE spreading to unaccusative verbs. This hypothesis, which seems more likely, is

⁹In some Italo-Romance varieties, the switch from BE to HAVE has a semantic effect (Parry 2022). With BE, the verb conserves its lexical interpretation, whereas HAVE introduces an aspectual meaning.

further motivated by the fact that several Romance varieties generalised HAVE to all verbs, as is notably the case of Romanian and Ibero-Romance. Evidence from the diachrony of French, and from sociolinguistic variation, indicates that the subset of unaccusative verbs that form periphrastic tenses with BE is shrinking (Loporcaro 2016: 812–813), a trend that Rideout (2011) observes in 16th-century Picard already. Among non-standard(ised) northern Gallo-Romance varieties, the spread of HAVE to unaccusatives (and reflexive verbs) is at a much more advanced stage: notably in Montreal French (Sankoff & Thibault 1977, Bentley & Eythórsson 2004: p. 450, Rea 2020), in Picard (Auger 2003: p. 151) and in the Croissant varieties (Guérin 2019: p. 134). Given that (18) is itself from a Picard text, the likelihood of it being a case of AS from BE to HAVE further diminishes – it must instead be considered a case of HAVE-selection.

In conclusion, earlier French exhibited AS from HAVE to BE with modals, but not the reverse switch with motion verbs, i.e., from BE to HAVE. I leave to future research the task of determining whether these two types of Romance AS should be considered independent phenomena. The remainder of this article focuses on HAVE to BE with modal verbs.

3 French data

While several authors have noted the presence of AS in earlier French (see references in the introduction), no systematic empirical documentation of its distribution exists, and little is known about the dating of its loss. To address this lacuna, I present an investigation of several databases:

- Base de Français Médiéval (Guillot, Heiden & Lavrentiev 2018)
- Frantext (ATILF-CNRS & Université de Lorraine 2019)
- Corpus ConDÉ (Larrivée & Goux 2021)
- Corpus MICLE-FR (Larrivée & Poletto 2023)
- Additional, non-quantitative manual collection for the 20th and 21st centuries, on Google (see section 3.3)

In what follows, I provide a quantitative and diachronic analysis of the contexts in which AS is found. I begin with reflexive verbs, before considering unaccusative verbs. Lastly, I present data from the contemporary language.

3.1 Reflexive verbs

Reflexive verbs form compound tenses with BE in French, and they have done so fairly systematically since the earliest periods (Caudal, Burnett & Troberg 2016).¹⁰ According to previous literature, these verbs pattern with AS in earlier French, no matter the person

¹⁰Moignet (1976: p. 186) and Jensen (1990: p. 292) report occasional uses of HAVE with reflexive verbs, which may reveal dialectal variation (just as there is today, see Rea 2020 for Montreal French and Auger 2003 for Picard French). Despite this, all authors agree that BE was normally found in this context.

binding the reflexive pronoun (Gougenheim 1929: 183–186, Galet 1971: p. 352, de Kok 1985: 259–260, 490–491).¹¹

The received wisdom from the literature on Italian is that AS patterns alongside clitic climbing: this is shown in (19), where the auxiliary switches if the clitic climbs (Rizzi 1982: 18–23, Cinque 2001: 150–152, Cinque 2004: 29–32, Cardinaletti & Shlonsky 2004: 521–523, Amato 2024: 3–5).

- (19) a. Gianni *ha* voluto lavarsi i capelli.
Gianni have-PRS.3SG want-PTCP wash-INF=REFL the hair
‘Gianni wanted to wash his hair.’
- b. Gianni *si* è voluto lavare i capelli.
Gianni REFL= be-PRS.3SG want-PTCP wash-INF the hair
‘Gianni wanted to wash his hair.’
- c. *Gianni *si ha* voluto lavare i capelli.
Gianni REFL= have-PRS.3SG want-PTCP wash-INF the hair
‘Gianni wanted to wash his hair.’
- d. *Gianni *è* voluto lavarsi i capelli.
Gianni be-PRS.3SG want-PTCP wash-INF=REFL the hair
‘Gianni wanted to wash his hair.’ (Standard Italian)

Just like in Italian, the findings reveal a clear connection between AS and clitic climbing in the diachrony of French: when the reflexive clitic climbs, the auxiliary switches to BE. Contrarily, when the clitic remains in the domain of the infinitive, the auxiliary is HAVE. This is illustrated with the minimal pair given in (20), in which the two sentences have been published in the same year.¹²

- (20) a. Duquel je ne *me suis* pu deffendre
from=which I NEG REFL= be-PRS.1SG could-PTCP defend-INF
‘From which I couldn’t defend myself’ (1627, *L’Astrée*)
- b. où ils *avoient* voulu *se* loger
where they have-PST.3PL want-PTCP REFL= find.accommodation-INF
‘Where they wanted to find accommodation’ (1627, *Le Berger extravagant*)

The earliest occurrences of AS with clitic climbing of the reflexive are attested in the early 14th century, as reported in Figure 1.¹³ AS is mostly productive between 1550 and 1750. Its

¹¹Gougenheim (1929: 184–186) writes a very insightful discussion on grammarians’ attitudes towards AS with reflexive verbs between the 17th and the 19th centuries, revealing a wealth of metalinguistic observations vis à vis the construction.

¹²According to Gougenheim (1929: p. 183), the co-occurrence of HAVE and climbing of the reflexive was ‘barbaric’ in Middle French, meaning that it was not part of the grammar. Note that the construction in (20b) is not common before the 17th century, as clitic climbing to modals was obligatory in the language (Martineau 1990, Olivier 2022a, Olivier, Sevdali & Folli 2023, 2024).

¹³The data in Figure 1 include all occurrences of the structure [*se*+v_{Aux}+v_{Modal}+V_{Inf}], where v_{Aux} can be either BE or HAVE and the reflexive clitic climbs to it (which, of course, is realised as *me*, *te*, and so on depending on the person). It also includes clitic clusters where the reflexive occurs alongside a locative or a partitive clitic [*s’y/s’en*+v_{Aux}+v_{Modal}+V_{Inf}] – by definition, these infinitives are reflexive predicates, as

decline is difficult to date precisely, but it becomes relatively rare after 1850, even as the overall word count in the Frantext corpus continues to increase – note also the presence of some examples in the 20th century, a period I discuss in section 3.3 specifically.

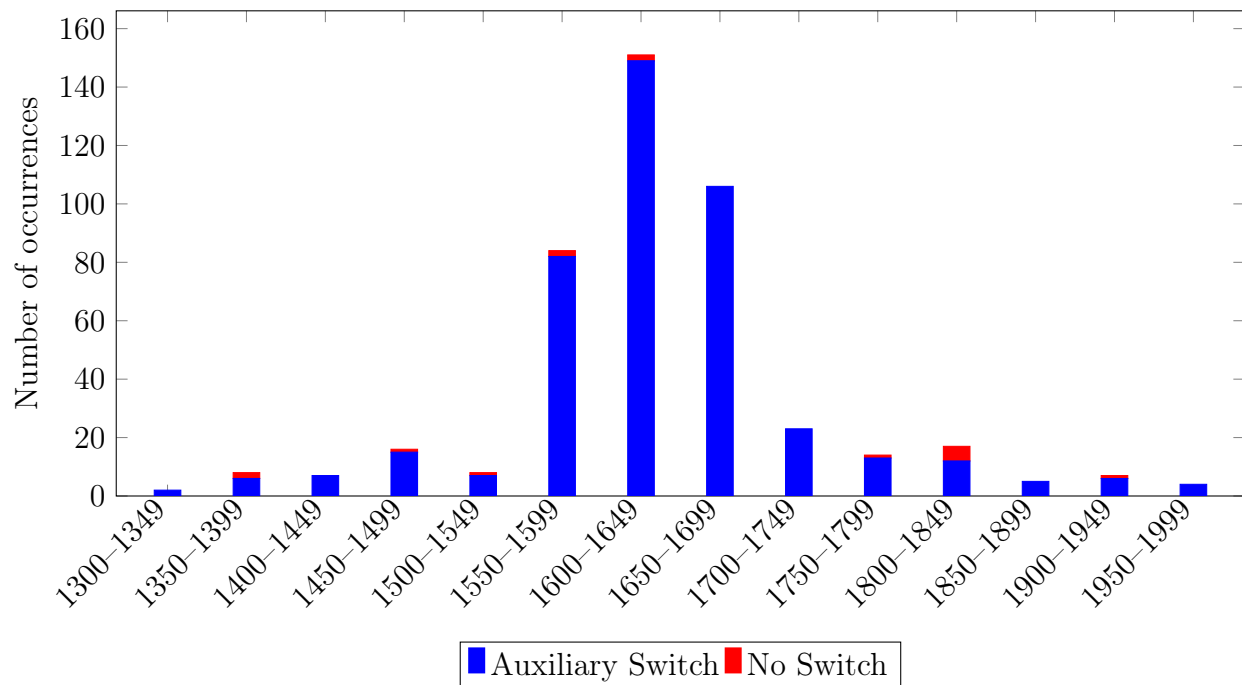


Figure 1: Auxiliary Switch with reflexive infinitives when the clitic climbs

The quantitative data are reported in Table 1 in full, to also illustrate what happens when the clitic remains proclitic on the infinitive (as a reminder, the matrix verb is always a modal). In this latter context, AS never occurs and the auxiliary is always HAVE. I do not report the data from 1800 onward for the last column, as the number of occurrences rises into the thousands (reflecting both the loss of clitic climbing and the substantial increase in available material). From this, it is clear that BE never appears when the reflexive clitic does not climb.¹⁴

illustrated with the two examples below. Moreover, *se*, *s’y*, and *s’en* pattern alike with regards to AS.

- (i) a. Monsieur ne *s’y* *étant* pu trouver.
Monsieur NEG REFL=LOC= be-PRS.PTCP could-PST.PTCP find-INF
‘Monsieur having been unable to attend.’ (1651–1654, *Mémoires*)
- b. qu’il ne *s’en* *soit* peû sçavoir aucune nouvelle.
that=EXPL NEG REFL=PART= be-PRS could-PTCP know-INF no news
‘that no news of it could be known.’ (1615, *Histoire trage-comique de nostre temps*)

¹⁴An anonymous reviewer observes that, although the sample for 1800–1849 is small, there are 29.4% of cases where clitic climbing does not result in AS during that time, which looks like optionality and may mean that clitic climbing should not trigger or activate AS. Closer inspection reveals that all five instances where AS fails to occur are authored by Chateaubriand, which (22c) illustrates. Interestingly, Iglesias (2015) produces a study on idiolectal variation in earlier French and reports that Chateaubriand stands out from his contemporaries by using clitic climbing far more frequently. This raises the possibility that Chateaubriand applied the clitic climbing rule in an artificial or hypercorrect manner as a matter of stylistic decorum. If so,

Period	CC and AS	CC and no AS	Total	AS and no CC	No AS, no CC
1300–1349	2	0	2	0	0
1350–1399	6	2	8	0	0
1400–1449	7	0	7	0	1
1450–1499	15	1	16	0	1
1500–1549	7	1	8	0	1
1550–1599	82	2	84	0	43
1600–1649	149	2	151	0	340
1650–1699	106	0	106	0	822
1700–1749	23	0	23	0	1066
1750–1799	13	1	14	0	2042
1800–1849	12	5	17	0	-
1850–1899	5	0	5	0	-
1900–1949	6	1	7	0	-
1950–1999	4	0	4	0	-

Table 1: Distribution of Auxiliary Switch with climbing of reflexive clitics (CC = clitic climbing)

The sentences given in (21) are representative of 17th-century French, when AS was at its peak. The person binding the reflexive does not have any influence.

- (21) a. où il *s'estoit* voulu cacher.
where he REFL=be-PST.3SG want-PTCP hide-INF
‘Where he had wanted to hide.’ (1658, *La Précieuse ou le Mystère des ruelles*)
- b. vous *vous estes* pû tromper
you REFL= be-PRS.2PL could-PTCP mistake-INF
‘you may have been mistaken.’ (1661, *Les Méditations métaphysiques*)
- c. Je ne *me suis* voulu jeter dans le hasard.
I NEG REFL= be-PRS.1SG want-PTCP throw-INF in the chance
‘I didn’t want to throw myself into chance.’ (1682, *Héraclius*)

The fact that the construction is not attested before the 14th century may be explained through several factors. First, synthetic past tenses were generally more prevalent in Old French than they are today (Marchello-Nizia et al. 2020: p. 1503), and compound tenses were comparatively less frequent (Pearce 1990: 21–22).¹⁵ Although compound tenses are attested from the earliest periods, the semantics of the *passé composé* initially carried a resultative nuance, and it was not until the 16th century that its aoristic use became more widespread (Caudal & Vetters 2007), at which point it functioned equivalently to the *passé simple* (Marchello-Nizia et al. 2020: p. 1495), which it eventually supplanted. This situation naturally reduces the amount of data for pre-16th century French, and it aligns with the

one might conclude that artificially forcing clitic climbing does not systematically induce syntactic processes like AS.

¹⁵It is traditionally assumed that the Romance languages underwent a shift from syntheticity to analyticity. Ledgeway (2017) offers a nuanced discussion of this trajectory.

increase of AS after 1550. Second, previous authors have reported that the use of the reflexive was more limited during the Middle Ages than it is today, with Miller (2001) claiming that indirect reflexives were ungrammatical at the time (e.g., **il_i se_i lave les mains*, ‘he_i washes his_i hands’). This author further argues that the ‘modern’ use of the reflexive first emerged in the mid-12th century, a timeline that aligns with Salvesen’s (2013) study where she demonstrates a significant expansion in the class of reflexive verbs between the 12th and 15th centuries. Predictably, this expansion correlates with an increase in the proportion of clauses featuring a reflexive pronoun. This point is crucial, as it naturally accounts for the lower overall occurrence of AS with reflexive infinitives before 1500 reported in Figure 1. In summary, the fairly low amount of data for the pre-16th century appears to result from a combination of factors: (i) synthetic constructions were still common for the perfect, (ii) the set of reflexive verbs was smaller than it would later be, and (iii) fewer texts from the earlier period are searchable, in comparison to post-1550 French. The latter is an inherent limitation of corpus methodology – we can only report what is present in the database. In conclusion, whilst the three conditions necessary for AS (i.e., a matrix modal verb, a compound tense, a reflexive verb) seldomly aligned during the first few centuries, the evidence suggests that when they did, AS generally obtained.

An additional hypothesis to explore in order to explain the expansion of AS in Renaissance French is that of the influence of Italian on French at the time (p.c. JC Smith). The increase of AS in written French after 1550 neatly corresponds to Catherine de’ Medici’s marriage to the French dauphin in 1533, a period that saw a surge of Italians in the French court – and notably, increased code-switching between French and Italian in the 16th century (Cowling 2007). This foreign linguistic presence is both noticed and criticised by authors at the time, who frequently refer to and comment on the ‘Italianisation’ of French (Grancini 2014: p. 493). Heller (2003: p. 3) summarises the sociopolitical situation as follows: “An upper stratum of Italian wholesale merchants, bankers, ecclesiastics, and courtiers constituted a quasi-colonial elite which exercised inordinate power in the French kingdom [...]. Italian nobles and courtiers acquired exceptional power [...]. The court itself became more and more Italian in its language and manners” (see also Lodge 1993: 134–135 on the influence of Italian on 16th-century French). This additional factor may therefore have served as a catalyst, further promoting a construction already present in the language.

What is particularly striking about the findings is that the correlation between AS and clitic climbing of reflexives remains consistent across the centuries and does not weaken over time – and there is no occurrence of AS without clitic climbing of reflexives. In other words, when the reflexive clitic climbs, the auxiliary switches – even in later periods when clitic climbing had become a more stylistic, archaic feature of the written language, and when AS itself is considered by grammarians at the time to be either obsolete, erroneous, or impossible (Gougenheim 1929: 184–186). Although sporadic instances are found where the reflexive climbs while HAVE is used (22), these cases are relatively uncommon, and therefore unrepresentative of the grammar, as their overall number remains low throughout (cf. Table 1). Given that the database is not restricted to a specific geographical area, the presence of regional and/or non-standard features is to be expected.¹⁶

¹⁶Gougenheim (1929: p. 184) also suggests that the vanishingly rare cases of *se*+HAVE should be treated as dialectal. Given that some varieties of contemporary French and some other Oil languages can produce

- (22) a. que le Roy *se euyst* voulu estrangier de luy
 that the King REFL= have-PST.3SG want-PTCP estrange-INF of him
 ‘that the King had wanted to estrange himself from him’ (ca. 1440, *Chronique*, p.35)
- b. comme si par ce moyen il *s’eust* deu enrichir luy
 as if by this means he REFL=have-PST.3SG ought-PTCP enrich-INF him
 et son armee tout à un coup
 and his army all at a sudden
 ‘as if, through this means, he ought to have become richer, he and his army, all of a sudden’ (1577, *L’Histoire de la decadence de l’Empire grec*)
- c. Je *m’aurais* voulu coucher
 I REFL=have-COND.1SG want-PTCP lie-INF
 ‘I would have wanted to lie down’ (1848, *Mémoires d’outre-tombe*)

The decrease of the construction in the 18th century can therefore be captured through the lens of the loss of clitic climbing, which was well on its way by then (Amatuzzi et al. 2020, Iglesias 2015, Olivier, Sevdali & Folli 2023). From the 18th century on, and into the 19th century, the pronoun is normally proclitic on the infinitive, and in consequence HAVE spells out.

