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ϕ-Agree and Person Feature Identity in Romance Auxiliary Selection

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Abstract

This dissertation deals with Romance auxiliary selection from a Minimalist perspective (Chomsky, 1993, 1995). The overall theory developed here is inspired by the co-indexation approach (Burzio, 1986; Ledgeway, 2020, 2022) and the person feature identity approach (Olivier, 2025). These approaches share the common assumption that the auxiliary BE signals an identity relation in the T/v field. While this assumption centres the pattern found in languages such as Italian and French, commonly referred to as an argument-structure-based system of auxiliary selection, it does not readily account for other Romance patterns, such as person-driven and mixed systems. Thus, the aim of this work is two-fold. It provides an analysis of argument-structure-based systems, exemplified by Standard Italian, and explores the factors that make person-driven and mixed systems, found in many Central and Southern Italian dialects, unrelated (person-driven systems), or apparently unrelated (mixed systems), to the general assumption regarding BE selection presented above.

The syntactic analysis exploits the Share mechanism, first proposed by D'Alessandro (2017). This mechanism has already been applied by Olivier (2025), in a partially different version, to French auxiliary selection. In this dissertation, I rely on Olivier's interpretation of Share, with some differences. The Share mechanism is integrated in a Minimalist-based model where syntactic operations are feature-driven and insertion of morpho-phonological material takes place through rules of insertion at PF. The parametric difference between the various systems of auxiliary selection is attributed to the featural properties of v. In argument-structure-based systems, v is able to enter in a Share relation with a higher v_{Aux}, associated with the auxiliary, in unaccusatives and reflexives. In person-driven systems, instead, v_{Aux} en-

tertains a local Agree relation with the subject (D'Alessandro and Roberts, 2010; D'Alessandro, 2017; Amato, 2021, 2022). As for mixed systems, I argue that they can be grouped with argument-structure-based systems, provided that their specific pattern is accounted for by posing person restrictions on T, as proposed by Amato (2021, 2022). The syntactic analysis is extended to Old Florentine, an Old Italian variety with a partly different pattern from that of Modern Italian. To the best of my knowledge, the analysis proposed for this particular variety fills a gap in the Minimalist literature and opens the way to further investigations on the diachronic development of Italian auxiliary selection.

The overall approach does not treat auxiliary selection and past participle agreement as entirely separate phenomena. As a matter of fact, the syntactic analysis provided in this dissertation suggests the variability related to systems of auxiliary selection is connected to the structural relation between the auxiliary and the participle, influenced by the specific structural properties of the participle.

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Contents

List of abbreviations and symbols

aux	auxiliary
cl	clitic
EA	external argument
EF	edge feature
IA	internal argument
It	Italian
Fr	French
IO	indirect object
PIC	Phase Impenetrability Condition
PPA	past participle agreement
SCC	Strict Cycle Condition
wh	wh-element
π	person feature
γ	gender feature
#	number feature
φ	person, gender, and number features

ACC	accusative
COND	conditional
DAT	dative
DS	different subject
F	feminine
GER	gerund
IMPRS	impersonal
IMPF	imperfect
IND	independent mood
M	masculine
NEG	negative
NM	nominalizer
NOM	nominative
OBJ	object
PL	plural
PPRTC	past participle
PRS	present
PST	past
SBJ	subject
SCL	subject clitic
SG	singular
SS	same subject
SUBJ	subjunctive

1 General Introduction

The term 'auxiliary selection' refers to the alternation between BE and HAVE in the periphrastic perfect constructions. The basic structure of the perfect in languages which exhibit auxiliaries consists of a perfect auxiliary combined with the past participle of the main verb. In (1), I illustrate this with examples from English.

(1) a. John has kissed Mary.
b. John has spoken.
c. Mary has gone.

Note that in (1) all kinds of predicates select the auxiliary HAVE when forming the perfect. In other words, English is not a representative language of auxiliary selection, which instead refers to the auxiliaries HAVE and BE[1] appearing in complementary distribution. This dissertation focuses on how this phenomenon manifests in Romance and Italo-Romance varieties[2]. It is well-known that the alternation between HAVE and BE is subject to crosslinguistic variation, with some languages exhibiting a system based on argument structure, while others display a system based on person distinctions.

Before outlining the structure and the proposal that underlie this dissertation, it is useful to provide some preliminary remarks in order to better contextualize the main topic of this work. Auxiliary selection has been a topic of discussion in syntactic theory for just under fifty years. The first contributions to a syntactic understanding of the phenomenon go back to Perlmutter

[1] In this work, the uninflected forms of both auxiliaries are represented in small capitals.
[2] Within the Indo-European domain, auxiliary selection also characterizes the Germanic branch (notably German and Dutch), as well as Albanian. Beyond Indo-European, in Europe it is also attested in Basque.

(1978), within the framework of Relational Grammar. Since then, the topic has been enriched by new data, which have brought to light a considerable degree of linguistic variation. While initially examined within the syntactic perspective put forward by Relational Grammar (Rosen, 1988; Perlmutter, 1989; Rosen, 1990, 1997; Loporcaro, 2007), the topic of auxiliary selection has subsequently been addressed under different approaches, including those based on semantics (Sorace, 2000; Bentley and Eythórsson, 2004) and those based on the syntax-semantics interface (Rappaport Hovav and Levin, 2000)[3]. In the meanwhile, some linguists had already begun to propose analyses of the phenomenon drawing on the theoretical developments of generative morpho-syntax (Kayne, 1993; Cocchi, 1995; Ledgeway, 1998; Manzini and Savoia, 1998). Around the same time, and in the following years, some of the cornerstones of the generative enterprise also addressed the problem, including Burzio's (1986) work on Italian syntax and the monumental volumes by Manzini and Savoia (2005) on the Italian dialects. Since then, new patterns and theoretical issues have emerged in the literature (D'Alessandro and Ledgeway, 2010; D'Alessandro and Roberts, 2010; Legendre, 2010; Bjorkman, 2011; D'Alessandro, 2017; Amato, 2021, 2022), which make auxiliary selection a fascinating topic for theoretical syntax.

1.1 Structure of the dissertation

Now, I turn to the general structure of this dissertation. The dissertation is structured as follows. The second Chapter describes some of the main systems of auxiliary selection attested in Romance, including argument-structure-based, person-driven, and mixed systems. It also discusses the

[3]The list of references included here is not exhaustive. I refer to Loporcaro (2007, 2011) for a detailed discussion of these approaches and their outcomes.

main ways auxiliary selection interacts with pronominal clitics and participial agreement.

The third Chapter introduces the theoretical background of the whole dissertation, namely Minimalism. After presenting the core assumptions and concepts of Minimalist syntax, I address how Minimalism has approached Romance auxiliary selection and related topics, such as cliticization and past participle agreement. Two main approaches to Romance languages with an argument-structure-based system are discussed, namely defectivity-based approaches (D'Alessandro and Roberts, 2010; Bjorkman, 2011; Amato, 2021) and identity-based approaches (Ledgeway, 2022; Olivier, 2025). The final part of this Chapter motivates the preference for the identity-based approach.

The fourth Chapter focuses on the syntactic analysis of Romance auxiliary selection. While a significant portion of this Chapter focuses on Standard Italian, I also address the cross-linguistic difference between argument-structure-based, person-driven, and mixed systems. As for varieties with a person-driven system, auxiliary selection in these varieties can never result from co-indexation and feature identity, due to the particular properties of v, hence the pattern found in these systems is attributed to a local π-Agree relation between the auxiliary and the subject, in line with the previous literature on the topic (D'Alessandro and Roberts, 2010; D'Alessandro, 2017; Amato, 2021). As for the mixed systems, I analyze them as argument-structure-based systems with person restrictions, following (Amato, 2021, 2022).

The fifth Chapter presents a case study in Old Italian auxiliary selection, addressing the pattern we find in a prestigious literary variety, namely the Old Florentine variety documented in Dante Alighieri's *ouvre*. The main difference with respect to Modern Italian is the generalized use of HAVE with reflexives. Although the Old Florentine pattern can be captured by assuming

the presence of an external argument as the determining factor, I propose an alternative solution, compatible with the overall theory of auxilliary selection proposed in this dissertation. This alternative solution can also prove useful to shed some light on the diachronic development of Italian auxiliary selection.

In the last Chapter, I draw some concluding remarks on the whole dissertation, underlining the main outcomes of the analysis and addressing potential challenges for further research.

2 Systems of Auxiliary Selection: A Crosslinguistic Overview

2.1 Introduction

The main goal of this Chapter is to present the main patterns of auxiliary selection and to discuss the challenges they raise for linguistic and syntactic theory. The Chapter is structured as follows. The first five paragraphs each provide a general description of a system. Representative data are drawn mostly from previous works on the Romance varieties, with a specific, though not exclusive, focus on the Italo-Romance branch[4]. After briefly describing the argument-structure-based system, I turn to varieties with a single auxiliary, followed by the person-driven and the mixed systems. Free variation, which characterizes some of these systems to some extent, is also briefly addressed. This Chapter also addresses reflexive clitics and participle agreement, two distinct syntactic constructs which interact in various and interesting ways with auxiliary selection. In particular, I describe the crosslinguistic variation arising from the interaction between the different systems of auxiliary selection, reflexive clitics, and participle agreement, with the main purpose of highlighting the challenges such variation poses for theoretical syntax.

2.2 Argument-structure-based systems

In these systems, auxiliary selection is typically attributed to the argument structure projected by the predicate. The relevant distinction in this case is not so much that between transitives and intransitives, but between two

[4]Sometimes, I integrated data from the literature with data obtained through exchanges with native speakers of some of the varieties presented throughout the dissertation.

kinds of intransitive, following a categorisation which goes back to the Unaccusative Hypothesis in the framework of Relational Grammar (Perlmutter, 1978, 1989). Accordingly, intransitives are divided into unergatives and unaccusatives, both of which display a single argument but in different underlying syntactic positions. Unergatives display an external argument (henceforth EA), while unaccusatives display an internal argument (IA). From this distinction, it follows that unaccusative subjects, unlike transitive and unergative subjects, share relevant semantic and syntactic properties with transitive objects. This hypothesis has been recurrently tested, though not without problems, through a series of syntactic tests, which I briefly present in §2.2.3 for Italian.

2.2.1 The Italian/French type

Among the Romance languages, French and Italian are generally regarded as having a system of auxiliary selection based on argument structure (Perlmutter, 1978, 1989; Burzio, 1986; Manzini and Savoia, 2005). In these languages, transitives and unergatives pattern alike in selecting HAVE[5], while unaccusatives select BE. The examples in (1) and (2, next page) illustrate the complementary distribution of HAVE and BE in Italian and French[6], respectively. The phenomenon of participle agreement with unaccusatives and other clause types will be discussed in §2.8.

(1) *Italian*

a. Maria ha fatto una torta.
M. have.PRS.3SG make.PPPRTC a cake.

[5]Cf. n14, below.

[6]In French there are a number of exceptions to this general pattern, i.e. unaccusatives that select HAVE instead of BE, like *disparaître* 'disappear' and *fondre* 'melt' (Olivier, 2025: 166, n4). Here, I do not address this specific issue.

'Maria made a cake.' (transitive)

b. Maria ha lavorato.
M. have.PRS.3SG work.PPPRTC.
'Maria worked.' (unergative)

c. Maria è cadut-a.
M. be.PRS.3SG fall.PPPRTC-SG.F
'Maria fell.' (unaccusative)

(2) *French* (Olivier, 2025: 165(2-3), 166(8))

a. Cannelle a écrit une lettre.
C. have.PRS.3SG write.PPRTC a letter
'Cannelle wrote a letter.' (transitive)

b. Elle a travaillé.
She have.PRS.3SG work.PRTC
'She worked.' (unergative)

c. Sophie est morte ainsi.
S. be.PRS.3SG die.PRTC-SG.F thus
'Sophie died like this.' (unaccusative)

2.2.2 *Si/Se* constructions

In many Romance varieties with an argument-structure-based system of auxiliary selection, including Italian and French, the use of *si/se*[7] reflexive clitic requires BE selection. These clitics appear in various syntactic constructions in the Romance languages[8], which can be classified into three main kinds: reflexive/reciprocal, non-pronominal, impersonal (Pescarini, 2024b). The reflexive/reciprocal construction include a transitive verbal entry combined

[7]I use the 3rd person of the clitic to refer the entire clitic series. Note, though, that unlike the 3rd person form, in Italian, French and other Romance varieties the other persons are homophonous with the corresponding non-reflexive object clitics.

[8]While the goal of this paragraph is to provide a brief description of the main kinds of *si/se* constructions, mainly following Pescarini (2024b), I also refer to earlier contributions, especially Manzini (1986); D'Alessandro (2004, 2008); Pescarini (2015) for detailed investigations on Romance *si/se*.

with the clitic, which pronominalizes an accusative or dative argument, as in (3)[9] and (4).

(3) *Italian*

a. Teresa si=è lavat-a.
T. SI.ACC.3=be.PRS.3SG wash.PPRTC-SG.F
'Teresa washed herself.' (direct transitive reflexive)

b. Teresa si=è lavat-a le mani.
T. SI.DAT.3=bePRS.3SG wash.PPRTC-SG.F the hands
'Teresa washed her hands.' (indirect transitive reflexive)

(4) *French* (Olivier, 2025: 186(41), 187(46b))

a. Jeanne s=est laveé.
J. SE.ACC.3 wash.PPRTC-SG.F
'Jeanne washed herself.' (direct transitive reflexive)

b. Dominique s=est lavé les mains
D. SE.DAT.3=be.PRES.3SG wash.PPRTC the hands
dans l'évier.
in-the sink
'Dominique washed her hands in the sink.' (indirect transitive reflexive)

si/se clitic appears in a number of non-pronominal constructions where the distribution of the clitic is lexically determined - it occurs with certain classes of predicates, such as inherently reflexive or psychological verbs (see 5, next page) - and does not have a reflexive reading[10].

[9]In Italian, the clitic in reflexive constructions can be replaced by a tonic reflexive phrase. In that case, the auxiliary is HAVE, just like in plain transitive clauses:
(i) Teresa ha lavato se=stessa.
T. have.PRS.3SG wash.PPRTC herself
'Teresa washed herself.'

[10]In this case, the clitic cannot be replaced by a tonic reflexive phrase:

(5) *Italian* (Pescarini, 2024b: 1(2, adapted))

Carlo si=è arrabbiato.
C. SI=be.PRS.3SG get-angry.PPRTC-SG.M
'Carlo got angry.'

The impersonal constructions include an arbitrary *si/se*[11] which "is interpreted as a free pronoun denoting a set of human individuals that may include the speaker" (Pescarini, 2024b: 2). A relevant example from Italian is given in (6).

(6) Si=è mangiato bene ieri.
SI.IMPRS=be.PRS.3SG eat.PPRTC well yesterday
'We/People ate well yesterday.'

BE selection in these constructions poses a potential problem for the classification of Italian/French auxiliary selection as an argument-structure-based system. Indeed, while pronominal reflexive and impersonal constructions seem to have a transitive structure, they nevertheless select BE, just like unaccusatives[12]. Other old and modern Italo-Romance varieties, by contrast, exhibit a behaviour which is closer to a 'purely' argument-structure-based system, in which pronominal *si/se* constructions pattern with transitives

(i) *Carlo ha arrabbiato se=stesso.
C. have.PRS.3SG get-angry.PPRTC himself
'Carlo got angry.'

[11]Note that the arbitrary *si/se* also appears in sub-types of impersonal clauses, commonly referred to as "middle" and "passivizing". While I come back to the distinction between impersonals *strictu sensu* and passivizing and passive-like impersonals throughout this dissertation, I refer to the previously mentioned contributions on Romance *si/se* for more refined descriptions and analyses.

[12]Such problem simply disappears if one treats *si/se* constructions as unaccusative and not transitive (Cocchi, 1995). Nonetheless, such an analysis is not uncontroversial and, most importantly, cannot rely on unquestionable evidence, cf. §2.2.3. below.

rather than with unaccusatives, with respect to auxiliary selection. The examples in (7) from Old Florentine, in its literary form adopted by Dante Alighieri, reflect this state of affairs. Note that the example in (7-e) is treated as a passive construction in the literature, under the assumption that Old Italian varieties lacked the impersonal *si* (Salvi, 2008).

(7) *Old Florentine* (La Fauci, 2004: 243(2-3), 247-249(7-8-9))

a. Fuggit-o è ogni augel che 'l caldo segue.
flee.PPRTC-SG.M be.PRS.3SG each bird that the heat follows
'All birds that follow the heat fled.' (RIME C 27)

b. la donna che [...] ci=s=hae
the woman that us=SI.ACC.3=have.PRS.3SG
mostrat-a.
show.PPRTC-SG.F
'The woman that showed herself to us.' (VN XXXVIII 3)

c. poscia che tanti speculi fatti
after that many mirrors make.PPRTC-PL.M
s=ha.
SI.DAT.3=have.PRS.3SG
'After that he made (for himself) so many mirrors.' (PD XXIX 143-4)

d. Ma i Provenzai che fecer contra lui non
but the Provençals that make.PST.3PL against him not
hanno riso.
have.PRS.3PL laugh.PPRTC
'But the Provençals who slandered him, did not laugh.' (PD VI 130-1)

e. Giurato si=saria ch'el
swear.PPRTC SI.IMPRS.3=be.COND.PRS.3SG that'he
dicesse "Ave!"
say.SUBJ.IMPF.3SG hail
'One would have sworn that he was saying "Ave!"' (PG X 40)

2.2.3 Tests of unaccusativity and auxiliary selection in Italian

The distinction between unergatives and unaccusatives can be identified through a series of syntactic tests in Italian, as well as in other Romance languages. Such tests include participial constructions and *ne*-cliticisation. They show that unaccusative subjects share relevant syntactic properties with transitive objects, since both behave as IAs. One of these tests consists in relativizing the argument using a participial clause (*participio assoluto*, in Italian). This test produces grammatical sentences when the relativized element is a transitive object or an unaccusative subject (see 8a-b), but ungrammatical sentences when the relativized element is the subject of a transitive/unergative clause (see 8d-e). Interestingly, the relativization of the subject of direct reflexives of the kind illustrated in (3-a) yields grammatical sentences (see 8-c).

(8) Participial clauses (Pescarini, 2024b: 7(15))

a. Lo studente invitato alla festa è mio fratello.
The student invite.PPRTC to-the party is my brother
'The student who has been invited to the party is my brother.'

b. Lo studente arrivato ieri è mio fratello.
The student arrive.PPRTC yesterday is my brother
'The student who has arrived yesterday is my brother.'

c. Lo studente accusato=si di aver copiato
The student accuse.PPRTC=SI.ACC.3 of have.INF copy.PPRTC
i compiti è mio fratello.
the homework is my brother
'The student who has accused himself of having copied...'

d. *Lo studente copiato i compiti è mio fratello.
The student copy.PPRTC the homework is my brother
'The student who has copied his homework is my brother.'

e. *Lo studente dormito è mio fratello.
The student sleep.PPRTC is my brother
'The student who has slept is my brother.'

Another test of unaccusativity is the pronominalization of an argument with the partitive *ne* clitic. Once again, *ne*-cliticization is grammatical when applied to the direct object of transitives (9-a) or to the subject of unaccusatives (9-b), while it is perceived as highly deviant when applied to direct reflexiveslike *vestirsi* 'get dressed' in (9-d). This sentence is judged better under an impersonal interpretation instead.

(9) *Ne*-cliticisation

a. Ne=leggono molti.
NE=read.PRS.3PL many
'They read many of them.'

b. Ne=arrivano dieci.
NE=arrive.PRS.3PL ten
'Ten of them arrive.'

c. *Ne=mangiano molti.
NE=eat.PRS.3PL many
'Many of them eat.'

d. */??Se=ne=vestono tre.
SI.3=NE=get-dress.PRS.3PL three
'Three of them get dress.'

BE selection is also mentioned as a diagnostics for unaccusativity, despite the fact that BE is selected in clauses which are not manifestly unaccusatives, such as reflexives (although unaccusative analyses of reflexives have been proposed, cf. Cocchi, 1995; Sportiche, 1998; Olivier, 2025). However, the tests presented so far show contrasting evidence regarding direct reflexives

belonging to unaccusative predicates (Reinhart and Siloni, 2005; Pescarini, 2015, 2024b). In addition, *si*-reflexives can appear in ECM constructions, where the pronominalized element is the argument of a reduced clause and as such *must* receive accusative case (see 10).

(10) ECM constructions (Pescarini, 2015: 43(16))

a. Gianni ritiene [$_{RC}$ Pietro intelligente].
Gianni consider.PRS.3SG Pietro intelligent
'Gianni considers Pietro intelligent.'

b. Gianni si$_i$=ritiene [$_{RC}$ t$_i$ intelligente].
Gianni SI.ACC.3=consider.PRS.3SG intelligent
'Gianni considers himself intelligent.'

BE is also selected in constructions where an EA is clearly present, such as impersonal clauses (see 11-a) or when *si* pronominalizes a benefactive argument coreferential with the subject (11-b).

(11) a. Si=è mangiato spaghetti a pranzo.
SI.IMPRS=be.PRS.3SG eat.PPRTC spaghetti at lunch
'We/People ate spaghetti for lunch'

b. Carlo si=è allacciat-o le scarpe.
C. SI.DAT.3=be.PRS.3SG tie.PPRTC-SG.M the shoes
'Carlo tied his shoes.'

2.3 Single auxiliary

The use of a single auxiliary is commonly found in Ibero-Romance languages such as Spanish, Portuguese, and Catalan. The data in (12) from Spanish

illustrate this pattern: HAVE is selected regardless of the the predicate class.

(12) *Spanish*[13]

a. María ha tomado la sopa.
M. have.PRS.3SG eat.PPRTC the soup
'Maria ate the soup.' (transitive)

b. María ha trabajado.
M. have.PRS.3SG work.PPRTC
'María worked.' (unergative)

c. María ha llegado.
M. have.PRS.3SG come-back.PPRTC
'María came back.' (unaccusative)

Systems displaying only HAVE are also attested in the Italo-Romance branch. The data in (13) from the dialect spoken in Trebisacce[14] (Calabria, Southern Italy) shows a single auxiliary system like the Spanish one[15].

(13) *Trebisacce* (Pace, 1994: 75, nn129, 136)

a. Giuwann a kkɔtt a mənɛstrə.
G. have.PRS.3SG cook.PPRTC-SG.F the soup..F
'John cooked the soup.' (transitive)

[13]Except when indicated differently, my informant for the Spanish examples is a native speaker of Rioplatense Spanish. This variety of Spanish does not differ from the others in selecting HAVE with transitives, unergatives, and unaccusatives.

[14]In Trebisacce, unergatives pattern with transitives in selecting HAVE. More generally, no Romance language is known in which transitives and unergatives select different auxiliaries (Loporcaro, 2007: 180). Moreover, this particular dialect requires the participle to agree with a transitive object, see §2.8 below. The inflectional information of the participle is carried by height alternations in stem-internal stressed vowels, a pervasive process in Central-Southern Italo-Romance dialects.

[15]There is substantial evidence that most Romance standard varieties that now display only HAVE, including Spanish and Catalan, developed from an earlier stage with a HAVE/BE system like the one we find today in Italian (Loporcaro, 2007: 180).

b. Marí a mmɔrt
M. have.PRS.3SG die.PPRTC-SG.F
'Mary died.' (unaccusative)

Systems with only BE are attested too, as shown by the data in (14) from the dialect of Ripatransone (Marche, Central Italy).

(14) *Ripano* (conservative variety, Paciaroni, 2020: 44(90a-c), 45(93a))

a. So sprəʃʃat-u la jive.
be.PRS.1SG squeeze.PPRTC-SG.M the olive
'I squeezed the olive.' (transitive)

b. ʃi faðiɣat-e.
be.PRS.2SG work.PPRTC-SG.F
'You(f.) worked.' (unergative)

c. ɛ rrivatə.
be.PRS.3SG arrive.PPRTC-SG.N
'It arrived.' (unaccusative)

It has been widely demonstrated that systems which display only one auxiliary do not lack the fundamental syntactic distinction between unergatives and unaccusatives, as made clear by a number of tests in the main standard Romance languages:

> The list includes, among others, PtP agreement and "partitive" cliticization in Catalan; the syntax of participial absolutes, which are grammatical with unaccusatives and ungrammatical with unergatives in all Romance languages (including Catalan, Spanish and Portuguese); the syntax of Ibero-Romance impersonals, which allow for bare nouns to occur postverbally with unaccusatives only.
> (Loporcaro, 2007: 179)

In other words, auxiliary selection reflecting argument structure is just one particular syntactic manifestation of the intransitive split. It should be noted, though, that auxiliary selection is not always a reliable clue to the predicate argument structure (cf. §2.2.3, above).

2.4 Person-driven systems

In person-driven systems the auxiliary is selected according to the person feature of the subject, indipendently of the predicate's argument structure. Hence, the unergative-unaccusative distinction, which is typically considered crucial in argument-structure-based systems, has no effect on auxiliary selection.[16]. This system is widely attested in Central and Southern Italian dialects. The systems which split 1st and 2nd persons (selecting BE) from 3rd (selecting HAVE) are most commonly found (Manzini and Savoia, 2005: II, 681), although other patterns are also attested. Table 1 shows the distribution of some of these patterns in the Abruzzo region, located in upper Southern Italy[17].

	1sg	2sg	3sg	1pl	2pl	3pl
Arielli, L'Aquila	BE	BE	HAVE	BE	BE	HAVE
Vasto	HAVE	BE	BE∼HAVE	HAVE	HAVE	HAVE
Introdacqua	HAVE	BE	HAVE	HAVE	HAVE	HAVE
Notaresco	BE	HAVE	HAVE	HAVE	HAVE	HAVE

Table 1: Cross-linguistic variation of person-driven patterns in the Abruzzo region (Loporcaro, 2007: 184(18), with modifications).

The dialect spoken in Arielli (Eastern Abruzzo), is a representative example

[16]Note, however, that the varieties belonging to the person-driven system do not commonly show the same system in the pluperfect in the counterfactual tense, where either HAVE or BE is consistently found (D'Alessandro and Roberts, 2010: 57 and the references quoted there).

[17]The symbol ∼ indicates free variation between the auxiliaries.

of a person-driven system with a BE-BE-HAVE (henceforth BBH)[18] pattern, as illustrated in (15). The dialect spoken in Sonnino (Lazio, Central Italy) exhibits the same pattern, as shown in (16)[19].

(15) *Arielli* (D'Alessandro and Roberts, 2010: 43-44)

a. Ji so' fatte na torte.
I be.PRS.1SG make.PPRTC.SG a cake
'I made a cake.'

b. Esse a fatte na torte.
She have.PRS.3SG make.PPRTC.SG a cake
'She made a cake.' (transitive)

c. Ji so' fatijate.
I be.PRS.1SG work.PPRTC.SG
'I worked.'

d. Esse a fatijate.
She have.PRS.3SG work.PPRTC.SG
'She worked.' (unergative)

e. Ji so' cascate.
I be.PRS.1SG fall.PPRTC.SG
'I fell.'

f. Esse a cascate.
She have.PRS.3SG fall.PPRTC.SG
'She fell.' (unaccusative)

(16) *Sonnino* (Manzini and Savoia, 2005: II, 701)

a. So llavato/-a la makena.
be.PRS.1SG wash.PPRTC/-SG.F the car
'I washed the car.'

b. A lavato/-a la makena.
pro have.PRS.3SG wash.The car

[18]Since the distribution of the auxiliaries is the same in the singular and plular persons, I adopt this shortened form to refer to the pattern found in dialects such as that of Arielli.

[19]The patterns participle agreement in these dialects are described in §2.8 below.

‘(S)he washed the car.’ (transitive)

c. So pparlato.
be.PRS.1SG speak.PPRTC
‘I spoke.’

d. A parlato.
have.PRS.3SG speak.PPRTC
‘(S)he spoke.’ (unergative)

e. So mmenut-o.
be.PRS.1SG come.PPRTC-SG.M
‘I came.’

f. A menut-a.
have.PRS.3SG come.PPRTC-SG.F
‘She came.’ (unaccusative)

A notable fact which distinguishes person-driven systems from argument-structure-based systems such as Italian and French is that they follow the same pattern of auxiliary selection with reflexives as well, as illustrated in (17) and (18) for the very same varieties[20].

(17) *Arielli* (Amato, 2022: 7(6-7))

a. Me=so llavate jire sere.
SI.ACC.1SG=be.PRS.1SG wash.PPRTC yesterday night.
‘I washed myself last night.’

b. Marije s=a lavate jire
M. SI.ACC.3SG=have.PRS.3SG wash.PPRTC yesterday
sere.
night.
‘Mary washed herself last night.’ (direct transitive reflexive)

c. Me=so llavate li vistite da sole.
SI.DAT.1SG=be.PRS.1SG wash.PPRTC the clothes by myself.

[20]Quite interestingly, the use of the reflexive clitic does not trigger the common rule of PPA with a plural DP in the dialect of Arielli, cf. below §2.8. Rather, PPA with a plural DP in object position is optional (Roberta D’Alessandro, p.c.).

'I washed my clothes by myself.'

d. Marije s=a lavate li vistite da
M. SI.DAT.3SG=have.PRS.3SG wash.PPRTC the clothes my sole.
herself.
'Mary washed her clothes by herself.' (indirect transitive reflexive)

(18) *Sonnino* (Manzini and Savoia, 2005: II, 701, 732(84))

a. Me=so llavat-o.
SI.ACC.1SG=be.PRS.1SG wash.PPRTC-SG.M
'I washed myself.'

b. S=a llavat-o.
SI.ACC.3SG=have.PRS.3SG wash.PPRTC-SG.M
'He washed himself.' (direct transitive reflexive)

c. Me=so llavato le mane.
SI.DAT.2SG=be.PRS.1SG wash.PPRTC the hands
'I washed my hands.'

d. S=a llavato le mane.
SI.DAT.3SG=have.PRS.3SG wash.PPRTC the hands
'He/She washed his/her hands.' (indirect transitive reflexive)

2.5 Mixed systems

Other systems of auxiliary selection are also attested, which seem to combine features of the two kinds mentioned above, namely argument-structure-based and person-driven systems. More precisely, the varieties belonging to the mixed system exhibit auxiliary selection based on person just in a part of the paradigm (Manzini and Savoia, 2005: II, 690ff Loporcaro, 2007; Amato, 2022). Some of these varieties, including the ones presented here, exhibit a person split of the BBH kind, limited to transitives/unergatives (cf. Table 2,

below).

	1sg	2sg	3sg	1pl	2pl	3pl
Transitive/unergative	BE	BE	HAVE	BE	BE	HAVE
Unaccusative	BE	BE	BE	BE	BE	BE

Table 2: Mixed systems with a BBH pattern in transitive/unergative predication, attested in the Marche region (Corridonia/Monte San Giusto, Monte Giberto).

The relevant data in (19) and (20) come from varieties spoken in the Marche region (Central Italy).

(19) *Corridonia/Monte San Giusto* (Paciaroni, 2009: 53-54(22a; 24))

a. Io so' mmagnato ðu mele.
I be.PRS.1SG eat.PPRTC two apples
'I ate two apples.'

b. Essa a magnato ðu mele.
She have.PRS.3SG eat.PPRTC two apples.
'She ate two apples.' (transitive)

c. Io so' ffatigato.
I be.PRS.1SG work.PPRTC
'I worked.'

d. Essa a fatigato.
She have.PRS.3SG work.PPRTC
'She worked.' (unergative)

e. Io so' ccaʃcat-u.
I be.PRS.1SG fall.PPRTC-SG.M
'I fell.'

f. Essa ɛ ccaʃcat-a.
I be.PRS.3SG fall.PPRTC-SG.F
'She fell.' (unaccusative)

(20) *Monte Giberto* (Baldi and Savoia, 2019: 60(3))

a. So vviʃto fratu-tu.
be.PRS.1SG see.PPRTC brother-your

'I saw your brother.' (transitive)

b. A viʃto fratu-tu.
have.PRS.3SG see.PPRTC brother-your
'(S)he saw your brother.'

c. So ddurmito.
be.PRS.1SG sleep.PPRTC
'I slept.'

d. A ðurmito.
have.PRS.3SG sleep.PPRTC
'(S)he slept.' (unergative)

e. So vvinut-a.
be.PRS.1SG come.PPRTC-SG.F
'I came.'

f. ɛ vvinut-a.
be.PRS.3SG come.PPRTC-SG.F
'She came.' (unaccusative)

Whether these systems should be classified as argument-structure-based or person-driven is a matter of debate. One possibility is to regard them as basically person-driven, with sensitivity to person showing up only in part of the paradigm, i.e. in transitives/unergatives, as argued by Loporcaro (2007). Alternatively, the system may be considered argument-structure-based, with person restrictions only in a portion of the paradigm, as argued by Amato (2021, 2022). Useful insights into this controversy come from auxiliary selection in reflexive clauses. Varieties with a mixed system of auxiliary selection, including those presented here, do not behave as expected if we regard them as person-driven. Indeed the person-driven pattern is not found in reflexive clauses. This is the common state of affairs in varieties belonging to the mixed systems (Amato, 2022: 13), and the dialects presented here confirm this prediction. In Corridonia and Monte San Giusto, however,

there is a split: transitive indirect reflexives show free variation between BE and HAVE, while all other types of reflexives require BE (see 21). Interestingly, such split is limited to the 3rd person in the contemporary variety of this dialect. Note, though, that Paciaroni (2009: 55) suggests this is likely an innovation, while the conservative variety used HAVE in indirect reflexive transitive clauses for all persons. In Monte Giberto, reflexives fully pattern with unaccusatives in selecting BE (see 22).

(21) *Corridonia/Monte San Giusto* (Paciaroni, 2009: 53-54(22b,c; 23a))

a. Me=so rviʃtit-a.
SI.ACC.1=be.PRS.1SG get-dress,PPRTC-SG.F
'I got (myself) dressed.'

b. Essa s=ɛ rviʃtit-a.
She SI.ACC.3=be.PRS.3SG get-dress.PPRTC-SG.F
'She got (herself) dressed.'

c. Me=so rlaat-o le ma.
SI.DAT.1SG=be.PRS.1SG wash.PPRTC-SG.M the hands
'I washed my hands.'

d. Essa s=a rlaato le ma.
She SI.3SG=H.PRS.3SG wash.PPRTC the hands

Essa s=ɛ rlaat-a le ma.
She SI.3SG=E.PRS.3SG wash.PPRTC-SG.F the hands
'Maria washed her hands.' (indirect transitive reflexive)

(22) *Monte Giberto*

a. Me=so mmist-u a seðe.
SI.1SG=be.PRS.1SG put.PPRTC-SG.M to sit
'I (put myself to) sit down.'

b. S=è mmist-a a seðe.
SI.3SG=be.PRS.3SG put.PPRTC-SG.F to sit

'She (put herself) sit down.' (direct transitive relfexive)

In some Italian dialects, person restrictions do not affect transitives, but rather predicates with a *si/se* clitic. In some dialects of the Veneto area, person restrictions are found with *si/se*-predicates regardless the pronominal or non-pronominal function of the clitic. Examples of transitive direct reflexives from Paduan in (23) show that the first two persons select BE, while the other persons select HAVE, except for the 2nd person plural that shows optionality between BE and HAVE[21].

(23) *Paduan* (Benincà et al., 2016: 204)

a. Me=so petenà.
SI.ACC.1SG=be.PRS.1SG comb.PPRTC
'I combed my hair.'

b. Te=te=sì petenà.
2SG.SI.ACC.2SG=be.PRS.2SG comb.PPRTC
'You(SG.) combed my hair.'

c. El=se=gà petenà.
3SG.SI.ACC.3=have.PRS.3 comb.PPRTC
'He combed my hair.'

d. Se=ghemo petenà.
SI.ACC.1PL=have.PRS.1PL comb.PPRTC
'You combed my hair.'

e. Ve=si/ghì (gavì) petenà.
2PL.SI.ACC.2SG=be/have.PRS.2SG/ comb.PPRTC
'You(pl.) combed my hair.'

f. I=se=gà petenà.
3PL.SI.ACC.3=have.PRS.3 comb.PPRTC
'They(pl.) combed my hair.'

[21] Although the examples in (24) show that HAVE is selected with the 3rd person, other sources suggest that BE can be optionally selected, although it is generally dispreferred (Kayne, 2000: 118-119).

The examples from the dialect spoken in Merlara (province of Padua) in (24, below) exhibit the same pattern as Paduan, with few differences; namely, there is no optionality in the 2nd person plural.

(24) *Merlara* (Maria Gabriella Bello, p.c.)

a. Me=so vestìo.
SI.ACC=be.PRS.1SG get-dressed
'I got dressed.'

b. Te=te=si vestìo.
SCL.2SG=SI.ACC=be.PRS.2SG get-dressed.PPRTC-SG.M
'You got dressed.'

c. El=se=ga vestìo.
SCL.3SG=SI.ACC=have.PRS.3SG get-dressed.PPRTC-SG.M
'He got dressed.'

d. Se=gavemo vestìi.
SI.ACC.1PL=have.PRS.1PL get-dressed.PPRTC-SG.M
'We got dressed.'

e. Ve=gavì vestìo.
SI.ACC.2PL=have.PRS.2PL get-dressed.PPRTC
'You got dressed.'

f. I=se=ga vestìi.
SCL.3PL=SI.ACC.3=have.PRS.3PL get-dress.PPRTC-PL.M
'They got dressed.'

The additional examples in (25) show that we find the same restrictions with predicates with a non-pronominal *si/se*. In particular, the predicate in (25) belongs to the anticausative class.