In conclusion, AS with reflexive verbs is attested in French from the early 14th century, with the majority of examples occurring between 1550 and 1750. The findings reveal that clitic climbing is associated with AS, and the two phenomena normally co-occur. While the earlier period does not consistently provide the necessary context for AS to obtain, the decline of the phenomenon in the 18th century parallels the decline of clitic climbing.

3.2 Unaccusative verbs

The set of BE-selecting verbs includes reflexive verbs and (most) unaccusatives – two environments that allow AS in Standard Italian and lesser-studied Romance varieties (cf. section 2.1). Now that we have considered AS with reflexive predicates, I report on findings of AS with unaccusatives.

3.2.1 Without a clitic

In contrast to reflexive verbs, unaccusative verbs without a clitic exhibit a markedly different pattern. In this context, AS is attested only sporadically from the early 13th century to the early 17th century, and it is largely disfavoured: HAVE is typically used instead of BE. The quantitative data are reported in Figure 2 and Table 2.

HAVE with reflexive transitives (Rea 2020, Auger 2003), this hypothesis is plausible.

Period	Auxiliary Switch	No Switch	Total
1200–1249	1	0	1
1250–1299	0	0	0
1300–1349	1	1	2
1350–1399	0	8	8
1400–1449	2	6	8
1450–1499	5	14	19
1500–1549	4	9	13
1550–1599	4	61	65
1600–1649	7	289	296

Table 2: Distribution of Auxiliary Switch with unaccusatives with no clitic

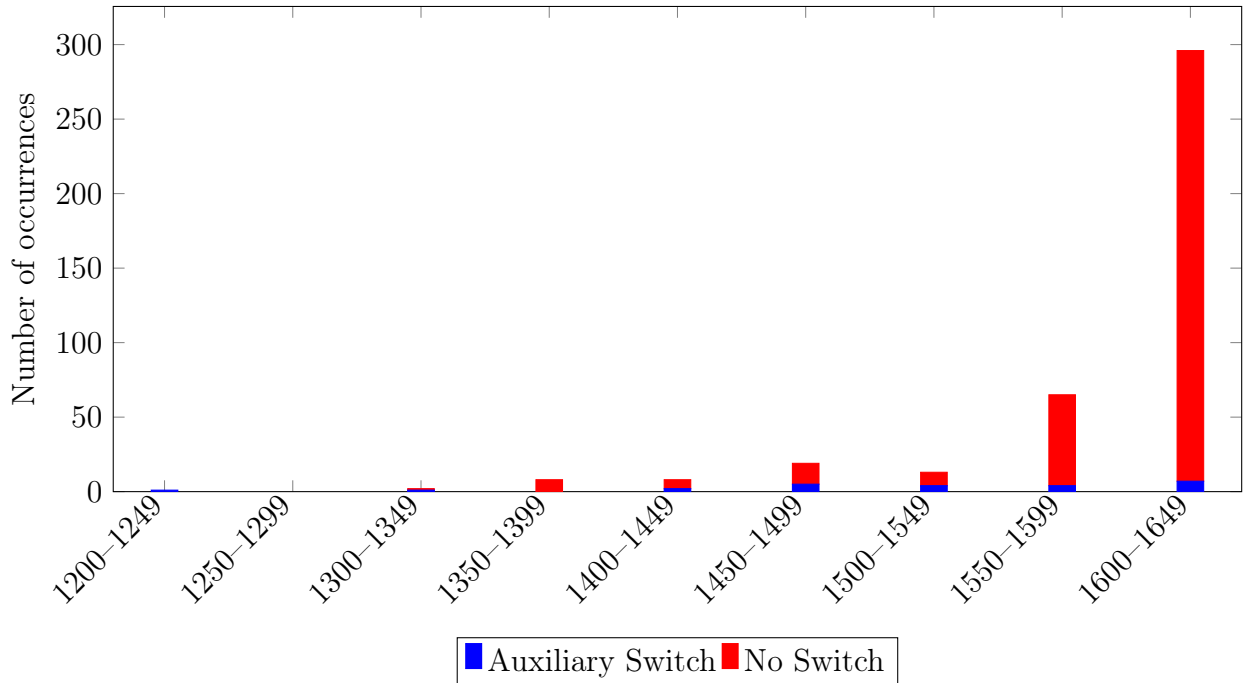


Figure 2: Auxiliary Switch with unaccusative verbs with no clitic

Instances of AS are relatively uncommon in this environment until the first half of the 15th century, when they account for approximately a third of all occurrences – as discussed above, synthetic tenses were still favoured until then. However, this figure should be interpreted with caution, given the overall low number of examples. The construction with AS is illustrated in (23).

- (23) a. qu'il ne *fust* peu venir jusques icy
that=he NEG be-PST.3SG can-PTCP come-INF until here
‘that he couldn’t come as far as here’ (1494, *Le roman de Jehan de Paris*)

- b. comment il *estoit* voulu sortir de la mer
 how he be-PST.3SG want-PTCP exit-INF of the sea
 ‘how he had wanted to come out of the sea’ (1534, *Les Chroniques admirables*)

This situation persists until the mid-16th century, after which we observe an increase in clauses with HAVE (24), but no corresponding rise in the use of BE. Unlike what we find with reflexive verbs (cf. section 3.1), the last occurrence of AS in this context appears relatively early, around the mid-17th century (as will be shown in section 3.2.2, AS with unaccusatives is found in French until the 19th century when a clitic is present).

- (24) a. elle n’*a* peu venir icy
 she NEG=have-PRS.3SG could-PTCP come-INF here
 ‘She couldn’t have come here’ (1578, *La Celestine*)
- b. Anselme *avoit* voulu aller chez eux auparavant que d’aller
 Anselme have-PST.3SG want-PTCP go-INF to them before that to=go-INF
 en Brie
 in Brie
 ‘Anselm had wanted to go to their place before going to Brie’ (1627, *Le Berger extravagant*)

To conclude, although AS occurs with unaccusative verbs, it is relatively rare in the database. In this context, HAVE is preferred throughout the centuries, while BE does not survive beyond the Renaissance period. Reflexive verbs, by contrast, display the opposite pattern: they show a high proportion of AS. Importantly, the data discussed so far concern unaccusatives without a clitic, whereas reflexives with AS involve clitic climbing. To determine whether clitic climbing itself triggers AS, the next section examines clauses that combine an unaccusative verb with clitic climbing.

3.2.2 With a clitic

So far, the findings indicate that AS strongly correlates with the climbing of reflexive clitics, whereas unaccusative verbs that occur without clitics generally do not exhibit AS. In the following lines, I show that when unaccusative verbs do co-occur with clitics, AS does not appear to be affected by clitic climbing.

The earliest sentences that exhibit (i) a matrix modal verb, (ii) a compound tense, (iii) an embedded unaccusative infinitive, and (iv) clitic climbing, appear in the first half of the 15th century, which is late in comparison to the two contexts analysed above. As shown in Figure 3 and Table 3, AS occurs sporadically from the 15th to the early 19th century, but it is generally disfavoured, much like what we observed with unaccusative predicates that lack a clitic (cf. section 3.2.1).

Period	Auxiliary Switch	No Switch	Total
1400–1449	0	1	1
1450–1499	5	4	9
1500–1549	0	2	2
1550–1599	3	11	14
1600–1649	4	18	22
1650–1699	0	10	10
1700–1749	0	1	1
1750–1799	0	5	5
1800–1849	1	0	1

Table 3: Distribution of Auxiliary Switch with unaccusatives with clitic climbing

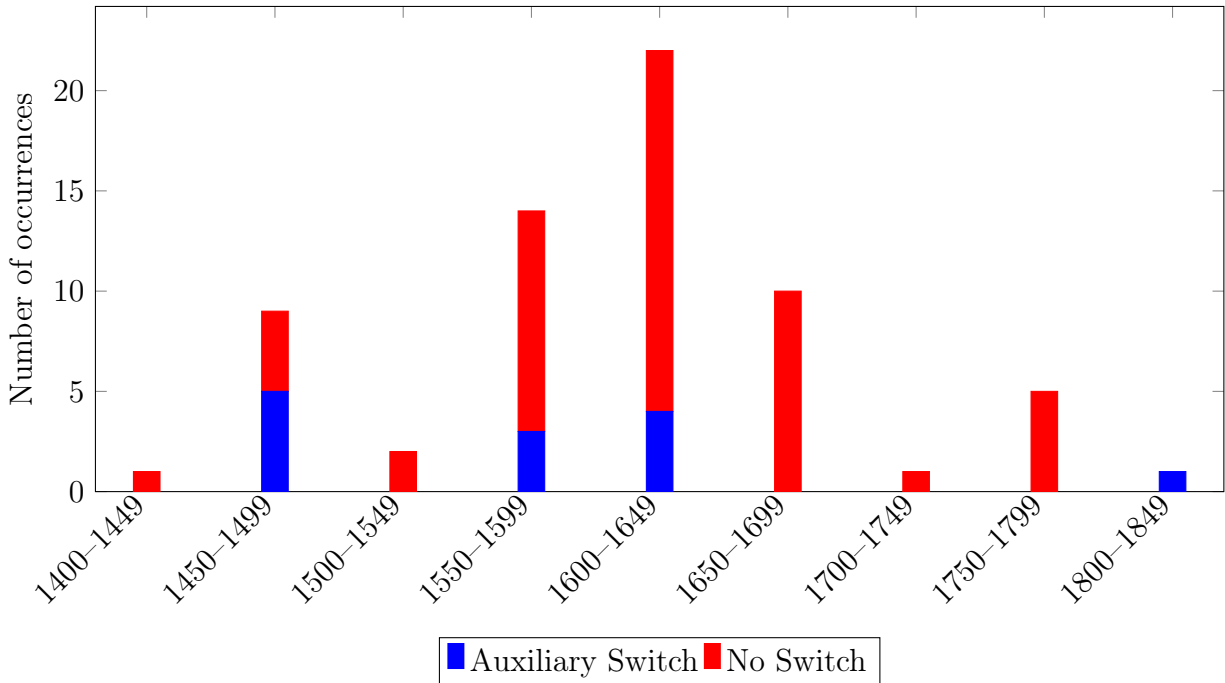


Figure 3: Auxiliary Switch with unaccusative verbs with clitic climbing

While reflexive clitics are semantically and syntactically closely tied to the lexical verb that selects them (Folli 2002, Folli & Harley 2005, Labelle 2008, Armstrong 2013, Sportiche 2014, Dobrovie-Sorin 2017), the clitics under discussion here are not necessarily linked to the argument structure of the infinitive. Under an analysis of motion verbs as unaccusatives, locative clitics (25) can be treated as adjuncts. Alternatively, the locative may be analysed as the realisation of an optional PlaceP complement with a goal interpretation. As for the so-called ‘partitive’, which I use here as a cover term for *en*, it functions as an adjectival complement in (26a) and as an indirect complement of the verb in (26b) and (26c). Lastly, the clitic *lui* corresponds to a dative experiencer (27). In all these configurations, *y*, *en*, and *lui* pronominalise PP-constituents that are only indirectly related to the verb. Notably, in these examples HAVE co-occurs with clitic climbing, in sharp contrast with reflexive verbs. From now on, I

descriptively refer to locatives, partitives, and non-reflexive datives as ‘prepositional’ clitics.

- (25) a. car nul n’y eyst peü entrer
because nobody NEG=LOC= have-PST.3SG can-PTCP enter-INF
‘because nobody had been able to enter there’ (1489, *Mémoires*)
- b. Il n’y eu voulu aller
he NEG=LOC= have-PST.3SG want-PTCP go-INF
‘He hadn’t wanted to go there’ (1631, *Lettres aux frères Dupuy*)
- c. mes lettres n’y ont peu arriver à temps
my letters NEG=LOC= have-PRS.3PL could-PTCP arrive-INF at time
‘my letters hadn’t arrived there in time’ (1637, *Lettres à Borilly*)
- (26) a. ce qui empesche de croire qu’il en eust peu
that which prevents to believe-INF that=he PART= have-PRS.3SG can-PTCP
devenir amoureux
become-INF enamoured
‘which prevents the belief that he could have fallen in love with her’ (1631, *Lettres aux frères Dupuy*)
- b. Le cardinal et le roy mesme n’en avoient peu
the cardinal and the king himself NEG=PART= have-PST.3PL could-PTCP
venir à bout.
come-INF to end
‘Neither the cardinal nor the king himself could get it done’ (1649, *Lettres*)
- c. il en ait pû naistre une telle diversité.
EXPL PART= have-SBJV.3SG could-PTCP be.born-INF a such diversity
‘Such a diversity could have been born of it’ (1684, *Abrégé de la philosophie de Gassendi*)
- (27) a. pour eviter le mal qu’il luy eust peu advenir
for avoid-INF the evil that=EXPL him= have-PST.3SG could-PTCP occur-INF
‘to avoid the harm that could have befallen him’ (1561, *Paradoxes*)
- b. comme de la meilleure fortune qui luy eust peu arriver
like of the best fortune that him= have-PST.3SG could-PTCP arrive-INF

‘such as the best fortune that could have happened to him’ (1631, *L’Astrée*)
- c. que je me vois accablée du plus grand malheur qui
that I me= see overwhelmed of=the more great misfortune which
m’eust peu arriver.
me=have-PST.3SG could-PTCP arrive-INF
‘that I find myself overwhelmed by the greatest misfortune that could have befallen me’ (1631, *L’Astrée*)

The figures reported in Figure 3 and Table 3 above nonetheless reveal that AS was possible in this context. Consider examples (28) to (30), which respectively illustrate AS with clitic climbing of a locative, a partitive, and a dative.

- (28) Monsieur Morin n'y est voulu aller.
 Mr Morin NEG=LOC= be-PRS.3SG want-PTCP go-INF
 'Mr Morin didn't want to go there.' (1613, *Lettres familières*)
- (29) il en est voulu venir porter la response luy mesme
 he PART be-PRS.3SG want-PTCP come-INF bring-INF the response him self
 'he wanted to come and deliver the answer himself' (1637, *Lettres*)
- (30) quoy qu'il luy soit pu advenir
 what that=EXPL him= be-SBJV.3SG could-PTCP happen-INF
 'whatever may have happened to him' (1627, *L'Astrée*)

Note also the presence of an accusative clitic in (31). The occurrence of accusative clitics in this context is exceedingly rare: here, the clitic is unrelated to the argument structure of embedded infinitive *aller* 'go', and is instead selected by the embedded infinitive *voir* 'see'. As such, *le* climbs through three predicates and is therefore merely transiting through the unaccusative one.¹⁷

- (31) il le fusse voulu aller voir
 he him= be-SBJV.3SG want-PTCP go-INF see-INF
 'he had wanted to go and see him' (1593, *Dialogue du François et du Savoyzien*)

Overall, the presence of climbing with prepositional clitics does not appear to have influenced AS. Taken together, the findings suggest that AS was indeed possible when the embedded infinitive is an unaccusative, BE-selecting predicate, similar to what is observed in other Romance varieties (cf. section 2), but largely dispreferred.

3.3 Modern French

AS is generally considered absent in Modern French, with most authors explicitly stating that it no longer occurs in the language today (Gougenheim 1929: p. 186, Moignet 1976: p. 190, de Kok 1985: p. 491, Roberts 1997: p. 438, Cinque 2006: p. 99, Authier & Reed 2007: p. 38, Ledgeway 2012: p. 121, Olivier 2022a: p. 151). In what follows, I introduce new and previously unobserved evidence suggesting that AS can, in fact, still be found in French. While the data I report do not provide quantitative information about the distribution of AS in

¹⁷Cardinaletti & Shlonsky (2004: p. 540) offer a similar example in Italian. Compare (31) with (i.c) – clearly, AS is independent from clitic climbing in this environment.

- (i) a. *Sarei* voluto andare a trovarlo.
 be-COND.1SG want-PTCP go-INF to visit-INF=him
 'I would have wanted to go and visit him.'
 b. *Sarei* voluto andarlo a trovare.
 c. *Lo sarei* voluto andare a trovare.

Modern French, they nonetheless reveal that some speakers still have it in their grammar. Even if this novel observation brings some nuance into play, it certainly does not suggest that Modern French is a ‘good’ representative of a language with AS – the latter is an occasional phenomenon at best.

I have already illustrated AS in Modern French in (12); further examples are presented in (32) through (35) (the sources and additional examples are provided in Appendix 9). These examples span a range of registers, from football and motorbike forums to legal documents. In fact, register does not seem to play a role.

- (32) eh bien je serais sincèrement content d’avoir appris qqch
 well then I be-COND.1SG sincerely happy of=have-INF learn-PTCP something
 mais néanmoins surpris de m’être pu tromper
 but nevertheless surprised of REFL=be-INF can-PTCP be.mistaken-INF
 ‘Well, I would be sincerely happy to have learnt smthg but nevertheless surprised to have been mistaken.’ (2005, *Le repaire des motards*)
- (33) Je sais que c’est [dur] pour toi vu la réputation que tu t’es
 I know that it=is hard for you seen the reputation that you REFL=be-PRS.2SG
 voulu[e] faire de vrai tombeur de fille[s]
 want-PTCP-F make-INF of real faller of girls
 ‘I know it’s hard for you given the reputation you’ve wanted to build for yourself as a real lady-killer’ (2011, *Planete Real Madrid*)
- (34) Je regrette de ne pas m’être pu déplacer à cette
 I regret-PRS.1SG of NEG NEG REFL=be-INF can-PTCP move-INF to this
 commission.
 committee
 ‘I regret not having been able to come to this committee (meeting).’ (2022, *Comité de bassin Loire-Bretagne*, p. 10)
- (35) il peut parfaitement s’être voulu faire un distinguo...
 EXPL can-PRS.3SG perfectly REFL=be-INF want-PTCP make-INF a distinction
 ‘it could perfectly well have been intended to make a distinction...’ (2023, *Question Orthographe Voltaire*)

The phenomenon appears to be more restricted today than it once was: in almost all the examples from the second half of the 20th century and the 21st century, the auxiliary is an infinitive, except in (33). Despite its more limited distribution, AS still goes in hand with climbing of reflexive clitics – as it has done since the 14th century (cf. section 3.1). This is particularly noteworthy, given that French has not generally exhibited clitic climbing since the 19th century (Amatuzzi et al. 2020, Iglesias 2021, Olivier, Sevdali & Folli 2023), although it undeniably persists as occasional instances in written French.

In conclusion, Modern French speakers continue to produce AS in the written language, albeit occasionally. While I leave to future research the task of determining how widespread the phenomenon remains today, the data presented here show ‘standard’ cases of AS, as they include the three conditions outlined in the introduction and pattern consistently with clitic

climbing. I did not identify instances of AS without clitic climbing, nor did I observe cases of AS with unaccusative predicates (only reflexives).

4 Auxiliary Switch and clitic climbing

The data discussed above present a fragmented picture: clitic climbing correlates with AS only when the clitic is reflexive. Prepositional clitics, on the other hand, can climb without triggering AS, which suggests that the featural makeup of clitics is not uniform and interacts with auxiliary selection. To the best of my knowledge, this observation is novel in the context of French. The Italian literature, however, contains similar evidence (Rizzi 1978: fn. 26; Cardinaletti & Shlonsky 2004: 540–542; Manzini & Savoia 2005: p. 386; Cinque 2006: fn. 49; Haegeman 2006: p. 487; Di Domenico 2022: fn. 23; Amato 2024: 4, 17–19).

Consider the Italian sentences in (36), which feature climbing of prepositional clitics. In each case, the embedded infinitive is an unaccusative (i.e., BE-selecting), yet AS does not occur and the auxiliary remains HAVE.

- (36) a. Maria *c'ha* dovuto venire molte volte
 Maria LOC=have-PRS.3SG have.to-PTCP come-INF many times
 'Maria has had to come here often.'
- b. *Gli hai* per caso potuto andare incontro?
 him= have-PRS.2SG by chance could-PTCP go-INF toward
 'Were you, by any chance, able to go meet him?'
- c. Non *ne ha* mai voluto venir fuori
 NEG PART= have-PRS.3SG ever want-PTCP come-INF out
 'He never wanted to get out of it.' (Cinque 2006: 60, fn. 49)

According to Cinque (2006), this pattern is only possible in colloquial Italian, and there is evidence that it yields varying degrees of acceptability among speakers.¹⁸ All things being equal, it may be diatopically marked. That said, the crucial point I am trying to make here is that the climbing of *prepositional* clitics is not as tightly correlated with AS as the climbing of *reflexive* clitics is – see example (19) for the latter – an issue tackled by the analysis presented in section 7. While grammatical judgments with reflexive clitics are clear (i.e., AS is obligatory when the clitic climbs), prepositional clitics are the only ones showing signs of variation.

Sardinian shows a similar distribution – we saw in section 2.1.2 that this language exhibits AS with both unaccusatives and reflexives. According to my informant, the climbing of a *locative* clitic may occur with HAVE (37), whereas only BE is possible when the clitic is *reflexive* (38) (p.c. Piero Cossu).¹⁹ This mirrors what has been reported for Italian and what the French data discussed above reveal.

¹⁸For instance, see Amato (2024: fn. 4) for contrasting acceptability judgments between the author and a reviewer.

¹⁹There is dialectal variation with respect to the data in (37). Another informant, for instance, only accepts BE in this context.

- (37) a. *Nci seu bòfiu andai.*
 LOC= be-PRS.1SG want-PTCP go-INF
 ‘I wanted to go there.’
 b. *?Nc’apu bòfiu andai.*
 LOC=have-PRS.1SG want-PTCP go-INF
 ‘I wanted to go there.’ (Central Campidanese)
- (38) a. *Mi seu bòfiu sciaccuai.*
 REFL= be-PRS.1SG want-PTCP shower-INF
 ‘I wanted to take a shower.’
 b. **M’apu bòfiu sciaccuai.*
 REFL=have-PRS.1SG want-PTCP shower-INF
 ‘I wanted to take a shower.’ (Central Campidanese)

Taken together, the data from earlier French, colloquial Italian, and Sardinian demonstrate that AS and the climbing of *prepositional* clitics are independent phenomena, although they tend to co-occur in Standard Italian and in Sardinian. What is striking, however, is the robust correlation between the climbing of *reflexive* clitics and AS across these three varieties.²⁰ I formalise this distribution in the remainder of the paper.

Despite a vast literature on clitic climbing and auxiliary selection, their interaction remains poorly understood. Nevertheless, AS offers a diagnostic tool to further understand their relationship. Based on the data discussed here, I propose that reflexive clitics ‘activate’ or ‘trigger’ AS, whereas prepositional clitics do not. This distinction is incorporated into my analysis: in what follows, I first address clitic climbing (cf. section 5), then consider auxiliary selection (cf. section 6), and finally bring the two together (cf. section 7).

5 Clitic climbing is feature transfer

The empirical data reported above reveal that AS and clitic climbing are interdependent phenomena when reflexive clitics are involved, whereas they are only partially independent with prepositional clitics. It follows that any successful analysis of AS must also engage with clitic placement and account for this distribution. Therefore, the formal analysis of clitic climbing presented here will subsequently be integrated into my analysis of AS.

Restructuring has long been analysed as a phenomenon of clause union or clause reduction (Aissen & Perlmutter 1976, Rizzi 1978), where the modal predicate and the infinitive behave as a single verbal entity. The latter is diagnosed through a series of long distance dependency phenomena, dubbed ‘transparency effects’, which include AS and clitic climbing. In more contemporary terms, restructuring clauses are assumed either to entirely lack embedding projections (Pearce 1990, Picallo 1990, Cinque 2001, Wurmbrand 2001, Cardinaletti & Shlonsky 2004, Roberts 2010, Grano 2015, Olivier 2022a, Olivier, Sevdali & Folli 2023, Amato 2024), rendering the modal akin to an auxiliary, or to involve defective embedding layers (Kayne 1989,

²⁰Mensching & Remberger (2016: p. 289) also note that AS is obligatory with the climbing of reflexive clitics in Sardinian, though they do not address prepositional clitics. See Amato (2024) for examples and judgments on Italian, with both reflexive and prepositional clitics.

Martineau 1990, Landau 1999, Solà 2002, Bok-Bennema 2010, Cyrino 2010, Gallego 2016, Paradís 2019, 2024).²¹ While the exact structure of restructuring clauses may vary depending on both the variety and the predicate in question (arguably, modal verbs like *pouvoir* ‘can’ are more functional than control verbs like *essayer de* ‘try’, yet both are restructuring predicates), I adopt the monoclausal hypothesis since I only consider modal verbs.²² Thus, I employ the term ‘restructuring clause’ to refer to the environment $[_{CP} [_{TP} [_{VP} \text{MODAL} [_{VP} \text{INFINITIVE}]]]]$ as a whole, rather than parts of the clause.

The hallmark of Romance restructuring is clitic climbing, which can be obligatory, optional, or absent, depending on the variety at issue. In current formal literature, clitic placement in simple clauses can be explained through the valuation of the clitic’s ϕ -features by a functional head F, often taken to be the topmost projection of the v/Voice-domain.²³ Depending on the author, the clitic either moves as an XP to incorporate into F (Mavrogiorgos 2010, Gallego 2016) or is a head whose featural content is realised on F after Agree (Roberts 2010).

$$(39) \quad [_{FP} F_{[u\phi:_]}] [_{VP} V \text{ cl}_{[\phi]}] \rightarrow [_{FP} \text{ cl}+F_{[u\phi:\phi]}] [_{VP} V e]$$

Turning to restructuring clauses, Cinque (2004) convincingly demonstrates that the matrix verb lacks argument structure and can be considered a raising predicate, or at least some of them can; Wurmbrand (2004) distinguishes between functional and lexical restructuring. We will only be concerned with functional restructuring. In a Minimalist analysis, these verbs can be conceived of as v-heads (Roberts 2010, Olivier, Sevdali & Folli 2023, Amato 2024). I refer to the head that merges restructuring (modal) verbs as v_{MOD} ; these elements are both verbal and functional, hence the label v. However, v_{MOD} has no specifier, does not introduce argument structure, nor can it adopt the flavours discussed by Folli & Harley (2005). Instead, it encodes modal force MOD (e.g., epistemic, deontic, dynamic).²⁴ Since my discussion centres on modals, the label ModP could also be appropriate (cf. Cinque 2001). In sum, the modal is a functional head that carries modality-related features and influences the interpretation of its complement.

²¹Both the type of main predicate and crosslinguistic variation give rise to different sizes of infinitival clauses, see Olivier & Paradís (2026) for a discussion on Romance.

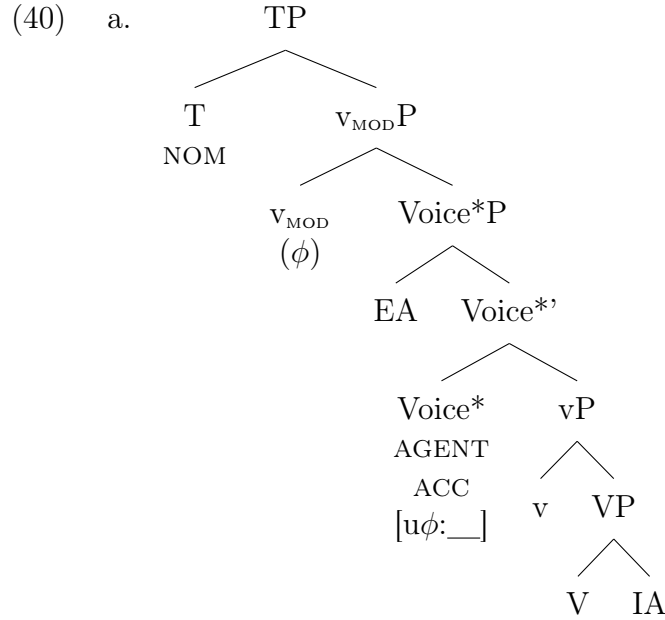
²²This choice is particularly motivated by the fact that clitic climbing was obligatory with modals in earlier French (an anonymous reviewer points out that some non-modal verbs had optional clitic climbing; I do not include them in the study). Furthermore, the infinitive cannot be negated in clauses that feature clitic climbing in earlier French, which strongly suggests the presence of a reduced domain. I also follow most of the literature on Italian restructuring, which convincingly demonstrates that the environment shows a monoclausal behaviour.

²³Where enclisis obtains, the verb targets a functional head directly above the cliticisation site in (39) (Kayne 1991, Mavrogiorgos 2010, Roberts 2010, Olivier 2022a,b).

²⁴Much of the literature assumes that impersonal *si* is generated on a v-head (Folli 2002). This provides evidence that restructuring modals are v-heads, since impersonal *si/se* can itself encode modal meaning (p.c. Raffaella Folli), suggesting a structural parallel between the two:

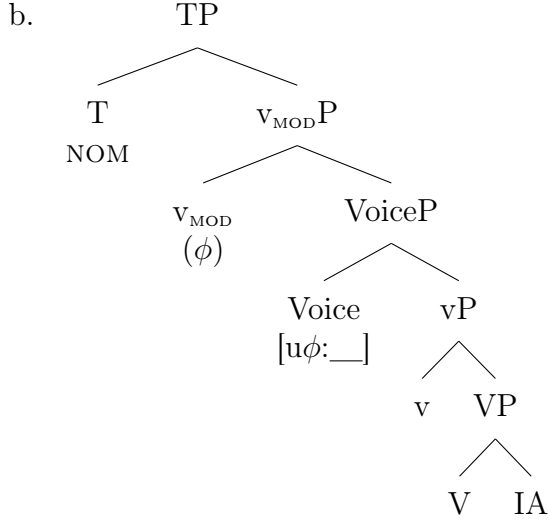
- (i) a. Da qui non *si* vede la casa.
from here NEG *si* see-PRS.3SG the house
‘One *cannot* see the house from here’ (Standard Italian)
- b. La maison ne *se* voit pas d’ici.
the house NEG *se* see-PRS.3SG NEG from=here
‘The house *cannot* be seen from here’ (French)

The structure I assume for restructuring clauses headed by a modal is given in (40); it is inspired by Cinque (2004), Wurmbrand (2004), Bryant et al. (2023), and more particularly Wurmbrand & Shimamura (2017). The (low) v -head is the usual verbaliser (Chomsky 1995), and its features are primarily involved in marking transitivity and flavours such as v_{CAUSE} (causation), v_{BECOME} (change of state), and v_{DO} (agentive action) (Folli & Harley 2005, Harley & Folli 2007), whereas Voice introduces the external argument (EA) (Kratzer 1996). I distinguish Voice* (40a) from Voice (40b): the former is a strong phase-head that assigns agentivity and licences accusative case (Wurmbrand & Shimamura 2017), whereas the latter is impoverished, allowing the internal argument (IA) of the lexical verb to target the TP-layer and check nominative case. This non-agentive instance of Voice corresponds to a weak phase-head (Chomsky 2001).²⁵ Assuming that phase-heads are ϕ -probes whether they are strong or weak, Voice*/Voice (henceforth, Voice^(*)) is merged with unvalued ϕ -features. As for v_{MOD} , I will demonstrate that the presence of ϕ -features on it varies. Simply put, I do not analyse v_{MOD} as a probe, but I will show that it can inherit ϕ -features through transfer, which is represented as (ϕ) on the trees for now.²⁶



²⁵Assuming that clitics licence their case through incorporation to a functional head, it follows that the IA of unaccusatives cannot be realised as a clitic object on Voice.

²⁶Where Voice* selects an unergative v , I assume that it bears default ϕ -values, perhaps due to the presence of a cognate object (cf. Hale & Keyser 1993, D'Alessandro & Roberts 2010, Amato 2022, Olivier 2025a).