(25) *Merlara* (Maria Gabriella Bello, p.c.)

a. Me=so sentà.
SI=be.PRS.1SG get-dressed

'I sit down.'

b. Te=te=si sentà.
SCL.2SG=SI=be.PRS.2SG get-dressed.PPRTC
'You sit down.'

c. El=se=ga sentà.
SCL.3SG=SI=have.PRS.3SG get-dressed.PPRTC
'He sit down.'

d. Se=gavemo sentà.
SI.1PL=have.PRS.1PL sit-down.PPRTC
'We sit down.'

e. Ve=gavì sentà.
SI.2PL=have.PRS.2PL sit-down.PPRTC
'You sit down.'

f. I=se=ga sentà.
SCL.3PL=SI.3=have.PRS.3PL get-dress.PPRTC
'They sit down.'

2.6 Free variation

Free variation between HAVE and BE is attested in Italo-Romance, in all the systems with a double auxiliary system presented so far, where it affects a portion of the paradigm. The dialect spoken in Vasto (Abruzzo) exhibits a person-driven system with free variation HAVE∼BE in the 3rd person (cf. Table 1). As for argument-structure-based systems, varieties which exhibit free variation are attested, among others (cf. Loporcaro, 2007), in a number of dialects spoken in the Marche region. The dialect of Macerata mostly behaves as Italian, but shows free variation between HAVE and BE, restricted to transitive indirect reflexive clauses (see 26, next page)[22].

[22]This pattern of free variation is very similar to that found in Corridonia and Monte San Giusto, in the same region. Note, however, that the dialect of Macerata does not consist of a mixed system, but of an argument-structure-based system. Apart from this difference, the dialects spoken in Macerata and Corridonia/Monte San Giusto are closely related both areally and genetically.

(26) *Macerata* (Paciaroni, 2009: 49(19))

a. Marí s=a rlaato le ma.
M. SI.DAT.3=have.PRS.3SG wash.PPRTC the hands

b. Marí s=ɛ rlaat-a le ma.
M. SI.DAT.3=be.PRS.3SG wash.PPRTC-SG.F the hands
'Maria washed her hands.'

2.7 Reflexive splits

The data presented in the previous paragraphs point at crucial differences between argument-structure-based and person-driven systems, which go beyond the mere criteria of auxiliary selection. I already mentioned that the presence of *si/se* clitic does not generally change the auxiliary pattern of person-driven systems, no matter the distributional pattern of the auxiliaries. In argument-structure-based systems like Italian or French, by contrast, the clitic clearly interferes with the argument split: in these languages, BE is always selected in *si/se* constructions. In this respect, mixed systems tend to behave more like argument-structure-based than person-driven system.

If reflexivization is an operation that affects the argument structure to some extent, i.e. an operation that turns a transitive predicate into an intransitive one, as argued by some scholars (Kayne, 1993; Cocchi, 1995; Chierchia, 2004; Reinhart and Siloni, 2005), then the absence of an auxiliary switch is entirely expected in person-driven systems, since they show no sensitivity to argument structure when forming the perfect. Other analyses simply treat reflexive constructions as transitive and explain BE selection in argument-structure-based systems in different terms: BE results from structural defectivity and, in reflexive clauses, the reflexive clitic introduces such defectivity (Amato, 2021, 2022); alternatively, BE results from an identity

relation holding across v (Burzio, 1986; Vikner, 2024), or in the T/v field (Olivier, 2025), with the clitic functioning as a link in the identity chain. Leaving this theoretical discussion for the next Chapter, in what follows I present descriptive data illustrating the range of ways auxiliary selection and reflexive clitics interact, potentially posing challenges for the aforementioned accounts of reflexivity.

	unaccusative	reflexive			transitive/unergative
		tr.direct	intr. unerg.	tr. ind.	
Italian	BE	BE	BE	BE	BE
Sardinian	BE	BE	BE	HAVE	HAVE
Picernese	BE	BE	HAVE	HAVE	HAVE
Leccese	BE	HAVE	HAVE	HAVE	HAVE
Spanish	HAVE	HAVE	HAVE	HAVE	HAVE

Table 3: Reflexive splits in Romance (Loporcaro, 2007: 80(30), with modifications).

For this purpose, data from Romance varieties show that reflexive verbs do not necessarily pattern with unaccusatives in selecting BE. Indeed, Romance varieties exhibit a certain degree of variation with respect to auxiliary selection in reflexive clauses, as shown in Table 3. The split can manifest in different ways, separating transitive indirect reflexives from the other reflexives (Sardinian), or separating both transitive indirect reflexives and unergative indirect reflexives from transitive direct reflexives (Picernese). Finally, some dialects do not split reflexives at all and extend the use of HAVE to reflexive contexts (note that, unlike Spanish, these dialects do have a double auxiliary system), which is diametrically opposed to the Italian/French pattern (where BE is selected with all reflexives). That is the case of Leccese and Old Florentine (cf. 7 above). The idea that reflexivization is essentially a detransitivizing operation is at odds with the overall data, since such an hypothesis cannot be hold as a general property of Romance *si/se*. A similar

conclusion arises when considering the accounts that treat BE as a sign of identity, challenging the link function of *si/se* in the identity chain. Finally, the idea that the reflexive clitic makes the syntactic structure defective, with BE emerging as the result of this defectivity, faces similar descriptive and explanatory problems: in Old Florentine and Leccese, for example, no defectivity arises from reflexivity; in other dialects, by contrast, such defectivity manifests in a more variable way (reflexive splits).

2.8 Auxiliary Selection and participle agreement

The interaction between auxiliary selection and past participle agreement (PPA) exhibits an interesting degree of variation in the Romance varieties considered so far. The general situation found in Italian as well as in other Italo-Romance varieties hints at an overlap between BE selection and the realization of the participle agreement. In Italian, BE-selecting predicates, including unaccusatives and reflexives, require the participle to agree for gender and number with the subject (see 27):

(27) *Italian*

a. Teresa è cadut-a.
T. be.PRS.3SG fall.PPRTC-SG.F
'Teresa fell.'

b. Teresa si=è lavat-a.
T. SI.ACC.3=be.PRS.3SG wash.PPRTC-SG.F
'Teresa washed herself.'

c. Teresa si=è rispost-a.
T. SI.DAT.3=be.PRS.3SG answer.PPRTC-SG.F
'Teresa answered to herself.'

d. Teresa si=è lavat-a le mani.
T. SI.DAT.3SG=bePRS.3SG wash.PPRTC-SG.F the hands

'Teresa washed her hands.'

On the contrary, HAVE selecting predicates, i.e. unergatives and transitives with an *in situ* object display the default form of the participle, namely masculine singular (see 28)[23].

(28) a. Teresa ha risposto/*-a.
T. have.PRS.3SG answered.PPRTC/*-SG.F
'Teresa answered'

b. Teresa ha lavato/*-a la camicia.
T. have.PRS.3SG washed.PPRTC/*-SG.F the shirt
'Teresa washed the dish.'

The transitive nature of a predicate is not directly tied to the absence of participle agreement. This fact has led many scholars to the conclusion that auxiliary selection and participle agreement should be considered indipendent syntactic phenomena (Loporcaro, 1998; Manzini and Savoia, 2005; Belletti, 2006; Loporcaro, 2016; Amato, 2021). Participle agreement can still occur in transitive constructions, under specific structural conditions. As such, in Italian participle agreement is required with direct object clitics (29) and with third person direct object clitics (30-c), while it is optional with first and second-person direct object clitics, as in (30-a) and (30-b).

(29) a. Teresa le=ha lavat-e.
T. ACC-3PL.F=have.PRS.3SG wash.PPRTC-3PL.F

[23]In Modern Italian, participle agreement with an *in situ* object occasionally appears in the archaic register (Loporcaro, 2010: 228):
(i) Gianni aveva già pres-a la sua decisione.
G. have.PST.3SG already made.PPRTC-SG.F the his decision
'Gianni had already taken his decision' (Guasti and Rizzi, 2002: 181)

'Teresa washed them.'

b. Teresa li=ha vist-i.
T. ACC-3PL.M=have.PRS.3SG see.PPRTC-3PL.M
'Teresa saw them.'

(30) a. Mi=ha visto/-a.
ACC-1SG=have.PRS.3SG see.PPRTC(-SG.F)
'(S)he saw me.'

b. Ti=ha visto/-a.
ACC-2SG=have.PRS.3SG see.PPRTC(-SG.F)
'(S)he saw you.'

c. L=ha vista/*-o.
ACC-3SG.F=have.PRS.3SG see.PPRTC-SG.F
'(S)he saw her.'

The factors determing participle agreement, or its absence, vary significantly across Romance and Italo-Romance languages. The Italian pattern of participle agreement is found primarily in argument-structure-based systems, while it is almost absent in person-driven systems, with very few exceptions (Amato, 2021: 417). Unlike Modern Italian, Old Italian did allow participle agreement to take place with an *in situ* object. As a matter of fact, until 14th century, participle agreement with a transitive object is regurarly attested, as in (31)[24], with greater variability emerging in the following centuries (Egerland, 1996: 75).

(31) *Old Italian* (Egerland, 1996: 76(11a,b))

a. [...] non veggiono, per ciò che hanno
not see.PRS.3PL because have.PRS.3PL

[24]At this particular stage of Old Italian, the direct object could appear freely to the right or to the left of the participle, a matter which I do not address here, cf. Egerland (1996), Poletto (2014), Amato (2021), D'Alessandro (2022).

chius-i li occhi [...]
close.PPRTC-PL.M the eyes.M
'They cannot see because they closed their eyes.'

(Dante Alighieri, *Convivio*, I, IV)

b. [...] come che tu abbi perdut-i i tuoi
even if you have.SBJ.2SG lose.PPRTC-PL.M the your
denari [...]
money.M
'Even if you lost your money.'

(Giovanni Boccaccio, *Decameron* II, V)

This pattern of participle agreement is also found in other old and modern Romance varieties. The dialect spoken in Trebisacce, of which an example was given in (13) and is repeated below, shows this pattern, which is likewise found in some Northern Italian dialects such as Friulano, as in (32).

(13′) *Trebisacce*

Giuwann a kkɔtt a mənɛstrə.
G. have.PRS.3SG cook.PPRTC-SG.F the soup.F
'John cooked the soup.'

(32) *Friulano* (Benincà, 1994: 83, n10)

Oi ai comprade une biele giachete.
I have.PRS.1SG buy.PPRTC-SG.F a nice jacket.F
'I bought a nice jacket.'

The dialect of Sonnino, mentioned earlier in this Chapter among the person-driven systems, optionally allows the participle to agree with a transitive object (see 33, next page)[25].

[25]In contrast with example in (33) Manzini and Savoia (2007: 199) state that, in Son-

(33) *Sonnino* (Manzini and Savoia, 2005: II, 701)

a. So llavato la makena.
be.PRS.1SG wash.PPRTC the car

b. So llavat-a la makena.
be.PRS.1SG wash.PPRTC-SG.F the car
'I washed the car.'

In general, participle agreement with a transitive object appears to be possible in most person-driven systems (Amato, 2021: 417-418). A special mention should be made of a phenomenon dubbed "omnivorus agreement" (D'Alessandro, 2017), found in a few person-driven systems such as that of Arielli. In this variety, the participle agrees[26] in number with a plural DP, regardless of whether it corresponds to the subject or the object[27]. The relevant examples are given in (34).

(34) *Arielli* (D'Alessandro and Roberts, 2010: 45(2a,b,c))

a. Giuwanne a pittate nu mure.
G. have.PRS.3 paint.PPRTC a wall
'John painted a wall.'

nino, "the unergative and transitive participle show (*sic*) up in the invariable form, exactly as in languages of the Italian type". Among my informants, the elder speakers of this dialect accept both forms (33-a) and (33-b), or in some cases even prefer the latter. This indicates that this dialect, at least in some of its sub-varieties, does not exhibit the Italian type of participle agreement.

[26]Unlike Italian, and similarly to many Italian dialects, in Arielli participle agreement is realized through metaphony, i.e. a height alternation in stress-internal vowels (D'Alessandro and Roberts, 2010: 59).

[27]The examples in (34) show agreement with the direct object, when it is plural. However, agreement with an indirect object under the same conditions is also attested,, "at least when it is cliticised" (D'Alessandro and Roberts, 2010: 45, n1):

(i) A jisse ji le=so reccundite.
To them I it=be.PRS.1SG tell.PPRTC.PL
'I told them it.'

b. **Giuwanne** e **Marije** a **pittite** nu mure.
G. and M. have.PRS.3 paint.PPRTC.PL a wall
'John and Mary painted a wall.'

c. Giuwanne a **pittite** **ddu mure**.
G. have.PRS.3 paint.PPRTC.PL two walls
'John painted two walls.'

The varieties that exhibit a reflexive split of the Sardinian type (cf. Table 3), behave like Italian in requiring participle agreement with BE-selecting unaccusatives, transitive direct reflexives and unergative indirect reflexives. I present the relevant examples from Sardinian (Logudoro's variety) and from the dialect of Macerata, in (35) and (36) respectively:

(35) *Sardinian* (Loporcaro, 2007: 190-191(25a, b, c))

a. Maria ɛs palti:ð-a.
Maria be.PRS.3SG fall.PPRTC-SG.F
'Maria felt.'

b. Maria z=ɛs samuna:ð-a.
Maria REFL.ACC.3SG=BE.PRES.3SG wash.PPRTC-SG.F
"Maria washed herself."

c. Maria z=ɛr rispɔ:st-a.
Maria REFL.DAT.3SG=BE.PRES.3SG answer.PPRTC-SG.F
"Maria answered herself."

(36) *Macerata* (Paciaroni, 2009: 47(14a, b', c))

a. Marí ɛ ccaʃcat-a.
Maria be.PRS.3SG fall.PPRTC-SG.F
'Maria felt.'

b. Marí s=ɛ rlaat-a.
Maria REFL.ACC.3SG=be.PRS.3SG wash.PPRTC-SG.F
'Maria washed herself.'

c. Marí s=ɛ rriʃpoʃt-a da per
Maria SI.DAT.3SG=be.PRS.3SG answer.PPRTC-SG.F from for
essa.
her
'Maria answered to herself (on her own).'

When it comes to reflexive clauses, both Sardinian and the dialect of Macerata select HAVE and do not allow participle agreement, as shown in (37) and (38-a), respectively. To be more precise, the variety of Maceratese spoken today optionally selects BE in these clauses. In that case, participle agreement is required, as in (38-b).

(37) *Sardinian* (Loporcaro, 2007: 191(25d))

Maria z=a ssammunaːðu zal maːnɔs
Maria SI.DAT.3SG=have.PRS.3SG wash.PPRTC the hands
'Maria washed her hands.'

(38) *Macerata* (Paciaroni, 2009: 49(19))

a. Marí s=a rlaato le ma.
Maria SI.DAT.3SG=have.PRS.3SG wash.PPRTC the hands

b. Marí s=ɛ rlaat-a le ma.
Maria SI.DAT.3SG=be.PRS.3SG wash.PPRTC-SG.F the hands
'Maria washed her hands.'

The examples shown above, where BE is selected and participle agreement takes place, may suggest that in these varieties the absence of participle agreement is linked to HAVE selection, reflecting the already mentioned overlap between BE selection and participle agreement. Generally speaking, however, this is not the case. Consider other data (see 39 and 40) from the very

same varieties, where the participle agrees with the object clitic, regardless of HAVE selection.

(39) *Sardinian* (Jones, 1993: 97(46a))

Los=appo faeddat-os.
ACC.M.PL=have.PRS.3SG talk.PPRTC-PL.M
'I talked to them.'

(40) *Macerata* (Paciaroni, 2009: 45(12'a))

Le ma, Marí se=l=a
the hands.F M. SI.DAT=ACC=have.PRS.3SG
rlaat-e.
wash.PPRTC-SG.F
'The hands, Maria washed them.'

If we consider those varieties with person restrictions on monoargumental *si/se* constructions, the interaction between auxiliary selection and PPA becomes even trickier. The dialects of the greater Veneto area, where this kind of split is found, exhibit a variable behaviour. The data in (41) from Paduan indicate that PPA is excluded when the reflexive clause select HAVE.

(41) *Paduan* (Kayne, 1993: 20(58-59))

a. La Maria se=ga vestì-o/*-a
the M. SI.ACC=have.PRS.3SG dress.PPRTC/*-SG.F

b. La Maria se=ze vestì-a
the M. SI.ACC=be.PRS.3SG dress.PPRTC-SG.F
'Maria dressed herself.'

However, we also found varieties where PPA with HAVE in reflexives is al-

lowed: see the example in (42) from Trentino.

(42) *Trentino* (Kayne, 1993: 21(60))

La Maria la=s=ha
the M. SCL.3SG.F=SI.ACC.3=have.PRS.3SG
vestì-a.
dress.PPRTC-SG.F
'Maria dressed herself.'

French, by contrast, is similar to Italian in showing participle agreement for gender and number with BE-selecting unaccusatives (43-a) and direct transitive reflexives (43-b). However, the participle is spelled out in its default form in transitive indirect reflexives, differently from Italian:

(43) *French* (Olivier, 2025: 166(8), 186(41), 187(46b))

a. Sophie est morte ainsi.
S. be.PRS.3SG die.PPRTC-SG.F thus
'Sophie died like this.'

b. Jeanne s=est laveé.
J. SE.ACC.3SG wash.PPRTC-SG.F
'Jeanne washed herself.'

c. Dominique s=est lavé les mains
D. SE.DAT.3SG=be.PRS.3SG wash.PPRTC the hands
dans l'eviér.
in-the sink
'Dominique washed her hands in the sink.'

The French pattern of participle agreement also differs from that of Italian in other respects. In French, a wh-object and a participle may optionally

agree[28] (which is not possible in Italian, cf. 44-a vs 45-a), and agreement is likewise optional with third person object clitic pronouns, while in Italian it is mandatory.

(44) *French* (Déprez, 1998: 11(14))

a. Combien de fautes a-t-elle fait/-es?
How-many of mistakes has-se make.PPRTC/-PL.F
'How many mistakes has she made?'

b. Ces sottises, Jean ne les=a jamais
these stupid-things.F J. NEG them=has ever
fait/-es.
done.PPRTC/-PL.F
'These stupid things, Jean has never done them.'

(45) *Italian* (Belletti, 2006: 496, 500)

a. Quanti libri hai letto/*-i?
how-many books have.PRS.2SG read.PPRTC/-PL.M
'How many books have you read?

b. Le=ho viste/*visto.
them.F=have.PRS.1SG saw.PPRTC-PL.F
'I saw them'

2.9 Conclusion

In this Chapter, I have presented the major kinds of auxiliary selection systems attested in Romance, on modern varieties of Italo-Romance, with the exception of Old Florentine. If we abstract away from varieties with a single HAVE (Trebisacce) or BE (Ripano) auxiliary, the main systems of auxiliary

[28] According to Déprez (1998), the agreeing pattern in (44-a) has a semantic effect of specificity (it presupposes a specific set of mistakes and asks how many of them are attributed to the subject), while there is not necessarily such effect in the non-agreeing pattern.

selection are based on argument splits, person splits, or a combination of the two. Free variation BE∼HAVE is also attested, characterizing certain argument-structure-based as well as person-driven systems. Unlike Old Romance varieties (e.g. Old Florentine), most Modern Romance varieties with an argument split (e.g. Italian, French, Sardinian) do not behave exactly as purely argument-structure-based systems (unless *si/se* constructions are regarded as unaccusative, cf. §2.2.3 above), since reflexive clauses require BE selection to a variable extent. Some of these varieties exhibit reflexive splits, including varieties of the Sardinian and of the Picernese types. As for person-driven systems, their interaction with reflexivity diverges significantly with the patterns found in argument-structure-based systems, since the relevant person split extends to reflexive clauses as well. Like (reflexive) cliticization, participle agreement is a phenomenon whose interaction with auxiliary selection gives rise to interesting variation. The Italian pattern, where agreement with a transitive object *in situ* is not allowed, is attested in most Romance varieties with an argument-structure-based system, while it is rare in person-driven systems. By contrast, dialects with a person-driven system allow the participle to agree with a transitive *in situ* object. In this respect, these varieties share the common situation found in old stages of Italian, as attested in the literary tradition.

The degree of crosslinguistic variation in auxiliary selection, and its interaction with distinct linguistic phenomena such as reflexivization and participle agreement, raises challenging questions for the theory of syntax. As for the distinction between argument-structure-based and person-driven systems, recent work in the Minimalist framework has argued that both, along with the mixed systems, can be explained through common mechanisms operating in the syntax (D'Alessandro, 2017; Amato, 2022; Olivier, 2025). If

all these systems of auxiliary selection can indeed be reduced to common mechanisms, the characterization of such mechanisms is subject to different formal proposals. The interaction between auxiliary selection and (reflexive) clitics is of particular interest, as it raises important questions on the nature of clitics and their relation to transitivity. Most formal studies have focused on reflexivization in standard languages such as Italian and French, often leaving aside the crosslinguistic variation attested in Romance dialects. Recent accounts have certainly advanced new ways of addressing this variability within a Minimalist perspective. Yet, further research is needed to shed light on reflexivity and its interaction with auxiliary selection in some of the varieties included in this Chapter. It is still not clear, indeed, what structural factors underlie the manifestation of reflexive splits, nor how a theory within the formal or Minimalist framework should account for them. In addition, a formal description of 'purely' argument-structure-based systems, such as Old Florentine, in Minimalist terms is still lacking. Analogous questions arise with respect to the interaction between auxiliary selection and the realization of PPA in some of the varieties presented above, including the possibility, attested in old and modern Romance dialects, for the participle to agree with transitive *in situ* objects, as well as the restrictions on PPA in reflexives of the Sardinian/Picernese types.

3 Auxiliary Selection in a Minimalist Framework

3.1 Introduction

This Chapter presents the theoretical backbone of this dissertation, namely Minimalism, and shows how it can account for the patterns of auxiliary selection presented in the previous Chapter. After introducing the core theoretical concepts, I discuss how Minimalism has approached the syntax of the Romance periphrastic perfect. In addition to the syntax of the auxiliaries HAVE and BE, I also address how participle agreement and pronominal clitics interact with auxiliary selection in a Minimalist framework. I will mainly discuss how such interactions have been accounted for in previous theories of auxiliary selection, and how they should be accounted for under the approach adopted in this dissertation.

As far as auxiliary selection is concerned, a number of accounts relate BE selection to some kind of defectivity in the syntactic structure, in terms of case absorption (Cocchi, 1995; Reinhart and Siloni, 2005), defective φ-valuation (Amato, 2021), or the absence of an EA (D'Alessandro and Roberts, 2010; Bjorkman, 2011). The alternative approach, which is the one I adopt, with adaptations and modifications, treats BE as an equal sign; more precisely, BE signals an identity relation in the T/v field. In generative grammar, this proposal traces back to Burzio (1986), and it has been further developed in the following years, most notably by Vikner and Sprouse (1988) and Vikner (1990). Building on Burzio's original proposal, Ledgeway (2022: 447) has formalized a rule of auxiliary selection in terms of co-indexation of T and V. While Ledgeway's formalization is compatible with a Minimalist approach to auxiliary selection and its crosslinguistic varieation, I propose that it should

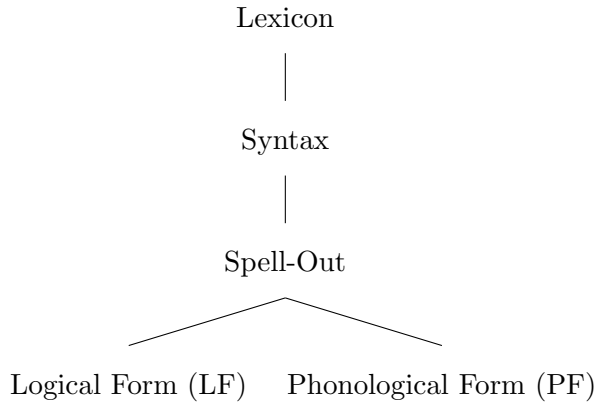
be adapted in order to account for a number of facts, mainly related to different kinds of constructions (unaccusatives, reflexives, impersonals) and to the crosslinguistic variability found in Romance.

3.2 The framework

3.2.1 The architecture of the grammar

The common representation of the grammar in Minimalism is the so-called T-model or Y-model: the syntax, which is concerned with building the phrase structure, interacts with non-syntactic systems that are essential for providing linguistic expressions with meaning and sound. The syntax picks up elements from the lexicon and builds the structure. After that, the output of the syntax is sent to Spell-Out, a step called Transfer. Through Spell-Out, the syntax interacts with two interfaces, the Conceptual-Intentional (C-I) and the Sensory-Motor (S-M) systems. These interface systems provide the syntactic structure with meaning/interpretation (Logical Form, LF) and sound (Phonetic/Phonological Form, PF). The essential structure of the Y-model is represented in (1).

(1)



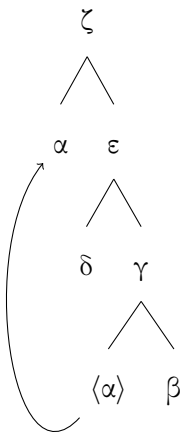
The main role of the syntax, then, is to pick up elements stored in the lexicon (lexical items, LIs) and to combine them to form expressions that are interpretable at both interfaces. If the output of the syntax is uninterpretable to one or both interfaces, the derivation crashes. For example, a sentence like (2) is not interpretable at LF because the reflexive pronoun must be bound by a co-referential DP within the clause boundary (Chomsky, 1980).

(2) *Mary$_i$ said that John$_j$ admires herself$_i$.

The basic structure building operation is Merge, which is further distinguished into external and internal Merge (Chomsky, 1993, 1995). External Merge takes two terms α and β[29] and combines them to form a new term γ; internal Merge moves a term inside an already existing syntactic structure. Note that the new term γ now contains both α and β. Another way of saying this is to say that γ is the mother of α and β (or that γ and β are daughters of γ), and that α and β are sisters. Moreover, γ can now undergo external Merge with another term δ. External and internal Merge are sketched, respectively, in (3) and (4).

(3) Merge(α,β)→{α,β}(=γ)

(4)



[29] α is a term if α is a LI or has been generated by a previous application of Merge.

In (3), two terms α and β are picked up from the lexicon and merged together, forming a new term γ. In (4), α surfaces in a higher position than its base one. In earlier generative works (e.g. Chomsky, 1975) the moved constituent is said to leave a trace behind, which is co-indexed with the moved term (because they have the same referent). While the trace is not pronounced at PF, it is still visible to LF. This is necessary to give the correct semantic interpretation to a moved element, for instance with respect to the ϑ-role it has received in its base position. When two terms carry the same index, they form a chain: the rightmost member is called the foot of the chain; the member of the chain which has phonetic content is called the head of the chain. In the more modern copy theory of movement (Chomsky, 1994), instead, a copy of the base-generated term is moved higher and, eventually, the lower copy is deleted; hence the lower copy is not pronounced at PF. The movement produced by Internal Merge is subject to a series of restrictions, listed below (Cocchi, 2019: 85ff.):

(a) movement always takes place from the bottom to the top of the tree;

(b) it cannot affect an intermediate projection X′;

(c) it undergoes the Structure Preservation Principle (Emonds, 1976; Chomsky, 1986), according to which heads always target head positions, and phrases always target specifier position;

(d) an element cannot be moved into a position which is already occupied by another element, or by the copy of an element that has previously moved;

(e) movement always targets the closest appropriate position, a principle which can be referred to as locality (Manzini, 1992)[30].

[30]This principle has also been labelled Minimal Link Condition (Chomsky, 1986) or Relativized Minimality (Rizzi, 1990).

3.2.2 Interpretability and valuation

The terms taking part in the derivation have morpho-syntactic features such as category (V, N, A), φ-features, case, and so on. In Minimalism, features are distinguished into interpretable and uninterpretable. The distinction was originally related to the fact that some features do not contribute to the meaning of the sentence in any way. For instance, case was considered an uninterpretable feature at LF, while possibly being interpretable at PF in some languages such as Latin and German. The syntactic structure that is sent to the interface cannot contain uninterpretable features, otherwise the derivation crashes. This interpretability requirement is formally known as Full Interpretation (5).

(5) Full Interpretation (FI, Adger, 2003: 85): The structure to which the semantic interface rules apply contains no uninterpretable features.

If uninterpretable features are present in the syntactic representation, they must be deleted before Transfer takes place, a principle known as the Checking requirement (see 6). The nature of such checking mechanism will be explored further later on in this paragraph.

(6) Checking requirement (*ibid.*): Uninterpretable features must be checked and once checked, they can delete.

Because establishing what should be treated as an uninterpretable feature on the basis of its semantic contribution to the sentence is rather controversial, more recent approaches to Minimalism (Müller, 2010; Longenbaugh, 2019;

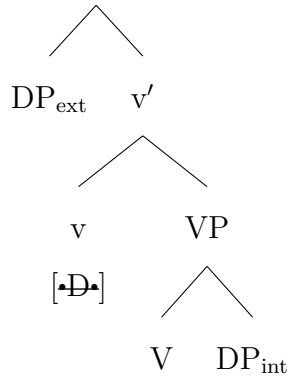
Amato, 2021) treat uninterpretable features as triggers of syntactic operations, with no implication for their interpretability at the semantic interface.

Going back to the checking mechanism, some uninterpretable features can be satisfied by external Merge. These are basically uninterpretable c(ategory)-selectional features, which require a term of the appropriate category to be merged with the term carrying the uninterpretable feature. Let us consider how this process takes place at the v and T level. In the VP-shell analysis (Adger, 2003: 134ff), v is responsible for the predicate's transitivity. While V realizes the lexical verb entry and assigns the Patient/Theme ϑ-role to the IA merged in V's complement, transitive v (also noted as v*), assigns the Agent ϑ-role and introduces the EA in its specifier. This means that transitive v bears a D-selectional feature which is checked by merging an EA in Spec-vP. As for T, it is associated with the inflectional properties (tense, person, number) of finite verbs. Moreover, T assigns nominative case to the EA, while not assigning any ϑ-role. The EA moves to Spec-TP. Such movement has been interpreted as a necessary step to check an EPP (Extended Projection Principle) feature on T[31]. However, the same result can be achieved, in the formalization adopted here, by assuming a D-selectional feature on T.

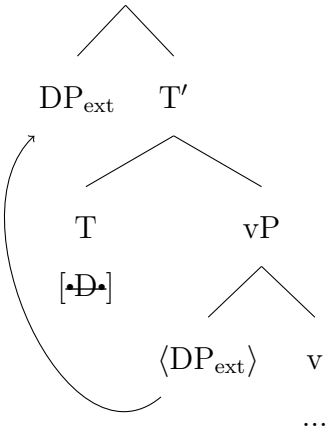
[31] "A finite tense constituent T must be extended into a TP projection containing a subject" (Radford, 2004: 54), cf. Chomsky (2015) for further discussion on the EPP.

To sum up, the EA is externally merged in Spec-vP first (see 7), and is subsequently moved (by internal Merge) to Spec-TP (see 8).

(7)



(8)



Other uninterpretable features are checked (and deleted) differently. In subject-verb agreement, for instance, the φ-features on T are spelt out according to the φ-features on the subject. This means that T carries uninterpretable φ-features which are deleted by entering into a structural relation with the marching features on the subject. Uninterpretable features of this kind are valued and deleted through agreement, as defined in (9).

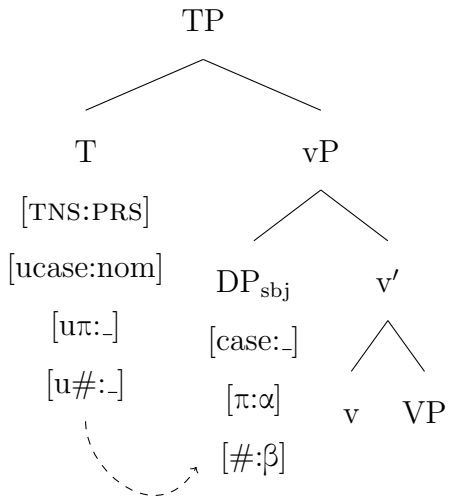
(9) Agree (Adger, 2003: 168): An uninterpretable feature F on a syntactic object Y is checked when Y is in a c-command relation[32] with another syntactic object Z which bears a matching feature F.

Uninterpretable features are referred to as *probes*, while c-commanded in-

[32]A node α c-commands a node β iff α's sister either (i) is β or (ii) contains β (Adger, 2003: 117).

terpretable features are referred to as *goals*. The T head, which carries an interpretable present tense feature, probes the EA and values its uninterpretable φ-features. In the valuation process, the values are copied from the goals onto the probes. Note that T also assigns nominative case. The whole process of φ-valuation and nominative case assignment is shown in (10).

(10)



Note that T's probes are unvalued as well as uninterpretable. This reflects the idea that the inflectional properties on T are unspecified in the lexicon and acquire those of the goal through agreement. Chomsky (2001: 5) claims that being unvalued is a general properety of probes. In other words, there is a biconditional relation between interpretability and valuation, namely a feature F is uninterpretable iff F is unvalued. By contrast, Pesetsky and Torrego (2007) argue that interpretability and valuation are independent conditions. If so, four logical conditions are contemplated in the lexicon: [uF:_], [uF:α], [F:_], [F:α]. Nontheless, they maintain the idea that probes are unvalued, though not necessarily uninterpretable. A third way to interpret the Agree relation is the one proposed by Amato (2021), where probes are character-

ized as being uninterpretable, though not necessarily unvalued. In this case, uninterpretability is not related to interface conditions: an uninterpretable feature is simply a feature that can act as a probe. Thus, uninterpretability is a syntactic rather than a semantic condition (see also Amato, 2022: 5, n5). That being the case, an uninterpretable unvalued feature probes a (valued or unvalued) goal, whereas an uninterpretable valued feature probes an unvalued goal. In this thesis, I will primarily adopt this third interpretation of Agree. To sum up, my account proceeds from two central assumptions regarding uninterpretability and valuation: first, there are two main kinds of uninterpetable features: [•F•] are checked through Merge, [uF] are checked through Agree (see Table 4); second, interpretability and valuation are independent conditions, hence an uninterpretable feature can be valued or not.

	Checking mechanism	Syntactic operation
[•F•]	Sisterhood	Merge
[uF:_/α]	Valuation	Agree

Table 4: Feature-driven syntactic operations

3.2.3 The morpho-phonological interface

In the Y-model, syntactic structure is sent to the interfaces only after all syntactic operations have taken place. In order to account for instances of successive cyclic movement, Chomsky (2000, 2001, 2008) argues that sentences are not sent to the interfaces in one single chunk. Rather, a derivation proceeds by Spell-Out chunks called *phases*. Once a phase is built, its complement is sent to the interfaces.Crucially, phases are subject to the Phase Impenetrability Condition, defined in (11).

(11) Phase Impenetrability Condition (PIC, Chomsky, 2000: 108): In a

> phase α with head H, the domain (=complement) of H is not accessible to operations outside α, only H and its edge (=specifier) are accessible to such operations.

Chomsky identifies two phases, CP and transitive v*P. The CP projection corresponds to any embedded clause headed by C, e.g. a complementizer such as *that/if* in English. Chomsky (2000, 2001) distinguishes between transitive/unergative v*, which counts as a strong head and hence constitutes a phase, and unaccusative/passive v, which is a defective head and does not constitute a phase. However, this distinction has often been considered unmotivated (Legate, 2003; Richards, 2011).

In the Minimalist model of morphology known as Distributed Morphology (DM, Halle and Marantz, 1993), morphological operations apply at PF, i.e. they apply to the output of syntactic derivations. Morphological operations realize the morpho-syntactic features assigned to each syntactic unit by supplying phonological material, a process called Vocabulary Insertion. A single pairing of morpho-syntactic features and phonological exponents is referred to as a Vocabulary Item, a representation of which is given in (12).

(12)

Vocabulary Item		
[αβγ]	⟷	/X/
Syntactic features		Phonological exponent

3.2.4 Case valuation

In the Agree-based model of case valuation (Chomsky, 2000, 2001)[33], v* values the accusative case of the IA and T values the nominative case of the EA. Chomsky treats case valuation as a by-product of φ-Agree rather than a distinct checking process. In a transitive structure, v* Agrees with the IA, and T with the EA (see 13).

(13) [$_{TP}$ T [$_{vP}$ EA v * [$_{VP}$ V IA]]]

In Chomsky's case valuation system, unaccusative v is defective. As such, it does not have φ-probes nor does it introduce an EA. Instead, the IA receives the nominative case from T - it is essentially a derived subject - as shown in (14). The IA eventually moves to Spec-TP, a process not shown in (14). Note that if, *contra* Chomsky (2001), unaccusative vP is treated as phasal, the IA must escape the phase domain by landing temporarily in Spec-vP, where it is probed by T (Georgi and Stark, 2021; Amato, 2022)[34].

(14) [$_{TP}$ T [$_{vP}$ v [$_{VP}$ V IA]]]

As for dative case, a specific applicative has been proposed (Cuervo, 2003;

[33]The best known alternative to the Agree model is the configurational model of case assignment, where a NP/DP receives structural case by virtue of a structural relation to another NP/DP. This model was first proposed by Marantz (1991) and has since then been reworked in various versions, including Preminger (2014) and Baker (2015).

[34]Notably, in French and Italian, the subject of an unaccusative or passive clause can surface *in situ*, cf. §3.3.4, below.

Pylkkänen, 2008). Pylkkänen (2008) distinguishes between a high and a low applicative head, the former located between the EA and v, the latter located between vP and VP. Both Amato (2021) and Manzini (2024) argue that that, in the Romance languages, the applicative projection is located between vP and VP, as shown in (15), where the IO is merged in the specifier position of the applicative projection[35]. Alternatively, the base-position of the IO can be located within the VP, namely in the specifier of the lexical verb, as in (16).

(15) $[_{\text{vP}}$ EA v $[_{\text{ApplP}}$ IO Appl $[_{\text{VP}}$ V IA]]]

(16) $[_{\text{vP}}$ EA v $[_{\text{VP}}$ IO $[_{\text{V}'}$ V IA]]]

3.3 The Romance periphrastic perfect

The syntactic approach to auxiliary selection traces back to Relational Grammar (Perlmutter, 1978) and, within the generative paradigm, to Government and Binding theory (Burzio, 1986). The fundamental idea that auxiliary selection should be treated as a syntactic phenomenon, rather than purely morphological or semantic, has also been embraced by the Minimalist framework too. The Minimalist literature assumes that the perfective allomorphy of auxiliaries in the Romance languages corresponds to the realization of features on a functional head in the T/v field (D'Alessandro and Roberts, 2010; D'Alessandro and Ledgeway, 2010; Bjorkman, 2011; D'Alessandro, 2017; Amato, 2021, 2022; Olivier, 2025).