Bringing (39) and (40) together, clitic placement options in restructuring clauses can be parameterised based on which head the clitic spells out: $\text{Voice}^{(*)}$ when the clitic remains on the infinitive, and v_{MOD} when it climbs. In languages where the clitic always remains low (e.g., Modern French), v_{MOD} consistently lacks ϕ -features. Conversely, in varieties where clitic climbing occurs, v_{MOD} inherits ϕ -features from $\text{Voice}^{(*)}$: either optionally (e.g., Standard Italian) or systematically (e.g., Sardinian).

In the system I propose, both $\text{Voice}^{(*)}$ and v_{MOD} bear the same set of valued ϕ -features when clitic climbing obtains (cf. discussion in section 7). This contrasts with previous analyses claiming that $\text{Voice}^{(*)}$ (or v , depending on the proposal) is defective and does not probe the clitic when climbing occurs (Cyrino 2010, Roberts 2010, Solà 2002, Gallego 2016, Amato 2024, Paradís 2024). Three arguments support my proposal. First, Voice^* cannot be defective when clitics climb, since v_{MOD} is not a case-assigner, yet clitic objects obtain the relevant case (i.e., accusative). Second, Voice^* cannot be defective when clitics climb because it can simultaneously introduce an EA and check case with an IA *in situ*, as in *Mi voglio lavare i capelli* ‘I want to wash my hair (myself)’. Third, empirical support from clitic reduplication (where both $\text{Voice}^{(*)}$ and v_{MOD} spell out copies of the same clitic) confirms that $\text{Voice}^{(*)}$ also bears ϕ -features; see examples (41) to (44) from Gallo-Romance, Italo-Romance, and Ibero-Romance.

- (41) et enfin de tout ce qui se peut s’imaginer
 and finally of all which that REFL= can-PRS.3SG REFL=imagine-INF
 ‘and finally, of everything that one can imagine’. (French, 1696, *Correspondance*)

- (42) L e (və)nut a magnallo.
 it= be-PRS.3SG come-PTCP to eat-INF=it
 ‘He came to eat it.’ (Perugino, Di Domenico 2022: p. 5)

- (43) Ho vull fer-ho.
 it= want-PRS.1SG do-INF=it
 ‘I want to do it.’ (Catalan, Solà 2002: p. 251)

- (44) *Los vamos a verlos.*
 them= go-PRS.1PL to see-INF=them
 ‘We are going to see them.’ (Chilean Spanish, Uriagereka 1995: fn 21)

In fact, clitic reduplication suggests that clitic climbing is a cyclical operation: Voice^(*) probes the clitic’s ϕ -features, which are subsequently copied onto v_{MOD}. My proposal hinges on the assumption that clitics consist only of ϕ -features (cf. Dechaine & Wiltschko 2002, Roberts 2010).²⁷ In other words, clitic climbing is an instance of feature transfer from one functional head to another, creating a chain formation.²⁸ Note that v_{MOD} is not a probe: the features it receives are already valued by Voice^(*)’s prior Agree operation. On this, I adopt and adapt Ouali’s (2008) view that Chomsky’s (2004) feature inheritance can be redefined as KEEP or SHARE (45) – he also proposes DONATE, which is not relevant here. For either operation to occur, the relevant functional heads between which features are transferred must be adjacent.

- (45) a. KEEP
 No ϕ -features transfer from Voice^(*) to v_{MOD}.
 b. SHARE
 Transfer ϕ -features from Voice^(*) to v_{MOD} and keep a copy.

This simple apparatus is powerful and captures various clitic placements. Languages that do not allow clitic climbing instantiate KEEP, as their Voice^(*)-head does not transfer its ϕ -features to v_{MOD}. In contrast, languages that permit clitic climbing instantiate SHARE. I assume that climbing is always an instance of SHARING the valued ϕ -set, and that reduplication (and the lack thereof) is parameterised as a Spell-Out filter that determines whether or not the copy on Voice^(*) is pronounced. It implies that the optionality of clitic climbing in languages like Standard Italian stems from their ability to either KEEP or SHARE.²⁹ Agree therefore establishes a path, or a channel, to transfer (morphological) information from one functional head to the other.

²⁷I assume that locatives and partitives also carry a ϕ -set (see section 7.3 for a discussion). Thus, unaccusative Voice probes them along the way agentive Voice* probes argumental clitics.

²⁸Wurmbrand & Shimamura (2017) also analyse restructuring clauses, though not with modal verbs, and posit that two Voice-heads are present. They argue that these functional heads establish a feature dependency through feature sharing. This proposal aligns closely with what I suggest here.

²⁹An anonymous reviewer asks why Italian can access two mechanisms here. A diachronic explanation is plausible: all Medieval Romance varieties displayed systematic and obligatory clitic climbing to modal verbs (see Salvi 2016; Cardinaletti & Giusti 2025: 63–64 for Old Italian). The weakening of clitic climbing is widespread across Romance (Benucci 1990 terms it *destructuring*). Classical French represents a transitional stage from obligatory climbing to non-climbing (see also Brazilian Portuguese), whereas Italian has retained both options to the present day. If clitic climbing is declining in Italian, access to two mechanisms may reflect competing grammars (Kroch 1989). Quantitative data in Gardani & Zanini (2025) show clitic climbing occurs only 13% of the time, suggesting not true optionality but a transitional stage comparable to Classical French. A reviewer notes, however, that in the task used in that study (*La macchina non funziona. [devo; riparar(e)]* ‘The car doesn’t work. [I have to; repair]’), participants typically select the modal first, necessarily placing the clitic on the infinitive. Furthermore, Cardinaletti, Cerutti & Volpato (2024) find that clitic climbing is particularly productive in acquisition, and Cardinaletti & Giusti (2025) report that many contemporary northern Italian dialects show clitic climbing in production data. For those varieties, true optionality may be at play (see Cardinaletti, Giusti & Lebari 2025 for a recent discussion on syntactic optionality with regards to clitic climbing, and de Pontbriand 2024 more generally).

This transfer mechanism is even necessary to assume. Roberts (2010: 82–84) adopts a similar structure and argues that clitic climbing occurs if v_{MOD} is a ϕ -probe, but it remains unclear why v_{MOD} would not Agree with the EA, which is structurally more local. To avoid this problem, Gallego (2016) proposes that the clitic moves as an XP to the edge of Voice* – which he analyses as a v that introduces the EA and is defective (i.e., lacking $[u\phi]$) – placing the clitic close to v_{MOD} and above the EA. However, this configuration fails to account for clitic reduplication. Assuming feature transfer along the lines of (45) naturally resolves these issues. The derivation unfolds as follows. First, the VP merges with an IA in the complement of V, and V incorporates with the verbaliser v . Next, Voice* is merged with a set of unvalued ϕ -features. Since it functions as a probe, Voice* searches its c-command domain and values its ϕ -features by matching against the IA in its complement (where the IA is a clitic, it is realised on its probe). As mentioned above, the EA is merged in the specifier of Voice*P. Subsequently, v_{MOD} merges; what is crucial is that v_{MOD} does not enter the structure as a ϕ -probe (this is expected under Chomsky’s 2007 feature inheritance mechanism, see also Richards 2007). Where climbing obtains, Voice* resorts to feature transfer, SHARING its now valued ϕ -features (in the form of the clitic) upwards with v_{MOD} , without requiring v_{MOD} to initiate a separate probing operation (i.e., it is an ‘inheritor’, not a probe). It therefore follows that v_{MOD} will never probe the EA. In conclusion, the model proposed here captures clitic climbing (and lack thereof), clitic reduplication, and why the EA is not probed by v_{MOD} .

6 Recent approaches to auxiliary selection

Turning back to auxiliaries, the hypothesis that binary auxiliary selection in languages like French and Italian (and, by extension, other Romance varieties with similar auxiliary distributions) is driven by person features has been widely accepted in recent formal studies (Bjorkman 2011, D’Alessandro & Ledgeway 2010, D’Alessandro & Roberts 2010, D’Alessandro 2017, Amato 2021, 2022, 2023, 2024, Olivier 2025a), even if authors propose different mechanisms. In all these studies, the auxiliary is analysed as a functional head merged between the TP-field and the VP-field, with BE and HAVE treated as its allomorphs. I adopt this assumption.

The structure generally put forward in the literature is similar to the one given in (46), although the labels of different heads vary according to the author (e.g., Perf instead of v_{Aux} , v instead of Voice). We can assume gender and number to be hosted on Voice, which attracts the lexical verb to form the past participle and spell out morphological agreement where relevant – I leave this issue aside, but see Kayne (1989), D’Alessandro & Roberts (2008), and Kobayashi (2022) for a discussion.³⁰

$$(46) \quad [v_{\text{AuxP}} \ v_{\text{Aux}} \ [u\text{Pers:}__] \ [\text{VoiceP} \ \text{EA}_{[\phi]} \ \text{Voice}_{[u\text{Gen:}__] [u\text{Num:}__]} \ [v/\text{VP} \ V \ \text{IA}_{[\phi]}]]]$$

That auxiliary selection interacts with person features is clear in varieties where the choice of BE or HAVE is parametrised as a reflex of the person feature of the subject

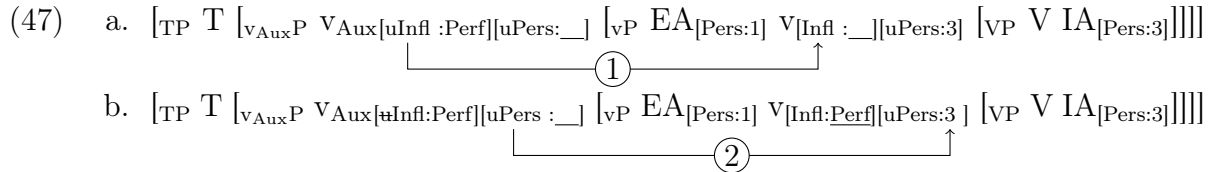
³⁰The person feature on v_{Aux} is not inflectional. Assuming that v_{Aux} moves to T, which itself is a ϕ -probe, the inflectional morphology spelled out on the auxiliary is a reflex of T’s ϕ -features. As I argue in the present article, and building on the literature, BE and HAVE are root allomorphs conditioned by the value of $[u\text{Pers:}__]$ on v_{Aux} .

(D’Alessandro & Ledgeway 2010, D’Alessandro & Roberts 2010, D’Alessandro 2017).³¹ Ariellese, for instance, selects BE when the subject is first or second person, and HAVE when third person.

Regarding varieties where auxiliary selection is purportedly ‘argument-driven’ (e.g., French, Italian), D’Alessandro & Roberts (2010) and Bjorkman (2011) propose that v_{Aux} spells out as either BE or HAVE depending on its featural content: HAVE obtains when v is non-defective and selects an EA. This line of analysis makes interesting predictions, yet it faces the challenge of reflexive verbs, which select BE whether or not they are defective (e.g., the predicate is clearly non-defective with indirect reflexives: *je me suis lavé les cheveux*, ‘I washed my hair’). In what follows, I discuss two recent formal proposals that offer more comprehensive views.

6.1 Auxiliary selection through the redefinition of search space

Amato (2021, 2022, 2023) argues that HAVE obtains if v_{Aux} (which she calls Perf) inherits v ’s person feature (this corresponds to the Voice I discussed in section 5). According to her, Perf can skip the EA to target the IA’s features as they appear on v through Nested Agree – an operation that redefines the searchable c-command domain of a probe.³² Assuming that v_{Aux} bears two probes, [uInfl:perf] and [uPers:___], it searches its c-command domain for [Infl:___] first.³³ Following Nested Agree, once v_{Aux} finds a suitable goal (47a), it further exploits this channel to value [uPers:___] (47b).



The insertion rules given in (48) indicate that HAVE spells out if v_{Aux} obtains a person value, whereas BE is the elsewhere auxiliary. Assuming that unaccusative v is ϕ -defective and bears no person value, Agree fails on v_{Aux} , which correctly predicts the insertion of BE.

(48) Vocabulary Items for v_{Aux} in Standard Italian, where α stands for any value:

³¹As an alternative, Loporcaro (2007, 2016) and Štichauer (2018, 2022) propose that the explanation for person-driven auxiliary selection is morphological, rather than syntactic.

³²Assuming that Agree applies only downward and that the features on a given head are extrinsically ordered:

- (i) NESTED AGREE (Amato 2024: p. 9):

Let F_1 and F_2 be two ordered probes on the same head H . The search space of F_1 is the c-command domain of H .

(i) *Maximise*: if the Agree operation A_1 for the feature F_1 has targeted the goal G , then the subsequent Agree operation A_2 for the feature F_2 must also target G .

(ii) *No-backtracking*: If G is not a goal for F_2 , the search space of F_2 is the c-command domain of G (not of H).

³³One may have reservations about the non-traditional assumption that [uInfl:perf] is a *valued* probe searching downward for a matching attribute that lacks a value.

- a. /HAVE/ $\leftrightarrow v_{\text{Aux}}[\text{Pers}:\alpha]$
- b. /BE/ $\leftrightarrow v_{\text{Aux}}$ elsewhere (Amato 2024: p. 9)

This analysis extends to indirect reflexives, which Amato (2023: 65–69) assumes are DPs with an unvalued person feature merged in the specifier of ApplP – a projection situated between vP and VP. Being a closer goal than the IA, the reflexive clitic is probed by v , but no value is obtained given that the reflexive has not been bound by the EA at this stage. Amato (2023: p. 67) suggests that “[t]he person probe [on v] targets this DP and is satisfied; however, valuation does not succeed”, but it remains unclear why Agree is considered satisfied in this case and why the probe does not continue searching its c-command domain for a value (which it would ultimately find on the IA). Traditionally, Agree is understood as the copying of a value from the goal onto the probe (Béjar 2003, Deal 2023); in other terms, without valuation, there is no Agree, and match is not sufficient on its own (Deal 2015). If no goal is available, or if the goal has an attribute that lacks a value, Agree cannot take place, and the probe should remain active (Bejar & Kahnemuyipour 2023). The next step involves merging of the EA in Spec,vP and binding of the reflexive, which Amato (2024: p. 15) argues is too late to change the result of Agree on v .³⁴ The result of this configuration leads to v_{Aux} being unspecified for person, leading to (48b).

Aside from the aforementioned challenge, Amato (2024) implements this approach in the context of AS. The only additional assumption required is the presence of a v_{Rest} (i.e., our v_{MOD}), which spells out the restructuring verb and bears the following featural makeup: [Infl:___], [uInfl:non-fin], and [uPers:___].³⁵ In this system – illustrated in (49) – non-reflexive, transitive v first probes the IA’s person feature. Its [Infl:___] feature is subsequently probed by [uInfl:non-fin] on v_{Rest} , yielding infinitival morphology on the lexical verb. Through Nested Agree, this configuration also allows [uPers:___] on v_{Rest} to be valued in copying the person value as it appears on v . Similarly, [Infl:___] on v_{Rest} is probed and valued by [uInfl:perf] on v_{Aux} , resulting in past participle morphology on the restructuring verb. Once again, Nested Agree facilitates the copying of the IA’s person feature from v_{Rest} onto v_{Aux} – α is therefore subsequently copied on v , v_{Rest} , and v_{Aux} . According to the insertion rules given in (48), HAVE surfaces if person-Agree on v_{Aux} is successful.

$$(49) \quad v_{\text{Aux}} [\text{uInfl:perf}][\text{uPers:___}] \dots v_{\text{Rest}} [\text{Infl:___}] [\text{uInfl:non-fin}] [\text{uPers:___}] \dots \text{EA } v [\text{Infl:___}][\text{uPers:___}] \dots \text{IA}_{[\alpha]}$$

Turning to unaccusatives (50), she assumes that v lacks person features and therefore does not probe the IA. As a result, person Agree fails on v_{Rest} , and subsequently on v_{Aux} , ultimately yielding BE. Given that the IA is in the c-command domain of v_{Rest} , Amato (2024) argues that unaccusative v is a phase head, thereby explaining why v_{Rest} cannot probe the IA for its person feature.³⁶

³⁴In this system, binding is modelled through Agree: the EA is a valued probe [uPers: β] that Agrees downward with the reflexive, an unvalued goal [Pers:___] – cf. footnote 33 of the present article.

³⁵The hypothesis that a head is merged with both [Infl:___] and [uInfl:non-fin] simultaneously should lead to an unwanted effect of the probe valuing itself.

³⁶Since the IA ultimately moves to Spec,TP (e.g., *Gianni è/ha voluto partire*, ‘Gianni wanted to leave’), it should first pass through the edge of vP. We must therefore assume that the IA is not accessible to v_{Rest} because of Nested Agree; although the IA is technically c-commanded by v_{Rest} , it is not in its search space anymore (cf. footnote 32).

(50) $V_{Aux} [uInfl:perf][uPers:_]\ \dots\ V_{Rest} [Infl:_] [uInfl:non-fin] [uPers:_] \dots V[Infl:_] \dots IA_{[\alpha]}$

To account for the optionality of AS in Standard Italian, Amato (2024) proposes that the size of the complement of v_{Rest} may vary between vP and TP. In the latter case, the EA is the closest goal for v_{Rest} since its features are copied onto T, allowing v_{Rest} to always get a value; as a result, HAVE consistently surfaces. It therefore follows that only a vP complement can give rise to AS.

Moving on to the relationship between AS and clitic climbing, Amato’s (2024) analysis suggests that both phenomena depend on the size of the embedded clause. With a vP complement, the auxiliary matches the selection of the infinitive (i.e., AS, as shown above), and the clitic consistently climbs. In contrast, with a TP complement, the auxiliary necessarily spells out as HAVE (as explained above), and the clitic adjoins to the embedded T. This analysis thus straightforwardly captures the correlation between AS and clitic climbing of reflexives. However, since some speakers permit the climbing of locative clitics without AS (cf. section 4), Amato (2024) proposes that the locative clitic *ci* is generated directly in the matrix clause and is therefore not a true case of climbing. This is an interesting proposal, as it highlights that not all clitics should be analysed uniformly, and that locative clitics are ‘special’ in ways that remain to be fully understood. Nonetheless, the claim that locative clitics are base-generated in the matrix clause of restructuring constructions remains difficult to fully substantiate. Moreover, it is not easy to see if it would also be applicable to partitives, and it cannot be applied to datives (cf. examples in sections 3.2.2 and 4).

In conclusion, Amato (2024) provides a compelling framework for addressing the question of auxiliary selection and, to the best of my knowledge, she is the first author to approach AS from a formal perspective. This enterprise is laudable and has significantly deepened our understanding of the phenomenon. In what follows, I examine an alternative proposal on auxiliary selection that appears to offer a more straightforward grounding for analysing AS.

6.2 Auxiliary selection beyond argument structure

In Olivier (2025a) I reject the traditional hypothesis that auxiliary selection is driven by argument structure – or more precisely, by the deficiency of the lower domain. The main motivation for this stems from the observation that indirect reflexive verbs select an EA and check accusative Case with an IA *in situ*, indicating they are not deficient domains, yet they select BE, like unaccusatives. I argue instead that the two sentences in (51) have a similar structure, assuming that the reflexive clitic is ‘verbal’ and first-merged on a v-head (Folli 2002, Cuervo 2003, Folli & Harley 2005, Basilico 2010, Armstrong 2013, Jiménez-Fernández & Tubino 2019, García-Pardo 2021).

- (51) a. Tu t’es rincé les cheveux à l’eau froide?
you REFL=be-PRS.2SG rinse-PTCP the hair at the=water cold
‘Did you rinse your hair with cold water (yourself)?’
b. T’as rincé tes cheveux à l’eau froide?
you=have-PRS.2SG rinse-PTCP your hair at the=water cold
‘Did you rinse your hair with cold water?’ (Modern French)

Clearly, the Voice-domain is not deficient in either (51a) or (51b), since it introduces an EA and licenses accusative Case in both cases, yet an alternation between BE and HAVE obtains depending on whether or not a reflexive clitic is present. It therefore follows that what triggers BE is not the putative deficiency of *v*/Voice.³⁷

In what follows, I review, adopt, and build on the analysis of auxiliary selection proposed in Olivier (2025a). I will subsequently apply it to AS in section 7.

6.2.1 The relevance of index

While my analysis of auxiliary selection is focused on the valuation of person features and follows the aforementioned literature, it demonstrates that the person value itself is not enough to capture the phenomenon. Consider the two sentences in (52), where *v*_{Aux} probes a clitic and obtains the person value [*u*Pers:3] in both cases.³⁸ Once again, the auxiliary alternates between BE and HAVE, therefore the person value itself is not sufficient to account for auxiliary selection.³⁹

- (52) a. Jean *s'est* regardé dans le miroir.
 Jean REFL=be-PRS.3SG look-PTCP in the mirror
 ‘Jean looked at himself in the mirror.’
 b. Jean *l’a* regardé dans le miroir.
 Jean him=have-PRS.3SG look-PTCP in the mirror
 ‘Jean looked at him in the mirror.’ (Modern French)

To circumvent this issue, I argue that auxiliary selection is parametrised on the *identity* of the person value probed on *v*_{Aux}. The concept of identity is illustrated in (53), where all instances of *the men* and *themselves/their selves* bear the exact same ϕ -features, namely [3, masc, pl]. What is relevant, here, is that the two DPs form a coindexed chain in (53a), and so does binding of the reflexive pronoun in (53b) – in each case, coreference obtains since the two DPs are mapped to the same individual. In (53c) however, despite being specified with the same ϕ -set, the two instances of *the men* are semantically independent and therefore do not share the same identity – identity is represented through indexation (*i, k*). I add (53d), which is not discussed in the original proposal but will be relevant in section 6.2.3, where the subject and the object are semantically distinct. This is clearer when the noun is modified as in *their past selves*, as the men and their past selves do not denote the same individuals in the same temporal or conceptual sense: the former refers to the men as they are now, while

³⁷Reflexive *v* very clearly acts as a ϕ -probe since it exhibits morphological agreement when its IA occurs in the same phase at Spell-Out (cf. D’Alessandro & Roberts 2008):

- (i) *Les robes* que je me *suis* achetées.
 the dresses that I REFL= be-PRS.1SG buy-PTCP-FEM.PL
 ‘The dresses that I bought myself.’

³⁸In this model, and contrary to Amato (2023) (see footnote 33), formal features are understood as [Attribute:Value] pairs. Probes are unvalued attributes [*u*Att:___], and Agree scans the c-command domain of the probe to copy the value of a goal [Att:Val]. The result is a valued probe [*u*Att:Val].

³⁹Italian can use the object DP *se stesso* to mark reflexivity, in which case HAVE obtains. This is discussed in section 6.2.3, where I show that it is expected under this analysis.

the latter refers to earlier temporal stages of those same individuals. Since they are mapped to different individuals, it follows that they obtain different indexes.⁴⁰

- (53) a. [The men]_i left [~~the men~~]_i
 b. [The men]_i admired [themselves]_i
 c. [The men]_i admired [the men]_k
 d. [The men]_i admired [their selves]_k (Olivier 2025a: p. 16; except (53d))

Crucially, BE obtains in the contexts comparable to (53a) and (53b), whereas HAVE is found in (53c) and (53d), which suggests that understanding auxiliary selection requires a closer examination of value identity rather than a sole focus on argument structure.

Chomsky (2000) initially examined *feature* identity, which was later refined as feature non-distinctness (Chomsky 2004). However, this notion of identity or non-distinctness is purely ‘mechanical’ and differs from the kind of identity under analysis here – namely, *value* identity. In the formal literature, Agree is standardly understood as involving a probe with an unvalued attribute [uatt:–] scanning its c-command domain to copy the value of a goal that bears [att:val], resulting in a valued probe [uatt:val]. But what exactly is being copied? What constitutes a value? While grammatical person (e.g., [1], [2], [3]) provides the structural content of a value, identity also plays a crucial role. When one uses *he*, one does not merely mean [3, masc, sg]; one also means “the individual currently under discussion” since pronouns are referential. Thus, a person value is associated with an identity. There is a difference between *he* (*Jack*) and *he* (*Paul*): their person values can be described as [3]_i and [3]_k, respectively – where _i is coreferent with the real life entity Jack and _k with the real life entity Paul. I formalise this in the following lines.

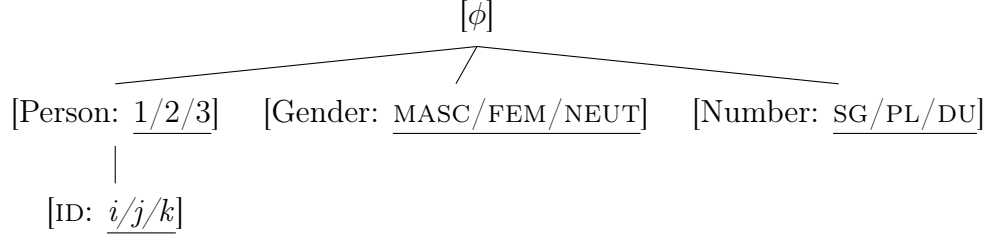
The option I explore in Olivier (2025a) is that the reflexive clitic is merged with a person feature bearing a default value (Kayne 1993, 2003, D’Alessandro 2007) and relies on binding to obtain its identity. In this vein, D’Alessandro (2007: 160–161) argues that the impersonal *si* in Italian is merged with a valued person but, unlike personal pronouns, carries an unvalued *arb*-feature and therefore lacks identity (this idea was first put forth by Cinque 1988). In simple terms, *arb* is a specification associated with a valued person feature – this is inspired from Harley & Ritter’s (2002) feature hierarchy. I extend and adapt this proposal to the reflexive, though the label *arb* may not be appropriate here, since the semantic interpretation of a reflexive clitic is not arbitrary.⁴¹ Given that the relevant notions are identity and indexation, I will refer to this feature as the ID-feature, which is tied to a valued person feature. The existence of the ID-feature is adopted in several analyses on binding, see notably Adger & Ramchand (2005: p. 173), who argue that ID is necessary since pronouns are “always referentially dependent”, as well as Wurmbrand & Shimamura (2017: fn13), Arregi & Hanink (2018), and Raynaud (2022: 51–56), among others. It follows that non-reflexive pronouns bear a valued person feature associated with a valued ID-feature, whereas reflexive pronouns are defective in that their valued person feature is linked to an

⁴⁰As pointed out by a reviewer, *themselves* is a non-standard alternate to *themselves* in some varieties of English, in which case they have the exact same features. The *their* (*past/ideal/authentic*) *selves* I am referring to in (53d) is different from the non-standard reflexive form *themselves*.

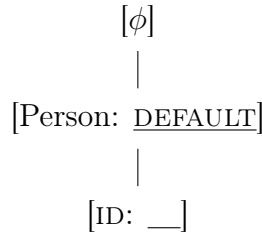
⁴¹We may think of *arb* as a potential value of ID – see footnote 53 on the idea that impersonal clitics bear [ID:*arb*] as a specification of [Person:DEFAULT].

unvalued ID-feature available for binding. These assumptions are illustrated in (54), with potential values given as illustrations (e.g., French and Italian have neither neutral gender nor dual number; the letters *i/j/k* stand for potential referential indexes).⁴²

(54) a. Non-reflexive pronouns/DPs



b. Reflexive clitics



Much of the recent formal literature takes binding to be the reflex of Agree (Rezac 2004, Kratzer 2009, Reuland 2011, Schäfer 2017, Raynaud 2022), which I adopt here as well. Assuming that the reflexive clitic is merged on *v* with the ϕ -set defined in (54b), subsequent (V-to-)*v*-to-Voice movement raises it to Voice*. The EA merges in Spec, Voice*P with a fully specified ϕ -set (54a), and ID is mediated through Voice*, which values the corresponding feature on the reflexive, possibly because of the Spec-Head relation. As a result, the EA and the clitic come to share the same identity (this is binding). In turn, valuing the ID-feature ‘updates’ the default on person to 1/2/3.

To summarise the argument, *Jean* binds the clitic *se* in (52a), therefore the two elements share the same ID-feature. In (52b) however, *Jean* and the clitic *le* are not coindexed (unlike *se*, *le* is merged with a valued ID-feature). In other words, the person/identity value copied onto T by the EA and the one copied onto v_{Aux} by the clitic (assuming v_{Aux} probes the clitic) are strictly identical in (52a) but not in (52b) (this is also true in (51)). According to this analysis, the core determinant of auxiliary selection lies in whether the person/identity values on T and v_{Aux} are identical.⁴³ This reasoning is applied below to demonstrate its correct predictions with regards to auxiliary selection.

⁴²The structure of pronouns given in (54) is compatible with the analysis put forward by Harley & Ritter (2002). The only crucial point for us is that ID is a ‘subfeature’ of person.

⁴³Although they do not focus on auxiliary selection, see also Bryant et al. (2023) for an analysis where index features are shared between functional heads.

6.2.2 Derivations

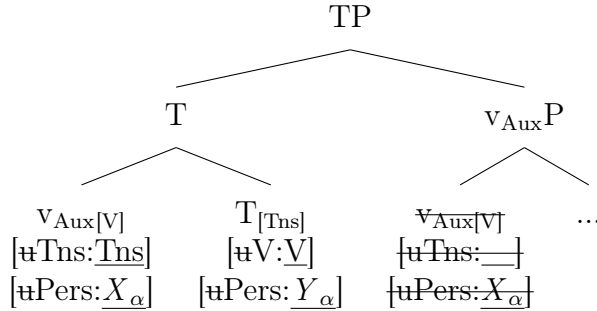
Assuming that v_{Aux} moves to T for the auxiliary to pick up relevant TAM inflections and subject agreement, I propose in Olivier (2025a) that BE obtains when the two subheads of the newly formed $[v_{\text{Aux}} + \text{T}]$ complex have a matching person/identity value, along the rules given in (55) where X/Y stand for potential person-values (which may be identical, as shown in (52), but nothing hinges on that) and α/β stand for potential ID-features. Identical ID-features obtain with reflexive verbs, as shown above, and with unaccusatives (assuming that the IA is successively probed by v_{Aux} and T, see below).

(55) Where v_{Aux} incorporates with T:

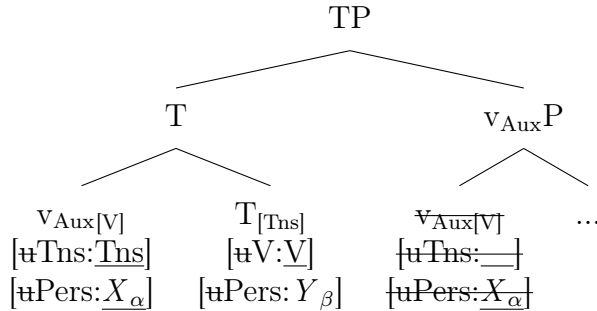
- a. $v_{\text{Aux}}[\text{Pers: } X \text{ [ID: } \alpha]] - \text{T}[\text{Pers: } Y \text{ [ID: } \alpha]] \rightarrow \text{insert BE}$
- b. $v_{\text{Aux}}[\text{Pers: } X \text{ [ID: } \alpha]] - \text{T}[\text{Pers: } Y \text{ [ID: } \beta]] \rightarrow \text{insert HAVE}$

Unlike the vocabulary items of (48), the elsewhere auxiliary here is HAVE. This assumption is further confirmed by the fact that HAVE is acquired earlier than BE and serves as the default in the acquisition of French (Heinen & Kadow 1990: p. 65, van Hout, Randall & Weissenborn 1993, Randall et al. 2004).⁴⁴ The model is illustrated in (56): whether BE or HAVE is inserted into the terminal $[v_{\text{Aux}} + \text{T}]$ is independent from the structure. The rule (55a) is shown in (56a), and (55b) in (56b) – I will draw on this model in my analysis of AS in section 7.