[35]According to Manzini (2024), Romance dative clitics are merged as heads of the applicative projection, whereas prepositional datives like *a Gianni* 'to Gianni' are simply merged as PPs with the dative information carried by the preposition *a*.

3.3.1 The syntactic structure

Building on the literature already mentioned, and especially on D'Alessandro and Roberts (2010), I adopt the syntactic structure in (17), in which the v_{Aux} head spells out the auxiliary.

(17) $[_{TP}\ T\ [_{v_{Aux}P}\ v_{Aux}\ [_{vP}\ v\ [VP]]]]$

T probes the subject, corresponding to the EA merged in Spec-vP of a transitive structure or the IA of an unaccusative/passive structure. Note that the presence of v_{Aux} prevents the lower v from raising to T. Such V-v-T movement does take place, at least in French and Italian, when T heads a non-compound finite phrase. In that case, the v-V complex raises to T to acquire the verbal inflectional morphology (Roberts, 2010; Ledgeway, 2022).

3.3.2 V-movement

D'Alessandro and Roberts (2008) argue that the Italian active transitive past participle results from V raising to v, with V picking up the past participle inflection.

(18) $[_{vP}$ EA V+v $[_{VP}$ ~~V~~ IA]]

This movement is motivated by the position of participles in Italian, which "must raise over a certain class of manner adverbs" (D'Alessandro and Roberts, 2008: 481), including *bene* 'well' and *poco* 'little'. Cinque (1999: 11) locates both adverbs in the lowest, VP-external position (cf. Belletti, 2001: 130)[36],

[36]Possibly *poco* may be located higher than *bene* (Cinque, 1999: 173, n31).

which suggests that the participle has moved higher. This is illustrated with the following examples (19) and (20).

(19) *Italian*

a. Hanno accolto bene il suo spettacolo solo loro.
have.PRS.3PL receive.PPRTC well the his/her show only they

b. */??Hanno bene accolto il suo spettacolo solo loro.
have.PRS.3PL well receive.PPRTC the his/her show only they
'They alone have received his show well.'

(20) *Italian* (D'Alessandro and Roberts, 2010: 60, n14(ib.-c.))

a. L'ho capito poco.
it=have.PRS.1SG understand.PPRTC-SG.M little

b. ??L'ho poco capito.
it=have.PRS.1SG little understand.PPRTC-SG.M
'I understood it little'

By contrast, such movement does not take place in Southern Romance (Ledgeway, 2022: 441-443)[37], including the dialect of Arielli, in which the example in (21, next page) is fully grammatical.

[37]Ledgeway's description is built on a typology of Romance based on a North-South axis "which distinguishes between varieties of the northern Romània (langue d'oïl and d'oc varieties, northern Italian dialects, Raeto-Romance) [...] and varieties of the southern Romània (central-southern Italian dialects, Sardinian, Ibero-Romance varieties, Dalmatian, and Daco-Romance)" (p. 441).

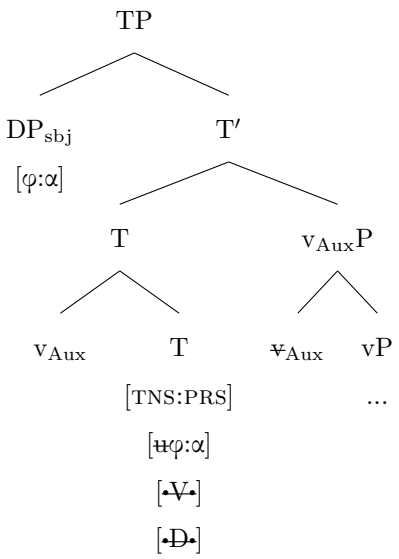
(21) *Arielli* (D'Alessandro and Roberts, 2010: 60, n14(ia.))

Le=so poche capite.
it=have.PRS.1SG little understand.PPRTC-SG.M
'I understood it little'

3.3.3 The v_{Aux}-T head

The structure in (17) reflects two assumptions regarding Romance periphrastic perfect: first, that auxiliaries behave like raising predicates (Ross, 1969); second, that the two main components of this split v-head, i.e. the auxiliary and the participle, are inherently verbal. While the root of the auxiliary is selected on v_{Aux}, the φ-features spelt out on the auxiliary match those on the subject; hence we must assume that the inflectional properties of the auxiliary are spelt out on T, not on v_{Aux}. I adopt the assumption that v_{Aux} incorporates into T via head movement triggered by a V-selectional feature on T, and that v_{Aux} and T form a complex which spells out the inflected auxiliary (cf. Amato, 2022: 12, Olivier, 2025: 14), as shown in (22).

(22)



3.3.4 Auxiliary selection

Previous accounts of argument-structure-based systems have explained auxiliary selection in terms of structural defectivity. Since unaccusatives select BE and transitives select HAVE, auxiliary selection can be related to the presence of an EA, as argued by D'Alessandro and Roberts (2010) and Bjorkman (2011). If such an explanation is adopted, however, BE selection with reflexives and impersonals remains unmotivated, unless these predicates are analyzed as intransitives, as previously proposed, in different flavours, by Cocchi (1995), Chierchia (2004) and Reinhart and Siloni (2005). The main problem with these analyses is that the evidence supporting an intransitive derivation of *si/se* constructions is rather dubious (cf. §2.2.3 above). Amato (2021, 2022, 2023) also adopts the idea that BE signals structural defectivity, though not in terms of argument structure. According to Amato (2021), the auxiliary is realized on a Perf head located between TP and vP. Auxiliary selection results from the valuation of a person probe on a Perf head located between T and v. In Italian and French, v has an impoverished set of uninterpretable φ-features which only includes person. This means that v is a suitable target for π-Agree on Perf[38].

(23) $[_{TP}\ T\ [_{PerfP}\ \overset{\text{π-Agree}}{\text{Perf}}\ [_{vP}\ \hat{v}\ [VP]]]]$

BE selection results from the defective valuation of the π-feature on the Perf head. Such defective valuation takes place in two distinct structural envi-

[38] In order to explain why the EA does not intervene in π-Agree between Perf and v, she adopts a Nested-Agree approach. While I will recap Amato's proposal in §4.2.1 below, I refer to Amato (2021: 26ff.) for a detailed discussion of how this approach avoids the problem of minimality related to the presence of an EA in the Agree domain of Perf.

ronments: v lacks a person probe because it is featurally deficient, or the person probe on v is valued by a π-defective goal [39] within the VP. The first environment characterizes unaccusative predicates, which are π-defective, an assumption in line with Chomsky's (2001) distinction between non-defective v* and defective v, where only the former projects a full argument structure with an EA and bears φ-probes. As such, after Perf has probed v for π-valuation, the π probe on Perf remains unvalued. The second environment characterizes reflexives. According to Amato, the Romance reflexive clitic is a DP merged within the VP with an unvalued π feature. It is eventually valued only after an EA is merged in Spec-vP and binds the clitic. However, at the stage where v probes the clitic for case and φ-valuation, there is no EA and the clitic is still unvalued for π. Amato's account captures the main facts regarding auxiliary selection in Italian. Nevertheless, it does not naturally account for the Romance varieties where reflexives pattern with transitives, rather than unaccusatives, in selecting HAVE. In addition, the assumption that Italian/French v is not associated with a full bundle of φ-probes requires a separate theory for PPA, which Amato provides by resorting to edge features. While I will adopt the idea that PPA with clitics is due to edge features, I adopt partially different assumptions about PPA in general (cf. §4.2.3 below).

An alternative to the idea that BE is related to structural defectivity is that BE, unlike HAVE, reflects an identity relation between the subject and the object. This proposal traces back to Burzio (1986), who has formulated a two-fold rule for Italian auxiliary selection, whereby BE is selected "whenever a binding relation exists between the subject and a nominal contigous

[39] In Amato's theory, interpretability and valuation are independent conditions. This means that, after the application of Agree, an uninterpretable feature can be deleted even if it remains unvalued. In other words, defective valuation does not lead a to derivational crash.

to the verb" (p. 55). This theory accounts for both unaccusatives and reflexives, although its formulation is uneconomical (Cocchi, 1995: 24). Following Burzio's work, Vikner and Sprouse (1988) and Vikner (1990, 2024) have pursued a more rigorous single rule formulation for BE selection. Much in the same spirit, Ledgeway (2022) has proposed the following formalization:

(24) Rule of BE selection (Ledgeway, 2022: 447): Auxiliary BE is selected whenever (Spec)T is indexed with V(,DP).

Ledgeway refers specifically to unaccusative structures, where the IA is promoted to the subject position by moving to Spec-TP. The IA movement gives rise to the following configuration in (25).

(25) DP_i T ... V(~~DP_i~~)

By the PIC, co-indexation between T and V can take place only if both are in the same Spell-Out domain. As such, the rule in (24) accounts for a number of facts regarding auxiliary selection in Romance. It naturally accounts for BE selection in unaccusative structures in languages where V overtly raises to v. In this case, T and V are in the same Spell-Out domain (in Ledgeway's account, unaccusative v heads a phase), and co-indexation between the two can take place. This is shown by the derivation in (26) for an Italian unaccusative clause.

(26) [$_{TP}$ Maria è [$_{vAuxP}$ ~~è~~ [$_{vP}$ caduta [$_{VP}$ ~~caduta~~ ~~Maria~~]]]]
Maria fell.

By the same token, it also provides a principled explanation for the absence of argument-structure-based systems of auxiliary selection in Southern (Italo-)Romance, where the participle tends to stay low, and therefore T and V belong to separate Spell-Out domains and can never be co-indexed. In the same work, Ledgeway argues that the person-driven pattern found in many Southern Italian dialects results from the auxiliary entering in a local configuration with the subject merged externally or internally in Spec-vP. Such a local configuration has been explored in detail by D'Alessandro and Ledgeway (2010), D'Alessandro and Roberts (2010) and D'Alessandro (2017). In particular, D'Alessandro (2017) provides an account of the person-driven pattern found in the dialect of Arielli by positing the presence of a head consisting purely of unvalued φ-features in the T/v domain, which she notes as π. The structure in (27) includes a π-head located between T and v.

(27) $[_{\text{TP}}\ \text{T}\ [_{\pi\text{P}}\ \pi_{\text{Aux}}\ [\text{vP}\ \text{v}\ [\text{VP}]]]]$

This π-head probes the subject. In varieties with a person-driven pattern of auxiliary selection, we must conclude that it includes at least a person probe (D'Alessandro and Roberts, 2010; D'Alessandro, 2017), hence the BBH pattern that is found, for example, in Arielli[40].

(28) $[_{\text{TP}}\ \text{T}\ [_{\pi\text{P}}\ \pi\text{Aux}\ [\text{vP}\ \text{DP}_{\text{sbj.}}\ [\text{VP}]]]]$

[40]According to D'Alessandro (2017: 22ff.), in the dialect of Arielli the π head must also include a number probe. The number probe on π serves to account for the ominvorous agreement pattern found in this dialect, whereby the participle must agree with the EA when the EA is plural (see the example in 34 in the previous Chapter). In D'Alessandro's account, π is able to share its valued number feature with v because they form a Complex Probe and hence are entailed with a sharing mechanism reminiscent of Chomsky's feature inheritance (Chomsky, 2008; Ouali, 2008)

All in all, the general rule in (24) can provide a viable solution for explaining the different patterns of auxiliary selection in the Romance varieties shown in the second Chapter. Indeed, it can be applied straightforwardly applied to reflexives, as long as co-indexation between T and V can result from a DP binding the reflexive clitic. In §3.4.1 below, I discuss how the rule in (24) can be adapted to the formal assumptions adopted of this dissertation.

3.3.5 Past participle agreement

Kayne (1989) was the first to propose a unified account of past participle agreement (PPA) in French and Italian within a generative framework. Given that PPA never occurs with a transitive *in situ* object[41], the core of Kayne's proposal relates PPA to a Spec-Head configuration involving the agreement projection AgrP. According to Kayne's analysis, participle agreement takes place iff Agr governs[42] the (trace of the) object.

(29) a. $[_{\text{AgrP}}$ Agr $[_{\text{VP}}$ V DP $]]$ — no government → no PPA

b. $\text{DP}_i ... [_{\text{AgrP}}$ $\overset{\times}{t_i}$ Agr $[_{\text{VP}}$ V $t_i]]]$ — government → PPA

✓

Kayne's analysis is basically a movement-based account of PPA. As such, it readily accounts for PPA with object clitics, since he treats Romance pronominal clitics as DPs base-generated in thematic positions (IA, IO). However, under Minimalist assumptions, the Agr projection cannot be maintained in the syntactic inventory, since heads encoding only uninterpretable φ-features

[41] This generalization, of course, does not hold for Old Italian and for many Italian dialects (cf. §2.8, above).

[42] A head H governs Y if and only if every maximal projection dominating H also dominates Y and conversely (Lasnik and Lohndal, 2010: 44).

have no right to exist (D'Alessandro, 2017: 14). Nontheless, the idea that PPA is triggered by the movement of an NP/DP across the v-phase[43] has been retained in some Minimalist approaches to PPA, either by restricting accessibility to φ-Agree (Longenbaugh, 2019), or by recurring to a setup of edge features on v (Amato, 2021). As pointed out by D'Alessandro and Roberts (2008) and Georgi and Stark (2021), movement-based accounts of Italian and French PPA do not readily explain why PPA takes place in unaccusative constructions where the derived subject stays in its base position, as in (30). One way to account for this pattern is to posit the presence of a *pro* expletive in Spec-TP[44], which is unsatisfactory "to the extent that the postulation of expletive pro is dubious, since this element has no interface properties (it is silent and therefore has no PF property, and it is an expletive and so has no LF property)" (D'Alessandro and Roberts, 2008: 480).

(30) Sono arrivat-e le ragazze.
be.PRS.3PL come.PPRTC-PL.F the girls
'The girls arrived.'

D'Alessandro and Roberts (2008) adopt a different, phase-based approach to participle agreement. They argue that Italian participle agreement takes place when the participle and the IA are in the same Spell-Out domain, which follows from the conditions imposed on the realization of morpho-phonological agreement, defined in (31).

(31) Phase-based morpho-phonological agreement (D'Alessandro and Roberts,

[43]Italian PPA, unlike French, is triggered only by instances of A-movement.

[44]Amato (2023: 218), instead, argues for a covert movement of the IA, which is interpretable at LF but not at PF, where only the lower copy is pronounced.

2008: 482)

a. Given an Agree relation A between probe P and goal G, morphophonological agreement between P and G is realized iff P and G are contained in the complement of the minimal phase head H.

b. XP is the complement of a minimal phase head H iff there is no distinct phase head H′ contained in XP whose complement YP contains P and G.

Following Chomsky (2001), they treat transitive v* as phasal and unaccusative/passive v as non-phasal. Recall that, under phase theory, once a phase (CP, v*P) has been built, its complement is sent to Spell-Out. Once the v* phase has been built, its complement or domain, namely VP, is sent to Spell-Out. At that stage of the derivation, V has already moved to v to pick up the inflectional properties of the participle (see §3.3.2 above). As such, the participle and the object are in separate Spell-Out domains and PPA does not take place. By contrast, unaccusative/passive v is not a phase and does not constitute a separate Spell-Out domain; in other words, the entire structure is sent to Spell-Out once the CP has been completed. In this case, the participle and the IA are in the same Spell-Out domain, and the participle surfaces in its agreeing form. In this theory, whether the IA moves out of its base position or not is irrelevant for PPA, since PPA is motivated in terms of morphological agreement in the Spell-Out domain, rather than movement: since unaccusative v is never phasal, the participle and the IA are always in the same Spell-Out domain[45]. As for object clitics in transi-

[45]I have already mentioned that the non-phasal status of unaccusative vP has been questioned by some scholars. The account of PPA proposed by D'Alessandro and Roberts is not incompatible with treating unaccusative v as phasal, but it requires the additional

tive clauses, they must escape the phase before Transfer applies in order to surface in their final position in Spec-T. As such, they end up in the same Spell Out domain as the participle, which agrees with the clitic[46].

Manzini (2023), who centres on the syntactic properties of Romance clitics, provides a different account of PPA with object clitics. According to Manzini, PPA is triggered by a complex inheritance sequence from v to the clitic to V, as shown in (32-a), where the clitic is merged as a head of a functional projection φP. In (32-b, next page), upon v-to-V inheritance, V enters into Agree with the IA, "not as part of the head-to-head inheritance sequence, but as an independent feature checking relation" (p. 114), with no effect on overt morphological agreement.

(32) a. $[_{vP}\ v\ [_{\varphi P}\ cl\ [_{VP}\ V\ ]]]$ PPA ✓

assumption that the IA eventually moves, overtly or covertly, to the edge of v (Amato, 2021: 193ff.; Ledgeway, 2022: 447).

[46]D'Alessandro and Roberts' theory does not seem to be fully applicable to French PPA. For example, it cannot readily account for agreement triggered by A′-movement, unless intermediate traces are taken in consideration (Georgi and Stark, 2021: 28). Another potential problem is represented by the fact that V-v movement does not seem to take place with French participles (Georgi and Stark, 2021). They mention the following examples in (i), where the participle always follows the class of manner adverbs, unlike what we see in Italian.

(i) *French*

a. Ils ont bien accueilli son spectacle.
they have.PRS.3PL well receive.PPRTC his/her show

b. *Ils ont accueilli bien son spectacle.
they have.PRS.3PL receive.PPRTC well his/her show
'They have received his/her show well.'

Finally, it does not directly take into account the optionality of PPA with clitics, attested both in Italian and French (Kobayashi, 2022: 10). For a discussion of the challenges to D'Alessandro and Roberts' theory of PPA, see also D'Alessandro (2022).

b. $[_{vP}\ v\ [_{VP}\ V\ \ IA]]$ PPA ×

3.3.6 Pronominal clitics

The properties of Romance pronominal clitics have been long studied in generative linguistics, due to the properties that distinguish them from phrasal pronouns. It is well know that clitics differ from phrasal pronouns in a number of phonological and syntactic respects (Graffi, 1994; Cardinaletti and Starke, 1999). Unlike phrasal pronouns, clitics do not constitute phonological words and cannot be stressed. In addition, they have a fixed position in the clause: they do not surface in the same position as phrasal pronouns but on the T head, which acts as their prosodic host. The Italian examples in (33) show that the accusative clitic attaches to T and surfaces as a proclitic.

(33) a. Vedo Giovanni.
see.PRS.1SG G.
'I see Giovanni.'

b. Lo=vedo.
ACC.3SG.M=see.PRS.1SG
'I see him.'

The standard approaches to the syntax of clitics include the movement analysis and the clitic-*pro* analysis. The movement analysis of clitics, proposed by Kayne (1975, 1991), and adopted by Chomsky (1995), argues that clitics are merged as DPs and then move to the inflectional domain, where they adjoin to T head. According to Chomsky (1995), clitics are both maximal and minimal projections. Thus, the syntactic derivation may involve head movement or phrasal movement (Cardinaletti and Starke, 1999; Matushan-

sky, 2006; Amato, 2021). In the movement analysis, accusative clitics are DPs base-generated in the direct object position, as in (34-a). As for the oblique clitics, the applicative literature argues they are base-generated in an applicative projection (Pylkkänen, 2008)[47] as shown in (34-b).

(34) a. $[_{vP}$ v $[_{VP}$ V $cl_{dir.obj.}]]$ accusative clitics

b. $[_{vP}$ v $[_{ApplP}$ $cl_{ind.obj.}$ Appl [VP]]] dative clitics

The movement analysis of clitics naturally accounts for PPA in French and Italian, if one assumes that PPA is triggered by a DP moving past the vP. The other standard approach treats clitics as functional heads generated higher in the structure, licensing lower *pro*-DPs. In Sportiche's account (1996), clitics are first merged as functional heads, doubling phrasal *pro*s in thematic positions. In (35), the accusative clitic is merged in a functional projection above VP, doubling a *pro* in the object position. This approach naturally accounts for phenomena such as clitic doubling.

(35) $[_{vP}$ v $[_{AccVoice}$ cl_{DP} $[_{VP}$ V $pro_{DP}]]]$

Manzini (2023) proposes an analysis of clitics that treats them as pure heads. Manzini's analysis shares with Sportiche (1996) the assumption that clitics are first merged as functional heads. However, in Manzini's account they do not project specialized functional labels such as AccVoice, but rather their intrinsic categorial content: φP for accusative clitics and ApplP for dative

[47]The application of Pylkkänen's model to the Romance languages is not unproblematic (Cuervo, 2020). Indeed, the Romance languages lack applicative verbal affixes (Manzini et al., 2020: 237), which make the use of an applicative projection somewhat unnatural.

clitics. For instance, the accusative clitic is associated with a structure like (36-a). As for datives, Manzini adopts a structure involving an applicative projection headed by the oblique clitic, as in (36-b).

(36) a. $[_{vP}$ v $[_{\varphi P}$ cl $[_{VP}$ V]]] accusative clitic

b. $[_{vP}$ v $[_{ApplP}$ cl $[_{VP}$ V]]] dative clitic

For the purposes of this dissertation, the syntax of clitics is particularly relevant for their interaction with PPA and, most importantly, auxiliary selection. While the first interaction has been addressed in §3.3.5 above, here I shall focus on the latter. The most striking fact about the interaction between clitics and auxiliary selection is that *si/se* clitics are associated with BE selection in most Romance languages with an argument-structure-based system of auxiliary selection, including Italian and French. This fact raises interesting questions about the argumental properties of *si/se*. Because *si/se* appears in a variety of constructions (reflexive, middle, passive, impersonal), the clitic *si/se* has been often treated separately from the other Romance pronominal clitics (Manzini, 1986; Cinque, 1988; Dobrovie-Sorin, 1998; D'Alessandro, 2004, 2008; Pescarini, 2015, 2024b).

As we saw in the second Chapter, the reflexive clitic can pronominalize various kinds of arguments. When it pronominalizes an IA, the action denoted by the verb is performed by the subject on itself, which is interpreted both as the agent and the theme, as in (37-a, next page). When the clitic pronominalizes an indirect object, it can be interpreted as a benefactive, as in (37-b, next page).

(37) a. Teresa si=è lavat-a.
T. SI.ACC.3=be.PRS.3SG wash.PPRTC-SG.F
'Teresa washed herself.'

b. Teresa si=è lavat-a le mani.
T. SI.DAT.3=bePRS.3SG wash.PPRTC-SG.F the hands
'Teresa washed her hands.'

Some constructions resemble the structure of (37-b), yet they do not receive a benefactive reading, and the reflexive clitic, besides being co-referential with the subject, acts as a pragmatic marker rather than as an argument, adding an intensifying value denoting completion and involvement of the subject. These constructions are equivalent, in their truth conditions, to their clitic-less counterparts (see 38).

(38) a. Teresa si=è mangiata due mele.
T. SI.DAT.3=be.PRS.3SG eat.PPRTC-SG.F two apples
'Teresa ate two apples.'

b. Teresa ha mangiato due mele.
T. have.PRS.3SG eat.PPRTC two apples
'Teresa ate two apples.'

As for impersonal *si/se*, it can behave as an argument or it can act as a passivizing marker. Referentially, it refers to an unspecified group of humans which may, but need not, include the speaker (D'Alessandro, 2004). The examples in (39) illustrate the different uses of Italian impersonal clitic.

(39) a. Si=è letto degli articoli.
SI.IMPRS=be.PRS.3SG read.PPRTC some articles
'We/People read some articles.'

b. Si=è dormito per due ore.
SI.IMPRS=be.PRS.3SG sleep.PPRTC for two hours
'We/People slept for two hours.'

c. Si=è partiti col treno.
SI.IMPRS=è.PRS.3SG leave.PPRTC-PL.M
'We left by train.'

d. Si=sono mangiat-e delle patate.
SI.IMPRS=be.PRS.3PL eat.PPRTC-SG.F
'We/People ate potatoes' or 'Potatoes have been eaten.'

The use of impersonal *si* clitic in a construction like (39-d) has led some scholars (Burzio, 1986; Cinque, 1988) to introduce a formal distinction between an impersonal *si strictu sensu* and a passivizing *si*. Cinque (1988) has proposed the existence of two kinds of impersonal *si*, one argumental ([+arg]) and one non-argumental ([-arg]). [+arg] *si* can only occur with a predicate that project an EA, while [-arg] *si* is possible with all verbs because it "amalgamates" with with the features of a null subject, giving to the subject an arbitrary interpretation. I will not go into further detail on the properties of the impersonal clitic for now; rather, I will address how *si/se* clitics in impersonal and reflexive clauses have been related to BE selection.

Under the assumption that BE selection is a valid diagnostic of unaccusativity, a natural way to deal with *si/se* would be to treat the clitic as a marker of an unaccusative structure (Kayne, 1986; Cocchi, 1995; Pesetsky, 1996; Sportiche, 1998). These analyses share the claim that *si/se* blocks or absorbs v's ability to assign the accusative case. In other words, the subject of these constructions is merged in the IA position and is promoted to the subject position much in the same way as unaccusative subjects are. Chierchia (2004) focuses on reflexives and proposes an intransitive analysis, different from the unaccusative one. In his view, reflexivization involves a process

of ϑ-reduction. In that case, ϑ-assignment to the internal argument cannot take place, since the IA is not present in the syntactic representation, while remaining available in the semantics. Thus, the ϑ-role associated with the theme is suppressed, yet still present in the semantic representation. As such, Chierchia's derivation of reflexives characterizes them as unergatives syntactically. Similarly, Reinhart and Siloni (2005) assume that reflexivization is related to ϑ-assignment. However, they do not analyse reflexivization as a process of ϑ-reduction, but rather as a process of *bundling*. Bundling is an arity operation that bundles any ϑ-role with an external ϑ-role[48]. According to their analysis, reflexive clitics reduce case assignment on v[49]:

> [W]hen a clitic is present, no Case considerations force the merging of an argument, and the only question left for the reflexivization operation is what happens to the unassigned ϑ-role.
> (Reinhart and Siloni, 2005: 402)

Since the clitic is not treated as an argument and does not receive a ϑ-role, the extra ϑ-role of the verb entry is assigned to the external argument, via bundling. The residual case on v is checked by a head in the inflectional domain spelled out as BE. As for the intransitive derivation of the *si/se* clitic, Pescarini (2015) adopts a clitic-*pro* analysis, as in (40, next page), where the clitic forms a chain with its trace within the VP.

[48]The definition is given in (i):

(i) Reflexivization Bundling (Reinhart and Siloni, 2005: 400):
$[\vartheta_i]\ [\vartheta_j] \rightarrow [\vartheta_i - \vartheta_j]$, where ϑ_i is an external ϑ-role.

[49]In their view, this straightforwardly accounts for the absence of auxiliary selection in DOM languages like Spanish and Romanian. According to them, DOM languages do not assign accusative case structurally. Consequently, there is no case residue on v and the auxiliary is always HAVE (cf. §3.4.2 below).

(40) $[_{\text{TP}}\ \text{EA}_{\vartheta+\vartheta}\ \text{cl}\ \ldots\ [_{\text{vP}}\ \text{v}\ [_{\text{VP}}\ e\ ]]]$

In Pescarini's theory, clitics form a chain with null arguments (denoted e) inside the verbal domain. Following Reinhart and Siloni (2005), he argues that *si/se* does not identify an argument, nor does it receive ϑ-role. If so, the lower trace is unmotivated in the syntactic representation, and such unmotivated trace triggers bundling and, arguably, BE selection. Both processes can be interpreted as the effects of a last resort operation (Pescarini, 2015: 46). According to (Pescarini, 2015: 91ff.), the origin and properties of other *si/se* constructions such as impersonals can be attributed to the re-analysis of reflexive structures. Since there are several reasons to doubt that BE selection is a reliable diagnostics of unaccusativity (cf. §2.2.3, above), Amato (2021) proposes a transitive derivation of reflexive *si/se* constructions, relating BE selection to structural featural defectivity rather than unaccusativity. Amato adopts a movement analysis of clitics, whereby reflexive clitics are DPs merged in the IA or IO position, just like object clitics in (34). The impersonal clitic, by contrast, is merged in a $\text{Voice}_{\text{impers}}$ functional projection, as shown in (42). The clitics are associated with a [•T•] feature which leads them to surface in Spec-T.

(41) a. $[_{\text{vP}}\ \text{v}\ [_{\text{VP}}\ \text{V}\ \text{cl}_{\text{dir.obj.}}]]$ accusative reflexive clitics

b. $[_{\text{vP}}\ \text{v}\ [_{\text{ApplP}}\ \text{cl}_{\text{ind.obj.}}\ \text{Appl}\ [\text{VP}]]]$ dative reflexive clitics

(42) $[_{\text{Voice}_{\text{impers}}\text{P}}\ \text{cl}\ \text{Voice}_{\text{impers}}\ [_{\text{vP}}\ \text{v}\ [\text{VP}]]]$ impersonal clitic

In Amato's account, BE selection is a by-product of the clitic's featural de-

fectivity. Indeed, Italian and French *si/se* clitics carry a defective set of φ-features, which include an unvalued π-feature. In Amato's theory, BE selection in the Romance languages with an argument-structure-based system of auxiliary selection results from defective valuation of a person feature in the T/v field which results in BE selection.

As I showed in the second Chapter (§2.2.3), the unaccusative analysis of *si/se* constructions is not fully supported by linguistic data. In particular, these constructions do not always behave as unaccusatives, casting doubts on the validity of the unaccusative analysis. Impersonal constructions are even more problematic, since the clitic can clearly receive the external ϑ-role, altough its arbitrary reference. If these constructions are treated as transitives, then BE selection cannot be explained in terms of a defective argument structure. The alternative idea is that the clitic *si/se* is associated with a morpho-syntactic defectivity that triggers BE selection. Although this solution does not suffer from the limitations of the unaccusative derivations, this dissertation argues for a different solution, and relates BE selection to co-indexation, a mechanism which can explain BE selection with unaccusative and reflexives. As for impersonals, I propose that BE selection results from a distinct rule. Although this treatment of impersonal may appear uneconomical, I will show that it significantly reduces the parametric differences between Italian and the so-called mixed systems (see §4.3.3, below).

3.4 Open problems

The goal of this section is to discuss some open challenges for theories of auxiliary selection in the Minimalist framework. Most of these challenges revolve around the crosslinguistic variation found in Romance. The final part of this section sketches a proposal that can address these challenges. The

fourth Chapter of this dissertation is devoted to elaborate on this proposal and to apply them to Romance auxiliary selection.

3.4.1 Co-indexation

The rule presented in (24), repeated below, explains auxiliary selection in argument-structure-based systems in terms of co-indexation between T and V. Such a co-indexation results from the IA moving in Spec-TP. While this formalization does not address BE selection in *si/se* constructions, the rule (24) is compatible with a transitive derivation of (direct) reflexives, provided that co-indexation results from the presence of the clitic's trace in the complement of V. Due to binding, the clitic's trace is co-indexed with the EA.

(24′) Auxiliary BE is selected whenever (Spec)T is indexed with V(,DP).

Olivier (2025) has proposed an account of French auxiliary selection that is reminiscent of the indexation approach. In particular, Olivier's theory attributes BE selection to a co-indexation in the T/v field. In Olivier's account the relevant co-indexation for auxiliary selection results from Agree, not movement[50]. According to Olivier, co-indexation between T and v_{Aux} derives from T and v_{Aux} having co-indexed valued person features. Crucially for this theory, v_{Aux} and v form a Complex Head in the sense of D'Alessandro (2017) and can therefore Share their valued features. The relevant definitions, taken from D'Alessandro (2017: 22) are given below. Note that the sharing operation proposed by D'Alessandro is similar to other feature sharing mechanisms such as "Copy" in Ouali (2008). Both mechanisms are reminiscent of

[50]In Olivier's account, Agree can result from two configurations: in the first one, a head bearing [uF] will probe the first potential goal [F] in its c-command domain; in the second one, a head bearing [uF] will probe a potential goal [F] that lands in its specifier (p. 182).

feature inheritance (Chomsky, 2008).

(43) 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.

(44) Complex Probe: Given two heads F_1 and F_2, where F_1 immediately dominates F_2, F_1 and F_2 constitute a complex probe if they Share their φ-features and these φ-features are unvalued.

(45) Share: Transfer φ-features from X to Y and keep a copy.

In transitive clauses, v probes the IA and T the EA. After v has Shared its valued person feature with v_{Aux}, v_{Aux} incorporates into T: T and v_{Aux} are not coindexed, and the auxiliary is HAVE. In unaccusative clauses, the IA is probed by both v and T: after v has Shared its valued person feature with v_{Aux}, T and v_{Aux} are coindexed, and the auxiliary is BE. According to Olivier, direct reflexive clauses should be analyzed as unaccusative, so their derivation does not differ from that of unaccusatives. Transitive reflexives with a lexical IA are instead accounted for by treating the reflexive clitic as verbal, rather than pronominal, merged as head on v. The clitic is incorporated by v_{Aux} and the complex *se*+v_{Aux} is incorporated by T. In doing so, it values the person probe on v first, and then eventually on v_{Aux}. The outcomes of these derivations are summarized in (46) and (47).

(46) BE selection (T and v_{Aux} are coindexed)

Unaccusative: Elle_i est arrivé ~~elle_i~~.

Reflexive: Il_i s_i'est parlé./Il_i s_i'est lavé le mains.

(47) HAVE selection (T and $_{Aux}$ are not coindexed)

Transitive (*in situ* object): $Elle_i$ a vu $Marie_j$.

Transitive (object clitic): Il_i t_j'a parlé.

Although compatible with the Minimalist approaches regarding auxiliary selection, Olivier's account is not satisfactory for the purposes of this dissertation. First, the unaccusative derivation of direct reflexives is not adopted here. Second, Olivier's account cannot be naturally extended to the languages of the Italo-Romance branch. In particular, Olivier's analysis fails to account for sentences where a binding (co-indexing) relation holds between the EA and IA, such as (48) for Italian. Indeed, under Olivier's analysis the expected auxiliary in these cases is BE, not HAVE, which is ungrammatical.

(48) $Gianni_i$ ha/*è guardato $se{=}stesso_i$ allo specchio.
G. have/*be.PRS.3SG look himself to-the mirror
'Gianni looked himself in the mirror.'

3.4.2 Absence of auxiliary selection

As suggested by previous works on auxiliary selection, the crucial difference between person-driven and argument-structure-based systems is the predicate's sensitivity to the subject person distinctions[51]. However, Romance

[51]As for the mixed-systems, I already mentioned two possible analyses: they are either person-driven or argument-structure-based. If they are analysed as person-driven systems, they should be restricted to transitive/unergative predication, since the split is generally not present with unaccusatives. Conversely, on an argument-structure-based analysis,, person restrictions must be imposed on the transitive/unergative paradigm. A notable fact about mixed systems in general is that they tend to exhibit a reflexive split of the Sardinian type (cf. Table 3), where transitive indirect reflexives select the same auxiliary

also displays varieties with a single auxiliary, be it HAVE or BE. A natural question, then, is why these languages lack a system of auxiliary selection. Proposals explaining the absence of auxiliary selection have focused on both varieties with the single auxiliary HAVE (like Romanian and Spanish) and varieties with the single auxiliary BE (e.g. Ripano, cf. D'Alessandro, 2017: 25-29). Here, I address the first type. According to Reinhart and Siloni (2005), in argument-structure-based systems, the auxiliary BE results from the presence of an unchecked case feature on the lower v. They argue that Romanian[52] and Spanish lack structural case valuation, displaying only thematic or inherent case assignment (i.e. case is assigned lexically by the verb entry). As such, there is never residual case to be checked on v, and consequently the auxiliary will be HAVE for transitives, unaccusatives, and reflexives. The main evidence they cite in support of this hypothesis is the fact that both Romanian and Spanish make use of differential object marking (DOM). According to Reinhart and Siloni, this suggests that, while animate/specific objects are encoded syntactically and require case valuation, unmarked objects do not. When a marked object is merged in the structure, it cannot be case-valued, and so a preposition (*a* in Spanish, *pe* in Romanian) surfaces. Unmarked objects, by contrast, simply do not require structural case valuation and can be incorporated into the verb. The crucial point is that v never assigns the structural case in these languages, and hence never finds itself with a case residue to be checked. Reinhart and Siloni's proposal contrasts with other accounts of case valuation in these languages, which argue that DOM results from a structural checking mechanism (López, 2012; Ormazabal and Romero, 2013; Irimia and Pineda, 2022; Zdrojewski, 2023;

as transitives. An explanation for this fact is still not available.

[52]Note that in Romanian BE exceptionally surfaces, instead of HAVE, in subjunctive clauses (Ledgeway, 2014).

Manzini, 2024)[53]. In addition, Reinhart and Siloni's account of auxiliary selection revolves around the claim that reflexives are intransitives, which is also controversial.

Torrego (2002) and Gallego (2020) resort to a different explanation. Building on Kayne (1993), they assume that the auxiliary HAVE results from the auxiliary BE incorporating an abstract prepositional feature. They argue that the difference between languages with and without auxiliary selection lies in the position of the auxiliary head in the structure. In languages without auxiliary selection, BE is merged below the EA. As such, the auxiliary is never sensitive to the presence of an EA. The structural difference is shown schematically in (49), abstracting away from Kayne's incorporating feature but maintaining the gist of Torrego's and Gallego's proposals, namely that auxiliary selection is sensitive to the presence of an EA in its Agree domain.

(49) a. Spanish, Catalan: $[_{\text{vPrt}}\text{P}$ EA v_{Prt} $[_{\text{vAux}}\text{P}$ v_{Aux} $[_{\text{VP}}$ V IA]]]]

b. Italian, French, Sardinian: $[_{\text{vAux}}\text{P}$ v_{Aux} $[_{\text{vPrt}}\text{P}$ EA v_{Prt} $[_{\text{VP}}$ V IA]]]]

This distinction is based, again, on the assumption that the presence of an EA plays an essential role in auxiliary selection of the Italian/French type. As we saw, the presence or absence of an EA cannot be considered the main factor behind auxiliary selection in Italian or French.

3.4.3 Reflexivity

BE selection with reflexives is attested in many argument-structure-based systems in the Romance domain. This patterns can be explained in terms of

[53]Cf. Kalin and Weisser (2019) for a critical discussion of some of the main approaches to DOM.

structural defectivity or in terms co-indexation. Yet, crosslinguistic variation shows that the correlation between BE and reflexivity is not absolute. Some Romance and Italo-Romance dialects use BE only in certain kinds of reflexives, but with all. In other varieties, BE is not used at all with reflexives. In the varieties of the Sardinian type, transitive reflexives with a lexical IA select HAVE or HAVE∼BE, unlike unaccusative and transitive direct reflexives, which select BE. I repeat the relevant examples below.

(33′) *Sardinian* (Loporcaro, 2007: 191(25d))

Maria z=a ssammunaːðu zal maːnɔs
Maria SI.DAT.3SG=have.PRS.3SG wash.PPRTC the hands
'Maria washed her hands.'

(34′) *Macerata* (Paciaroni, 2009: 49(19))

a. Marí s=a rlaato le ma.
Maria SI.DAT.3SG=have.PRS.3SG wash.PPRTC the hands

b. Marí s=ɛ rlaat-a le ma.
Maria SI.DAT.3SG=be.PRS.3SG wash.PPRTC-SG.F the hands
'Maria washed her hands.'

Amato (2021) raises the question of how these varieties should be explained. As we saw, Amato's theory of auxiliary selection revolves around the valuation of a π probe in a Perf head above the vP. Since BE is regarded as the defective auxiliary, its selection with reflexives is explained in terms of the reflexive clitics' φ-defectivity. This accounts the pattern found in Italian and French, where reflexives (and impersonals) always pattern with unaccusatives. However, it does not explain the pattern observed in the Sardinian type, where reflexives do not alwyas pattern with unaccusatives. Amato en-

tertains two hypotheses. One is that in these varieties the benefactive clitic is merged in an applicative projection above vP; by contrast, in Italian/French it occupies the specifier of a low applicative projection. As such, the Sardinian benefactive clitic is outside the search space for Agree on v, i.e. it is not in its c-command. The other hypothesis is that Sardinian v is structurally different from Italian/French v, i.e. it assigns accusative rather than dative case. Both hypotheses are summarized schematically below, in (50) and (51), respectively.

(50) a. Italian/French: $[_{vP}\ v\ [_{ApplP}\ cl_{IO}\ Appl\ [_{VP}\ V\ IA\ ]]]$

b. Sardinian: $[_{ApplP}\ cl_{IO}\ Appl\ [_{vP}\ v\ [_{VP}\ V\ IA\ ]]]$

(51) a. Italian/French: $[_{vP}\ v\ [_{ApplP}\ cl_{IO}\ Appl\ [_{VP}\ V\ IA\ ]]]$

b. Sardinian: $[_{vP}\ v\ [_{ApplP}\ cl_{IO}\ Appl\ [_{VP}\ V\ IA\ ]]]$

As Amato points out, the first solution is rather speculative, since there is no substantial evidence that Sardinian benefactive clitics are located higher than Italian or French ones. The second solution suffers from similar shortcomings, in the absence of clear evidence for a structural difference between Sardinian and Italian/French v[54]. The pattern found in Old Florentine, illustrated

[54]As a matter of fact, the Italian pattern is far less expected than the Sardinian one, because oblique clitics are generally not targets for participial agreement, i.e. they do not

in §2.2.2 is even more problematic for a theory of auxiliary selection based on π-Agree and defective valuation, since unaccusatives and reflexives never behave alike in terms of auxiliary selection.

3.4.4 Auxiliary selection and PPA

Most theories of auxiliary selection mentioned so far assume that auxiliary selection and PPA are independent phenomena and should be treated separately (cf. also Bentley and Eythórsson, 2004). Nontheless, this need not be the case. The correlation between BE selection and PPA in argument-structure-based systems like Italian and French is quite solid (Loporcaro, 1998; Georgi and Stark, 2021). In Italian and French, PPA is observed in the following contexts: unaccusative clauses and transitive clauses displaying a clitic object. Oblique clitics do not trigger PPA, with the notable exception of Italian *si*. In addition, the literature on Romance auxiliary selection (Ledgeway, 2022; Amato, 2021) suggests that the Italian and French patterns of PPA are commonly found in argument-structure-based systems of auxiliary selection, while PPA with an *in situ* object is common in the dialects with a person-driven system[55]. A theory of auxiliary selection should consider the strong relation found between systems of auxiliary selection and the properties of the participle, such as its position in the syntactic structure and its inflectional and agreement properties.

trigger PPA. This difference raises the question of whether auxiliary selection and PPA should be treated as completely separate phenomena, a problem which is discussed in the rest of this dissertation.

[55]For exceptions to these general correlations, I refer to Legendre (2010) and Amato (2021).

3.5 A sketch of the proposal

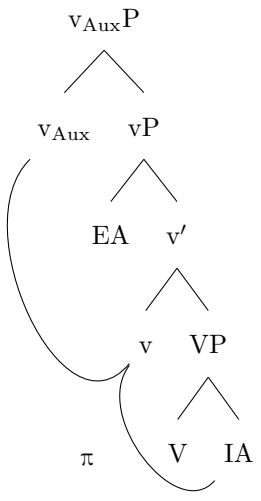
The analysis I present in the next chapters, while reminiscent of the fundamental rule expressed in (24), follows a different direction. I formulate the rule behind auxiliary selection in a way that is reminiscent of both Ledgeway and Oliver's formalizations.

(52) Rule of BE selection (*revisited*)

> The auxiliary on v_{Aux} is spelt out as BE whenever v_{Aux} is π-indexed with T.

where π-co-indexation results from two heads having co-indexed (i.e. identical) person features. I also assume that v_{Aux} and v form a Complex Head in the sense of D'Alessandro (2017). When v probes the IA, it can Share a valued person feature with v_{Aux} (cf. Olivier, 2025), as illustrated in (53).

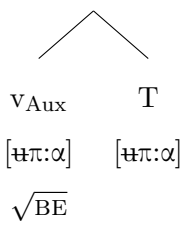
(53)



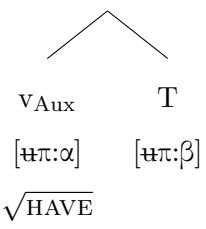
Upon merger of T, v_{Aux} incorporates to T through head movement. Cru-

cially, the conditions on the realization of PPA have relevant consequences for auxiliary selection. Indeed, when the participle agrees with the object in unaccusatives, v is valued accordingly and Shares a valued person feature with v_{Aux}. In this case, v_{Aux} and T end up with co-indexed π-features (T has probed the IA in an independent probing process), as shown in (54). When φ-Agree on v has not taken place, v is unable to Share a valued person feature with v_{Aux}. If so, v_{Aux} and T cannot be co-indexed: HAVE emerges. A similar outcomes obtains whenever v_{Aux} and T bears different person features (as in transitives with an object clitic), as shown in (55).

(54)



(55)



This proposal does not sever auxiliary selection and PPA, but treats them as interdependent phenomena. In particular, π-co-indexation is related to richer agreement on v, in languages with an argument-structure-based systems such as Italian. This reflects the common situation in Romance systems such as those of Italian and French, where the co-occurence of BE selection and PPA is frequently attested. The absence of an argument-structure-based system of auxiliary selection can thus be associated with properties of the participle, in particular its low position or the different featural content of v (Ledgeway, 2020; Amato, 2021; Ledgeway, 2022). These premises make it possible to explain the other patterns (person-driven, single auxiliary) in an empirically and theoretically principled way.

3.6 Conclusion

Syntactic theories in the Minimalist framework have shed a new light on several aspects of auxiliary selection. One of the goal of recent contributions has been to parametrize the crosslinguistic difference found in various systems of auxiliary selection. As for argument-structure-based systems, the traditional generalization based on the distinction between non-defective v* and defective v cannot fully account for the varieties where reflexives pattern with unaccusatives in selecting BE, unless one treats reflexives as unaccusatives, a solution that is unsatisfactory in many respects. Moreover, this solution cannot be extended to a number of varieties in which reflexives pattern with transitives rather than unaccusatives. Note that these varieties are also challenging for the other approaches to auxiliary selection, including those that relate the presence of the reflexive clitic to structural (featural) defectivity.

What has not been attempted yet is an extension of the theory that BE is an equal sign to all these varieties, including the argument-structure, the person-driven, and the mixed systems. Such a theory should also take into account the relationship between auxiliary selection and participle agreement, two phenomena that most recent works on auxiliary selection, including Amato (2021) and Olivier (2025), treat separately. The relevance of such relationship for a theory of auxiliary selection is suggested by the strongly attested co-occurence of BE selection and PPA, and the general distribution of PPA patterns in varieties with argument-structure-based and person-driven systems. In the next Chapter, I argue for an analysis based on co-indexation of person feature, exploiting the rule in (52). The goal of the rest of this dissertation is to show that such an approach can explain the main patterns of auxiliary selection found in the Romance languages.

4 Romance Auxiliary Selection: The Analysis

4.1 Introduction

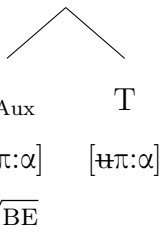
The main goal of this Chapter is to present an analysis of auxiliary selection applied to the main systems outlined in Chapter 2. The analysis is based on the assumption that BE selection depends on feature identity, as stated by the rule in (52) (Chapter 3), repeated below.

(52′) Rule of BE selection

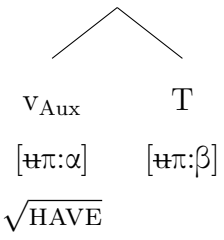
> The auxiliary on v_{Aux} is spelt out as BE whenever v_{Aux} is π-indexed with T.

Following this formalization, two possible configurations underly auxiliary selection in argument-structure-based systems. In the first scenario (see 1a), v_{Aux} and T are co-indexed and the auxiliary is BE. In the second scenario (see 1b), they are not co-indexed and the auxiliary is HAVE.

(1) a.



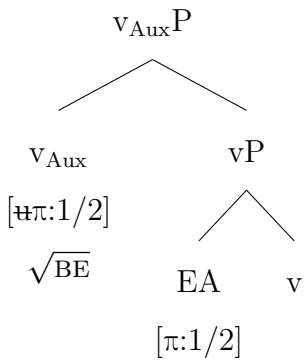
b.



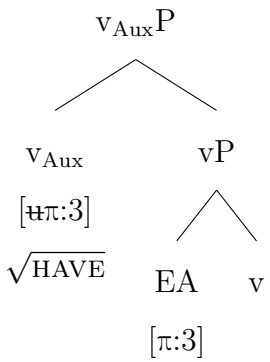
While this formalization directly addresses the pattern found in languages like Italian, French, Sardinian, etc., it does not readily explain person-driven

and mixed systems. As far as the person-driven system is concerned, I will argue for the presence of an uninterpretable person feature on v_{Aux} which probes the subject, in line with previous accounts (D'Alessandro and Roberts, 2008; D'Alessandro, 2017; Amato, 2022). Unlike in argument-structure-based systems such as Italian or French, v_{Aux} is unable to obtain a valued person feature from v, possibly due to the the structural position of the participle, which tends to remain low in person-driven varieties. As a result, the participle and the auxiliary cannot enter into the formal relation that underlies auxiliary selection in argument-structure-based systems. The position of the participle has also been linked to another characteristic of person-driven systems, namely PPA with a transitive *in situ* object (D'Alessandro and Roberts, 2008: 60, n14; Ledgeway, 2020: 47-48; Amato, 2021: 417-418)[56]. The person-driven system is exemplified in (2), corresponding to the BBH pattern found in many Central and Southern Italian dialects (Arielli, Sonnino, etc.), where auxiliary selection splits 1st and 2nd person (selecting BE), from 3rd person (selecting HAVE).

(2) a.



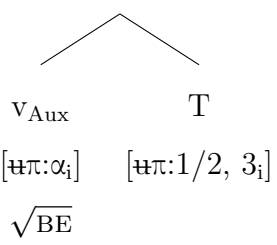
b.



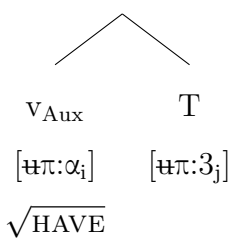
[56]However, there are cases where the presence of PPA with a transitive *in situ* object does not correlate with a person-driven system of auxiliary selection. For instance, Old Italian allowed PPA *in situ* but exhibited an argument-structure-based system of auxiliary selection. This will be the focus of the fifth Chapter of this dissertation.

As for the mixed systems, I follow Amato (2021) in assuming that they are basically argument-structure-based systems with person restrictions in part of the paradigm, most commonly the transitive/unergative portion. This means that, within the mixed systems, BE selection can still result from the general rule of auxiliary selection in (52′), although restricted to 3rd person. The following trees represent the situation found in Corridonia, Monte San Giusto, Monte Giberto, and all those dialects where the co-indexation rules only affects the 3rd person, while BE emerges in the first two persons, regardless co-indexation.

(3) a.



b.



In the course of the analysis, I will argue that argument-structure-based and varieties with person restrictions are even closer to one another. In particular, I will propose that BE selection with Italian transitive/unergative *si* impersonal does not result from the general rule in (52′), but from the particular person feature of the EA associated with the presence of impersonal *si*[57]. In other words, in these constructions, BE is lexically determined, just

[57] An anonymous reviewer points out that, while relying on a system of postsyntactic Distributed Morphology, the formulation of the general rule of auxiliary selection proposed here does not explicitly make use of the concepts of Underspecification or Defaults. In other words, the proposal does not specify whether HAVE or BE is more specific than the other. The same anonymous reviewer suggests that an alternative formulation of the general rule of auxiliary selection could be the following:

(i) Select HAVE if the indices differ, select BE elsewhere.

like it is in the first two persons in mixed systems such as those of Corridonia, Monte San Giusto, Monte Giberto.

4.2 Theoretical premises

Before presenting the analysis of auxiliary selection, I address theoretical issues concerning φ-Agree, the Share mechanism, PPA, feature identity, and the formal features of Romance clitics. The discussion of all these topics is instrumental to the analysis of Romance auxiliary selection presented in the following paragraphs.

4.2.1 φ-Agree and a problem of Minimality

Following previous work on Romance auxiliary selection, I assume that auxiliary selection depends on a structural relation between a probe on the v_{Aux} head and a goal somewhere down the structure, that is the DP subject in person-driven systems, and the lower v head in argument-structure-driven systems. The overall difference is represented in (4).

(4) a. $[_{v_{Aux}P}\ v_{Aux}\ [_{vP}\ DP_{\ sbj}\ v\ [VP]]]$ person-driven system

b. $[_{v_{Aux}P}\ v_{Aux}\ [_{vP}\ DP_{sbj}\ v\ [VP]]]$ arg.-str.-based system

If auxiliary selection is attributed to the valuation of a (sub)set of uninterpretable φ-features on v_{Aux} - to a person probe, in the varieties with a BBH pattern such as those presented in the first Chapter - the first c-commanded

I think this alternative formulation is still compatible with the whole approach of this dissertation.

goal for an Agree operation is the DP subject. While this holds for person-driven systems, it clearly does not the hold for argument-structure-based systems (and for mixed systems, at least to some extent). This problem has already been addressed in previous literature (Roberts, 2010; Amato, 2021; Olivier, 2025). In what follows, I briefly recap the proposed solutions and clarify the one adopted here.

For the Romance periphrastic perfect, Roberts (2010: 77) proposes a structure in which the EA is merged in the specifier of the inner v*P, as illustrated in (5).

(5) $[_{\text{v}_{\text{Aux}}\text{P}}\ \text{v}_{\text{Aux}}\ [_{\text{v}_{\text{Prt}}\text{P}}\ \text{v}_{\text{Prt}}\ [_{\text{v*P}}\ \text{EA v*P [VP]}]]]$

In Robert's account, v_{Aux} bears a set of φ-probes that can "incorporate"[58] the clitic by displacing it in the edge of v_{Prt}, when an object clitic is present. In that position, the EA is simply not a goal for Agree on v_{Aux}. As noted by Olivier (2025: 21, n19), however, it is not clear how v_{Aux} ignores the EA in the absence of a clitic, unless the participle counts as an intervener, a question not addressed by Roberts. The structure in (5) also raises the problem of how to account for person-driven varieties. One solution would be to assume that v carries an EPP feature requiring the EA to move to Spec-v_{Prt}P[59], which is unsatisfactory for its *ad hoc* formulation.
By contrast, Amato (2021) adopts a Nested-Agree approach to auxiliary selection, under which Agree is subject to the restrictions in (6).

(6) Nested Agree: Let F_1 and F_2 be two ordered probes on the same head

[58] The incorporated element is referred to as a defective goal: "A goal G is defective iff G's formal features are a proper subset of those of G's Probe P" (p. 62).
[59] "[T]his would prevent the clitic from raising to the auxiliary." (p. 78, n36).

H. The search space of F_1 is the c-command domain of H.

a. 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.

b. If G is not a matching goal for F_2, the search space of F_2 is the c-command domain of G (not H).

Amato assumes the following syntactic structure, in which the auxiliary is realized by a Perf projection between T and v.

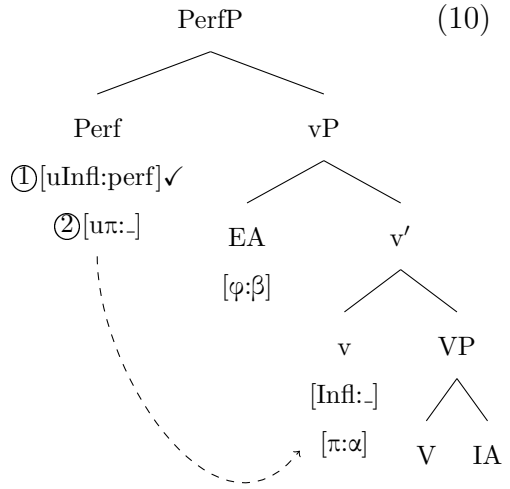
(7) $[_{TP}$ T $[_{PerfP}$ Perf $[_{vP}$ EA v $[_{VP}$ V IA]]]]

Perf enters the derivation with two probes: [uπ:_] determines auxiliary selection, and [uInfl:perf] consents the Spell Out of the past participle on v. In Amato's theory, probes are ordered, and different orders give rise to parametric variation. For auxiliary selection, the orders in (8) account for the difference between argument-structure-based and person-driven systems.

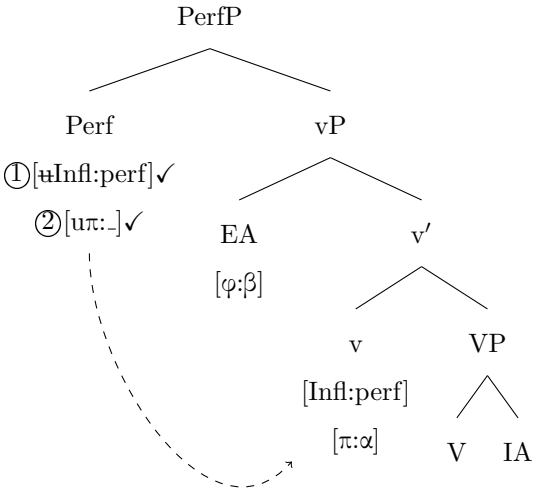
(8) a. Perf[uInfl:perf] $\succ$ [uπ] Argument split

b. [uπ] $\succ$ Perf[uInfl:perf] Person split

(9)



(10)



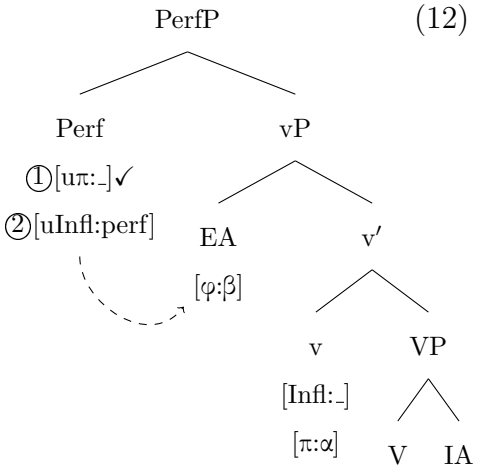
In Standard Italian, the Infl probe on Perf Agrees with the corresponding unvalued feature on v, as illustrated in (9). Now, by Nested-Agree, the person probe must exploit the same Agree channel, thus it also Agrees with the other feature on v, as illustrated in (10). In argument-structure-based systems, BE emerges iff Perf is featurally defective. As for unaccusative v, it is merged as a defective head and lacks uninterpretable φ features. Hence, when Perf targets v for π-valuation, this operation results in defective valuation of the π-probe (uπ:_ → ʉπ:_): thus, BE is selected. In reflexive clauses, the clitic, merged as the direct or indirect object, is initially merged with a defective set of φ-features and is valued via binding with the EA (Reuland, 2001; Heinat, 2006). When v is merged in the structure, however, no EA is present in the structure yet[60]. Consequently, v agrees with the defective clitic and v's π feature remains unvalued[61]. When Perf probes v, the unvalued π feature is

[60]This essentially follows from the Strict Cycle Condition (SCC, Chomsky, 1973: 243): "Within the current cyclic domain α, no operation may exclusively affect positions within another cyclic domain β that is dominated by α". The SCC ensures that an operation between the head and its complement (Agree) is perfomed before an operation between the head and its specifier (external Merge of the EA).

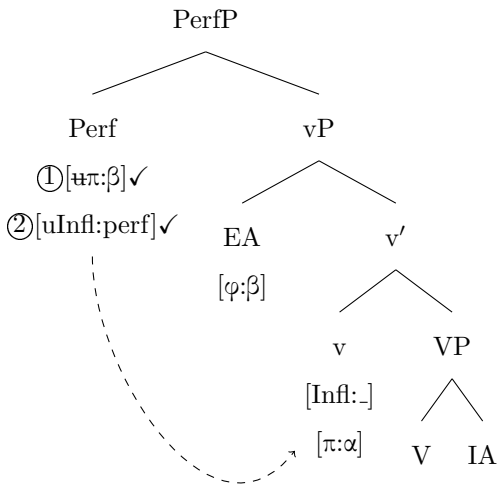
[61]In Amato (2022)'s conception, the function of Agree is the erasure of uninterpretable

copied on Perf: again, BE emerges. Amato's approach shares the common assumption that BE is the elsewhere (Bjorkman, 2011) and defective auxiliary (D'Alessandro and Roberts, 2010).

(11)



(12)



In person-driven varieties such as those of Arielli, by contrast, the person probe is discharged first, so v π-Agrees with the corresponding feature on the EA, as illustrated in (11). In the following step of the derivation, the Infl probe on v Agrees with the matching goal on v, as illustrated in (12).

Rather than resorting to Nested-Agree, I address the problem of Minimality by adopting a solution based on the notion of Complex Head, much like Olivier (2025). The notions of Complex Head and Complex Probe introduced by D'Alessandro (2017) provide a viable solution to the problem of minimality raised by the syntactic structure of the Romance periphrastic perfect. These notions were first introduced to account for the pattern of auxiliary selection and PPA found in Arielli. However, Olivier (2025) has applied them to account for French auxiliary selection. While I retain the

features rather than feature valuation (p. 103).

core idea that the iterated vP (v_{Aux} and v) in (4-b) constitutes a Complex Head, I will rework some of the theoretical aspects behind Olivier's formalization. I repeat the relevant definitions of Complex Head, Complex Probe, and the Share mechanism (D'Alessandro, 2017: 22) in (13-15).

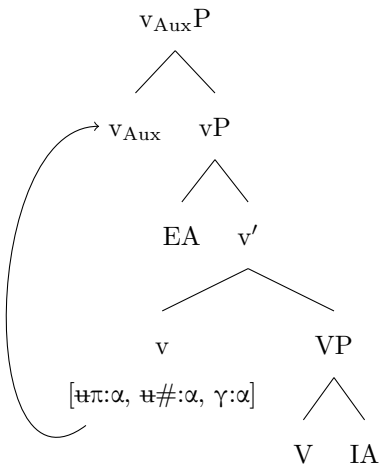
(13) Complex Head: Given two heads F_1 and F_2, where F_1 immediately dominates F_2, F_1 and F_2 constitute a complex head if they Share their φ-features.

(14) Complex Probe: Given two heads F_1 and F_2, where F_1 immediately dominates F_2, F_1 and F_2 constitute a complex probe if they Share their φ-features and these φ-features are unvalued.

(15) Share: Transfer φ-features from X to Y and keep a copy.

The fact that v and v_{Aux} in (4-b) form a Complex Head is suggested by the following facts: (i) both v and v_{Aux} are inherently verbal, and (ii) they show scattered inflectional properties. As for (ii), the φ-features traditionally attributed to vP are scattered between the participle (gender, number) and the auxiliary (person).

(16)



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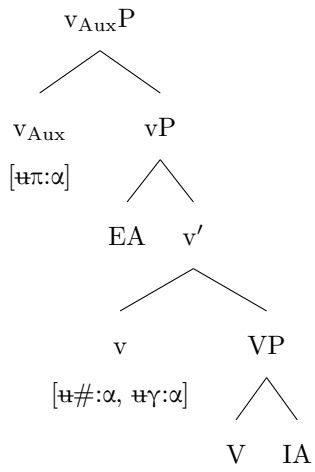


With these premises, Olivier argues that, once v has probed the IA, it transfers the valued person feature to v_{Aux} through the Share mechanism, illustrated in (16), which results in the structure in (17), where the participle retains its number and gender features while the person feature has been transferred to the auxiliary.

Although Olivier (2025) offers a syntactic account of French auxiliary selection compatible with the Minimalist framework adopted here, I already showed in §3.4.1 that his account cannot be extended to Italian reflexive clauses involving a phrasal reflexive pronoun such as *se stess-o/-a* 'himself/herself', where HAVE is selected despite the co-indexation betwee the EA and the IA. Crucially, such reflexives do not exhibit PPA, which in Italian transitives is observed only with clitics. In the analysis developed here, I take this to indicate that valued φ-features, including person feature, are absent on transitive v, when v assigns accusative case to an *in situ* IA. More precisely, whenever a transitive object remains *in situ*, v lacks a person feature to Share with v_{Aux}. Since v_{Aux} bears no person feature, no feature identity can obtain between v_{Aux} and T (the resulting configuration is comparable to

that of 1-b, above) and the 'default' auxiliary HAVE emerges.

4.2.2 The Complex Head vP and the Cut-and-Paste mechanism

The analysis offered in this dissertation is compatible with both Amato's and Olivier's approaches, as far as the minimality problem is concerned. However, since my analysis assumes that BE selection is triggered by feature identity rather than defectivity, the approach adopted here is closer to Olivier's one. Despite the shared assumptions, I introduce some formal differences. While I agree that v and v_{Aux} form a Complex Head as defined in (13), the mechanism by which a valued feature is transferred from v to v_{Aux} does not seem to correspond exactly to Share by D'Alessandro (2017). Indeed, v donates its valued person feature to v_{Aux}, without retaining a copy. I reformulate the relevant mechanism in (18).

(18) Share (*Cut-and-Paste version*): Cut φ-feature(s) of the shape [~~u~~φ] from X and paste it on Y.

In this Chapter, I show that the general rule in (52′) can account for the argument-structure-based system of auxiliary selection found in languages like Italian and French. As far as Italian is concerned, I argue that BE selection can never take place in transitive clauses with an object *in situ*, because v has not φ-probed the IA; hence, v is unable to Share a valued person feature with v_{Aux}. In this sense, the interaction between PPA and auxiliary selection is not accidental: the choice of auxiliary depends on both agreement and identity. In particular, while the absence of PPA induces the default auxiliary HAVE, the presence of PPA opens up two logical possibilities: (i) if the agreeing object is co-indexed with the subject, BE is selected; (ii) if the

agreeing object is not co-indexed with the subject, HAVE is selected.

As for person-driven-systems, while I adopt the established idea that auxiliary selection depends on a local π-Agree relation between v_{Aux} and the DP_{sbj}, the rule in (52′) helps explain why these varieties rely on such a local relation rather than co-indexation. Indeed, if the inflected participle occupies a low position in these varieties, as commonly assumed, BE selection can never result from co-indexation between v_{Aux} and T. This follows from the PIC: the participle and the auxiliary lie in two separate Spell Out domains, so the participle cannot transfer the relevant inflectional information to the auxiliary.

4.2.3 PPA: agreement and movement

In the Minimalist framework, PPA-related phenomena in languages like Italian and French have often been attributed to a single mechanism, most notably φ-Agree (Longenbaugh, 2019; Kobayashi, 2022). The account by D'Alessandro and Roberts (2008) includes a further restriction, induced by the PIC. Other scholars have argued for a non-unified approach, where PPA results from the interaction of different syntactic mechanisms, including agreement *in situ* and movement (Georgi and Stark, 2021; Salvà, 2025). In this dissertation, I follow the common view that PPA results from φ-Agree. However, the ability of v to enter in a φ-Agree relation with the IA is subject to specific restrictions in Romance languages such as Italian and French. In particular, I assume that these languages rely on both agreement *in situ* and agreement under movement. Since PPA is always found with unaccusatives, whether the IA surfaces *in situ* or not, I assume that unaccusative vP bears a full set of φ-probes (Georgi and Stark, 2021: 36ff.).

As for transitive vP, PPA is associated with clitic movement. Here, I will

focus on instances of A-movement, which trigger PPA in both Italian and French[62]. Object clitics must move out of the phase to land in their final position in Spec-T (Amato, 2021: 164ff). PPA induced by clitic movement has been explained in terms of feature arrangements on the phase head v. I follow Amato (2021: 153ff) in assuming that an escape-hatch for syntactic objects with unvalued features is provided by insertion of *edge features* (EF) on the phase head v. In particular, I assume that in Italian and French the bundle of EF includes: (i) a Merge feature corresponding to the category of the moving item, and (ii) a bundle of φ-features, including person, gender, and number, that probe the clitic. The insertion EF on the phase head v creates an extra specifier to host the extracted object. Hence, in languages like Italian and French (and possibly others with a similar PPA pattern), PPA with unaccusatives and with transitives results from two different mechanisms. Transitive v introduces an EA, assigns the accusative case, and optionally bears EF, inserted in the presence of an object clitic; unaccusative v bears uninterpretable φ-features that probe the IA, and a Merge EF that targets the IA when it surfaces on Spec-TP. Regarding timing, following Chomsky (2000, 2001) and Amato (2021), I assume that EF are assigned once the phase is completed. As for the Agree mechanism, I assume that uninterpretable features trigger Agree between a probe and a goal. However, such features need not to be unvalued (Chomsky, 2000). For instance, unaccusative v lacks a case probe but bears a full set of φ-probes. These probes are uninterpretable and unvalued. Therefore, they trigger Agree and they acquire the goal's value iff Agree is successful. By contrast, transitive v bears an accusative case probe, which is uninterpretable but valued, that probes the IA. The IA, in turn, bears an unvalued (but interpretable) case feature.

[62] As far as French is concerned, instances of A′-movement can also trigger PPA (Déprez, 1998; Kobayashi, 2022), a pattern I do not take into account in this dissertation.

(19)

Transitive v	Unaccusative v
[•D•], [ucase:acc], (EF: [•cl•], [uφ:_])	[uφ:_], (EF: [•D•])

The distribution of features on both transitive v and unaccusative v in Standard Italian[63] is summarized in (19), where transitive v has a D-selectional feature which is checked by external Merge of an EA in Spec-vP. I further assume that syntactic operations obey the Strict Cycle Condition (see 20, next page).

(20) Strict Cycle Condition (SCC, Chomsky, 1973: 243): Within the current cyclic domain α, no operation may exclusively affect positions within another cyclic domain β that is dominated by α.

Amato notes that if EF are inserted on v after the phase is completed, this clearly violates the Strict Cycle Condition: "the EF establishes a relation between the head and the complement with the exclusion of the specifier" (p. 159). To avoid this, she argues that EF are first inserted on the phase vP, and then projected onto the phase head v, where they can be discharged. Discharging Merge and Agree EF on v is not a violation of the SCC, because everything that happens now on v is also represented on vP (Amato, 2021: 159-160).

A distinct problem concerns the derivation of unaccusative clauses where the IA remains *in situ*, as in (21-b) in contrast to (21-a).

(21) a. Gianni è arrivat-o.
G. be.PRS.3SG arrived.PPRTC-SG.M

[63] A similar distribution can be attributed to French, although the bundle of EF should include an additional Merge feature [•wh•] that triggers PPA with moved wh-elements.

b. È arrivat-o Gianni.
be.PRS.3SG arrived.PPRTC-SG.M G.
'Gianni arrived.'

This problem is directly linked to the phasal nature of unaccusative v. Indeed, if unaccusative v does not count as a phase head, the whole structure is sent to Spell-Out in a single chunk and the IA position is irrelevant. However, if unaccusative v counts as a phase head, IA movement to Spec-vP is necessary to make the IA accessible to φ-Agree and case valuation on T[64]. One possible solution is to merge expletive *pro* in Spec-vP and raise it to Spec-TP, as proposed, for instance, by Longenbaugh (2019: 60-62)[65]. Another possible solution is to assume that unaccusative clauses with an IA *in situ* may involve a covert movement of the IA, which is visible at LF but not at PF (Amato, 2021: 193-208). While the analysis of auxiliary selection pursued here is compatible with the assumption that every v is a phase, I do not endorse the idea that unaccusative PPA is triggered by the IA movement. Rather, unaccusative v is always associated with PPA (Georgi and Stark, 2021), wether overt movement has taken place or not. As for Agree and case valuation between T and the IA, it may involve an expletive *pro* (Longenbaugh, 2019) or a covert movement (Amato, 2021). In this last case, the EF that probes the IA on unaccusative v should not be considered optional. In any case, the account presented here is compatible with both proposals.

[64]One way to sidestep this potential problem is to deny that Agree is constrained by the PIC (Bošković, 2007). However, I do not adopt this assumption here.

[65]According to D'Alessandro and Roberts (2008: 480), this solution is unsatisfactory "to the extent that the postulation of expletive pro is dubious, since this element has no interface properties (it is silent and therefore has no PF property, and it is an expletive and so has no LF property)."

4.2.4 Feature identity

In (52′), I presented the general rule for auxiliary selection, by which BE selection results from π-co-indexation. Following Olivier (2025), I take this co-indexation to be a matter of feature identity. In the context of auxiliary selection, feature identity arises when v_{Aux} and T heads have probed the same DP during the derivation. More precisely, v_{Aux} receives the direct object's person feature from v, when v has φ-probed the IA, while T independently probes the subject for φ-valuation and nominative case assignment via a separate Agree operation. Hence, co-indexation is not a product of of movement alone, but of φ-Agree. That said, there are structural situations where φ-Agree is induced by movement, namely when an object clitic moves out of the phase domain. As for feature identity, I follow Olivier (2025) in using indexes to identify person features on heads. Hence, two person features are identical iff the carry the same index (see 22).

(22) a. $[\pi{:}\alpha_i] \neq [\pi{:}\alpha_j]$

b. $[\pi{:}\alpha_i] = [\pi{:}\alpha_i]$

4.2.5 The morpho-syntactic features of Romance clitics

Given the strong correlation between object clitics, PPA, and auxiliary selection, I now turn to the features to be attributed to Romance clitics. Following Kayne's (2000) classification (Ch. 8), we can distinguish person from determiner clitics. While there is no general consensus on the formal features of Romance clitics, here I will largely rely on Kayne's classic analysis, with some modifications.

(23) Determiner clitics

It — Fr — π-γ-#
l-o — l-e — 3-sg-m
l-a — l-a — 3-sg-m
l-i — le-s — 3-pl-m
l-e — le-s — 3-pl-f

(24) Person clitics

It — Fr — π-#
mi — me — 1-sg
ti — te — 2-sg
ci — nous — 1-pl
vi — vous — 2-pl
si — se — 3 (reflexive)

The morphological shape and features of Italian and French object clitics are illustrated in (23) and (24), adapted from Kayne (2000: 133-152). Note that the French determiner clitic *les* has the same plural form for both masculine and feminine. Reflexive clitics can be grouped with person clitics. However, they have distinctive morphological and syntactic properties. As for the morpho-phonological shape of the reflexive clitics, they are isomorphic to person clitics, with the exception of the 3rd person, which takes the special form (*si/se*), regardless the singular/plural distinction. Determiner clitics clearly encode gender and number, except for the French plural, which lacks gender distinction. According to Kayne (2000), the 3rd person feature typically attributed to determiner clitics is in fact a 'non-person', an idea going back to Benveniste (1966). As for the person clitics' series, Mendikoetxea (2008: 299-300) relates their properties to affixes and verbal morphology rather than to nominal morphology. Indeed, what is commonly referred to as a number distinction does not involve adding the usual plural morpheme, which is *-i* for Italian and *-s* for French. For instance, there is no plural form *me-s* for French *me*. As a matter of fact, number distinction is closer to that found in verbal inflection, e.g. *Je mange* 'I eat' vs. *Nous mange-ons* 'We eat'. Unlike determiner clitics, person clitics do not encode formal gender.

This has visible consequences for PPA-related phenomena. For instance, in Italian 1st and 2nd person clitics show optional PPA for gender (see 25).

(25) a. Mi=ha visto/-a.
ACC-1SG=have.PRS.3SG see.PPRTC(-SG.F)
'(S)he saw me.'

b. Ti=ha visto/-a.
ACC-2SG=have.PRS.3SG see.PPRTC(-SG.F)
'(S)he saw you.'

c. L=ha vista/*-o.
ACC-3SG.F=have.PRS.3SG see.PPRTC-SG.F
'(S)he saw her.'