(56) a. BE-insertion



b. HAVE-insertion



Building on D'Alessandro (2017), I propose that the syntax of compound tenses involves a structural frame derived through head-splitting Olivier 2025a: p. 14. Consider that Voice*

⁴⁴I am indebted to Tommaso Sgrizzi for directing me to the literature on language acquisition.

is merged with a full set of unvalued ϕ -features and introduces the EA (unless it is non-agentive/unaccusative). The process of splitting it redistributes its ϕ -features across two subheads, as shown in (57) – there is no reason to assume that v_{Aux} has a specifier.⁴⁵

(57) Splitting: $\text{Voice}_{[\text{uV}, \text{u}\phi]} \rightarrow v_{\text{Aux}}[\text{V}, \text{uPers}] + \text{Voice}_{\text{Prt}}[\text{uV}, \text{uGen}, \text{uNum}]$

Voice knows that it must be split because compound tenses can be analysed as a single unit with two exponents: the upper part is purely functional and responsible for perfect or aspectual meaning (embodied by the auxiliary), whereas the lower part selects for V (the past participle).⁴⁶ It follows that the auxiliary and the participle should be treated as components of a complex element – indeed, a COMPLEX HEAD.⁴⁷

Since the auxiliary is the Spell-Out of an upper *verbal* functional projection, it must carry an inherent V-feature (as already shown in (56)). In turn, the lower part of the complex spells out past participle morphology and attracts lexical V. Following standard assumptions, $\text{Voice}_{\text{Prt}}$ is merged with an unvalued V-feature. Splitting the head results from the need to separate these functions structurally, which is further motivated by the need for this unit to simultaneously be verbal (i.e., be an auxiliary with a V-feature that subsequently targets T) and host a V-element (the past participle). Put differently, Voice cannot simultaneously carry a lexical V-feature and an unvalued formal V-feature, so it splits.⁴⁸ As mentioned in the introduction of section 6, gender and number features are hosted on the past participle and determine morphological agreement (D’Alessandro & Roberts 2008, Kobayashi 2022), while person features are carried by the auxiliary head and govern auxiliary selection along the rules given in (55).⁴⁹

Let us illustrate how splitting Voice works. Following standard assumptions, consider that it is merged with an unvalued V-feature and unvalued ϕ -features, and when it is agentive it subsequently introduces an EA (58a). To value its features, it attracts the verb and probes the IA (58b). In order to form a compound tense involving two terminals (i.e., the auxiliary and the participle), Voice undergoes splitting (57), resulting in the redistribution of its now-valued ϕ -features across $\text{Voice}_{\text{Prt}}$ and v_{Aux} (58c) (cf. footnote 45).⁵⁰ The EA is subsequently

⁴⁵Since the ϕ -features valued by Voice are scattered on the two subheads, they form a COMPLEX HEAD.

(i) COMPLEX HEAD: Given two heads F_1 and F_2 , where F_1 immediately dominates F_2 , F_1 and F_2 constitute a complex head if they share their ϕ -features. (D’Alessandro 2017: p. 22)

⁴⁶A reviewer correctly points out that the auxiliary and the participle are not necessarily adjacent (e.g., *Gianni si è sempre voluto lavare i capelli da solo* ‘Gianni *si* has always wanted to wash his hair by himself’). This, however, is a purely surface-level issue. Once Voice is split, the auxiliary and the past participle are necessarily adjacent; the auxiliary then moves to T to pick up inflection, as shown in (56).

⁴⁷One could potentially argue instead that the auxiliary and the participle heads are both merged above Voice. This would have the undesirable effect of V-movement out of VoiceP, which does not occur with French participles (Pollock 1989). Assuming that the adverb *bien* ‘well’ delimits the Voice-domain, Cinque (1999) and Schifano (2018) convincingly demonstrate that French participles stay low.

⁴⁸This assumption solves the theoretical challenge raised in footnote 35.

⁴⁹The presence of gender and number features on past participle is not contested in the literature, and the presence of a person feature on the auxiliary has been widely adopted in recent formal work (see works cited in the introduction of section 6).

⁵⁰Since it is not a probe and only inherits a valued person-feature, v_{Aux} does not Agree with the EA (cf. discussion in section 5).

probed by T and moves to its specifier to satisfy the EPP. Meanwhile, T probes the V-feature on v_{Aux} , triggering incorporation, as shown in (56).⁵¹

- (58) a. $[Voice^*P \text{ EA } Voice^*_{[uV, u\phi]} [v/VP \text{ V } IA_{[\phi]}]]$
 b. $[Voice^*P \text{ EA } V+v+Voice^*_{[\#V, \# \phi]} [v/VP \text{ } \forall IA_{[\phi]}]]$
 c. $[v_{Aux}P \text{ } v_{Aux}[V, \#Pers] [Voice^*_{Prt}P \text{ EA } V+v+Voice^*_{Prt[\#V, \#Gen, \#Num]} [v/VP \text{ } \forall IA_{[\phi]}]]]]$

Bringing together the insertion rules in (55) and the derivation in (58), the proposal is schematically applied in (59)-(60) for BE-predicates, and in (61) for HAVE-predicates. For ease of presentation, I omit v_{Aux} -to-T incorporation from the structural representations. I also do not represent gender and number features on $Voice_{Prt}$, which I assume are present and probe the IA (I also omit gender and number features on T).⁵²

Assuming that non-agentive/unaccusative Voice is partially defective (functioning as a ϕ -probe that cannot check Case), V-(to-v-)to-Voice occurs and Voice probes the IA, as shown in (59). Splitting of the now-valued Voice-head yields the syntactic configuration $[v_{Aux}[\#Pers] + Voice_{Prt[\#Gen, \#Num]}]$, with v_{Aux} inheriting the IA's person value – this follows from the definition of COMPLEX HEAD adopted here (cf. footnote 45). Since Case remains unchecked, the IA is still active for further probing. Upon merging of TP, v_{Aux} raises to T, and the IA moves to Spec,TP, thereby valuing T's ϕ -features and satisfying the EPP. This results in both T and v_{Aux} sharing the same person/identity value, giving rise to BE-insertion along the insertion rules given in (55) (it follows that functional heads that act as ϕ -probes also track identity, cf. Bryant et al. 2023).

- (59) $[TP \text{ } IA_i \text{ T}_{[\#Pers:\pi_i]} [v_{Aux}P \text{ } v_{Aux}[\#Pers:\pi_i] [Voice_{Prt}P \text{ } V+v+Voice_{Prt} [v/VP \text{ } \forall IA_i]]]]$

With reflexive predicates (60), the reflexive clitic merges on v with a default person-feature but with an unvalued ID-feature, as discussed above (on the claim that the reflexive is verbal, see Cuervo 2003, Folli & Harley 2005, Basilico 2010).⁵³ V-(to-v-to-)Voice brings the reflexive onto the higher head, which mediates binding between the EA in its specifier

⁵¹This mechanism also straightforwardly accounts for clitic climbing to the auxiliary in compound tenses when the IA is a clitic: its features are transferred to the highest subhead, in line with the analysis in section 5.

⁵²Gender and number features on unaccusative $Voice_{Prt}$ are morphophonologically realised when the IA is in the same Spell-Out domain as $Voice_{Prt}$ (D'Alessandro & Roberts 2008, Kobayashi 2022).

⁵³The same analysis can be implemented to explain why impersonal *si/se* clitics pattern with BE in Italian and French. While it is not the focus of the present article, I can offer some thoughts on it. Impersonal clitics can be analysed as the Spell-Out of an impersonal Voice-head, which is characterised by the absorption of the external θ -role and bears a default person feature with an *arb*-identity (Cinque 1988, D'Alessandro 2007). From there, there are two possible options to ensure that T and v_{Aux} obtain matching features: either they both probe *si/se*, or they both probe the IA. Empirical evidence suggests that both options exist. In (i), default third person and default singular agreement on the auxiliary indicates that T does not enter into a Probe-Goal relation with the IA, and instead values its features with the impersonal clitic. This is evidenced by the fact that the IA bears plural in (i.a), and it is understood as plural in (i.b), yet the auxiliary is a singular form. Given that BE is inserted, v_{Aux} must have inherited the person feature of the clitic, ensuring identity matching with T.

- (i) a. *Si è mangiato gli spaghetti.*
 IMP= be-PRS.3SG eat-PTCP the spaghetti
 'People have eaten the spaghetti.' (Amato 2023: p. 80)

and the reflexive, as discussed in section 6.2.1 with the structure in (54b). Thus, the person feature on Voice* is valued by the now bound reflexive (following Roberts 2010, I take the morphological realisation of the person feature on Voice to be the reflexive, therefore the person and index of the reflexive are necessarily that of Voice too). Subsequent splitting of Voice* distributes its valued person feature onto v_{Aux} , as assumed so far, except that this time it is embodied by a reflexive clitic. Movement of the EA to Spec,TP values T's ϕ -features, followed by v_{Aux} -to-T incorporation, and yields the same configuration as in the unaccusative case, with both heads bearing matching person and associated ID-(sub)feature, hence BE.⁵⁴

$$(60) \quad \left[{}_{TP} \begin{array}{c} EA_k \\ IA_i \end{array} T_{[uPers:\pi_k]} \left[{}_{v_{Aux}P} \begin{array}{c} se_k + v_{Aux} \\ \end{array} \left[{}_{[uPers:\pi_k]} \begin{array}{c} [Voice^*_{Prt}P \quad EA_k \quad se + V + v + Voice^*_{Prt} \quad [v/VP \quad V \end{array} \right] \right] \right]$$

-
- b. *Si è arrivati ieri.*
 IMP= be-PRS.3SG arrive-PTCP-PL yesterday
 ‘People have arrived yesterday.’ (Amato 2023: p. 81)

In (ii), however, plural agreement on the auxiliary clearly indicates that T probes the IA in both cases, whether or not it occupies Spec,TP. Unlike in (i.a), the ϕ -features of the IA are distributed across both the past participle (cf. agreement) and v_{Aux} . This suggests that Voice transferred the IA's complete ϕ -set to the COMPLEX HEAD through SHARE, while *si* remains present but syntactically transparent for person-identity tracking purposes. Since T also probes the IA (either *in situ* or after movement to Spec,TP), both T and v_{Aux} obtain matching person/identity features from the same source, yielding BE-insertion.

- (ii) a. *Si sono mangiati gli spaghetti.*
 IMP= be-PRS.3PL eat-PTCP-PL the spaghetti
 ‘People have eaten the spaghetti.’ (Amato 2023: p. 80)
- b. *Gli spaghetti si sono mangiati tutti.*
 the spaghetti IMP= be-PRS.3PL eat-PTCP-PL all
 ‘People have eaten all the spaghetti.’ (Amato 2023: p. 81)

The contrast between (i) and (ii) reveals that when T probes *si*, both T and v_{Aux} bear the clitic's *arb*-feature, yielding identity matching. When T probes the IA, both heads track the IA's ID-features, again yielding identity matching. In both cases, BE obtains. I hope to refine this in future work.

⁵⁴An anonymous reviewer reminds me of the following construction, which is relevant since according to the analysis laid out in this paper, we expect past participles to never show morphological agreement with the EA. It is clear that v_{Aux} and T do not obtain matching features in this configuration.

- (i) *Maria si è mangiata il gelato.*
 Maria REFL= be-PRS.3SG eat-PTCP-F the ice cream
 ‘Maria ate up the ice cream.’

This example, however, shows a resultative clause. The issue of agreement in this environment has been discussed by Folli & Harley (2005), who convincingly demonstrate that *mangiata* in this context is an adjectival participle indicating an end state (here, the end state of ‘the ice cream being eaten’, which English marks as completed using the particle ‘up’). Since it is merged as an adjectival participle rather than a perfect participle, it consistently agrees with the subject. Further evidence that this argument structure differs from those analysed elsewhere in the paper is that the EA is a Cause, not an Agent (as further demonstrated in the contrast *Maria si è letta il libro (*da stamattina)*, ‘Maria has read the book (since this morning)’, where Maria is the causer of a result, vs. *Maria ha letto il libro (da stamattina)*, ‘Maria has been reading the book (since this morning)’, where Maria is agentive). Although it is an interesting construction, it does not pose a problem for my analysis, as it does not constitute a true compound tense.

Now consider non-reflexive transitive predicates. Whether the IA is a DP *in situ* (61a) or a clitic (61b), it is probed by Voice* as described above. In the case of clitics, their features are morphophonologically realised on the highest head, as previously explained. In both configurations, v_{Aux} acquires the person/ID features of the IA, while T probes the EA. This results in a configuration in which v_{Aux} and T bear mismatched ID-features, giving rise to HAVE-insertion.

- (61) a. $[TP \text{ EA}_k \text{ T}_{[\text{tpers}:\pi_k]} [v_{AuxP} \text{ v}_{Aux} [\text{tpers}:\pi_i] [\text{Voice}^*_{PrtP} \text{ EA}_k \text{ V} + v + \text{Voice}^*_{Prt} [v/VP \text{ V} \text{ IA}_i]]]]$
 b. $[TP \text{ EA}_k \text{ T}_{[\text{tpers}:\pi_k]} [v_{AuxP} \text{ cl}_i + v_{Aux} [\text{tpers}:\pi_i] [\text{Voice}^*_{PrtP} \text{ EA}_k \text{ V} + v + \text{Voice}^*_{Prt} [v/VP \text{ V} \text{ IA}_i]]]]$

This model has the advantage of offering a unified structural account for all types of predicates (unaccusative, transitive, reflexive) and hypothesises that auxiliary selection relies on a single mechanism (ID-feature (mis)matching). It demonstrates that auxiliary selection hinges on feature relationships and on argument tracking, and that it goes beyond argument structure alone. In section 7, I extend this model to the analysis of AS, showing that a key advantage of this approach is its ability to explain why prepositional clitics do not readily participate in AS: unlike reflexive clitics, they lack matching ID-features. Before doing so, I provide supporting empirical evidence from Italian and French.

6.2.3 Further evidence for the influence of identity

An anonymous reviewer provides the Italian sentences and the free translation in (62). If, in (62b), the person and ID-features of *se stessa* are strictly identical to that of *Maria*, then the analysis we are adopting predicts that v_{Aux} and T will receive matching values, and that BE will be inserted. Yet instead, we find HAVE. In other words, for the proposal to hold, *Maria* and *si* in (62a) must share the same ID value, whereas *Maria* and *se stessa* in (62b) must not. These data pose a challenge if we assume *si* and *se stessa* are two strategies for expressing reflexivity.

- (62) a. *Maria si è osservata nello specchio.*
 Maria REFL= be-PRS.3SG observe-PTCP-F in=the mirror
 ‘Maria observed herself in the mirror’
 b. *Maria ha osservato se stessa nello specchio.*
 Maria have-PRS.3SG observe-PTCP REFL= self in=the mirror
 ‘Maria observed herself in the mirror’ (Standard Italian)

In fact, there is thorough evidence that *si* and *se stessa* are not in complementary distribution and must be analysed as different elements. Consider (63), which illustrates one of the many verbs that can take *si* but cannot be used transitively with *se stessa*. Specifically, while (62a) and (63a) are intransitive sentences (which is expected under the analysis adopted here, according to which the reflexive clitic is not merged in an argument position), (62b) is transitive. As such, *se stessa* is a true complement, whereas *si* is not.⁵⁵

⁵⁵In support of this analysis, a reviewer adds that *se stessa* can be substituted by a personal pronoun in (62b) (*Maria ha osservato lei nello specchio* ‘Maria has observed her in the mirror’), giving rise to an Accidental Coreference context. The same does not apply to (62a).

- (63) a. Maria *si* è arrabbiata.
 Maria REFL= be-PRS.3SG become.angry-PTCP-F
 ‘Maria got angry.’
 b. *Maria *ha* arrabbiato *se stessa*.
 Maria have-PRS.3SG become.angry-PTCP REFL= self
 ‘Maria got angry.’ (Cocchi 2022)

Consultations with four native speakers of Italian further confirm that the two sentences in (62) are not strictly identical. Sentence (62a) exhibits the unmarked reflexive reading, whereas my informants all indicate that (62b) conveys a different nuance, with greater emphasis on the ‘observation of X’. In other words, (62b) highlights the presence of a Theme, which is expected if the clause is transitive. The fact that the two sentences differ in meaning is crucial, as this distinction follows from both differences in argument structure and differences in ID-feature between *si* and *se stessa*. The two sentences correspond to the English translations in (64a) and (64b), respectively.

- (64) a. [Mary]_i observed [herself]_i in the mirror. [reflexive reading: *si*]
 b. [Mary]_i observed [her self]_k in the mirror. [existential reading: *se stessa*]

In (64b) Mary is looking at her reflection. Mary and her reflection (or *herself* and *her self*) are not the same semantic object and, therefore, do not share the same ID-feature. As already discussed in (53), this distinction becomes more transparent with plural agreement, *themselves* vs. *their selves*, or when the object is modified, as in *her past self* / *se stessa nel passato* (in which case it is clearly semantically different from the EA). The true reflexive *herself*/*si* cannot convey such meaning. The natural conclusion is that *si* and *se stessa* bear different ID-values, a contrast that correctly predicts BE in (62a) and HAVE in (62b).

Further support for the idea that auxiliary selection in systems like Italian and French is sensitive to the ID-feature comes from (65), a French example.⁵⁶ We would *a priori* expect BE in this syntactic configuration, since *me* is clearly a reflexive clitic (unlike *se stessa*) bound by the EA, although I show directly below that the situation is more nuanced. Although colloquial, the example does not reflect regional variation.