If clitics are bound by the subject, the clause is interpreted as a reflexive. In that case, PPA is mandatory. Note that the 3rd person requires the special form *si/se* (see 26).

(26) a. Maria$_i$ si$_i$=è vist-a allo specchio.
M. SI.ACC.3=be.PRS.3SG see.PPRTC-SG.F to-the mirror
'Maria looked at herself in the mirror.'

b. Le due ragazze$_j$ si$_j$=sono guardate (l'un l'altra).
The two girls SI.ACC.3=be.PRS.3PL look (one another)
'The two girls looked at each other.'

While PPA with determiner clitics can be attributed to the presence of formal gender and number features on the clitic, the agreement pattern observed with person clitics is hard to explain on strictly syntactic grounds without recourse to extra factors, such as semantics and pragmatics. As a matter of fact, cases in which participial and adjectival agreement appear to be se-

mantically or pragmatically determined are well-attested crosslinguistically. D'Alessandro (2004: 35) cites, among others, the Italian examples repeated in (27).

(27) *Italian* (D'Alessandro, 2004: 35(58-59))

a. L'insegnante è brav-a.
The-teacher is good.F

b. L'insegnante è brav-o.
The-teacher is good.M
'The teacher is good.'

The Italian word for 'teacher' does not encode a morphological marker for gender. This means that the inflected form of the adjective 'good' is determined semantically, not syntactically. Similar cases occur in French, as shown in (28).

(28) *French* (Kobayashi, 2022: 23, n17(ii) and Ihsane and Sleeman, 2016: 160, respectively)

a. Mon ancien professeur de français était toujours content-e
my.M former.M professor of French was always happy.F
de mon travail.
of my work
'My former French teacher was always satisfied (f.) with my work.'

b. Je suis content-e.
I am happy.F
'I am happy (f.).'

In the first example, the form for 'happy' is inflected according to the gender

of the referent. In the second, the person pronoun for 'I' does not encode morphological gender. Nevertheless, the adjective inflects according to the speaker's gender.

To sum up, as far as the relation between clitics and PPA is concerned, I do not claim that agreement results from semantics only. On the contrary, I argue that φ-Agree is a necessary pre-condition for PPA with clitics. As for person clitics, since they do not dispose of a full set of φ-features, the agreement pattern found with these clitics additionally relies on their inherent, lexically specified features (Egerland, 2003: 85-86)[66]. These lexical features can be optionally targeted with 1st and 2nd person non-reflexive person clitics[67], whereas they must be targeted with reflexive clitics, which always induce PPA. The mandatory pattern found with reflexives is possibly due to pragmatic factors related to co-referentiality between the subject and the clitic[68]. Regarding the clitics' syntactic features, I mainly follow Kayne (2000), Mendikoetxea (2008), and Kobayashi (2022). Unlike Kayne's analysis, determiner clitics are represented here as bearing a person feature specified as [π:3] rather than a non-person. As for person clitics, they have person and number features, except for reflexive *si/se* which has only a person feature set to 0. This means that the reflexive *si/se* clitic does not introduce an indipendent referential entity, but instead relies on being bound by an antecedent to acquire its person identity (Olivier, 2025: 189). The impersonal *si* clitic likewise has the 0-person feature (Mendikoetxea, 2008: 300);

[66]Cf. also (Kobayashi, 2022: 23, n17) and the references quoted therein, for an analogous claim.

[67]As a matter of fact, optional PPA is also found with determiner clitics in French. However, this optionality may be due to the internal structure of French determiner clitics (Kobayashi, 2022).

[68]I do not refer, here, to a distinct mechanism of semantic agreement, although such a mechanism, namely Concord, has been proposed in the literature (Baker, 2008; Giusti, 2008, 2009; Cardinaletti and Giusti, 2015), cf. also D'Alessandro (2004: 95-116, and the references quoted therein).

however, unlike reflexive *si*, impersonal *si* is not bound by an antecedent (Manzini, 1986: 253). While I will not discuss further whether the morphology of person clitic is verbal or nominal in nature, Mendikoetxea (2008) provides valid arguments that they are verbal,a matter that merits further investigation. The overall feature specifications for the clitics are included in (29) and (30).

(29) Determiner clitics

a. [π:3], [γ:α], [#:β]

(30) Person clitics

a. [π:α] α≠ 0, [#: β]

b. *si/se*: [π:0]

4.3 Argument-structure-based auxiliary selection

The pattern found in varieties such as Italian and French is commonly referred to as an argument-structure-based system of auxiliary selection. While this label reflects the distinction between transitives and unaccusatives, it does not fully account for auxiliary selection in these languages. The analysis proposed here explains auxiliary selection not in terms of argument structure, but rather in terms of co-indexation between and v_{Aux} and T. While I address primarily data from Italian, the analysis can be easily extended to French, despite the structural differences between the two languages, which concern, among other things, the patterns of optional and mandatory agreement observed with participles. French and Italian also differ with respect to impersonal/passive structures with *si/se* (Belletti, 1982; Cinque, 1988; Mendikoetxea, 2008). While I focus on auxiliary selection in a set of Italian impersonal *si* constructions in §4.3.3, I set aside the parametric differences between Italian and French impersonal and passive constructions, as well as the different patterns of PPA.

4.3.1 Transitive/unergative clauses

Let us consider, first, transitives with an *in situ* object and unergatives, in sentences such as (31) below.

(31) *Italian*

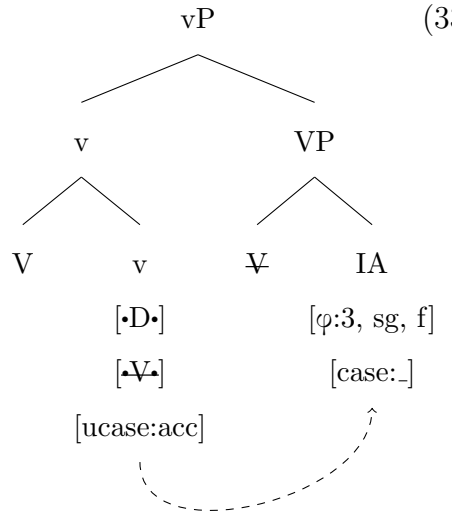
a. Maria ha fatto una torta.
M. have.PRS.3SG make.PPRTC a cake.
'Maria made a cake.'

b. Maria ha lavorato.
M. have.PRS.3SG work.PPRTC.
'Maria worked.'

I follow Georgi and Stark (2021) in assuming that, while transitive v is able to assign accusative case, it lacks uninterpretable φ-features. This is suggested by the fact that the participle surfaces in its default form when it probes an *in situ* object (see 31-a) or the structure is unergative (see 31-b)[69]. Let us deal with the derivation for the transitive example in (31a).

[69]Unergatives include a transitive-like v, which introduces an EA, and possibly assigns accusative case to a cognate IA (Hale and Keyser, 1993).

(32)



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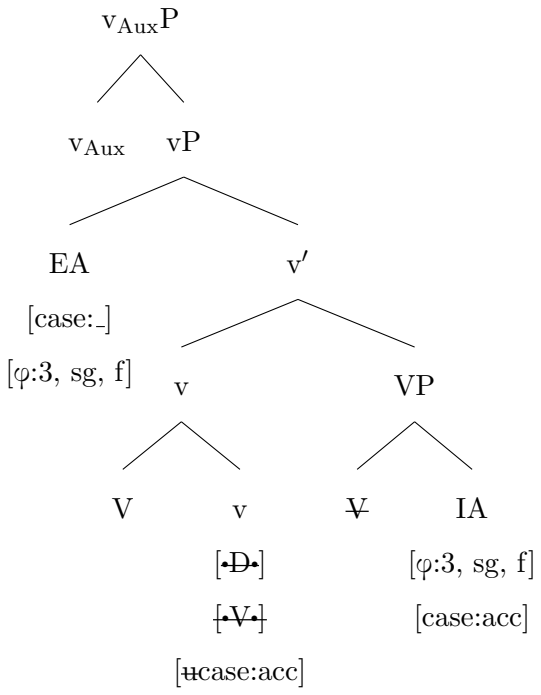
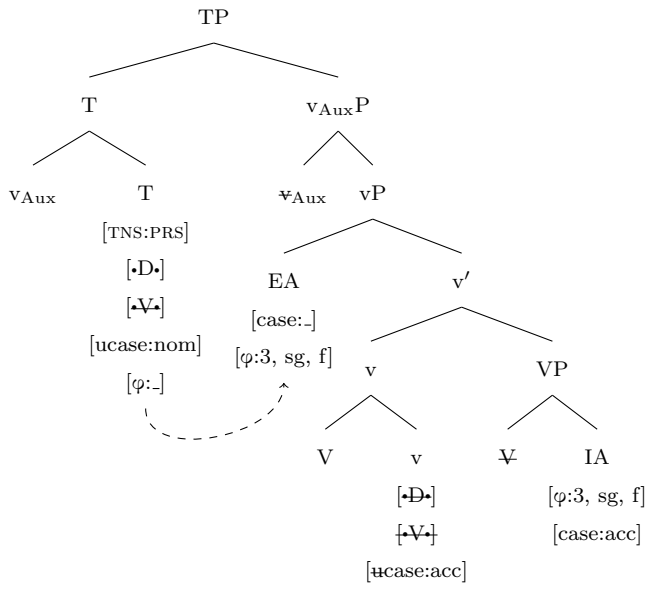


V-v movement checks the V-selectional feature on v. Right afterward, v probes the IA for accusative case and introduces the EA, checking the D-selectional feature on v (see 32). Upon merger of v_{Aux}, there is no person feature on v, hence the Share operation does not take place (see 33).

(34)



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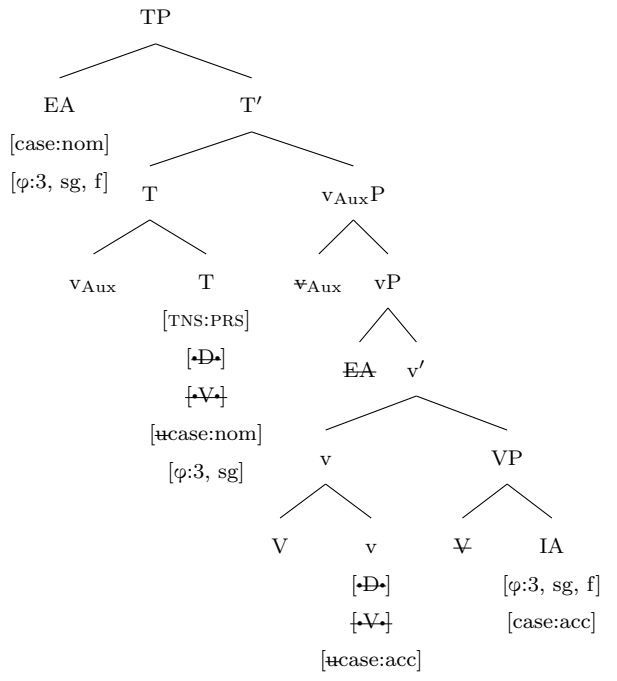


In the next step of the derivation, v_{Aux}-T movement takes place, and T probes the EA for φ-valuation and nominative case assignment, as in (34). Thus, the EA moves to Spec-TP, as in (35). At PF, there is insertion of morpho-

phonological material. While T has valued features for person and number, v_{Aux} lacks a valued person feature. The absence of feature identity triggers the insertion of the default auxiliary HAVE with the inflectional information provided by T, as illustrated in the vocabulary entry in (36).

(36)

v_{Aux}	T		
Ø	[π:3, #:sg, TNS:PRS]	→	$\sqrt{\text{HAVE}}$.PRS.3SG
			/a/
			'has'

As for the participle, it surfaces in its default form, due to the absence of valued features on v, see the vocabulary entry in (37), below.

(37)

V	v		
$\sqrt{\text{PRT}}$	Ø	→	$\sqrt{\text{PRT}}$.SG-M
			/fatto/
			'made'

As for unergatives, I adopt the standard assumption that they have a covert IA (Hale and Keyser, 1993), hence their derivation is not different from that of transitives. Indeed, unergatives show the same relevant properties of transitives: they select HAVE and they do not allow PPA. Hence, the derivation of the sentence in (31-b) has the same outcome as the transitive example. The transitive derivation also explains why we find HAVE when a full reflexive phrase is present, as in (38).

(38)

Maria$_i$	ha	guardato	se$_i$=stessa.
M.	have.PRS.3SG	look.PPRTC	herself

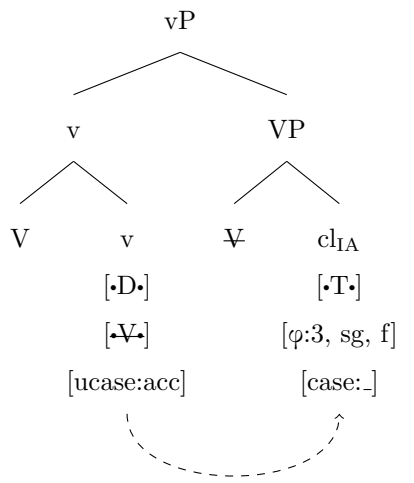
'Maria looked at herself.'

Besides the identity relation between the EA and the reflexive phrase in the IA position, these sentences are derived just like non-reflexive transitive clauses, as far as auxiliary selection in concerned. Because the IA remains in its base position, no φ-Agree relation between v and the IA takes place (*pace* Olivier, 2025). Hence, v is unable to Share the object's person feature with v_{Aux}. Consequently, no feature identity between v_{Aux} and T obtains and the auxiliary is HAVE.

Let us consider now a transitive clause with an object clitic. The participle agrees with the clitic and the auxiliary surfaces as HAVE (see 39). Note that in Italian PPA with a determiner clitic is mandatory, and not optional as in French.

(39) Maria$_i$ l$_j$=ha fatt-a.
M. ACC.3SG.F=have.PRS.3SG make.PPRTC-SG.F
'Maria made it.'

(40)



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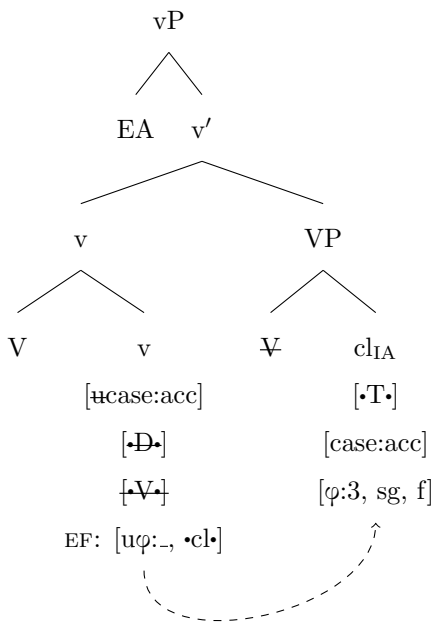
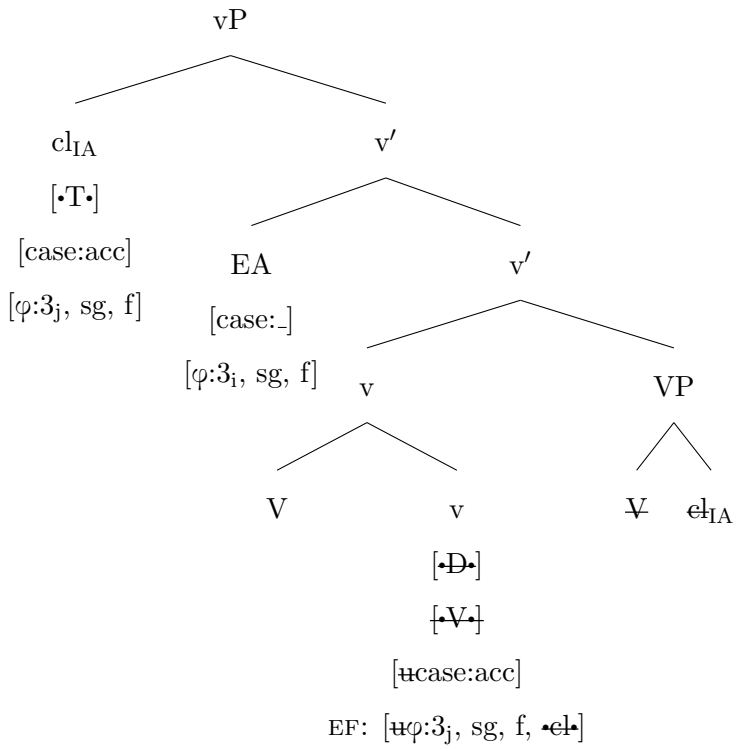


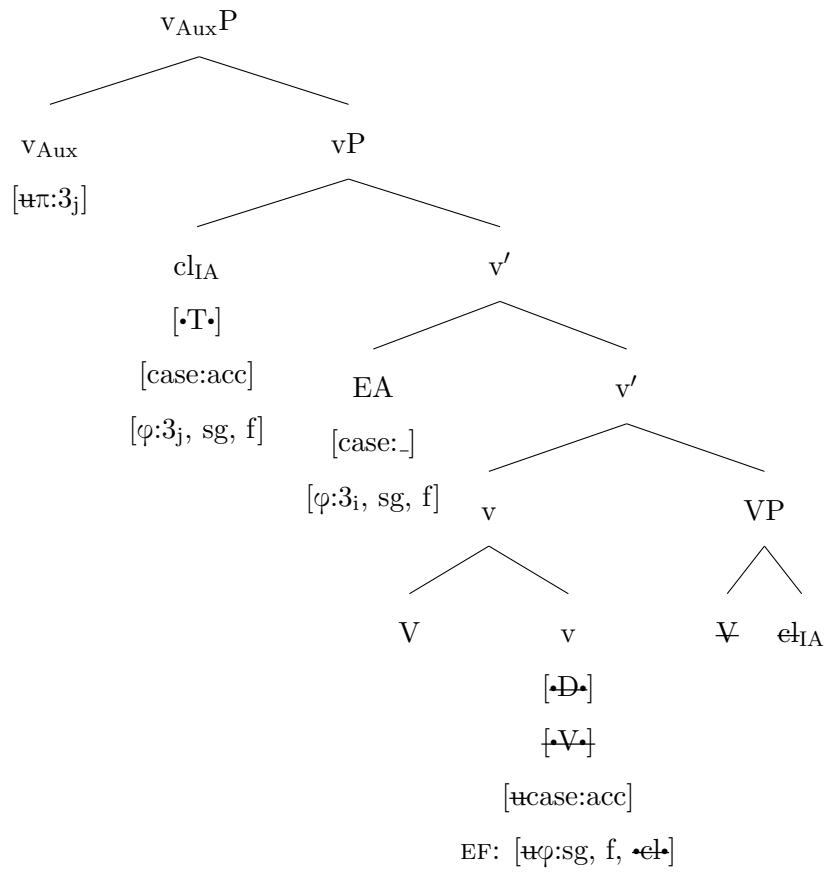
First, V-v movement checks the V-selectional feature on v, and then v probes the IA for accusative case assignment, as in (40). I regard the object clitic as an XP merged in the IA position. The clitic bears a merge feature [•T•], which is checked when the clitic moves to Spec-T. After v assigns accusative case to the clitic, the EA merges in Spec-vP, checking the D-selectional feature on v. Now the phase is complete and ready to be sent to Spell-Out. However, the clitic still bears an unchecked merge feature, namely, [•T•], therefore it cannot be included in the Transfer domain; otherwise, the derivation would crash. This is when EF are insterted on the phase head[70], triggering φ-Agree between v and the clitic (see 41).

(42)



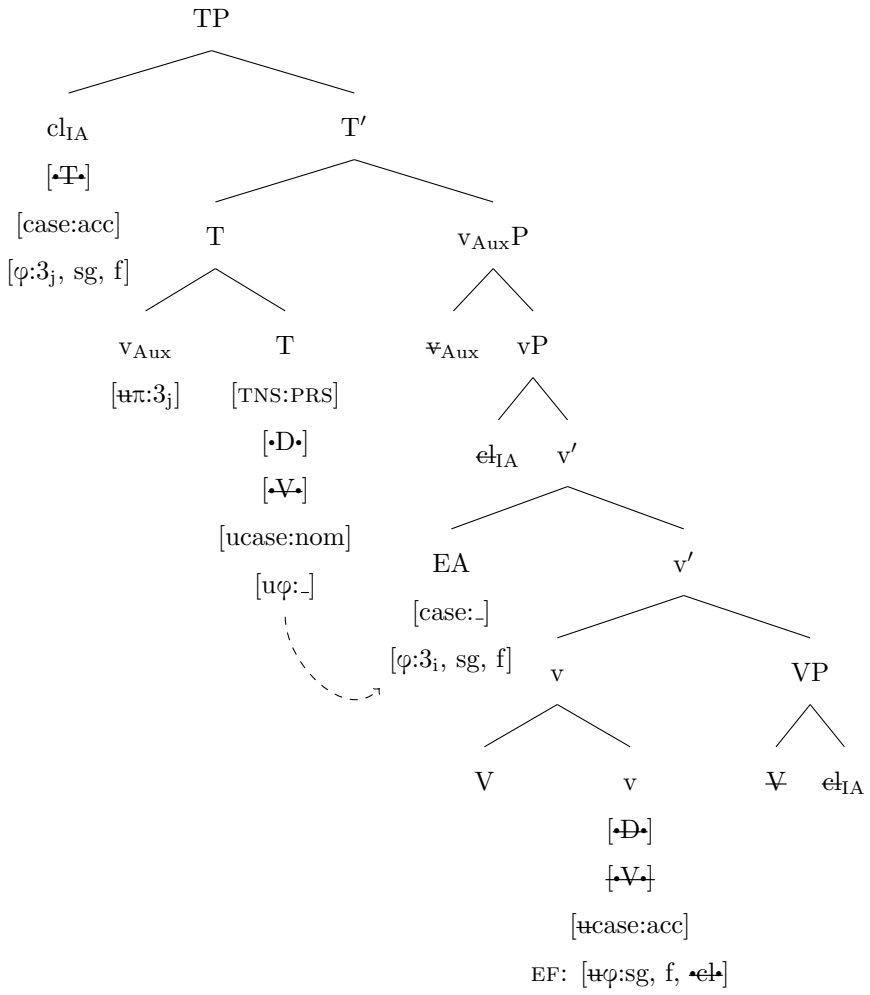
[70]To be more precise, EF are first inserted on vP and then projected on v, where they are discharged. It is necessary to assume this intermediate step to avoid a violation of the SCC (cf. §4.2.3, above)

(43)



The insertion of EF on v also creates an extra specifier where the clitic can land temporarily. Thus, the clitic moves to the external specifier of vP, checking the relevant cl-selectional EF on v (see 42). v has acquired a valued person feature, thus v Shares it with v_{Aux} (they form a Complex Head and hence allow Share). As a result, v_{Aux} gets a valued person feature, as in (43).

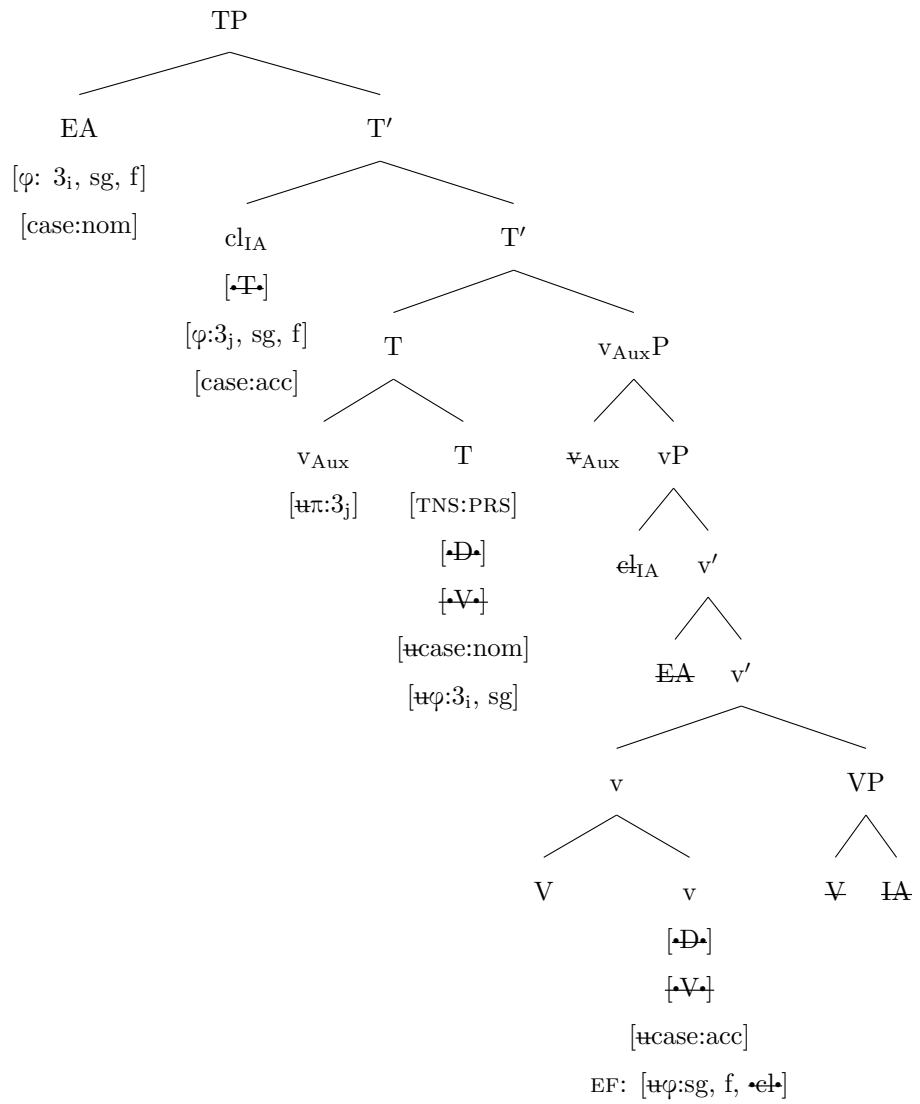
(44)



Upon merger of T, the clitic discharges its T-selectional feature, moving in Spec-T. Right afterward, v_{Aux}-T movement takes place. Now, both the clitic and v_{Aux} are invisible for Agree operations on T. Thus, T probes the EA for φ-Agree and case valuation, as illustrated in (44). According to Amato (2021: 89), after moving in Spec-T, the clitic also adjoins T, forming a complex head with it (cf. Belletti, 1999). While this further step is not represented in (44), the process may take place right after the clitic's movement to Spec-T, as argued by Amato, or as the effect of a distinct post-syntactic operation,

namely morphological Merge (Matushansky, 2006).

(45)



Finally, the EA internally merges in Spec-TP, as in (45). v_{Aux} and T do not have co-indexed person features features. Rather, the auxiliary is indexed with the clitic while T is indexed with the EA. Again, HAVE surfaces. The relevant insertion rule at PF would have the shape in (46, next page).

(46)

v_{Aux}	T		
$[\pi{:}3_j]$	$[\pi{:}3_i, \#{:}sg, \text{TNS:PRS}]$	$\rightarrow$	$\sqrt{\text{HAVE}}$.PRS.3SG
			/a/
			'has'

Note that the participle surfaces in its inflected form. This is due to the presence of valued gender and number features on v. The relevant vocabulary entry is in (47).

(47)

V	v		
$\sqrt{\text{PRT}}$	$[\#{:}sg, \gamma{:}f]$	$\rightarrow$	$\sqrt{\text{PRT}}$.SG-F
			/fatt-a/
			'made(F.)'

A similar derivation can be posited for sentences with a 1st or 2nd person clitic merged in the object position, as in in (48), where the clitic's feminine gender feature is not ecoded morphologically but is semantically determined.

(48)

Maria_i	mi_z/ti_j=ha	visto/-a.
M.	ACC-1/2SG=have.PRS.3SG	see.PPRTC(-SG.F)
'Mary saw me/you.'		

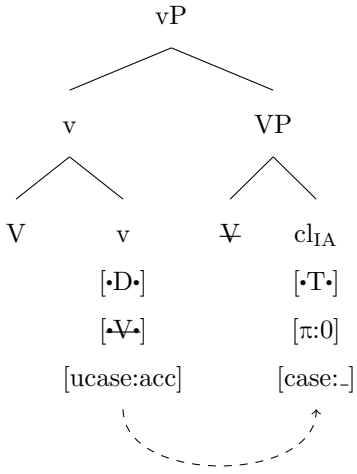
The mismatch between the subject's and the object's person feature leads to the same outcome as the previous derivation: v_{Aux} and T are not co-indexed, thus HAVE is selected. Differently from the previous derivation, however, the V-v complex has no (syntactically) valued gender feature. Their valuation obtains, optionally, from the semantic gender feature on the object clitic.

Let us now turn our attention to direct reflexives such as the following example in (49).

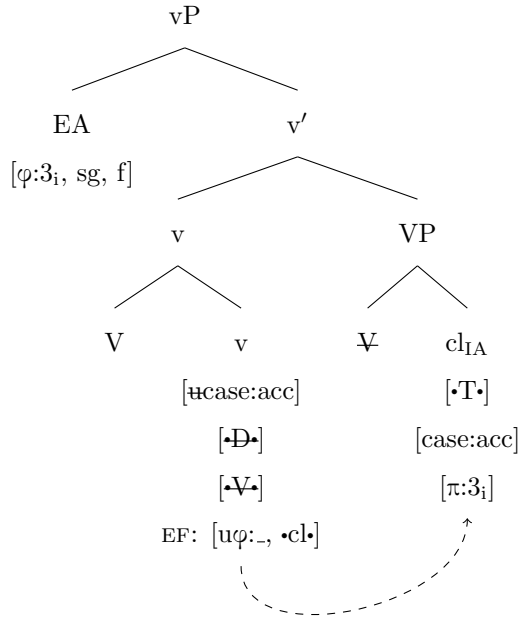
(49) Teresa$_i$ si$_i$=è lavat-a.
T. SI.ACC.3=bePRS.3SG wash.PPRTC-SG.F
'Teresa washed herself.'

Under a transitive derivation of reflexives, the predicate assigns an external ϑ-role to the subject and denotes an action the EA performs on itself. Despite their transitive structure, these constructions are similar to unaccusatives in exhibiting BE selection and PPA. Rather than considering these clauses as (underlyingly) unaccusative, I explain BE selection under the feature identity approach described so far. I turn now to the relevant derivation for (49).

(50)



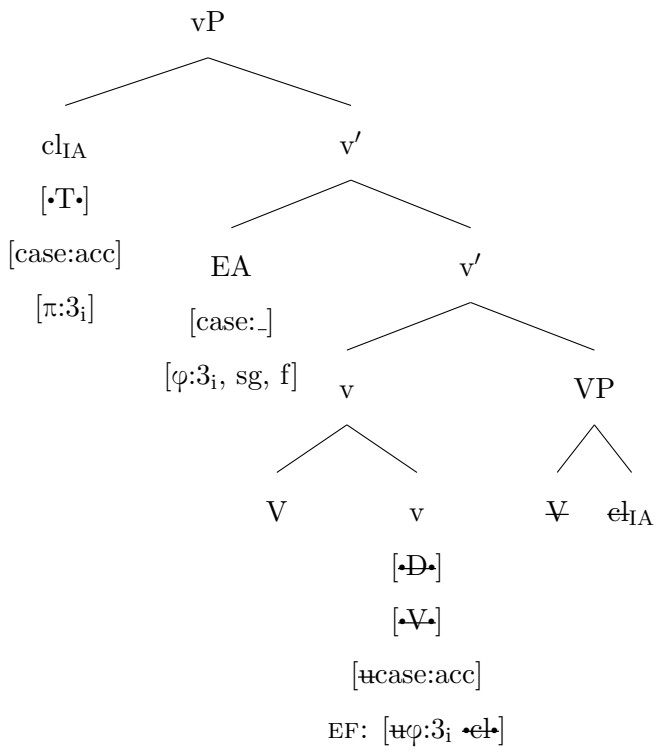
(51)



First, V-v movement checks the V-selectional feature on v. v probes the

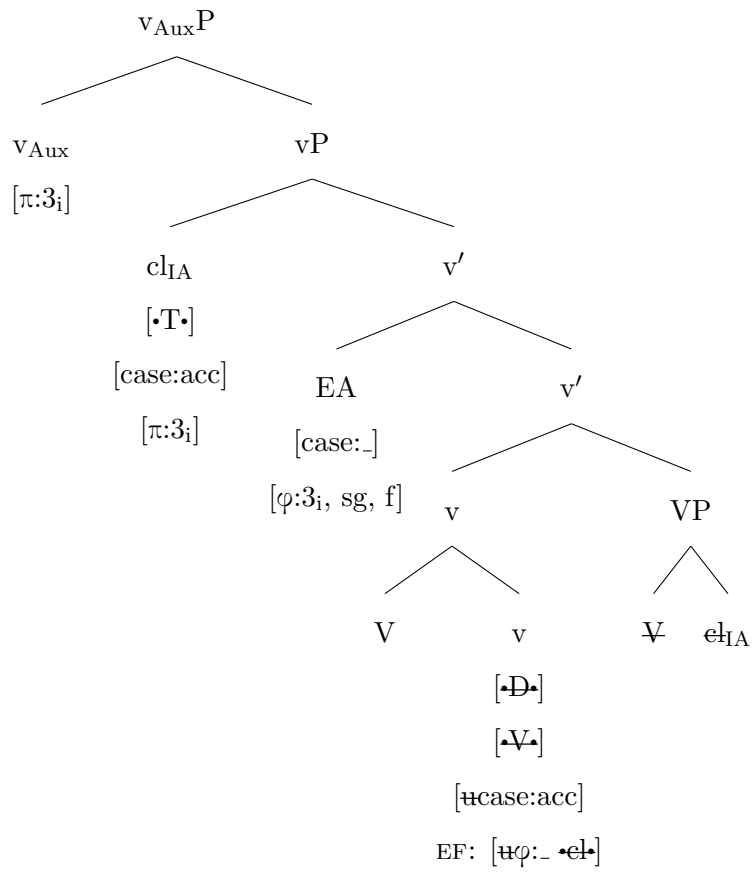
clitic for case valuation, as in (50). I follow Kayne (1993: 16) in attributing a 0-person feature to *si* reflexive clitic. Upon merger of the EA, the bound clitic is φ-probed, due to EF on v (see 51).

(52)



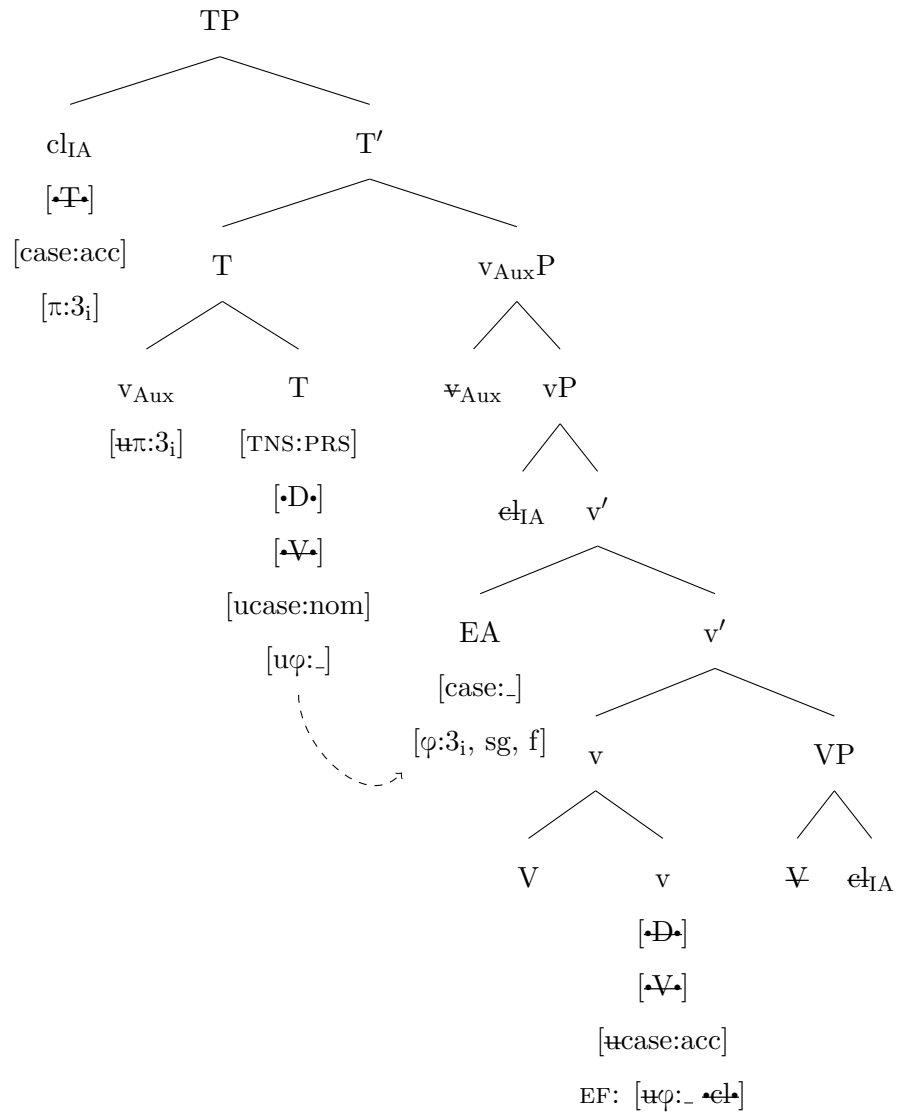
Right afterward, the clitic is displaced in Spec-vP, checking the relevant cl-selectional EF on v. Now v has a valued person feature and the clitic finds itself in the outer specifier of vP (see 52).

(53)



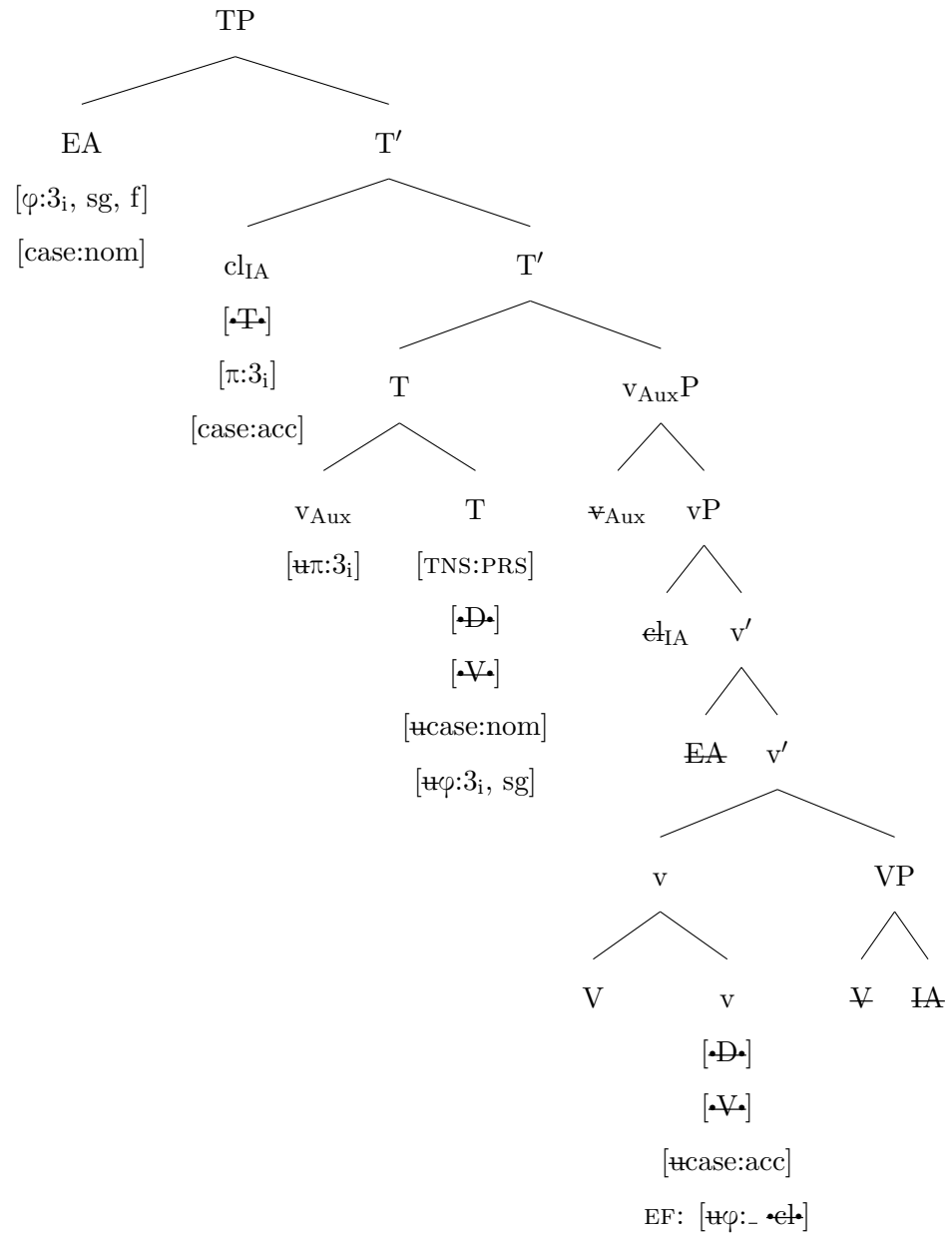
v Shares its valued person feature with v_{Aux}, as in (53).

(54)



Upon merger of T, the clitic moves to Spec-T. v_{Aux}-T movement takes place, and then T probes the EA for φ-Agree and nominative case assignment (see 54).

(55)



The EA moves to Spec-TP (see 55). At Spell-Out, the auxiliary surfaces as BE because v_{Aux} and T have co-indexed person features, the vocabulary entry in (56, next page).

(56)

v_{Aux}	T		
$[\pi{:}3_i]$	$[\pi{:}3_i, \#{:}sg, \text{TNS:PRS}]$	$\rightarrow$	$\sqrt{\text{BE}}$.PRS.3SG
			/ɛ/
			'is'

As for the participle, the features on v are unvalued. Indeed, EF-Agree on v has targeted reflexive *si*, that only has a person feature, but no number or gender features. However, I already mentioned that while these features are not formally valued, they can be valued through semantic agreement. I note these semantically valued features by underlining them, as illustrated in the vocabulary entry in (57).

(57)

V	v		
$\sqrt{\text{PRT}}$	$[\#{:}\underline{sg}, \gamma{:}\underline{f}]$	$\rightarrow$	$\sqrt{\text{PRT}}$.SG-F
			/lavat-a/
			'made(F.)'

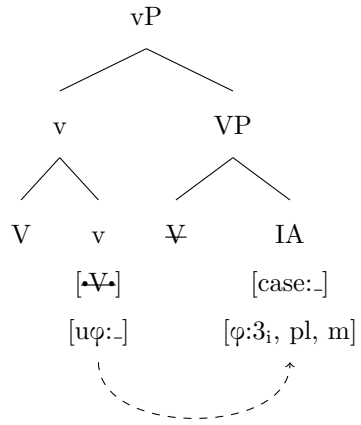
4.3.2 Unaccusatives

Let us consider now unaccusative clauses such as the example in (58), where the IA surfaces in Spec-TP.

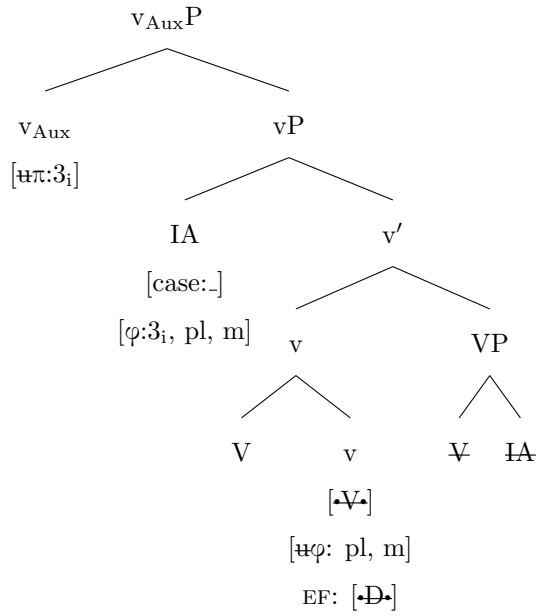
(58) I bambini sono caduti.
the children BE.PRS.3PL fall.PPRTC-PL.M
'The children fell.'

In this case, the participle agrees with the IA. This is possible because unaccusative v, unlike transitive v, has a set of uninterpretable φ-features.

(59)

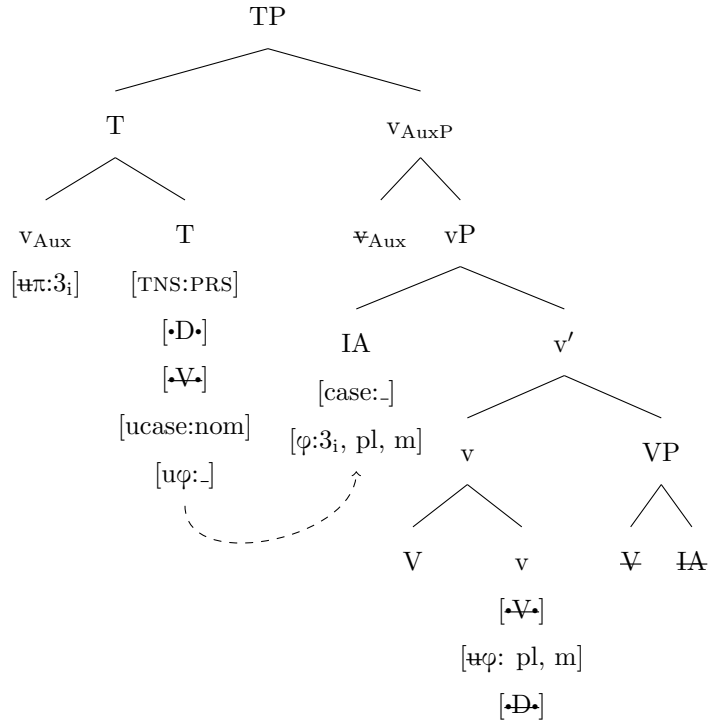


(60)

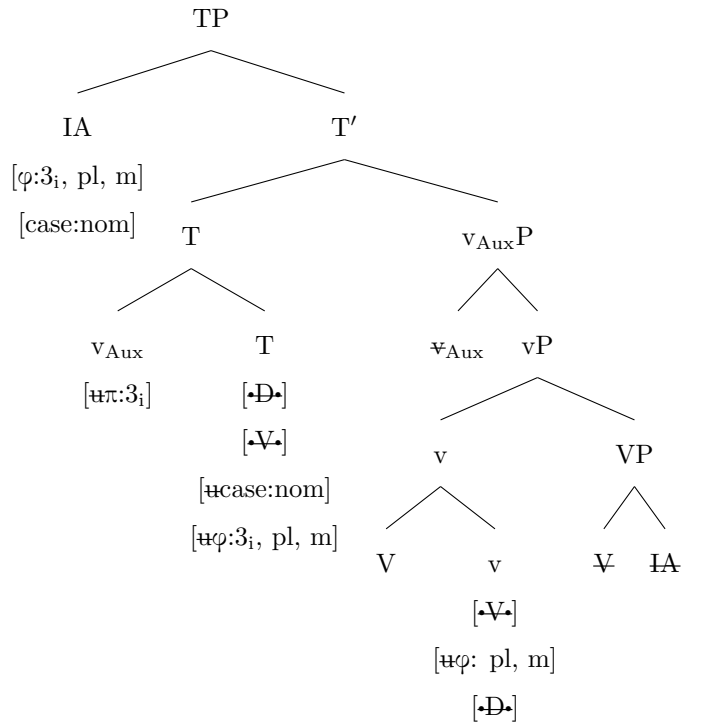


V-v movement checkes the V-selectional feature on v. Right afterward, v probes the IA for φ-Agree, as in (59). Since the IA surfaces in preverbal position, it must move out of the Transfer domain before the phase complement is sent to Spell-Out. Such movement is made possible by the insertion of an EF on v that consents an intermediate movement of the IA. The IA moves to Spec-vP, checking the D-selectional EF on v. Since v has succesfully probed the IA for φ-Agree, it can Share its valued person feature with v_{Aux} (60).

(61)


TP
T
vAuxP
vAux
[uπ:3i]
T
[TNS:PRS]
[•D•]
[•V•]
[ucase:nom]
[uφ:_]
vAux
vP
IA
[case:_]
[φ:3i, pl, m]
v′
v
VP
V
v
V
IA
[•V•]
[uφ: pl, m]
[•D•]

(62)


TP
IA
[φ:3i, pl, m]
[case:nom]
T′
T
vAuxP
vAux
[uπ:3i]
T
[•D•]
[•V•]
[ucase:nom]
[uφ:3i, pl, m]
vAux
vP
v
VP
V
v
V
IA
[•V•]
[uφ: pl, m]
[•D•]

Upon merger of T, v_{Aux}-T movement takes place and T probes the IA (61), which eventually moves to Spec-TP (62). At Spell-Out, the auxiliary is realized as BE, because v_{Aux} and T have co-indexed person features. This is obtained through the vocabulary entry in (63).

(63)

v_{Aux}	T		
$[\pi{:}3_i]$	$[\pi{:}3_i$, #:pl, TNS:PRS$]$	→	$\sqrt{\text{BE}}$.PRS.3SG
			/sono/
			'are'

As for the participle, the relevant vocabulary entry is shown in (64).

(64)

V	v		
$\sqrt{\text{PRT}}$	[#:pl, γ:m]	→	$\sqrt{\text{PRT}}$.PL-M
			/cadut-i/
			'fall(PL.)'

4.3.3 Unaccusatives, reflexives, and impersonals: one and the same rule?

As noted earlier, impersonal *si* constructions require BE selection in Italian. Since impersonal *si* can occur in transitive, unergative, and unaccusative clauses, one of the main questions in the literature of impersonal *si* constructions is whether there is one or more kinds of impersonal *si*. While the formal treatment of impersonal *si* and the existence of different kinds of impersonal *si* are not the focus of this dissertation, I address the problem of how to explain BE selection in Italian impersonal *si* constructions. While previous approaches to Italian auxiliary selection propose a single rule to explain

why BE is selected in unaccusatives, reflexives, and impersonals (Cocchi, 1995; Amato, 2021), I argue for a non-unified approach to BE selection in these constructions. Let us consider, first, some examples of impersonal *si* constructions (see 65 and 66).

(65) Transitive *si* impersonals

a. ?Si=è letto giornali oggi.
IMPRS=be.PRS.3SG read.PPRTC newspapers today

b. Si=sono letti giornali oggi.
IMPRS=be.PRS.3SG read.PPRTC-PL.M newspapers today
'We/People read newspapers today.'

c. Li=si=è letti.
ACC=IMPRS=be.PRS.3SG read.PPRTC-PL.M
'We/People read them.'

(66) Intransitive *si* impersonals

a. Oggi si=è lavorato molto.
today IMPRS=be.PRS.3SG work.PPRTC much
'We/People worked a lot today.' (unergative)

b. Si=è partiti presto stamattina.
IMPRS=be.PRS.3SG leave.PPRTC-PL.M early this-morning
'We left early this morning.' (unaccusative)

When impersonal *si* appears in transitive constructions (see 65), forms in which the participle is uninflected and the auxiliary assumes a default 3rd person shape, such as in (65-a), are commonly (but not always) perceived as degraded (D'Alessandro, 2004: 59-60; Pescarini, 2015: 64-66), and the form in (65-b) is generally preferred[71]. However, impersonals with a non-agreeing

[71]More precisely, the variation in acceptability seems to be idiolectal (D'Alessandro, 2004: 56). Moreover, the distribution of forms such as (65-a) is not areally uniform

auxiliary are perfectly fine with an object clitic (see 65-c) or when the predicate is intransitive (66).

Some scholars have related the different agreement patterns in examples such as (65-a) and (65-b) to the distinction between an impersonal *si strictu sensu* and a passive-like *si* (Burzio, 1986; Cinque, 1988; Dobrovie-Sorin, 1998; Salvi, 2008). As such, a passive-like construction such as (65-b) would involve a passive derivation, where the subject is a promoted IA, probed by T for nominative case assignment and φ-Agree. In that scenario, *si* is an affix-like element which acts as a passiviser (Belletti, 1982). As a result of a passive derivation, both the auxiliary and the participle surface in agreeing forms. By contrast, the example in (65-a) is commonly treated as an impersonal construction *strictu sensu*, in which the verb takes an accusative argument. Unergative impersonal *si* constructions such as (66-a) can also be treated as impersonals *stricto sensu*, regardless of the fact they lack an overt IA. According to D'Alessandro (2004), instead, the different agreement patterns observed in impersonal *si* constructions are due to different interpretive properties: impersonal constructions with verb-object agreement denote accomplishments, while those without agreement denote activities.

While I do not address the difference between impersonal *strictu sensu* and passive-like impersonal *si* constructions, I would like to take into account BE selection with a subset of the examples in (65) and (66). I think some of these examples pose a major challenge to the theory of auxiliary selection proposed in this dissertation. Let us consider the relevant examples, repeated in (67, next page), where the auxiliary surfaces in a default 3rd person singular form.

(Pescarini, 2015: 65).

(67) a. ?Si=è letto giornali oggi.
IMPRS=be.PRS.3SG read.PPRTC newspapers today
'We/People read newspapers today.' (transitive)

b. Oggi si=è lavorato molto.
today IMPRS=be.PRS.3SG work.PPRTC much
'We/People worked a lot today.' (unergative)

BE selection does not seem to be predicted under the theory adopted here. Indeed, in none of these example BE selection can be attributed to co-indexation between v_{Aux} and T. For the purposes of the analysis developed here, I assume that *si* in sentences such as those in (67) pronominalizes an EA which has an arbitrary reference. Unlike object clitics, which are XPs merged in the IA and IO positions, I assume that impersonal *si* in the examples in (67), above, is merged in a specific functional projection above TP. Following Mendikoetxea (2008), I call such a projection ClP. Impersonal *si* clitic in transitive and unergative constructions such as those in (67) licenses a *pro* with an arbitrary referential content, merged as an EA in Spec-vP. Hence, this *pro* receives an Agent ϑ-role, and it is probed by T. The different syntactic analysis of impersonal *si* with respect to object clitics is motivated by the idea that impersonal *si* is more similar to subject clitics than object clitics (Burzio, 1986: 43; Poletto and Tortora, 2016: §5.2.1, n22)[72,73].

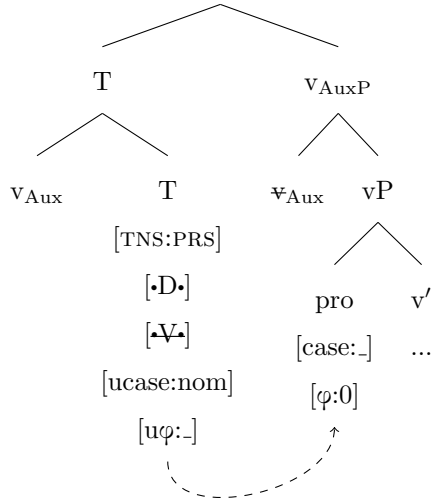
(68) $[_{ClP}$ SI^{k} $[_{TP}$ T ... $[_{vP}$ pro^{k} v [VP]]]]

[72]The parallelism is, of course, a semplification. For the differences between impersonal *si* and subject clitics found in some Nothern Italian dialects, I refer to Pescarini (2015: 76-77).

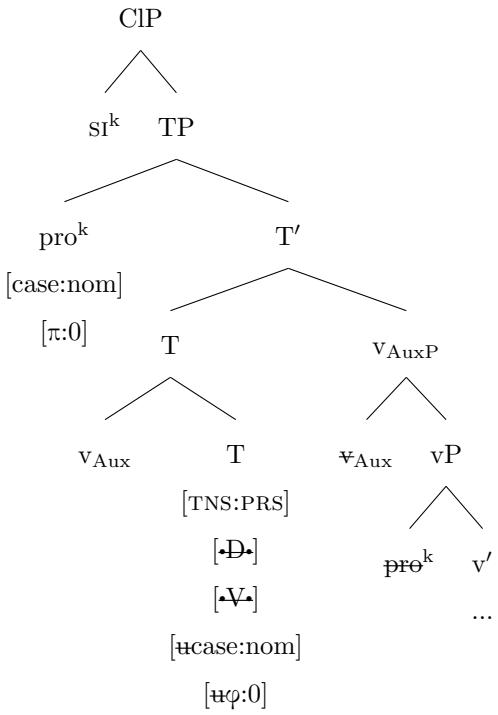
[73]For further considerations on the need for a non-uniform treatment of Romance clitics, I refer to Poletto (1993: 11-13).

I assume that *pro* in (68) enters in an Agree relationship with T[74]. Impersonal *si* clitic lacks specific referentiality, since it refers to an undefined set of people which generally includes the speaker. Just like the reflexive clitic, impersonal *si* clitic, and the EA it licenses, have a person feature set on 0 (Mendikoetxea, 2008: 305). Unlike reflexive *si*, however, impersonal *si* is not bound. Let us see how the derivation for constructions exemplified in (67) would proceed.

(69)



(70)



[74]In my view, this *pro* values T's uninterpretable features and receives nominative case. However, Mendikoetxea (2008: 306) argues that nominative case is not available for constructions such as that in (67-b), based on the observation that these constructions are incompatible with a DP requiring nominative case (see the example below):

(i) *Oggi Giovanni si=è lavorato molto.
today G. IMPRS=be.PRS.3SG work.PPRTC much

Whether the EA in constructions such as (67-b) receives nominative case or not, what is crucial for my analysis is that φ-Agree between T and *pro* takes place in these constructions, which is also assumed by Mendikoetxea (2008).

In (69-70), I illustrate the main derivational step for transitive and unergative impersonal *si* constructions such as (67a-b). Since the relevant stage of the derivation for deriving auxiliary selection in these constructions takes place in the T-cycle, I focus on this[75]. At the T-cycle, v_{Aux} moves to T. Recall that in these constructions PPA does not take place, hence v does not Share any (valued) person feature with v_{Aux}. After v_{Aux}-T movement, T probes the *pro* for φ-Agree and nominative case assignment (cf. n72, above). This *pro* is merged as an EA in Spec-vP (see 69). As a result, the person probe on T is valued as 0; moreover, *pro* checks the D-selectional feature on T by moving in Spec-TP, and forms a chain with impersonal *si*, merged as the head of a ClP (see 70). The vocabulary entry in (71) specifies that BE is exceptionally selected whenever T bears a 0-person value. Note that the presence of a 0-person feature on T has a double effect on the morpho-phonological realization of the auxiliary: it surfaces as BE is a default form. Indeed, Italian lacks a specific inflectional affix for the 0-person value, thus the auxiliary is realized as BE in the form of a default 3rd person singular.

(71)

v_{Aux}	T		
Ø	[π:0, #:_, TNS:PRS]	→	$\sqrt{\text{BE}}$.PRS.3SG
			/ɛ/
			'is'

Note that the presence of a valued person feature on v_{Aux} is not relevant for impersonal constructions of this kind. For clarity, let us consider the impersonal *si* construction in (65-c), repeated below, where PPA takes place

[75] As for the v-cycle, the main difference between (67-a) and (67-b) is the presence of an overt IA in the former. For the rest, both feature a transitive v which introduces the EA in Spec-vP. Recall that transitive v lacks indipendent φ-probes in my formalization: they are only inserted as EF when an IA must escape the phase domain.

due to the presence of an object clitic.

(72) Li=si=è letti.
ACC=IMPRS=be.PRS.3SG PPRTC-PL.M
'We/People read them.'

As far as T valuation is concerned, the derivation for (72) is analogous to that illustrated in (69-70). Differently from the previous examples, in this case v Shares its valued person feature with v_{Aux}. However, this difference has no repercussions on the realization of the auxiliary. Indeed, BE selection does not result from co-indexation, but from a distinct rule, namely a particular kind of lexical restriction on T (see the vocabulary entry in 73).

(73)

v_{Aux}	T		
[π:α]	[π:0, #:_, TNS:PRS]	→	$\sqrt{\text{BE}}$.PRS.3SG
			/ɛ/
			'is'

Now, let us consider again the impersonal construction in (65-b), repeated below, where both the auxiliary and the participle agree with the DP *giornali*.

(74) Si=sono letti giornali oggi.
IMPRS=.bePRS.3PL read.PPRTC-PL.M newspapers today
'We/People read newspapers today/ Newspapers were read today.'

As I mentioned earlier, the common analysis for a sentence such as (74) involves a passive derivation. This analysis reflects the assumption that there are two distinct kinds of impersonal *si/se* constructions: impersonal

strictu sensu and passive *si/se* constructions. Other accounts (D'Alessandro, 2008; Pescarini, 2015), have questioned the validity of this distinction, casting doubts on the idea that verbal agreement in (74) signals a passive structure. If sentences such as that in (74) are analyzed as passive-like constructions, then these sentences are subject to the general co-indexation rule which affects unaccusative constructions (see §4.3.2, above). If a passive-like derivation for constructions such as (74) is rejected, then the difference between the agreement patterns in (67a) and (74) must be attributed to other structural differences, namely that between activities (in 67a) and accomplishments (in 74) proposed by D'Alessandro (2004). According to D'Alessandro, in a sentence such as (74), impersonal *si* is merged in the specifier of an inner aspectual projection between v and V, called E_2P (cf. Kempchinsky, 2000): "From that position, which is only available for an accomplishment structure, *si* intervenes in the assignment of Accusative" (p. 52). Due to the intervention effect of *si*, v is unable to probe the IA for case assignment and φ-Agree. The IA eventually receives nominative case from T, with which it also φ-Agrees. Unfortunately, the theory of auxiliary selection adopted here is not compatible with the derivation proposed by D'Alessandro for impersonal *si* constructions of the kind exemplified in (74). If v probes impersonal *si* and T probes the IA, there cannot be co-indexation between v_{Aux} and T, and BE is unexpected. On the other hand, such derivation does not lead to the presence of a 0-person feature on T, so the additional rule I presented is also uneffective. For these reasons, I maintain the idea that constructions such as that in (74) have a defective v, i.e. a v which does not assign accusative case but φ-probes the IA. In such constructions, *si* possibly acts as a passiviser, as hypothesized by classic analyses.

An additional rule to account for BE selection in impersonal contexts where

si licenses an EA, such as those presented in (67), may appear uneconomical. Indeed, it severs *si* impersonals of the kind exemplified in (67) from reflexives and unaccusatives, as far as auxiliary selection is concerned. This seems counterintuitive, to the extent that both constructions select the same auxiliary BE. However, crosslinguistic data suggest that BE selection within a single variety can be the outcome of distinct conditions. In particular, varieties with a mixed system of auxiliary selection exhibit person restrictions only in a part of the paradigm, commonly the transitive one. If such systems are treated as argument-structure-based rather than person-driven, as I think they should be (cf. Amato, 2022), then BE selection relies on two different conditions: BE is selected as an effect of co-indexation in the 3rd person only, while it emerges as a default auxiliary in the first two persons. While I deal with these varieties in §4.5, here I would like to focus the attention on the notion of person restriction(s). Italian and the dialects with a mixed system of auxiliary selection differ with respect to the specific values of person restrictions on T. While in the mixed systems we find this person restriction associated with a single specific person (e.g. 3rd person) in Italian the general rule of auxiliary selection extends to all positively valued person, but not to the 0-person value which characterizes *si* impersonal constructions.

A potential additional evidence comes from the diachronic development of Italian. The following data from Old Italian in (75) show that reflexives and impersonals have not always patterned together with respect to auxiliary selection. At this particular stage of Old Italian, reflexives virtually always patterned with transitives in selecting HAVE, while impersonals selected BE, as in Modern Italian.

(75) *Old Italian* (Florence variety, La Fauci, 2004: 247(7))

a. Giurato si=saria ch=el
swear.PPRTC SI.IMPRS=be.COND.PRS.3SG that=he
dicesse "Ave!"
say.SUBJ.IMPF.3SG hail
'One could swear he was saying "Hail!"' (PG X 40)

b. Ancisa t=hai
kill.PPRTC-SG.F SI.2SG=have.PRS.2SG
'You (f.) killed yourself'. (PG XVII 37)

It is tempting to say that the diachronic development has affected only reflexives, but not impersonals, which relied on a distinct rule from the beginning. However, these particular data should be dealt with carefully. While the sentence in (75-a) resembles the structure of a genuine unergative impersonal construction as those we find in Modern Italian, the existence of impersonal *si* at this developmental stage of Old Italian is far from being certain. According to Salvi, Old Italian *si* constructions such as (75-a) should be analyzed as passives (Salvi, 2008: 22-24, cf. Pescarini, 2015: 66-67)[76]. For the rest, I deal with the overall pattern found in this variety of Old Italian in Chapter 5 of this dissertation.

4.3.4 Indirect reflexives and the nature of benefactive *si*

In the analysis proposed so far, auxiliary selection relies on co-indexation between v_{Aux} and T. This predicts that the default auxiliary HAVE emerges in transitive clauses with an *in situ* object, where φ-Agree on v has not taken place, thus the presence of a valued person feature on v is excluded. In these

[76]While Salvi acknowledges that traces of impersonal *si* in the modern sense are found in Dante's language, corresponding to the variety exemplified in (79), he argues these are just innovations which do not reflect the complete development of impersonal *si* constructions found in later stages of Italian.

contexts, π-Share from v to v_{Aux} does not take place. When φ-Agree and π-Share take place, auxiliary selection depends on the interaction between the person features on v_{Aux} and T, which leads to person feature identity, and hence to BE selection, in unaccusative and reflexive constructions. When such an identity relation does not obtain, HAVE is selected. In the theory developed here, BE selection in transitive impersonal *si* constructions results from a distinct rule, described in the previous paragraph. A further complication in the overall picture described so far is that, in Italian and French, BE appears also in clauses where the reflexive clitic corresponds to the indirect object and gives the clause a benefactive reading. Interestingly, these clauses exhibit PPA in Italian (see 76), but not in French (see 77)[77].

(76) *Italian*

Teresa si=è lavat-a le mani.
T. SI.DAT=be.PRS.3SG wash.PPRTC-SG.F the hands
'Teresa washed her hands.'

(77) *French* (Olivier, 2025: 24(41), 25(46b))

Dominique s=est lavé les mains
D. SE.DAT.3=be.PRES.3SG wash.PPRTC the hands
dans l'évier.
in-the sink
'Dominique washed her hands in the sink.'

As for Italian, the same pattern of BE + PPA is also found in other constructions where the clitic does not introduce an argument co-referential with

[77]In French, PPA is generally not found in these cases, a problem which I do not address here. Raynaud (2017) explains the difference between French and Italian in terms of availability of Multiple Agree. Raynaud regards reflexives as unaccusatives, hence her approach is incompatible with the theory of auxiliary selection proposed in this dissertation.

the subject, but rather functions as an intensifier denoting completion and the subject's involvement. This kind of constructions has been referred to in various ways: self-Benefactive (D'Alessandro, 2002), pseudo-benefactives (Pescarini, 2015), and antipassives (La Fauci, 1984; Paciaroni, 2009). Here, I will refer to these constructions as pseudo-benefactives, to underline the formal difference with 'true' benefactives. The following example in (78, next page) show that these predicates do not differ from true benefactives, as far as auxiliary selection and PPA are concerned.

(78) *Italian*

Teresa si=è bevut-a un caffè.
T. SI=be.PRS.3SG drink.PPRTC-SG.F a coffee
'Teresa drank (for herself) a coffee.'

If we abstract away from the argumental status of the clitic, the pattern of BE + PPA found in these constructions suggests that φ-Agree between v and the clitic has taken place, something which is not expected under common circumstances. Indeed, oblique clitics do not trigger agreement in Italian (see, for example, the contrast in 79).

(79) *Italian*

a. Teresa si=è lavat-a le mani.
T. SI.DAT=be.PRS.3SG wash.PPRTC-SG.F the hands
'Teresa washed her hands.'

b. Teresa gli=ha lavato le mani.
T. DAT.3SG.M=have.PRS.3SG wash.PPRTC the hands
'Teresa washed his hands.'

Note the BE+ PPA pattern found in these constructions is not found in other Romance languages with an argument-structure-based system of auxiliary selection. In the varieties of the Sardinian type, the clitic behaves as a bare oblique clitic, i.e. it does not trigger PPA. The relevant examples are shown in (80, next page) from Logudorese variety of Sardinian[78]. Crucially, these constructions also exhibit HAVE selection, which is the expected auxiliary, since φ-Agree on v has not taken place. As in Italian, the same pattern occurs with benefactives and pseudo-benefactives[79].

(80) *Logudorese*

a. Maria z=ɛs samunaːð-a.
M SI.DAT.3=be.PRS.3SG wash.PPRTC-SG.F
'Maria washed herself.'

b. Maria z=a ssammunaːðu zal maːnɔs.
M. SI.DAT.3=havePRS.3SG wash.PPRTC le mani.
'Maria washed her hands.'

[78]These are the same example presented in §2.8, except for (84c), which is from Jones (1993: 131(104c)).

[79]However, this is not necessarily the case in Romance varieties. The following examples from the dialect of Cosenza (Calabria, Southern Italy) show that the auxiliary can be sensitive to distinction between a benefactive and a pseudo-benefactive. In particular, while true benefactives exhibit free variation between BE and HAVE, pseudo-benefactives require HAVE:

(i) *Cosentino* (Adam Ledgeway, p.c.)

a. M=aju lavatu i manu
SI.ACC.1SG.have.PRS.1SG wash.PPRTC the hands

Mi=signu lavatu i manu.
SI.ACC.1SG.be.PRS.1SG wash.PPRTC the hands
'I washed my hands.'

b. M=aju mangiatu tutt a pasta.
SI.ACC.1SG.have.PRS.1SG wash.PPRTC all the pasta
'I ate all the pasta.'

c. ??Mi=signu mangiatu tutt a pasta.
SI.ACC.1SG.be.PRS.1SG wash.PPRTC all the pasta
'I ate all the pasta.'

c. Jakeddu z=at mandicatu una meledda.
J. SI=have.PRS.3SG eat.PPRTC an apple
'Jack ate (for himself) an apple.'

The dialect spoken in Macerata (Central Italy) shows a similar pattern. In this variety, however, BE with indirect reflexives and pseudo-benefactives is optionally selected. While the HAVE-selecting option prohibits PPA, the BE-selecting option requires it (see 81, next page[80]).

(81) *Macerata*

a. Marí s=ɛ rlaat-a.
M. SI.DAT.3=bePRS.3SG wash.PPRTC-SG.F
'Mary washed herself.'

b. Marí s=a rlaato le ma.
M. SI.DAT.3=have.PRS.3SG wash.PPRTC the hands.

Marí s=ɛ rlaat-a le ma.
Maria SI.DAT.3=be.PRS.3SG wash.PPRTC-SG.F the hands
'Mary washed her hands.'

c. Marí s=a magnato ðu mele.
Maria SI.3=have.PRS.3SG eat.PPRTC two apples

?Marí s=ɛ magnata ðu mele.
Maria SI.3=have.PRS.3SG eat.PPRTC-SG.F two apples
'Mari ate (for herself) two apples.'

The relevant question is why *si* is accessible to φ-Agree on v in Italian but not in other Romance languages such as Logudorese. Amato (2021: 395-397) suggests two possible explanations for the difference between Sardinian and Italian, which I already mentioned in §3.4.3. One possible explanation is that

[80]These are the same examples presented in §2.8, except for (84c-d), which is from Paciaroni (2009: 46(13)).

benefactive arguments are merged higher in Sardinian, thus they are above the Agree domain of v. The other possible explanation is that Sardinian v, unlike Italian v, assigns accusative case in these constructions, thus it probes the IA rather than the clitic. Italian, instead, disposes of a quirky v which probes the clitic merged in an applicative projection between v and V.

I would like to explore a different explanation here. The difference could be due to the syntactic nature of indirect *si* in the two varieties. While in the language of the Sardinian type indirect *si* is a true oblique clitic, in Italian and other languages with the same pattern, it is not. As a matter of fact, a number of approaches to the syntax of benefactive *si* treat it as a verbal affix, possibly merged on v (Folli and Harley, 2004; Armstrong, 2013). For instance, Folli and Harley (2004: 17) argue that *si* is merged on a v_{Caus} head and is able to affect the predicate's argument structure and telicity. The main argument for such a proposal comes from consumption verbs like *eat, drink, consume*, which do not allow, in Italian and in other languages, the presence of an inanimate subject. As for Italian, see the contrast in (82).

(82) *Italian* (Folli and Harley, 2004: 9(23a-c))

a. Gianni ha mangiato la mela.
G. have.PRS.3SG eat.PPRTC the apple
'Gianni ate the apple.'

b. *La malattia ha mangiato la mela.
The disease have.PRS.3SG eat.PPRTC the apple
'The disease ate the apple.'

However, the use of reflexive clitic *si* with a verb like *mangiare* 'eat' licenses an inanimate subject like *the sea* in the example in (83).

(83) *Italian* (Folli and Harley, 2004: 25a-b)

a. *Il mare ha mangiato la spiaggia.
the sea have.PRS.3SG eat.PPRTC the beach

b. Il mare si=è mangiat-o la spiaggia.
the sea REFL=be.PRS.3SG eat.PPRTC-SG.M the beach
'The sea ate the beach.'

Hence, it is possible that the sentences in (76) and (78) involve a common syntactic derivation. In particular, we can think that Italian benefactive *si* clitic is verbal in nature and can value v's φ-features 'by default', i.e. simply by Merge. Olivier (2025: 188-193) proposes that French benefactive *se* is merged on v and is bound, upon merger of the EA, getting the relevant valued person feature. In that case, v is able to Share its valued person feature with v_{Aux}. After T probes the EA, v_{Aux} and T have co-indexed person features and the auxiliary is spelt out as BE. While Olivier's account adopts a different formalization, I think an analogous explanation for Italian *si* (pseudo)-benefactive could be adopted. As for the varieties of the Sardinian type, I assume that benefactive reflexive *si* clitic always behaves as a true oblique. As other oblique clitics, it is merged in an applicative projection where it receives dative case (see 84). As such, it does not enter in a φ-Agree relation with v. This yields the pattern of HAVE selection and absence of PPA, commonly found in these varieties.

(84) $[_{vP}$ v $[_{ApplP}$ SI Appl $[_{VP}$ V IA]]]

4.4 Person-driven systems

Previous analyses have suggested that person-driven systems of auxiliary selection can be modeled in terms of a local relationship between v_{Aux} head and the subject. Following D'Alessandro and Roberts (2010), D'Alessandro (2017), and Amato (2022), I assume that person splits result from an Agree relation between v_{Aux} and the subject. Although such an Agree relation may involve more than one φ-feature (person, person and number, and so on) depending on the particular variety, here I deal with the BBH pattern, which is quite common among Central and Southern Italian dialects. For the purposes of the present analysis, let us consider again the examples in (85, next page) from a variety with a person-driven system of auxiliary selection, namely the dialect of Sonnino.

(85) *Sonnino* (Manzini and Savoia, 2005: II, 701)

a. So llavato/-a la makena.
be.PRS.1SG wash.PPRTC/-SG.F the car
'I washed the car.'

b. A lavato/-a la makena.
have.PRS.3SG wash.The car
'(S)he washed the car.'

c. So' pparlato.
be.PRS.1SG speak.PPRTC
'I spoke.'

d. A parlato.
have.PRS.3SG speak.PPRTC
'(S)he spoke.'

e. So' mmenut-o.
be.PRS.1SG come.PPRTC-SG.M
'I came.'

f. A menut-a.
have.PRS.3SG come.PPRTC-SG.F
'She came.'