- (65) À sa place [...] je ne *m’aurais* pas foutu dehors.
 in her place I NEG REFL=have-COND.1SG NEG kick-PTCP out
 ‘In her place [...] I wouldn’t have kicked myself out.’ (Sten 1966: p. 324)

To preserve the analysis proposed here, we must assume that *je* and *me* do not share the same ID-feature. In fact, the preamble of sentence (65) anticipates that these pronouns are semantically distinct – as argued by Sten (1966), *je* and *me* are ‘different people’ here. The preamble situates the semantics of ‘I’ in the perspective of ‘her’, therefore it manipulates the identities of ‘I’ and ‘her’ to make them identical. Consider the paraphrasis in (66).⁵⁷ The meaning of lexical *be* is given in (67).

⁵⁶I thank JC Smith for drawing my attention to this example.

⁵⁷Sten (1966: p. 324) proposes the following paraphrasis: *Si j’avais été à sa place j’aurais jeté dehors une personne étant à ma place*, ‘If I had been in her place, I would have thrown out someone who was in my place’.

(66) Si j'étais elle, je ne *m'aurais* pas foutu dehors.
 if I=be-PST.1SG here I NEG REFL=have-COND.1SG NEG kick-PTCP out
 'If I were her, I wouldn't have kicked myself out.'

(67) $\llbracket be \rrbracket = \lambda x. \lambda y. (x = y)$
 $(\lambda x. \lambda y. (x = y))(je)(elle) \Rightarrow je = elle$
 $je_{[\text{ID}:i]} = elle_{[\text{ID}:i]}$

In a conditional sentence, and from a semantic perspective, $je = elle$ becomes true after the preamble, therefore je carries the identity of $elle$ within the clause that follows. What is crucial is that, in this example, it does not pass it on to the reflexive clitic. In fact, although the clitic is syntactically bound, its identity is not assigned by a binder.⁵⁸ The manipulation of person identity renders je and the reflexive clitic me semantically distinct, a contrast that correctly predicts HAVE-insertion.

To conclude, the Italian example in (62) shows that *si* and *se stessa* constitute two distinct strategies to talk about oneself and one's self, and that the latter has an independent person identity. The French example in (65), by contrast, exemplifies a situation in which dissociating identity of the reflexive clitic from that of the EA allows for a different semantic viewpoint. In both cases, this distinction is reflected in auxiliary selection.

7 Auxiliary Switch through person identity matching

7.1 Reflexive clitics activate BE

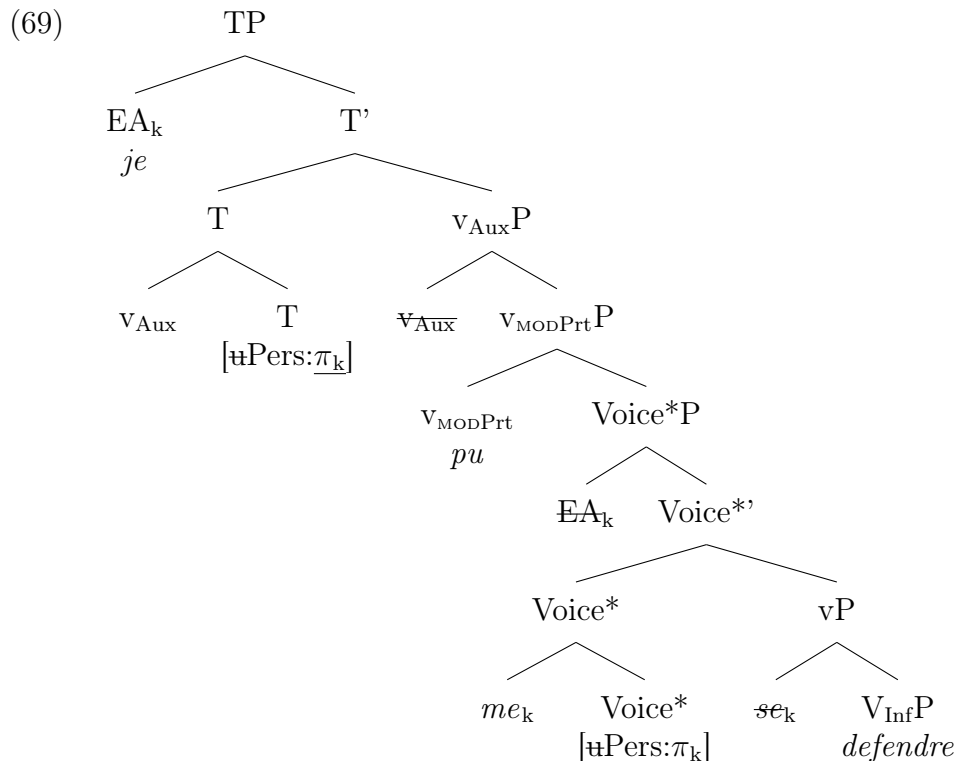
We are now in a position to address why reflexive clitics 'activate' AS in languages like Italian, Sardinian, and (earlier) French. In brief, the structure of restructuring clauses proposed earlier in (40) interacts with the model of auxiliary selection presented in (60). I hypothesise that whether Voice transfers its ϕ -features to the upper domain (i.e., to v_{MOD}) determines the availability of transparency effects such as AS and clitic climbing, which therefore explains why they must either occur together or not occur at all. Let us consider the structure [HAVE v_{MOD} *se* V_{Inf}] first, illustrated in (68) again.

(68) je n'*ay* pu *me* defendre des charmes ...
 I NEG=have-PRS.1SG could-PTCP REFL= defend-INF of=the charms
 'I could not defend myself against the charms...' (1628, *L'Astrée*)

The derivation of this example is given in (69), where I only indicate the relevant features – I simplify the structure with respect to gender and number features, which are irrelevant for auxiliary selection, as well as the verbal and tense features of v_{AUX} and T, which are shown in full in (56); negation is omitted. I take *se* to be merged on v .⁵⁹

⁵⁸The clitic is clearly reflexive: if we replace *je m'aurais* with a third person, we obtain *il s'aurait* in this context. Since reflexive *me* does not obtain the identity of its binder *je*, where does its identity come from? This question, though relevant, may take us too far afield and should be addressed in future work. For now, I assume that it is resolved in the LF-component.

⁵⁹I leave aside the complex issue of the different *se*-clitics that exist in Romance. Note however that if accusative *se* is merged in the complement of the infinitive, it is still probed by Voice. With anticausatives and inchoatives, *se* may be merged on Voice directly.



Following the mechanism described in section 6.2, the reflexive clitic is carried upwards to Voice* where it is bound by the EA, leading the two elements to share coreferential indexes represented with the subscript k – in formal terms, they share the same ID-feature and the reflexive spells out as *me* when its person feature is updated to [1]. Upon the merging of v_{MOD} with its relevant modal semantics, Voice* does not transfer its person feature and the reflexive clitic remains in the lower domain. The production of the compound-frame through splitting v_{MOD} assigns a V-feature to v_{Aux} and yields v_{MODPrt} , as explained above.⁶⁰ Given the fact that feature transfer from Voice* to v_{MOD} did not take place, there is no redistribution of ϕ -features between v_{Aux} and v_{MODPrt} – these two heads are featureless. T probes the EA. Since no matching operates between v_{Aux} and T, this configuration leads to HAVE-insertion in $[v_{\text{Aux}} + \text{T}]$.

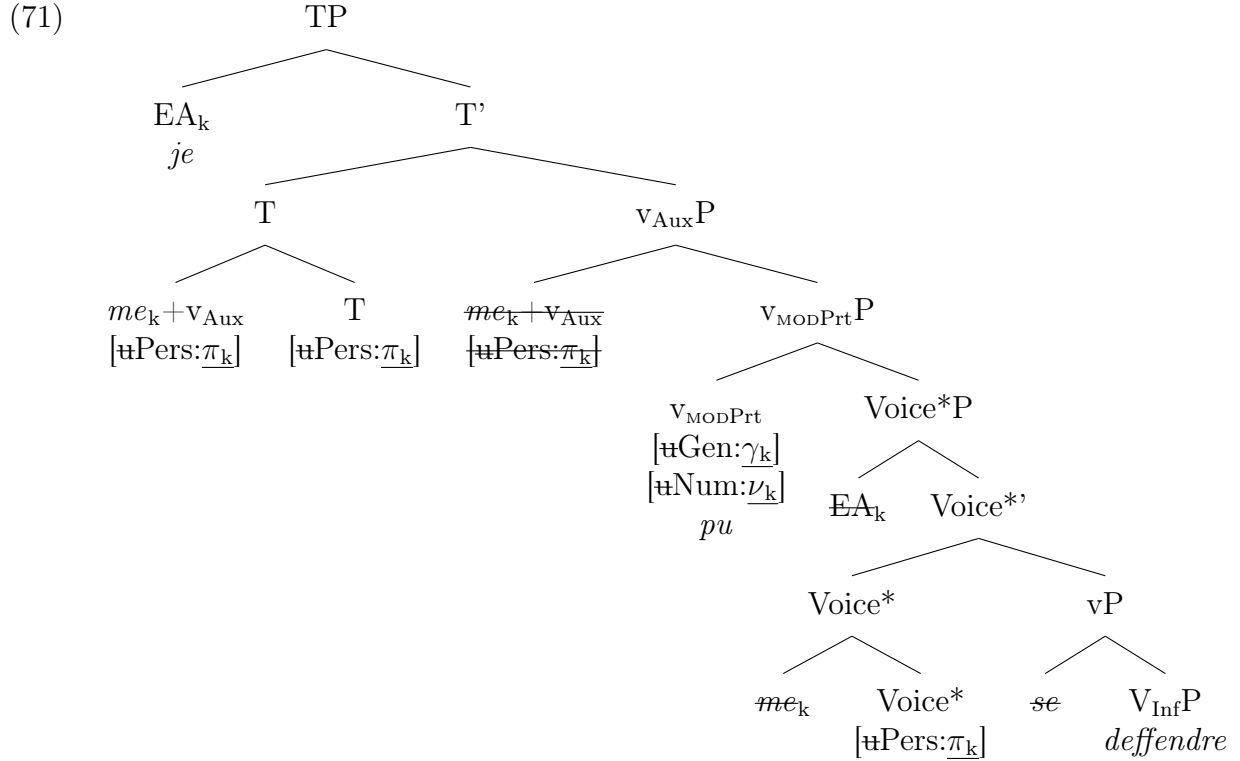
Now consider the structure with AS (70), [*se* BE v_{MOD} V_{Inf}]. Note that the examples (68) and (70) form a minimal pair and were written at the same time. I propose that the only – and crucial – difference between the two constructions is that Voice* transfers its ϕ -features to the upper domain when clitic climbing and AS obtain.

- (70) et duquel je ne *me suis* pu deffendre
and from=which I NEG REFL be-PRS.1SG could-PTCP defend-INF
'and from which I could not defend myself.' (1627, *L'Astrée*)

As schematically represented in (71), the derivation proceeds as explained above, except that Voice* SHARES its ϕ -features with the closest functional head, v_{MOD} , along the lines of

⁶⁰We saw in section 6.2 that the perfect auxiliary and the perfect participle form a COMPLEX HEAD. There is no apparent reason to believe that this should only apply to lexical verbs, since functional verbs (i.e., modals) also form compound past tenses with a perfect auxiliary and a perfect participle.

(45). Unlike in (68), subsequent merging of v_{Aux} through splitting creates a COMPLEX HEAD which redistributes the ϕ -features valued on Voice* and transferred to v_{MOD} : person occurs on v_{Aux} whereas gender and number remain on v_{MODPrt} , where they spell out morphological agreement where relevant.⁶¹ At this point, the EA targets Spec,TP to satisfy the EPP and value T's ϕ -features (the configuration is now analogous to (60)), and $me+v_{Aux}$ incorporate with T. Over the course of the derivation, (i) the EA assigned an index to the reflexive, (ii) Voice* shared the clitic upwards, (iii) v_{Aux} obtained a valued person feature in the form of the clitic, (iv) T valued its person feature by probing the EA, therefore, (v) v_{Aux} and T each obtained the same person/ID values.⁶² As predicted by the analysis I put forward, BE is inserted in $[v_{Aux}+T]$ since the two elements have matching ID-features.⁶³



⁶¹Footnote 60 clarifies that compound tenses are formed through the same mechanism regardless of the nature of the verb. It therefore follows that the frame Auxiliary_[Pers]+Participle_[Gen, Num] applies to lexical and functional verbs alike. The issue of past participle agreement would take us too far afield, the only points I am making are that (i) head splitting involves redistributing ϕ -features across the COMPLEX HEAD as per the definition adopted in footnote 45, and (ii) while person is placed on the auxiliary head, gender and number are placed on the participle head. The latter follows from empirical evidence.

⁶²An anonymous reviewer asks why Voice* cannot simply agree with the clitic and transfer its features to the higher domain, independently of clitic climbing. Indeed, I capitalise on standard Agree to derive AS in section 7.2, where Voice transfers ϕ -features but no clitic is present. The answer lies in my formal assumptions: if the clitic is a morphophonological realisation of Agree on the functional head that probes it (cf. Roberts 2010), then it is indissociable from ϕ -features. I hypothesise that ϕ -bundles in Romance can spell out as clitics when they are associated with Case, and inflectional suffixes when they are not.

⁶³If my analysis is on the right track, then cases where the reflexive clitic climbs to HAVE (22) must reflect dialectal variation. In the grammar of these speakers, the vocabulary entries are not the ones given in (55). The same comment applies to Portuguese, Spanish, Standard Catalan, and Picard, where HAVE is the only auxiliary in compound tenses.

In section 5, I used clitic reduplication to motivate the feature transfer analysis of clitic climbing, assuming it is a cyclical operation that forms a chain. The same holds here. Varieties like Cairese (72), where the clitic spells out on the infinitive, the past participle, and the auxiliary, provide direct, visible evidence in support of the analysis given in (71). Each copy corresponds to a functional head where the clitic leaves a copy: (i) Voice, assuming that infinitives target an InfP above VoiceP in these languages (cf. Kayne 1991, Roberts 2010, Olivier 2025b), (ii) a medial position in the v_{MOD} domain, with the clitic leaning leftwards on the modal at Spell-Out, and (iii) v_{AUX} .⁶⁴

- (72) I *m'aveisi* *pusciume* *gitème*.
 you me=have-PRS could-PTCP=me help-INF=me
 ‘You could have helped me.’ (Cairese, Cardinaletti & Shlonsky 2004: 525, fn. 6)

AS can therefore be analysed as a ‘standard’ case of auxiliary selection, with the key difference that an additional head (the restructuring functional verb) is present. A grammar that can produce both (69) and (71) therefore shows optionality vis à vis the transfer of ϕ -features: while Standard Modern French typically only shows (69), Standard Italian can resort to both (69) and (71) (although see footnote 29), whereas Sardinian only has (71). This analysis also explains why Modern French speakers can still trigger AS (cf. section 3.3), despite possibly not formally acquiring it – while it is hard to substantiate, the primary linguistic data of a Modern French acquirer is unlikely to contain instances of AS, given its rarity in the language. This has significant implications: in fact, the analysis suggests that AS (meaning, *the construction*) is never acquired *per se*. What learners acquire instead is the appropriate syntactic context (i.e., the structural frame involving the relevant functional heads and their featural specifications) along with the appropriate vocabulary insertion rules – assuming that Merge and Agree are built in operations. In the context of Modern French, when speakers produce clitic climbing, they naturally insert BE since the resulting configuration aligns with that of BE-selection elsewhere in the grammar – specifically, (60). The difference between a variety that readily shows AS (e.g., Standard Italian) and one that does not (e.g., Standard Modern French) stems from the availability or lack thereof of ϕ -feature transfer in restructuring clauses.

The proposal unveiled here suggests that Modern French still ‘has’ restructuring, even if it tends to lack transparency effect. An issue therefore arises regarding the nature of restructuring. In my view, restructuring does not exist as an independent phenomenon, and it is meaningless to say that a language *has* or *lacks* restructuring. Rather, the size of the embedded domain varies depending on the nature of the matrix predicate, as already mentioned in section 5 (cf. Wurmbrand 2004), and the availability of transparency effects like AS and clitic climbing in a grammar depends on the availability of SHARE, which brings ϕ -features onto the matrix verb. The latter directly draws from the Borer-Chomsky Conjecture (Borer 1984, Chomsky 1995, Baker 2008), assuming that crosslinguistic variation stems from the featural makeup of functional heads. The analysis I propose is technically applicable to

⁶⁴Consider also evidence from Catalan, although this language forms the perfect with an infinitive:

- (i) *Hi* *vaig* *haver-hi* *de continuar-hi* *anant*.
 LOC= go-PRS.1PL have-INF=LOC to continue-INF=LOC going
 ‘I had to continue going there.’ (Catalan, Bonet 2002: p. 984)

all Romance clauses headed by a modal verb, and to all Romance clauses containing a compound past tense: crosslinguistic variation in auxiliary selection and clitic placement are thus reduced to the availability of formal features on given heads and to variation in the vocabulary insertion rules.