According to some works (Tuttle, 1986; Ledgeway, 1998), the BBH pattern reflects a split between subjects with a strong person feature (1st and 2nd) and subject with a weak or defective person feature (Benveniste's non-person). This explanation, however, is not extendible to person splits in general, because the BBH pattern is only one of the main possible patterns attested.

	1sg	2sg	3sg	1pl	2pl	3pl
Arielli	BE	BE	HAVE	BE	BE	HAVE
Vasto	HAVE	BE	BE∼HAVE	HAVE	HAVE	HAVE
Introdacqua	HAVE	BE	HAVE	HAVE	HAVE	HAVE
Notaresco	BE	HAVE	HAVE	HAVE	HAVE	HAVE

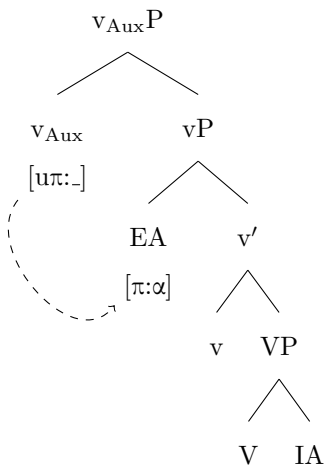
Table 1 (repeated from Chapter 2): Cross-linguistic variation of person-driven patterns in the Abruzzo region (Loporcaro, 2007: 184(18), with modifications).

For the sake of clarity, I refer to Table 1 (Chapter 2), repeated above. It shows various person-driven patterns distributed in the Abruzzo region. An interesting correlation emerges between 3rd person and HAVE selection (BE is only admitted in free variation with HAVE, as in Vasto), hinting at the relevance of a [+/-participant] feature on the subject (Ledgeway, 2019; Amato, 2021). In addition to the already rich variation found in Abruzzo and illustrated in Table 1, many more possible combinations are theoretically possible, and many of them are documented, showing that BE and HAVE can combine rather freely (Loporcaro, 2007: 185-186).

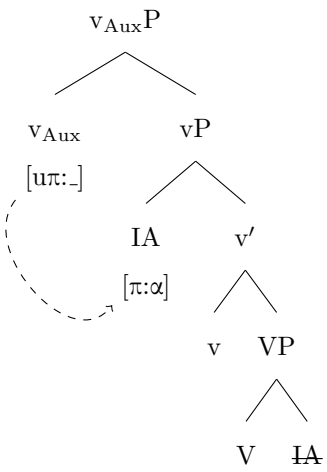
Rather than speculating on why many varieties exhibit this particular split, I would like to focus on how to derive this split syntactically. Following D'Alessandro and Roberts (2010); D'Alessandro (2017); Amato (2022), I assume that this system of auxiliary selection depends on the valuation of an

uninterpretable person feature on v_{Aux}, which probes the subject, externally or internally merged in Spec-vP (see 86 and 87, respectively)[81].

(86)



(87)



The auxiliary is spelt out as BE with 1st and 2nd persons, HAVE with 3rd person, regardless of argument-structure. This is specified in the insertion rules in (88) and (89). Number distinctions do not affect the choice of the auxiliary, in this particular variety.

(88)

v_{Aux}	T		
[π:1/2]	[π:1/2, #:sg/pl TNS:PRS]	→	$\sqrt{\text{BE}}$.PRS.1/2SG/PL
			/so/si (sg.), semo/sete (pl.)
			'(I/you) am/are, (we/you) are'

[81] If unaccusative v heads a non-defective phase, the intermediate movement of the IA in Spec-vP is necessary to make the IA accessible for nominative case assignment and φ-valuation on T (Amato, 2022: 6, n8).

(89)

v_{Aux}	T		
[π:3]	[π:3, #:sg, pl TNS:PRS]	→	$\sqrt{\text{HAVE}}$.PRS.3SG/PL
			/a/
			'(he/she) has/(they) have'

Since auxiliary selection is determined exclusively by the person feature on the subject, we do not expect to find a different pattern of auxiliary selection with reflexives. This is confirmed by the following data in (90)[82], which can be captured by the same person-driven derivational mechanism.

(90) *Sonnino* (Manzini and Savoia, 2005: II, 701, 732(84))

a. Me=so llavat-o.
SI.ACC.1SG=be.PRS.1SG wash.PPRTC-SG.M
'I washed myself.'

b. S=a llavat-o.
SI.ACC.3SG=have.PRS.3SG wash.PPRTC-SG.M
'He washed himself.'

c. Me=so llavato le mane.
SI.DAT.2SG=be.PRS.1SG wash.PPRTC the hands
'I washed my hands.'

d. S=a llavato le mane.
SI.DAT.3SG=have.PRS.3SG wash.PPRTC the hands
'He/She washed his/her hands.'

The parallel data from the dialect of Arielli (see 91) show the same pattern of auxiliary selection, namely the BBH pattern. However, the participle, which normaly agrees with a plural subject or object DP, exhibits optional, and not

[82]Note that these data do not show PPA with the *in situ* object. In principle I do not exclude the same pattern found in transitives, namely optional PPA with an *in situ* object, can be found in reflexives too.

mandatory agreement. The following data contrast with the general rule of PPA of the dialect of Arielli. Indeed, we expect PPA with a plural DP to be mandatory, not optional.

(91) *Arielli* (Roberta D'Alessandro, p.c.)

a. Me=so llavate/llavite li vistite da
SI.ACC.1SG=.be.PRS.1SG wash.PPRTC/-PL the clothes by
sole.
myself
'I washed my clothes by myself.'

b. Marije s=a llavate/llavite li vistite
M. SI.ACC.3=have.PRS.3SG wash.PPRTC/-PL the clothes
da sole.
by herself
'Maria washed her clothes by herself.'

4.4.1 PPA with *in situ* objects, feature inheritance, and the PIC

The analysis of the person-driven pattern found in Sonnino proposed here does not differ, in essence, from previous analyses of varieties with a BBH pattern (D'Alessandro and Roberts, 2010; D'Alessandro, 2017; Amato, 2022). Under the approach adopted here, however, one may wonder why auxiliary selection in person-driven systems does not rely on Share between v and v_{Aux}. Both Amato (2021) and Ledgeway (2022) agree that systems with a person-driven pattern are especially found in those varieties where the participle can or must agree with an *in situ* object. If we adopt the assumption that PPA with an *in situ* object is due to the low position of the participle (D'Alessandro, 2022; Ledgeway, 2022), then we have a possible explanation for why Share between v and v_{Aux} is not available in these varieties (but cf. D'Alessandro (2017) for an account of the pattern of auxiliary selection and

PPA in Arielli, based on a different formalization where downward Share takes place). I suggest that, in person-driven systems where the participle can target *in situ* objects, participial morphology is associated with V, rather than v. This is the case if we assume that the phase head v transfers its uninterpretable φ-features to V via feature inheritance (Chomsky, 2000, 2001; Ouali, 2008; Manzini, 2023; Zdrojewski, 2023), illustrated (92, next page).

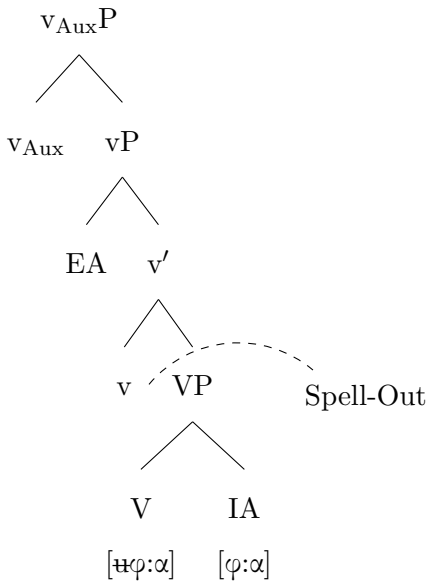
(92) a. $[_{vP}\ v\ _{[u\varphi:\_]}\ [_{VP}\ V\ \ IA]]$ Feature inheritance

b. $[_{vP}\ v\ [_{VP}\ V\ _{[u\varphi:\_]}\ IA\ ]]$ φ-Agree

The mechanism illustrated in (92) corresponds to what Ouali (2008) calls "Donate". In Sonnino and other person-driven varieties, the valued φ-features on the participle can never be shared with v_{Aux}, an effect of the PIC, illustrated in (93)[83].

[83]This phase-based analysis does not account, of course, for the omnivorous pattern found in Arielli. I refer to D'Alessandro and Roberts (2010) and D'Alessandro (2017) for detailed analyses of this particular phenomenon.

(93)



This solution is only sketched and I leave it for elaboration in future research[84]. One interesting aspect to explore is whether the presence of a (reflexive) clitic interact with the inheritance mechanism. This is suggested, for instance, by the absence of PPA with an *in situ* object in reflexive clauses in the varieties of Sonnino and Arielli (see 90-91). All in all, the crucial aspect behind this formalization is that, while v cannot Share a valued person feature with v_{Aux}, v_{Aux} is not inert in varieties with a person-driven system such as Sonnino's dialect. Indeed, v_{Aux} must have a person probe which targets the subject, externally or internally merged in Spec-vP[85]. The morphophonological realization of the auxiliary never results from feature identity in the

[84]One may wonder what happens to the person probe which is donated from v to V along with number and gender probes. It is possible that the presence of a person probe in the v-V field has visible morpho-syntactic effects. For instance, it could be related to phenomena such as (split) DOM (D'Alessandro, 2017; Gallego, 2020).

[85]I do not address the question why these varieties dispose of a person probe on v_{Aux}. D'Alessandro and Roberts (2010) suggest an interesting connection between the person-driven system of auxiliary selection and split ergativity: "the connection between person-driven auxiliary selection and split ergativity lies in the fact that in both cases v, not T, Agrees and case-licenses the external argument in certain persons"(p. 58).

periphrastic perfect, but from the subject's person feature. This yields the person-driven pattern we found in many Central and Southern Italian dialects, including those of Sonnino and Arielli.

4.5 Mixed systems

In the mixed system we observe two distinct patterns of auxiliary selection within a single variety. In general, these patterns separate transitives/unergatives from unaccusatives. The dialect of Corridonia and Monte San Giusto, for which I repeat the relevant data in (94), are representative varieties of mixed systems.

(94) *Corridonia/Monte San Giusto* (Paciaroni, 2009: 53-54(22a; 24))

a. Io so' mmagnato ðu mele.
I be.PRS.1SG eat.PPRTC two apples
'I ate two apples.'

b. Essa a magnato ðu mele.
She have.PRS.3SG eat.PPRTC two apples.
'She ate two apples.'

c. Io so' ffatigato.
I be.PRS.1SG work.PPRTC
'I worked.'

d. Essa a fatigato.
She have.PRS.3SG work.PPRTC
'She worked.'

e. Io so' ccaʃcat-u.
I be.PRS.1SG fall.PPRTC-SG.M
'I fell.'

f. Essa ɛ ccaʃcat-a.
I be.PRS.3SG fall.PPRTC-SG.F
'She fell.'

Looking at these data, we can formulate the following generalization: the person-driven pattern (in this case, BBH) is only found in transitives/unergatives, while unaccusatives select BE, as in Standard Italian. Note that these dialects show significant structural differences with the dialects of Sonnino and Arielli. The person-driven pattern BBH is only found in a part of the paradigm. In addition, these dialects never allow PPA with an *in situ* transitive object, much in the same way as Italian[86]. I assume these dialects are not structurally different from Italian with respect to the properties of the participle. If so, v and v_{Aux} can form a Complex Head. However, the pattern of auxiliary selection found here is partially different from the Italian one. These data suggest that the general rule of BE selection in (52′) only affects the 3rd person.

(52′) Rule of BE selection

> The auxiliary on v_{Aux} is spelt out as BE whenever v_{Aux} is π-indexed with T in the context of a 3rd person.

An anonymous reviewer points out that, in a postsyntactic model of lexical realization, a more precise way to apply the general rule in (52′) to the mixed systems would be the following[87]:

(95) The auxiliary on v_{aux} is spelt out as HAVE whenever v_{Aux} and T[π:3] bear different indices, it is spelt out as BE elsewhere.

[86]Note that the default form of the participle does not coincide with masculine singular, which is associated with the morpheme /-u/, but it is rather a neuter form which reflects the particular morphology of these dialects, which dispose, besides masculine and feminine, of neuter morphemes.

[87]This formalization could be extended to argument-structure-based systems such as Italian, where the person value on T is not restricted to 3rd person.

Following Amato (2022), I assume that these systems are sensitive to the person feature on T for the morphophonological realization of the auxiliary in transitive clauses. All in all, these systems are closer to argument-structure-based systems than pure person-driven systems.

Let us address the rules behind auxiliary selection for transitive and unergative clauses, repeated below.

(94′) *Corridonia/Monte San Giusto*

a. Io so' mmagnato ðu mele.
I be.PRS.1SG eat.PPRTC two apples
'I ate two apples.'

b. Essa a magnato ðu mele.
She have.PRS.3SG eat.PPRTC two apples.
'She ate two apples.'

c. Io so' ffatigato.
I be.PRS.1SG work.PPRTC
'I worked.'

d. Essa a fatigato.
She have.PRS.3SG work.PPRTC
'She worked.'

The insertion rules are specified in (96) and (97).

(96)

v_{Aux}	T		
[π:α]	[π:1, 2, #:sg, pl TNS:PRS]	→	$\sqrt{\text{BE}}$.PRS.1/2SG/PL
			/so/si (sg.), simo/sete (pl.)
			'(I/you) am/are, (we/you) are'

(97)

v_{Aux}	T		
$[\pi{:}\alpha_j]$	$[\pi{:}3_i$, #:sg, pl TNS:PRS$]$	→	$\sqrt{\text{HAVE}}$.PRS.3.SG/PL
			/a/
			'(he/she) has/(they) have'

As for unaccusative clauses (see 94″), BE emerges whether the person feature on T is specified as 1st and 2nd person (as in 96 above) or v_{Aux} and T have co-indexed 3rd person features (see 98).

(94″) *Corridonia/Monte San Giusto*

a. Io so' ccaʃcat-u.
I be.PRS.1SG fall.PPRTC-SG.M
'I fell.'

b. Essa ɛ ccaʃcat-a.
I be.PRS.3SG fall.PPRTC-SG.F
'She fell.'

(98)

v_{Aux}	T		
$[\pi{:}3_i]$	$[\pi{:}3_i$, #:SG/PL, TNS:PRS$]$	→	$\sqrt{\text{BE}}$.PRS.3.SG/PL
			/ɛ/
			'(he/she) is/(they) are'

The fact that mixed systems should be regarded as argument-structure-based systems in essence is also suggested by the general behaviour of reflexives in the dialects with a mixed system. These constructions do not behave as in person-driven systems. The data in (99) show that direct transitive reflexives are not subject to person restrictions but pattern with unaccusatives in selecting BE[88].

[88]The overall picture is somewhat complicated by the fact that indirect transitive re-

(99) *Corridonia/Monte San Giusto* (Paciaroni, 2009: 53(22))

a. Me=so rviʃtit-a.
SI.ACC.1=be.PRS.1SG get-dress,PPRTC-SG.F
'I got (myself) dressed.'

b. Essa s=ɛ rviʃtit-a.
She SI.ACC.3=be.PRS.3SG get-dress.PPRTC-SG.F
'She got (herself) dressed.'

4.5.1 Further remarks on person restictions

The data from the varieties with a mixed system of auxiliary selection suggest they are closer to argument-structure-based systems than person-driven systems. Indeed, they select the same auxiliary for both unaccusatives and direct reflexives, just as in Italian. Possibly, indirect transitive reflexives pattern transitives and select HAVE. But again, this makes them analogous to the varieties of the Sardinian type, which also have an argument-structure-based system. I further argued that they result from person restrictions on T. If that is the case, HAVE/BE alternation only applies to 3rd person, while the other persons display BE regardless of co-indexation. Previously, I proposed that, in Italian, BE exceptionally results from the presence of a 0-person on T, in transitive/unergative impersonals. If this formalization is on the right track, then argument-structure-based and mixed systems are

flexives select BE (1st and 2nd person) and BE/HAVE (3rd person). I do not think, however, this fact suggests the presence of a person-driven system, for the following reasons: first, pure person-driven systems extend the same pattern to the entire paradigm, including the whole class of reflexives, something which does not happen in the dialects of Corridonia and Monte San Giusto; second, the BBH pattern exhibited by plain transitives is not the same of direct transitive reflexives, which exhibit a BBB/H pattern, something which is at odds with the general tendency of pure person-driven systems; third, Paciaroni (2009: 55) suggests that this dialect always selected HAVE with transitive indirect reflexives at earlier stages, just like Sardinian. Thus, free variation in these constructions is not a reflex of a person split, but rather an innovative feature. Synchronically, the different pattern found in indirect transitive reflexives depends on the agreement properties of the clitic, not on a person split.

similar in the following way: in both systems, some persons (1st and 2nd in Corridonia/Monte San Giusto, 0-person in Standard Italian) are simply not sensitive to the general rule of auxiliary selection described so far, but rather display a sort of default BE.

As far as person restrictions are concerned, the pattern observed in some dialects of the Veneto area is also interesting. In general, these varieties exhibit a system of auxiliary selection which is similar to the Italian one. However, they exhibit a particular kind of person restrictions. Such person restrictions only apply to verbs with *si* clitics, regardless of the argumental status of *si*. Indeed, these person restrictions emerge with transitive direct reflexives and anticausatives. This suggests that person restrictions are tied to the presence of the clitic (Kayne, 2000: 118). Interestingly, HAVE is often associated with the absence of PPA in these varieties, although this is not a generalized fact. The following examples from Scorzé in (100) show a split with the pattern BHHBHH.

(100) *Scorzè* (Pescarini, 2024a: 90)

a. Me=so sentà.
SI.1SG=be.PRS.1SG sit-down.PPRTC
'I sit down.'

b. Te=te=ga sentà.
SCL.2SG=SI.2SG=have.PRS.2SG sit-down.PPRTC
'You(sg) sit down.'

c. El=se=ga sentà.
SCL.3SG.M=SI.3SG=have.PRS.3SG sit-down.PPRTC
'He sits down.'

d. Se=semo sentai.
SI.1PL=be.PRS.1PL sit-down.PPRTC-PL.M
'We sit down.'

e. Ve=gavì sentà.
SI.2PL=have.PRS.1PL sit-down.PPRTC
'You(pl) sit down.'

f. I=se=ga sentà.
SCL.3PL=SI.1SG=be.PRS.1SG sit-down.PPRTC
'They sit down.'

If we abstract away from PPA, how should this pattern be analysed? Since these varieties are not person-driven, one possibility is to group them with mixed systems, namely as argument-structure-based systems with person restrictions. This would imply that T is somewhat sensitive to the reflexive clitic's person feature. The problem is that, in the formalization adopted here, these clitics move to Spec-T, and possibly adjoin the T head, but they do not Agree with T. Thus, person restrictions cannot be expressed in through same formalization adopted for Corridonia/Monte San Giusto. Two alternative approaches can be further explored. One is to assume that the realization of the auxiliary is sensitive to the presence of a *si* clitic, and the relative person feature, in the T-field. Alternatively, the auxiliaries of these dialects are able to incorporate the clitic, through a mechanism similar to that described by Roberts (2010: 75-79) and Olivier (2025: 184). Thus, after v_{Aux}-to-T movement, the whole complex [cl+v_{Aux}+T] spells out the auxiliary according to the clitic's person feature.

4.6 On the absence of auxiliary selection

I argued that, in person-driven varieties, v_{Aux} is not inert, despite not being in a Share relation with v. However, this could be the case of languages that have participial morphology but dispose of a single auxilary, such as the dialect of Trebisacce mentioned in Chapter 2. I repeat the relevant examples

below.

(101) *Trebisacce*

a. Giuwann a kkɔtt/*kkutt a
G. have.PRS.3SG cook.PPRTC-SG.F/*-SG.M the
mənɛstrə.
soup..F
'John cooked the soup.'

b. Marí a mmɔrt
M. have.PRS.3SG die.PPRTC-SG.F
'Mary died.'

Tther languages with a single auxiliary do not dispose of participial morphology related to unaccusatives or cliticization. This is the case of Spanish (see 102). Arguably, Share between v and v_{Aux} is simply not available in these varieties.

(102) *Spanish*

a. María ha llegado/*-a.
M. have.PRS.3SG come-back.PPRTC/*-SG.F
'María came back.'

b. María la=he visto/*-a.
M. ACC.3SG-F=have.PRS.3SG see.PPRTC/*-SG.F
'María saw her.'

The general observations made so far cannot reduce, of course, the overall attested variability. In particular, langugages that do have PPA with clitics or unaccusative constructions, but dispose of a single auxiliary, are attested. For instance, Majorcan Catalan has a single auxiliary HAVE and exhibits PPA with object clitics and unaccusative constructions with a preverbal subject

(Salvà, 2025). General Catalan, instead, displays a single auxiliary HAVE and does not allow PPA with unaccusative predicates, but it allows PPA with object clitics, including reflexive clitics (see 103).

(103) *Catalan* (Loporcaro, 2016: 802(2-d, 3-d), 807(20-d))

a. La Maria ha anat/*anada al cine.
the M. have.PRS.3SG go.PPRTC/*-SG.F to-the cinema
'Mary went to the cinema.'

b. (La clau), l'ha pres-a/*pres [...].
the key, ACC.3SG-F take.PPRTC-SG.F
'The key, he/she took it.'

c. Les noies s=han mirat al mirall.
the girls SI.ACC.3=have.PRS.3SG look at-the mirror.
'The girls looked at themselves in the mirror.'

I further refer to Amato (2021: 429ff) for other varieties of this kind. It would be interesting to investigate the properties of v in these languages and why v and v_{Aux} do not enter in a Share relation in unaccusatives (Majorcan Catalan) and reflexive clauses (Majorcan Catalan and General Catalan[89]). On the other hand, PPA with an *in situ* object is not associated necessarily with a person-driven system (Sonnino, Arielli) or a single auxiliary system (Trebisacce). Notoriously, Old Italian varieties allowed PPA with an *in situ* object but had an argument-structure-based system of auxiliary selection, only partially different from the one we find in Modern Italian. In Chapter 5, I show that the mechanism by which PPA with an *in situ* object takes place could be different from that commonly associated with varieties with

[89]Varieties of Catalan in general represent a rich field for investigation on PPA and auxiliary selection. Salvà (2025: 5) mentions that PPA with an *in situ* object is residually attested in Majorcan Catalan. As for auxiliary selection, some northern Catalan dialects display a person-driven auxiliary pattern (Pineda et al., 2024).

a person-driven system of auxiliary selection or a single auxiliary.

4.7 Conclusion

This Chapter provided an analysis of the main patterns of auxiliary selection found in the Romance languages. The argument-structure-based system, of which Italian represents a well-know example, has been explained by the fundamental assumption that the auxiliary BE signals a co-indexation relation between v_{Aux} and T. More precisely, BE selection results from v_{Aux} and T having co-indexed person features. In unaccusative clauses, the IA is promoted to the subject position, hence it gets φ-probed by both v and T. Since v and v_{Aux} form a Complex Head, v is able to transfer its valued person feature to v_{Aux} via Share; T, instead, probes the IA for φ-Agree and nominative case assignment. Thus, v_{Aux} and T end up being co-indexed and the auxiliary is spelt out as BE. In reflexives, v_{Aux} and T end up being co-indexed because v_{Aux} receives the clitic's person feature, previously φ-probed by v, while T probes the EA. Since the EA and the clitic are in a binding, co-indexing, relation, v_{Aux} and T have co-indexed person features and the auxiliary is spelt out as BE. Note that Italian, unlike the varieties of the Sardinian type, also exhibits BE selection in indirect transitive reflexives. I suggested that Italian benefactive *si*, unlike Sardinian one, is not merged in the applicative projection typically associated with oblique clitics. Instead, it is merged on v, which is valued for the clitic's person feature as a result. The derivation is then similar to that of transitive direct reflexives, where BE emerges. The overall analysis explained not only the argument-structure-based system in terms of feature identity between v_{Aux} and T, but also why, in these languages, we find BE selection strongly associated with PPA, with the well-known exception of (some kinds of) impersonal clauses. The notions

of Complex Head and the Share mechanism which underlie the analysis of argument-structure-based systems provided a potential explanation for why we do not find this system of auxiliary selection in many Italian dialects and in other Romance varieties, but rather a person-driven system or a single auxiliary. Many of these varieties exhibit PPA with *in situ* objects, which is commonly attributed to the participle's low position in the clause structure. Given its structural position, the participle can never form a Complex Head with the auxiliary. I partly reworked this idea by introducing a v-V feature inheritance mechanism which make Share between v and v_{Aux} unavailable, in these varieties. Consequently, the auxiliary can assume a generalized form or can extablish a local π-Agree relation with the subject in Spec-vP, depending on the featural properties of v_{Aux}. An overall summary of the parametric difference between the representative languages of the various systems of auxiliary selection discussed in this Chapter is included in Table 5.

	AS	φ-probes on v	*in situ* PPA	Share	π-probe on v_{aux}
Italian	arg.str.	yes: EF (trans.), uφ (unacc.)	no	✓	×
Sonnino	prs.driv	no (v-V φ-inheritance)	yes	×	✓
Trebisacce	sing.aux.	no (v-V φ-inheritance)	yes	×	×
Spanish	sing.aux.	no	no	×	×

Table 5: Parametric variation among some representative languages of various systems of auxiliary selection (AS).

As for the mixed systems, I agree with previous analyses such as Amato (2021, 2022) that they should be considered argument-structure-based systems with person restrictions. If the analysis of Italian impersonal constructions is on the right track, argument-structure-based and mixed systems would happen to be even more related one another than previously thought. In particular, both systems exhibit person specifications where the co-indexation rule does not apply, although to a different extent.

5 A Case Study in Old Italian Auxiliary Selection: The Old Florentine Pattern

5.1 Introduction

Auxiliary selection in Old Italian varieties has been the subject of descriptive work (Rindler-Schjerve and Kratschmer, 1990; Ježek, 2010) and of syntactic analyses in the framework of Relational Grammar (Formentin, 2002; La Fauci, 2004; D'Onghia, 2016). To the best of my knowledge, the topic has not yet been approached within the Minimalist framework. The goal of this Chapter is to present a Minimalist analysis of a particular variety of Old Italian, namely the Old Florentine variety, attested through Dante Alighieri's (1265-1321) *oeuvre* between the late 13th and the early 14th century. Historically, this variety is also known as Dante's *volgare* and constitutes a prestigious literary source for the late development of Italian. As far as auxiliary selection is concerned, Old Florentine partly differed from Modern Italian, especially in reflexives, which tended to select HAVE rather than BE. To explain this pattern, I propose two solutions. The first is to treat Dante's system as a purely argument-structure-based system, where the relevant rule of auxiliary selection relies on the ability of v to introduce an EA. As such, the rule of auxiliary selection corresponds to the one formulated by D'Alessandro and Roberts (2010: 51) for argument-structure-based systems in general, in which HAVE is selected iff v_{Aux} takes a non-defective v as its complement. Here, non-defective is synonimous with transitive v, namely a v that assigns an external ϑ-role and values the IA for accusative case. This solution is straightforward and descriptively adequate. However, I would like to suggest a second possibility, more consistent with the overall approach adopted in this dissertation, and one that may shed light on the

diachronic development of auxiliary selection throughout Old Italian. I will argue that in Old Florentine varieties, including Dante's *volgare*, v contains a set of uninterpretable φ-features that probe the IA. Thus, PPA resulted from φ-Agree on v, independently of movement. As for the evolution of auxiliary selection, the period around the half of the 14th century (some time after Dante's death in 1321) coincides with a major change in Old Italian grammar, which affected the participle's ability to agree with a rightward object. After this period, PPA with an object in the rightward position is still attested, but less frequently (Lucchesi, 1963: 269; Egerland, 1996: 47). In my view, this represents a small step towards the modern system, in which PPA in transitive contexts becomes regular with clitics, via insertion of EF, but it is not available with an *in situ* object. Note that this process was historically very slow: PPA *in situ* is attested, though not regularly, until the mid-19th century. By that time, however, auxiliary selection has the form found today in Standard Italian. Thus, the crucial difference with respect to Dante's *volgare* is not agreement *in situ per se*, but rather the ability of v to probe the IA when the IA is a clitic, a strategy which Italian soon lost. All in all, this alternative solution naturally aligns with the view that a major change in the Old Italian grammatical system took place after the mid-14th century (Egerland, 1996: 38ff).

While I will mainly take into account the data discussed by Ambrosini (1978), La Fauci (1984), and Loporcaro (2011, 2014), drawn from Dante's literary production, I also include data from other varieties, insofar as they are relevant to particular aspects, such as the pattern's evolution, its areal variability, and the reconstruction of the grammatical system underlying Old Italian auxiliary selection. As far as terminology is concerned, in the following examples, Old Florentine refers to Dante's *volgare*, unless differently speci-

fied, while Old Italian refers to different varieties within the Italian domain.

5.2 The pattern

The major differences between Dante's Old Florentine and Modern Italian concern reflexive clauses. The examples in (1) and (2) illustrate a system in which transitive-unaccusative distinction matches that of Modern Italian. Transitives and unergatives select HAVE (see 1), while unaccusatives select BE (see 2).

(1) *Old Florentine* (La Fauci, 2004: 248)

a. Ma i Provenzai che fecer contra lui non
but the Provençals that make.PST.3PL against him not
hanno riso.
have.PRS.3PL laugh.PPRTC
'But the Provençals who slandered him, did not laugh.' (PD VI 130-1)

b. E quel signor che lì m=avea
and that gentleman that there ACC.have.IMPF.3SG
menat-o.
bring.PPRTC-SG.M
'And that gentleman that had brought there.' (IF VIII 103)

(2) *Old Florentine* (La Fauci, 2004: 246)

a. Fuggit-o è ogni augel che 'l caldo segue.
flee.PPRTC-SG.M be.PRS.3SG each bird that the heat follows
'All birds that follow the heat fled.' (RIME C 27)

b. Erano li cittadini miei in campo giunt-i
are.IMPF.3PL the citizens my.PL in field arrive.PPRTC-PL.M
co' loro avversari.
with their opponents
'My fellow citizens had arrived in the field with their opponents.'

(PG XIII 115-116)

Unlike Modern Italian (and modern European French[90]), transitive reflexives always pattern with bare transitives: they select HAVE, whether they are direct (see 3) or indirect reflexives (see 4).

(3) Direct transitive reflexives (La Fauci, 2004: 243, 248)

a. [...] la donna che [...] ci=s=hae
the woman that us=SI.ACC.3=have.PRS.3SG
mostrat-a.
show.PPRTC-SG.F
'The woman that showed herself to us.' (VN XXXVIII 3)

b. Ancis-a t=hai
kill.PPRTC-SG.F SI.ACC.2SG=have.PRS.2SG
'You(f.) killed yourself.' (PD, VIII 43-4)

(4) Indirect transitive reflexives (La Fauci, 1984: 248-249)

a. Quando s=ebbe scoperta la gran bocca.
when SI.DAT.3=have.PST.3SG expose the big mouth
'When (it) had exposed its big mouth.' (IF XII 79)

b. [...] poscia che tanti speculi fatti
after that many mirrors make.PPRTC-PL.M
s=ha.
SI.DAT.3=have.PRS.3SG
'After that he made (for himself) so many mirrors.' (PD XXIX 143-4)

Constructions that resemble Modern Italian impersonals select BE, even with a transitive or unergative predicate (see 5, next page). Unlike Modern Italian,

[90]With respect to reflexives, European French differs from Canadian French, where HAVE occurs in transitive indirect reflexives (Rea, 2020).

these constructions are commonly seen as passives rather than impersonals, on the assumption that Old Italian lacked the impersonal *si* (Salvi, 2008).

(5) (Passive) impersonals (La Fauci, 1984: 247)

a. Giurato si=saria ch'el
swear.PPRTC SI.IMPRS.3=be.COND.PRS.3SG that'he
dicesse "Ave!"
say.SUBJ.IMPF.3SG hail
'One could have sworn he was saying "Hail!"' (PG X 40)

The generalized use of HAVE is somewhat unique in the Old Italian context, at this particular evolutionary stage. Looking at data from other Old Italian varieties, including the Tuscan dialects, HAVE is less frequent than BE, especially with direct reflexives. The data in (6) illustrate the use of BE with direct transitive reflexive clauses in some Old Italian varieties.

(6) *Old Italian* (Ježek, 2010: 122(158))

a. [...] pregando ognora dolzemente lei cui
praying always sweetly she to-whom
s=è dat-o.
SI.ACC.3=be.PRS.3SG give.PPRTC-SG.M
'Always praying her, to whom he gave himself.' (Amico di Dante, *Rime*, 1, 12-13)

b. Allora si=sono accordati intra anbo due li
then SI.ACC.3=be.PRS.3PL agree between both two the
servi [...]
servants
'Then the two servants agreed (between each other).' (*Tristano Riccardiano*, 67, 1-2)

However, HAVE with reflexives is still found in Old Italian even more than a century after Dante's time. The following examples in (7) show the use of HAVE in a transitive (reciprocal) direct reflexive (see 7a) and in an indirect transitive reflexive clause (see 7b).

(7) *Old Italian* (Ježek, 2010: 122(161d-f))

a. Questi due cavalieri s=aveano lungamente
These two knights SI.ACC.3=have.IMPF.3PL for-a-long-time
amato [...]
love.PPRTC
'The two knights had loved each other for a long time.' (*Novellino*, 33, 4-5)

b. Bito s=avea messa la più
B. SI.ACC.3=have.IMPF.3SG put-on.PPRTC-SG.M the most
ricca roba di vaio ch'avea.
rich clothes of vair that-have.IMPF.3SG
'Bito had put on the richest clothes of vair he had.' (*Novellino*, 96, 14-15)

Focusing on Florentine, Loporcaro (2014) claims that late-14th-century Florentine already shows traces of development with respect to Dante's system. By that period, BE appears with direct reflexives. Loporcaro cites the examples in (8, next page) from a late 14th century text, Franco Sacchetti's *Trecentonovelle*, where BE is consistently found with direct transitive reflexives. As for indirect transitive reflexives, HAVE is still predominantly selected by the end of the 14th century.

(8) *Old Florentine* (late 14th century, Loporcaro, 2014: 61(16b))

a. [...] essendosi sciolt-a da un arpione,
be.GER=SI.ACC.3 free.PPRTC-SG.F from a harpon,
cominciò a fuggire per la via.
start.PERF.3SG to flee for the street
'Having freed herself from a harpon, she started to flee down the street.' (*Trecentonovelle*, CLIX, 20-21)

b. il podestà e il capitano essendosi armat-i [...]
the podesta and the captain be.GER=SI.ACC.3 arm
salirono a cavallo.
mount.PERF.3PL to horse
'the podestà[=historical Italian title] and the captain having armed themselves, they mounted their horses.' (*Trecentonovelle*, CLIX, 120-122)

5.3 Defectivity on v, theoretical economy, and language change

The data presented above suggest that in Dante's *volgare* HAVE was associated with the presence of an EA in the clause structure. This corresponds the general rule for argument-structure-based systems of auxilary selection proposed by D'Alessandro and Roberts (2010), see (9).

(9) Rule of auxiliary selection for argument-structure-based systems (D'Alessandro and Roberts, 2010: 51): If v_{Aux} takes v* as its complement, v_{Aux} is HAVE; otherwise v is BE

While this rule fails to account for the Modern Italian/French pattern, it is adequate for the Old Florentine variety of Dante. In this context, non-

defective v* assigns the external ϑ-role to the EA and values the IA for accusative case[91]. Let us decline the rule in (9) in the two possible configurations, as in (10).

(10) a. $[_{v_{Aux}}$ HAVE $[_{vP}$ EA v* $[_{VP}$ V IA]]] transitive

b. $[_{v_{Aux}}$ BE $[_{vP}$ v $[_{VP}$ V IA]]] unaccusative

(10a) corresponds to any construction with a transitive v, which introduces an EA and assigns accusative case to the IA. As such, this configuration characterizes transitives, including reflexives. (10b) corresponds to passive/unaccusative structures, where v does not introduce an EA and does not assign accusative case. The rule in (9) is descriptively adequate for the pattern found in Dante's *volgare*. However, introducing an additional rule like (9) is rather uneconomical for the general theory of auxiliary selection adopted here. Moreover, it does not provide, by itself, a plausible explanation as for why this pattern eventually evolved into the one found in Modern Italian. One possible answer would be to associate this shfit to a progressive detransitivazion of reflexives which led them into the unaccusative class (cf. Vincent, 1982; Rindler-Schjerve and Kratschmer, 1990). However, I have already noted why the unaccusative analysis of reflexives is rather unstatisfactory in synchronic terms (cf. §2.2.3).

A more consistent approach with the assumptions adopted here, is to assume that Old Florentine was still constrained by the general rule adopted in this dissertation, and repeated in (11, next page).

[91]Note that Bjorkman (2011) proposes a similar generalization to explain HAVE selection. More precisely, HAVE is selected because the presence of an EA interferes with the Agree relation between v_{Aux} and v.

(11) The auxiliary on v_{Aux} is spelt out as BE whenever v_{Aux} is π-indexed with T.

This rule is still adequate to explain BE selection with unaccusatives. However, the difference between Old Florentine and Modern Italian requires an explanation. I argue that this difference should be attributed to structural factors. Thus, one way to account for the Old Florentine pattern is by investigating the properties of v. A major difference associated with v is the pattern of PPA found in Old Florentine, and Old Italian more generally. Hence, let us focus on this specific aspect.