7.2 Unaccusatives

There is no apparent reason to assume a different structure with unaccusative predicates, aside from the fact that Voice does not introduce an EA. It is a defective non-phasal head (since it does not licence Case), but it nonetheless acts as a ϕ -probe, given that gender and number appear on the participle (e.g. *elle est morte*, ‘she died’, see Olivier 2025a: 17–18). The IA therefore subsequently targets the TP-field and assigns a person value to T – these assumptions have already been discussed in section 6.2.

We saw in section 3.2 that AS tends not to occur with unaccusatives in earlier French, despite being available in the grammar. The most straightforward explanation for this is the absence of a ‘trigger’. In the case of reflexive verbs, I showed above that the trigger is clitic climbing, which results in matching person identities between T and v_{Aux} and prompts BE-insertion. For unaccusatives, however, no such trigger is present, and the sentence remains unchanged both structurally and linearly regardless of AS. The only difference occurs in the featural makeup of functional heads and arises when v_{MODPrt} and v_{Aux} inherit ϕ -features from Voice.

In the configuration that yields HAVE (73), the structure is identical to (69), except for the absence of an EA and of a reflexive clitic. The IA is merged in Comp,V and is probed by Voice, where its ϕ -features remain since no transfer takes place (74). Ultimately, it results in a mismatch between T and v_{Aux} , leading the vocabulary rules to insert HAVE.

- (73) Il n’*avait* voulu venir en carrosse
 he NEG=have-PST.3SG want-PTCP come-INF by carriage
 ‘He had not wanted to come by carriage’ (1605, *Histoire particulière de Louis XIII*)

- (74) [TP il_k T_[$\text{u}\pi:\pi_k$] [v_{AuxP} v_{Aux} [$v_{MODPrtP}$ *voulu* [v_{VoiceP} v_{Voice} _[$\text{u}\text{Pers}:\pi_k$]]...]]]]

Turning to unaccusatives showing AS (75), BE obtains because Voice transfers its features to the higher domain (76), therefore v_{MOD} inherits valued ϕ -features that are subsequently redistributed on the COMPLEX HEAD [$v_{Aux}+v_{MODPrt}$]. Since Voice and T both enter in a Probe-Goal relation with the IA at different points of the derivation, we eventually find identity matching between T and v_{Aux} as in (71).⁶⁵ Morphological agreement yields on the past participle: Italian is more transparent in that regard, with the relevant endings *-o* (masculine singular), *-i* (masculine plural), *-a* (feminine singular) and *-e* (feminine plural). In Standard French, only the feminine is overtly realised, and only on participles ending with an obstruent.⁶⁶

⁶⁵The analysis proposed here draws parallels between the Spell-Out of past participle agreement morphology and clitic reduplication: both occur when the ϕ -features of the IA are transferred to v_{MOD} .

⁶⁶The same analysis extends to infinitival clauses, assuming that they include a TP projection capable of probing the subject. All else being equal, and following Sigurðsson (1991) in assuming that PRO bears ϕ -features, infinitival T may behave as a defective probe, bearing only a person feature. In this sense,

- (75) il *fust* voulu venir à une bataille navale
 he be-PST.3SG want-PTCP come-INF to a naval battle
 ‘he had wanted to come to a naval battle’ (1577, *L’Histoire de la décadence de l’Empire grec*)

- (76) [TP *il*_k T_[π : π_k] [_{V_{Aux}P} V_{Aux}[π Pers: π_k]] [_{V_{MOD}PrtP} *voulu*_{[π Gen: γ_k , π Num: ν_k]] [_{VoiceP} Voice_[$\pi\phi$: ϕ_k]]...]]]}

The quantitative data suggest that earlier French speakers tended to avoid feature transfer with unaccusatives and favoured a more local distribution of ϕ -features in this context. At this stage, I do not have a clear explanation for this. As an anonymous reviewer notes, the limited data available for unaccusatives before the early 16th century may be responsible for the observed pattern. Standard Italian is claimed to have optional AS in this context, but no quantitative data are currently available in the literature to support this point.

In conclusion, I treat AS with unaccusatives as syntactically optional (I leave aside the possibility that it is not semantically optional). Where Amato (2024) argues that this optionality arises from the size of the non-finite complement, I propose it stems from the transfer of ϕ -features.

7.3 Prepositional clitics and feature mismatch

We saw in section 3.2.2 that unaccusative verbs can co-occur with clitics that pronominalise a PP, namely locatives, partitives, and datives. It is tempting to analyse these clitics in the same way as accusative clitics, assuming that their placement is governed by ϕ -probing (Roberts 2010: 149–155). However, since prepositional clitics almost never trigger morphological agreement on the past participle, they may lack gender and number features.⁶⁷ Things get more complicated with the locative and the partitive, which *a priori* lack ϕ -features altogether, although some authors like Hu (2024: p. 51) propose that they possess a person feature only.⁶⁸ It is beyond the scope of this paper to work out what motivates the probing of such clitics exactly, so I will simply assume that they value a P(repositional)-feature on v_{Aux} (see Kayne 1994 on the correlation between P and D; I analyse the latter as ϕ).

infinitival T possesses (some) ϕ -features but does not assign nominative case. This situation is parallel to non-agentive Voice, which likewise bears ϕ -features but does not assign accusative case. Another option, explored by Groothuis (2015) in the context of inflected infinitives, is that the locus of ϕ -features is on a different functional head in infinitival clauses. An anonymous reviewer provides the following pair in Italian to illustrate AS with infinitival auxiliaries:

- (i) a. Ho raccontato di *essere* voluta andare a scuola da sola.
 have-PRS.1SG tell-PTCP to be-INF want-PTCP-F go-INF to school as alone
 b. Ho raccontato di *aver* voluto andare a scuola da sola.
 have-PRS.1SG tell-PTCP to have-INF want-PTCP go-INF to school as alone
 ‘I told that I wanted to go to school by myself.’

⁶⁷French dative clitics are never marked for gender, whereas Italian opposes *gli* (3rd person masculine) to *le* (3rd person feminine), which challenges the claim that prepositional clitics lack gender altogether (although *gli* is not marked for either gender and number in colloquial Italian). The same observation applies for number, which is morphologically marked on dative clitics in both French and Italian.

⁶⁸While locatives and partitives appear to lack gender and number features, past participle agreement is not impossible in Italian *ne ho lette due* ‘I have read-(feminine plural) two of them’, and it can be found in non-standard French *j’en ai dites, des conneries* ‘I have said-(feminine plural) some, bullshit’.

What is relevant is that climbing of prepositional clitics can be independent from AS (cf. section 4), an issue I have not addressed yet. If *y* and *en* (and their cognates) have no person feature, then it follows that they cannot introduce a coreferential person value to v_{Aux} . If they do have a person feature however, it is by definition not coreferential with that of the subject probed by T. In either case, the derivation yields a mismatch between v_{Aux} and T, which I have argued gives rise to HAVE – and while non-reflexive dative clitics do have a person feature, it is not coreferential with the subject either. The outcome is that (climbing of) prepositional clitics will never introduce the right conditions for BE-insertion: their features cannot allow it.

But remember that some Italian and Sardinian speakers prefer AS when the *prepositional* clitic climbs. If these clitics are not triggers, then the reason for this should lie in the featural content of v_{Aux} . In fact, my analysis still allows for v_{Aux} to obtain the IA’s person value along the model already given in (76): for the aforementioned speakers, v_{Aux} is either ‘rich’, in that it has both a person-feature (probing the IA) and a P-feature (probing the clitic), or ‘poor’, lacking both. Put differently, either v_{Aux} has all features or it has none. For speakers accepting climbing without AS, however, these two features are not as tightly correlated, and v_{Aux} can have a P-feature without also having a person-feature. This was notably the case of earlier French.

In conclusion, the hypothesis that feature identity (mis)matching drives auxiliary selection straightforwardly applies to restructuring clauses and successfully predicts AS and lack thereof. This account naturally explains the differing behaviour of auxiliary selection with reflexive clitics on the one hand, and prepositional clitics on the other, while also giving a tool to account for crosslinguistic variation.

8 Conclusions

This paper draws on new data of an underexplored phenomenon, AS, to support a view of restructuring clauses as transparent domains for syntactic dependencies, specifically for Agree. The findings confirmed that earlier French had AS, much like other Romance languages (e.g., Occitan, Sardinian, and Italian), and I established that it patterned with climbing of reflexive clitics, which I argued brings the relevant ϕ -features into the local domain of the auxiliary. In this sense, clitic climbing plays an active role in the configuration of syntactic dependencies. Climbing of locative, partitive, and dative clitics, however, has shown not to interact with AS. To address this issue, the formal analysis draws from and builds on the assumption that person feature identity is instrumental in explaining auxiliary selection. The analysis therefore emancipates itself from the hypothesis that auxiliary selection is a direct reflex of argument structure. By reframing auxiliary selection in terms of person feature identity and Agree, this novel proposal offers a more unified account of auxiliary selection, AS, clitic climbing, clitic reduplication, and restructuring, while challenging the long-standing assumption that AS tracks the selectional criteria of the embedded infinitive.

Lastly, something ought to be said about diachronic change. Why is AS not readily attested in French anymore? In the context of reflexive clauses, we saw that its loss directly connects to the loss of clitic climbing. In fact, the data revealed that AS is not completely lost from that context: if a reflexive clitic climbs in Modern French, the auxiliary still switches.

With unaccusatives, however, AS was lost. If my analysis is on the right track, we must assume that the system has evolved so that formal features remain more local and are less likely to transfer to other functional heads, which effortlessly aligns with the observation that Modern French is strongly configurational – unlike other Romance languages that can generate non-SVO sentences more readily. Why that is the case, however, remains to be worked out.

9 Auxiliary switch in Modern French

The type of text and the register do not appear to play a major role: AS is found in transcriptions of oral texts (77), in literary prose (78), in informal written French (79), (81), in the press (82), (83), in official reports (84), on social media (85), and in formal written French (86). The examples are presented chronologically from 1972 to 2023, and their source is given directly below.

- (77) et de *m’être* pu montrer plus franchement [...] convaincu
 and to REFL=be-INF can-PTCP show-INF more frankly convince-PTCP
 ‘and that I was able to show myself more frankly convinced’ (1972, *Séminaire de Jacques Lacan*, p. 42)

- Example (77) is taken from the transcription of an oral seminar. <https://www.acheronta.org/encore/E>

- (78) Il imagine l’Anabase faute de *s’être* pu voir
 he imagine-PRS.3SG the=Anabasis fault of REFL=be-INF can-PTCP voir-INF
 commander le Recessional.
 command-INF the Recessional
 ‘He imagines the Anabasis for lack of having been able to see himself command the Recessional.’ (1980, *En lisant, en écrivant*, p. 199)

- Example (78) is taken from Julien Gracq’s novel *En lisant, en écrivant*, in the Frantext database.

- (79) eh bien je serais sincèrement content d’avoir appris qqch
 well then I be-COND.1SG sincerely happy of=have-INF learn-PTCP something
 mais néanmoins surpris de *m’être* pu tromper
 but nevertheless surprised of REFL=be-INF can-PTCP be.mistaken-INF
 ‘Well, I would be sincerely happy to have learnt smthg but nevertheless surprised to have been mistaken.’ (2005, *Le repaire des motards*)

- Example (79) was posted on the biker forum *Le repaire des motards* on 06 May 2005. <http://www.lerepairedesmotards.com/forum/read.php?3,883202>

- (80) Pour *s’être* voulue faire plus grosse que le boeuf de la fable,
 to REFL=be-INF want-PTCP-F make-INF more big than the ox in the fable
 elle s’essouffle à nouveau
 it REFL=get.out.of.breath-PRS.3SG at new
 ‘Having wanted to be bigger than the ox in the fable, [the flea market] became smaller once again.’ (French, *Radio France*)

- Example (80) is taken from the written media *Radio France*. It was published on 03 September 2010, and it is a reference to Aesop’s fable *The Frog and the Ox*, suggesting here that the flea market became too large and had to shrink to a more moderate size. www.radiofrance.fr/franceculture/grande-braderie-de-lille-7138467
- (81) Je sais que c’est [dur] pour toi vu la réputation que tu
 I know-PRS.1SG that it=be-PRS.3SG hard for you seen the reputation that you
t’es voulu[e] faire de vrai tombeur de fille[s]
 REFL=be-PRS.2SG want-PTCP-F make-INF of real faller of girls
 ‘I know it’s hard for you given the reputation you’ve wanted to build for yourself as a
 real lady-killer’ (2011, *Planete Real Madrid*)
- Example (81) was posted on the football forum *Planete Real Madrid* on 28 January 2011. The user who posted it indicates living in Morocco, although it is not clear if this variety of French would be more likely to have retained AS. The original contains spelling mistakes that I did not include in the example. <https://planete-realmadrid.fr/lofiversion/index.php?topic=1000000>
- (82) Après *s’être* pu échapper de la guérilla, et en dépit de graves
 after REFL=be-INF can-PTCP escape-INF from the guerilla et in spite of serious
 blessures, Nkurunziza va devenir un redoutable croyant.
 injuries Nkurunziza go-PRS.3SG become-INF a formidable believer
 ‘After managing to escape the guerrilla, and despite serious injuries, Nkurunziza
 would go on to become a formidable believer’ (2015, *Afriquinfos*)
- Example (82) is taken from an article published in the media *Afriquinfos* on 10 June 2015. *Crise au Burundi : Qui est au juste Pierre Nkurunziza?*: <https://afriquinfos.com/crise-burundi/>
- (83) Tourné vers des classes populaires qui semblent *s’être*
 turned towards some classes popular who seem-PRS.3PL REFL=be-INF
 pu[es] déplac[er] ...
 can-PTCP-FEM.PL move-INF
 ‘Turned towards the working classes who seem to have been able to come ...’ (2017,
Les Echos)
- Example (83) is taken from an article published in the media *Les Echos* on 22 January 2017. The spelling mistakes (agreement is indicated on what should be the infinitive: the author writes *pu* instead of *pues*, and *déplacées* instead of *déplacer*, which are homophonous forms) are potentially revealing of the fact that contemporary speakers lack awareness of AS. *Primaire de la gauche : le retour raté de Montebourg*: <https://www.lesechos.fr/2017/01/primaire-de-la-gauche-le-retour-rate-de-montebourg-159313>
- (84) Je regrette de ne pas *m’être* pu déplacer à cette
 I regret-PRS.1SG of NEG NEG REFL=be-INF can-PTCP move-INF to this
 commission.
 committee
 ‘I regret not being able to come to this committee.’ (2022, *Comité de bassin Loire-Bretagne*, p. 10)

- Example (84) is taken from an official report published by the *Comité de bassin Loire-Bretagne* on 07 July 2022. [https://agence.eau-loire-bretagne.fr/files/live/mounts/midas/Agence/D%](https://agence.eau-loire-bretagne.fr/files/live/mounts/midas/Agence/D%20rapport%20de%20suivi%20de%20la%20qualite%20de%20l'eau%20dans%20le%20bassin%20de%20la%20Loire%20Bretagne%20-%202022.pdf)
- (85) Déçu évidemment, frustré, [d]e pas m'êtré pu
 disappointed obviously frustrated of NEG REFL=be-INF can-PTCP
 m'exprimer comme je voulais...!
 REFL=express-INF as I want-PST.1SG
 'Disappointed obviously, frustrated, of not being able to express myself as I
 wanted...!' (2023, *Instagram*)
- Example (85) was posted on *Instagram* on 03 July 2023. The original shows [ne], which I understand to be a typo that I corrected as [de]. This example also shows clitic reduplication. https://www.instagram.com/p/CuP5ua2s_G0/?img_index=1
- (86) il peut parfaitement s'êtré voulu faire un distinguo...
 EXPL can-PRS.3SG perfectly REFL=be-INF want-PTCP make-INF a distinction
 'it could perfectly well have been intended to make a distinction...' (2023, *Question Orthographe Voltaire*)
- Example (86) was posted on the forum *Question Orthographe Voltaire*, which is about spelling and orthography, on 15 October 2023. <https://www.question-orthographe.fr/question/sujet-g>

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