5.4 The properties of Old Italian participles

In the previous Chapter, I argued that the difference between the argument-structure-based system and the person-driven system can be attributed to v's ability to enter in a Share relation with v_{Aux}. In person-driven varieties, the participle tends to agree with the IA *in situ*, possibly as a result of a local φ-Agree relation between V and the IA, after v-to-V feature inheritance. Since the participle and the auxiliary occupy separate Spell-Out domains, the Share relation between v and v_{Aux}, which characterizes the Italian/French system, is blocked. Interestingly, Old Italian varieties share with Central and Southern Italian dialects (with person-driven auxiliary selection) the property that the participle can agree with an *in situ* object. Additionally, in Old Italian varieties, the object could appear to the left of the participle (see 12, next page). In that case, many elements could be scrambled before the participle (Egerland, 1996; Poletto, 2014; D'Alessandro, 2022).

(12) *Old Italian* (Egerland (1996: 38) and D'Alessandro (2022: 532(27)), respectively)

a. [...] co' denari avresti la persona
with-the money have.PRS.COND.2SG the.F person.F
perdut-a.
lose.PPRTC-SG.F
'With your money you would have lost your life.' (*Decameron*, 2, 5)

b. [...] i nimici avessero già il passo
the enemies have.SUBJ.IMPF.3PL already the.M pass.M
pigliat-o.
take.PPRTC-SG.M
'the enemy had already taken the pass.' (Bono Giamboni, *Orosio*, 2, 9, 15-16)

However, the reverse order is also attested, namely the object follows the participle, as in Modern Italian (see 13).

(13) *Old Italian* (D'Alessandro (2022: 531(26)) and Ježek (2010: 122(161h)), respectively)

a. [...] mio padre ha offert-i duomila
my father have.PRS.3SG offer.PPRTC-PL.M two-thousand
marchi.
marks.M
'My father offered two thousand marks.' (*Novellino*, 18, 15-16)

b. [...] ella istessa s=avea dat-a
she herself SI=DAT.3=have.IMPF.3SG give.PPRTC-SG.F
la morte per lo dolore.
the.F death.F for the grief
'She had killed herself for the grief.' (Bono Giamboni, *Orosio*, 5, 24, 12-13)

As for Dante's *volgare*, the object+participle order is attested (see 14a), alongside the 'regular' order (see 14b)[92],[93].

(14) *Old Florentine* (Egerland, 1996: 55(14b), 76(11a))

a. [...] che avessero sì leggere le non fittizie
that have.SUBJ.IMPF.3PL so easy the.F non falses.F
parole appres-e.
words.F learn.PPRTC-PL.F
'That they had so easily learned the true words.' (CONV II XIII)

b. [...] non veggiono, per ciò che hanno
not see.PRS.3PL, for this that have.PRS.3SG
chius-i li occhi.
close.PPRTC-PL.M the.PL.M eyes.M
'They cannot see because they have closed their eyes.' (CONV I IV)

[92]Note that the word order in some in (1), (2), (3b), (4), (5) above is not representative of the unmarked word order, since those examples come from Dante's poetic production (for further considerations on poetry and syntactic form cf. also Egerland, 1996: 43).

[93]One may wonder whether *closed* in (14b) is a true participle or rather an adjective. If it is an adjective, then we do not have a true compound tense but a resultative clause with an arbitrary agent. Let us consider the following example from Modern Italian, where agreement is allowed only insofar as the participial predicate has an arbitrary agent (as in i-c); in that case, the object must surface before the adjective:

(i) *Modern Italian*

a. Ho aperto la finestra.
have.PRS.1SG open.PPRTC the window.F

b. *Ho apert-a la finestra.
have.PRS.1SG open.PPRTC-SG.F the window.F
'I opened the window.'

c. Ho la finestra apert-a.
have.PRS.1SG the window open.ADJ-SG.F
'I have the window opened.'

Thus, (ia) and (ib) have two different interpretations corresponding to two different word orders. Egerland (1996: 75-79) argues that, unlike Modern Italian, in Old Italian the two word orders did not correspond to two distinct readings. In other words, both orders were syntactically equivalent and could be interpreted either as a compound tense or a (possessive) resultative interpretation, depending on information structure.

Clearly enough, the different auxiliary selection pattern of Old Florentine cannot be attributed to the participle position, as it can for varieties with a person-driven system. Indeed, Old Florentine exhibits an argument-structure-based system, not a person-driven system nor a single auxiliary. The alternative is that PPA *in situ* in Old Italian varieties does not arise from the same mechanism suggested for person-driven systems, namely v-to-V φ-features inheritance. Rather, the Old Florentine pattern can be attributed to the presence of φ-probes on v. Amato (2021: 216) mentions the possibility that Old Italian PPA could rely on two mechanisms: (i) φ-Agree on transitive v; (ii) insertion of EF on v. According to Amato, the first mechanism accounts for PPA *in situ* when the object appears to the right of the participle, while EF-Agree, is triggered by the presence of a DP with unchecked features, hence with clitics, as in Modern Italian. However, I would like to propose a different account. More precisely, I argue that φ-Agree on v was the main option in Dante's system with both *in situ* objects and clitics, and that explains the peculiar pattern of auxiliary selection found in Dante's *volgare*[94]. The differing features characterizing transitive v in Dante's *volgare* and Modern Italian are summarized in (15). Note that in Dante's *volgare*, the EF consists of a merge feature that triggers clitic movement, but it is not associated with uninterpretable φ-features.

(15)

Old Florentine	Modern Italian
[•D•], [ucase:acc], [uφ:_]	[•D•], [ucase:acc]
(EFs: [•cl•])	(EFs: [•cl•], [uφ:_])

[94]I do not exclude that Dante's *volgare* disposed of movement to a low focus position above vP (cf. Amato, 2021: 216); that would help explain the possibility for a full phrasal object to precede the participle. However, I argue that this strategy was not necessary for PPA to obtain, because PPA with an object in the rightward position is solidly attested in this variety.

To sum up, Old Florentine differed from Modern Italian in that v could φ-Agree with the IA regardless of movement. By contrast, Italian transitive v does not dispose of 'regular' uninterpretable φ-features; rather, these are inserted as a bundle of EF when (accusative) clitic movement out of the v phase takes place. Table 6 summarizes the overall variation presented in the previous Chapter, including Old Florentine.

	AS	φ-probes on v	*in situ* PPA	Share	π-probe on v_{aux}
Old Flor.	arg.str.	yes: uφ	yes	✓	×
M. Italian	arg.str.	yes: EF (trans.), uφ (unacc.)	no	✓	×
Sonnino	prs.driv	no (v-V φ-inheritance)	yes	×	✓
Trebisacce	sing.aux.	no (v-V φ-inheritance)	yes	×	×
Spanish	sing.aux.	no	no	×	×

Table 6: Parametric variation among some representative languages of various systems of auxiliary selection (AS), including Old Florentine.

5.5 The Old Florentine pattern and *in situ* agreement

The overall data from Old Florentine indicate that this variety did not differ from Modern Italian with respect to the transitive-unaccusative distinction. As in Modern Italian, unaccusative clauses, where the IA is probed by v and T at different stages of the derivation, lead to person feature identity between v_{Aux} and T. That is because v is able to Share its valued person feature with v_{Aux}. The crucial difference between Old Floretine and Modern Italian concerns auxiliary selection with the entire class of pronominal reflexives. I attribute this difference to the ability of transitive v to φ-probe an IA without movement. Recall that rightward agreement was common in Florentine texts from the 14th century (Egerland, 1996: 38ff), hence PPA could take place regardless of movement.

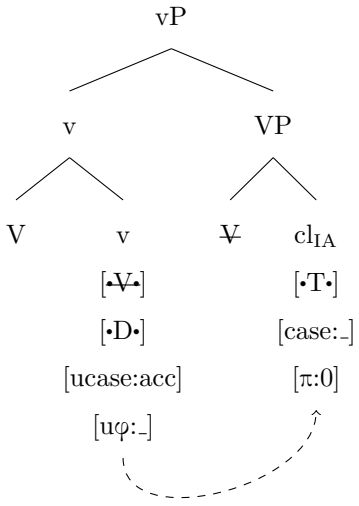
As far as the transitive-unaccusative distinction is concerned, the relevant derivation of the auxiliaries does not differ from that of Modern Italian. This

means that co-indexation between v_{Aux} and T takes place only when both v and T probe the same IA, namely in unaccusative clauses. Let us then focus on reflexives. In direct transitive reflexives, the participle shows agreement with the reflexive clitic merged in the IA position, just like in Modern Italian. I argue that, while in Modern Italian PPA results from clitic movement out of the vP phase, in Old Florentine the clitic is probed via φ-Agree. This means that EF are not functional to PPA, but solely to clitic movement outside the Spell-Out domain. If agreement resulted from EF-Agree, we would find the Modern Italian outcome with BE selection. If we assume that in Old Florentine v is able to probe the IA for φ-Agree, HAVE is expected even when a reflexive clitics merged in the IA position. I will show why this is the case. Let us consider the previous example in (3a), *la donna che … s'hae mostrata* 'the woman that showed herself', for which I provide the structural representation below in (3a′), and where the reflexive clitic *si* is merged in the IA position.

(3a′) [$_{CP}$ la donna$_i$ che [$_{TP}$ ~~la donna~~ s$_i$=hae mostrata [$_{vP}$ ~~la donna~~ [$_{VP}$ ~~mostrata~~ ~~si$_i$~~]]]]

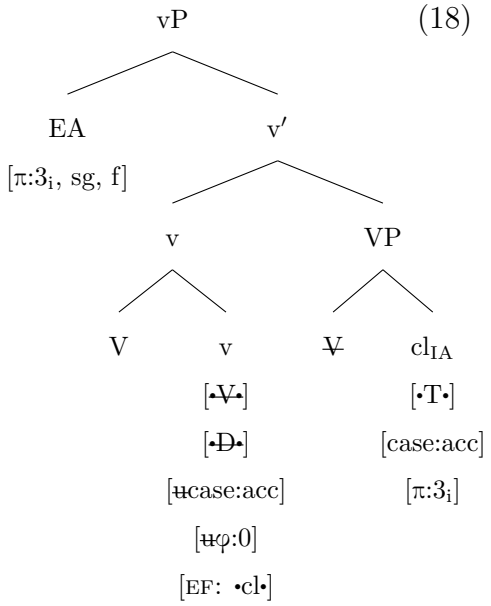
Let us address the relevant derivation.

(16)

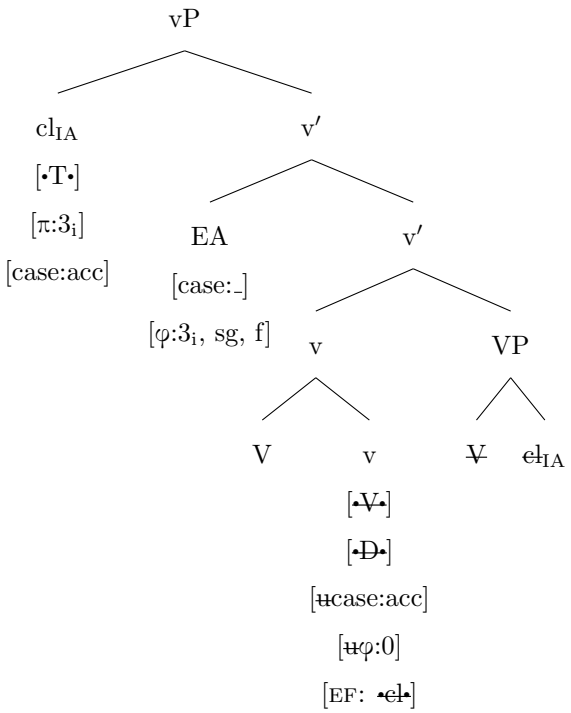


V-v movement checks the V-selectional feature on v. v φ-probes the reflexive clitic merged in the IA position (see 16).

(17)

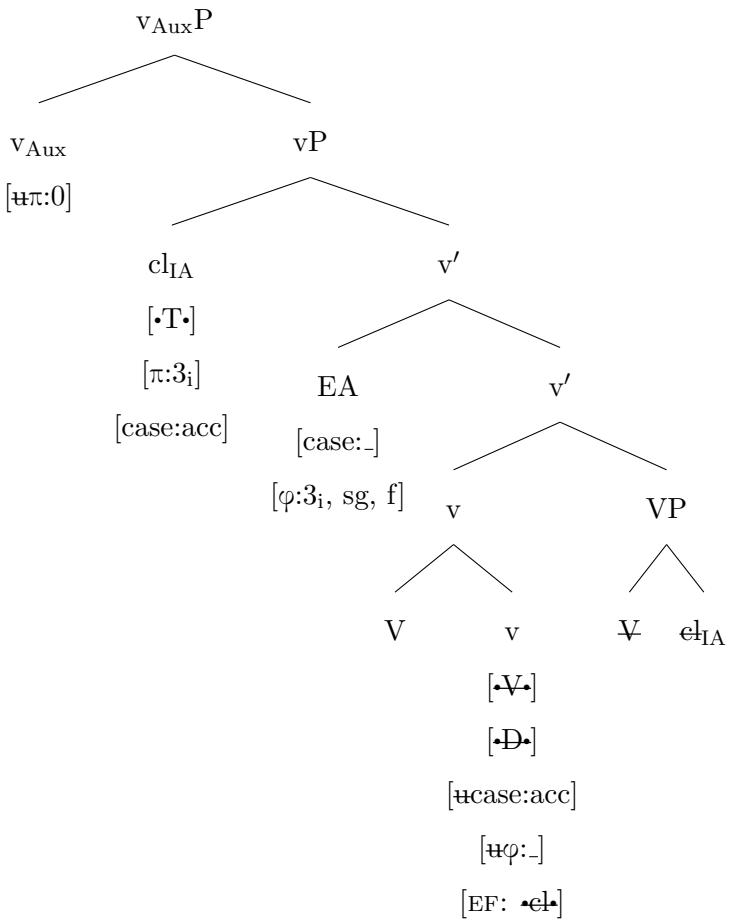


(18)



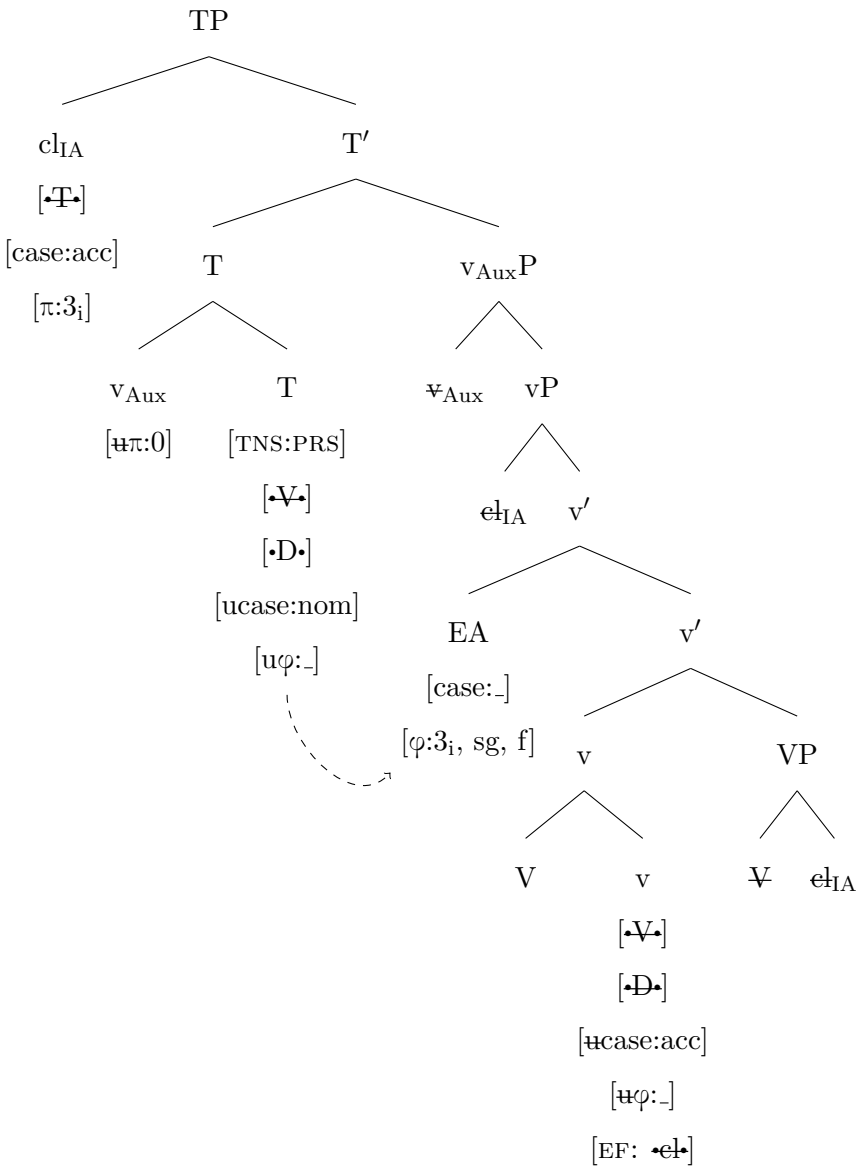
Right afterward, the EA is merged in Spec-vP and binds the clitic. Note that the person feature on v has been valued in the previous step of the derivation. Therefore it cannot access the indexed person feature on the clitic anymore. Due to the presence of the clitic within the phase, insertion of EF on v takes place. This EF consists only of a merge feature and no φ-probes (see 17). The clitic moves to the outer specifier of v, checking the relevant merge feature on v (see 18).

(19)



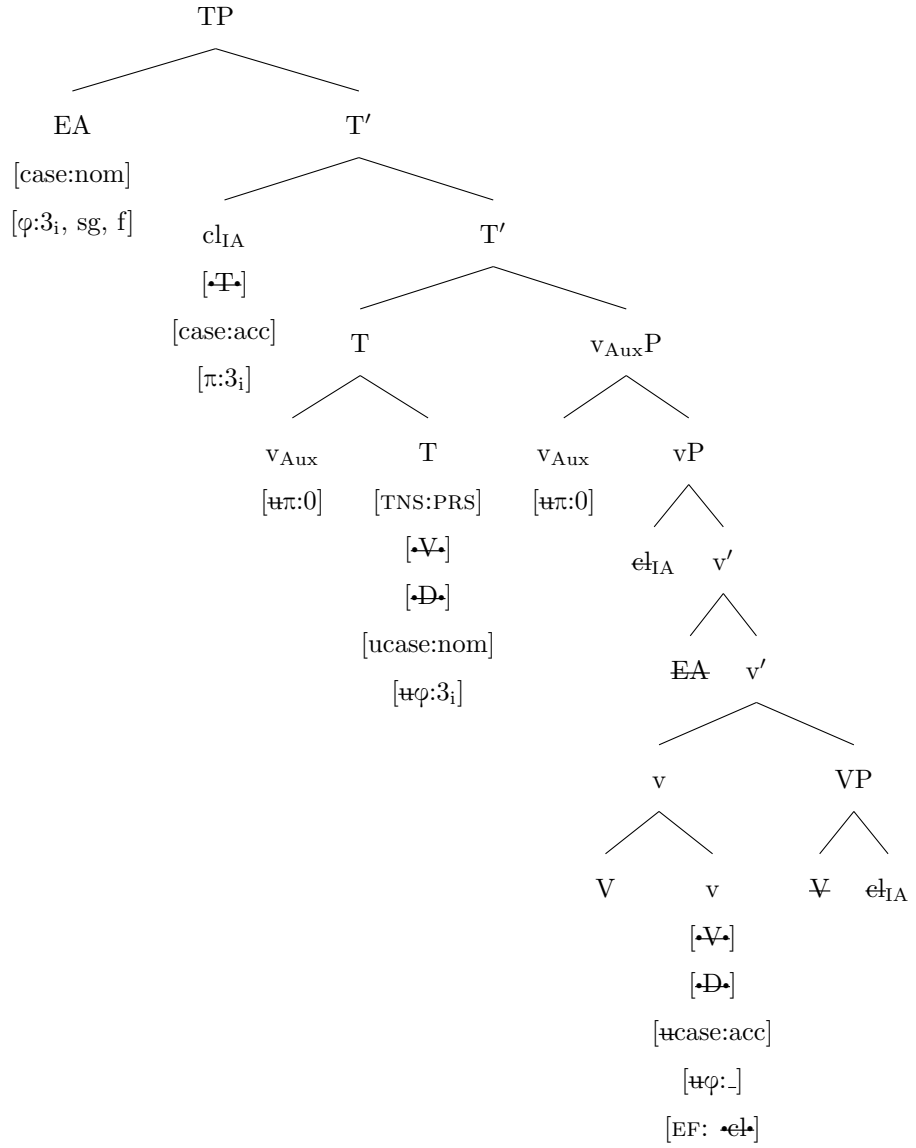
In the next step of the dcerivation, v Shares its valued person feature with v_{Aux} (see 19).

(20)



The clitic moves to Spec-T and v_{Aux} moves to T. T probes the EA for φ-Agree and case valuation (see 20).

(21)



Finally, the EA internally merges in Spec-TP (see 21). At PF, HAVE is inserted, because v_{Aux} and T are not co-indexed, see the vocabulary insertion rule in (22, next page).

(22)

v_{Aux}	T		
[π:0]	[π:3_i, #:sg TNS:PRS]	→	$\sqrt{\text{HAVE}}$.PRS.3SG
			/hae/
			'has'

As for PPA, the form *mostrata* shows number and gender agreement with the EA. However, v has not been valued for these features. Hence, we must assume that they have been filled in via semantic agreement on v. More precisely, when probing the clitic, v has acquired the clitic's semantic features (see 23).

(23)

V	v		
$\sqrt{\text{PRT}}$	[#:<u>sg</u>, γ:<u>f</u>]	→	$\sqrt{\text{PRT}}$.SG-F
			/mostrat-a/
			'showed(F.)'

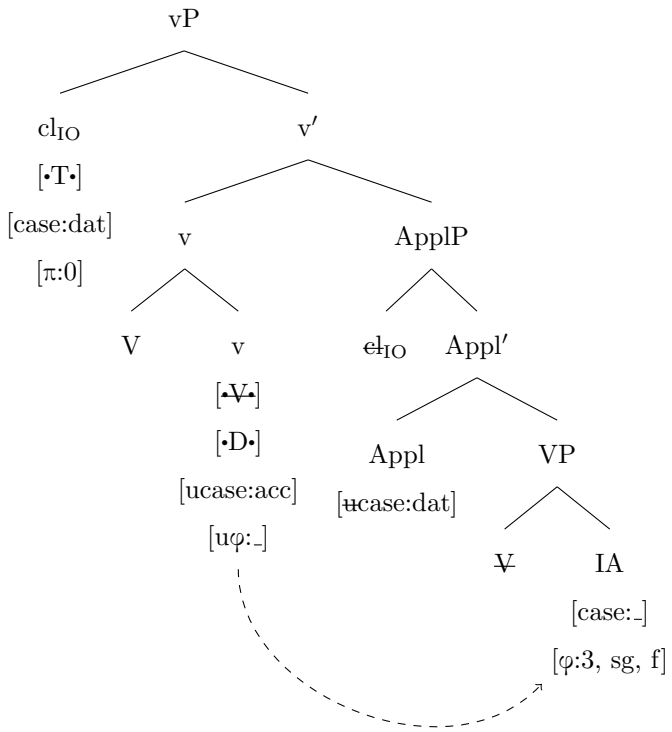
Let us turn our attention to transitive indirect reflexives, where the clitic is merged in the IO position, as in *Quando s'ebbe scoperta la gran bocca* 'When [Chiron] had exposed his big mouth' in (4), for which I provide the relevant structural representation in (4′), below.

(4′) [$_{CP}$ Quando [$_{TP}$ *pro*$_j$ s_j=ebbe [$_{vP}$ ~~*pro*~~$_j$ scoperta [$_{ApplP}$ ~~si~~$_j$ Appl [$_{VP}$ ~~scoperta~~ la gran bocca]]]]]

Note that Old Floretine exhibits PPA with the IA, not with the *si* clitic in the IO position. I assume the clitic is merged below v, and receives the dative case from an applicative head located between v and V. How come

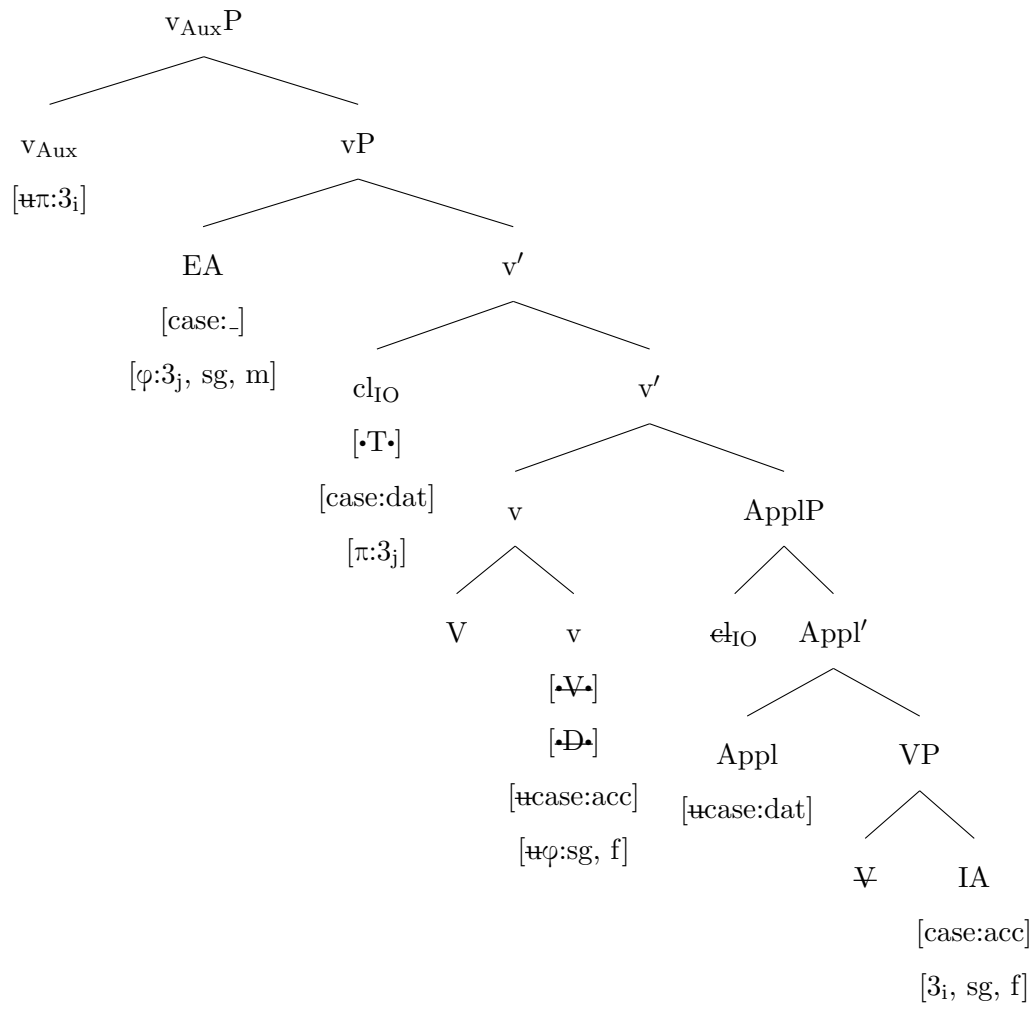
the clitic merged in Spec-Appl is invisible for φ-Agree on v? One way to explain this is to assume that, on its way to v, V moves to Appl, picking up the clitic (Olivier, 2025: 191, n30). This is possibly due to the presence of a V-selectional feature on Appl, not represented in the following trees.

(24)



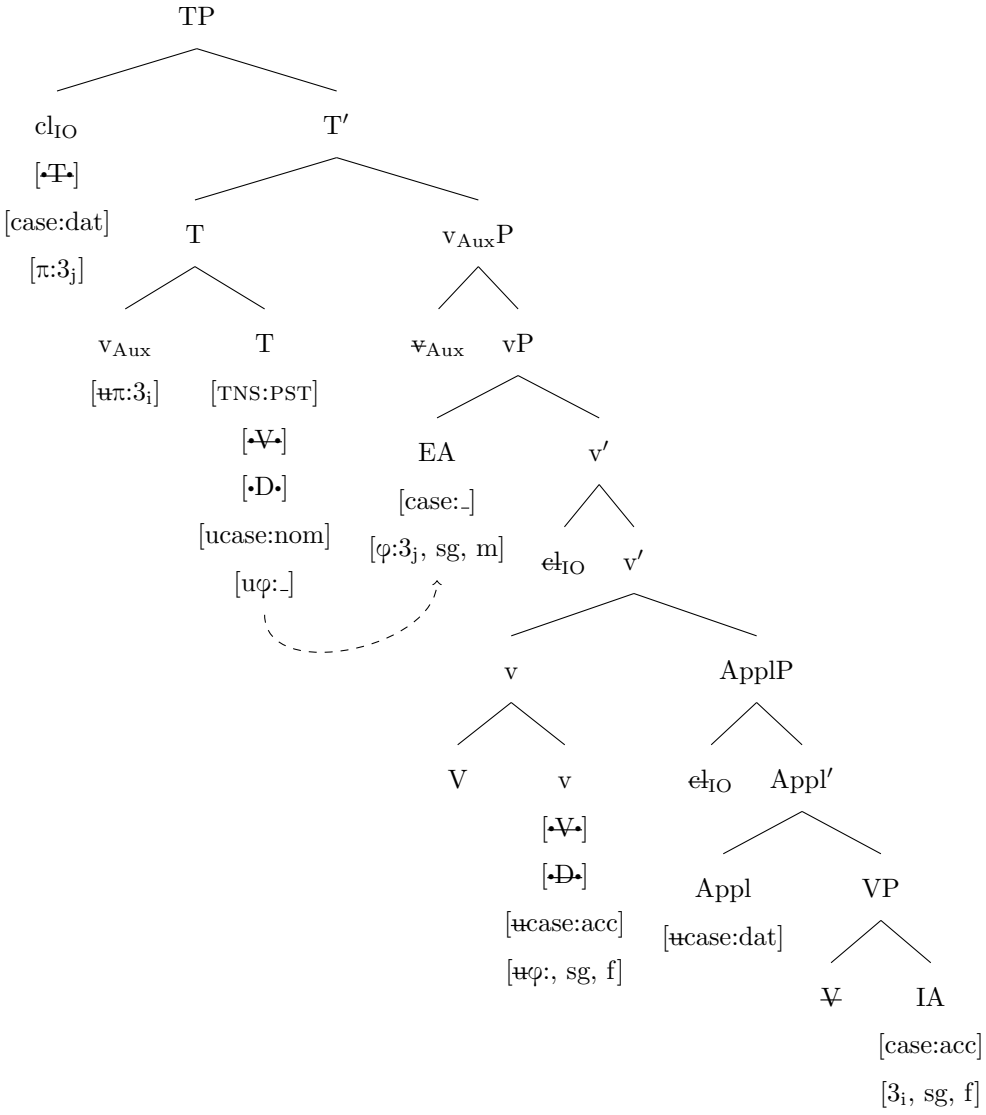
Thus, V moves to v, together with the clitic. In this scenario, the clitic lands on the specifier of vP. Right afterward, v probes the IA for accusative case valuation and φ-Agree (see 24).

(25)



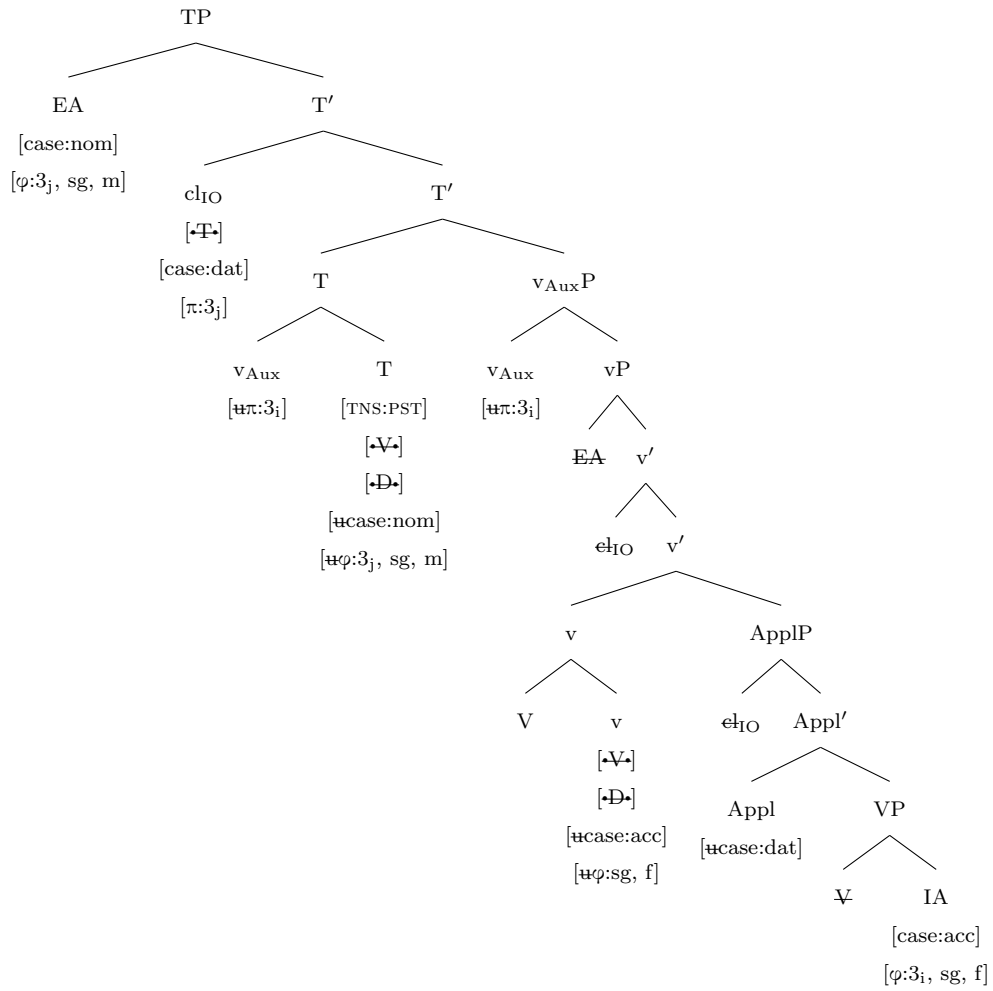
In the next step of the derivation, the EA is merged in Spec-vP and binds the reflexive clitic. Immediately after, v Shares its valued person feature with v_{Aux} (see 25).

(26)



Upon merger of T, the clitic moves to Spec-T and v_{Aux} moves to T. T probes the EA for φ-Agree and nominative case valuation (see 26).

(27)



Finally, the EA internally merges in Spec-TP (see 27). Since v_{Aux} and T do not have co-indexed person features, the auxiliary is spelt out as HAVE, see the vocabulary insertion rule in (28).

(28)

v_{Aux}	T		
$[\pi{:}3_i]$	$[\pi{:}3_j, \#{:}\text{sg TNS:PST}]$	$\rightarrow$	$\sqrt{\text{HAVE}}$.PST.3SG
			/ebbe/
			'had'

As for PPA, the participle agrees with the IA, due to φ-Aree between v and the IA (see 29).

(29)

V	v		
$\sqrt{\text{PRT}}$	[#:sg, γ:f]	→	$\sqrt{\text{PRT}}$.SG-F
			/scopert-a/
			'exposed(F.)'

5.6 Discussion

I have hypothesized that Dante's variety relied on φ-Agree on transitive v for PPA. This is supported by the tendency of Tuscan varieties to exhibit PPA with a transitive object regardless of the object movement through the phase vP, at least until the early 14$^{\text{th}}$ century (Egerland, 1996: 47-59). If we suppose that, in Old Florentine, regular φ-Agree was involved in probing the IA, be it a clitic or not, the general theory of auxiliary selection adopted here can account for the pattern found in Dante's *volgare*.

To explain the variability and evolution of Old Italian auxiliary selection, we can hypothesize that Old Italian varieties began to develop an additional process of PPA with clitics, namely EF-Agree. For Florentine in particular, the relevant change could have taken place by the end of the 14$^{\text{th}}$ century. This change had a visible consequence on the overall system of auxiliary selection: BE began to replace HAVE in direct transitive reflexives. A plausible explanation is that the clitic ceased to be probed by v via φ-Agree and began to trigger agreement via the insertion of EF, as in Modern Italian. As for indirect transitive constructions, the process was much slower, because v could still probe the non-clitic IA. The grammatical change did not affect the system immediately, since benefactive *si* was impenetrable to φ-Agree

at this stage. As a consequence, HAVE is still found in these constructions throughout the 14th, 15th and 16th centuries. While it is not clear exactly when the use of BE began to take over in Italian, "it seems likely that in the spoken language, usage of of aux E [=BE] in dyadic reflexives was established by the early 17th century at least." (Loporcaro, 2014: 61).

It should be noted, for the sake of completeness, that PPA with an *in situ* object was still attested at very advanced stages of Italian. The examples in (30) from *I promessi sposi* by Alessandro Manzoni (1785-1873) show that this kind of PPA was still used, at least in the literary language, during the 19th century.

(30) *19th century Italian* (D'Alessandro and Roberts, 2008: 479, n3(i))

la quale, dopo avere asciugat-e in segreto le
the which, after have.INF wipe.PPRTC-PL.F in secret the
lacrime [...]
tears
'who, after secretly wiping her tears...' (Alessandro Manzoni, *I promessi sposi*, chapter 9)

However, by this same period the auxiliary selection system had already assumed the shape we find today. This means that Italian still relied on two agreement processes on v at this stage: φ-Agree for an *in situ* IA, although this strategy had become less used than in the past, and EF-Agree for object clitics, which was to become the main strategy. In the final stage of its development, Modern Italian dispensed with the former mechanism and kept the latter, resulting in today's PPA pattern.

5.7 Conclusion

In this Chapter, I presented two possible solutions for the Old Florentine pattern attested in Dante's *volgare*. This pattern differs from that of Modern Italian in requiring HAVE across the entire class of transitive reflexives. The first solution assumes the presence of an EA in Spec-vP was a sufficient condition for HAVE selection (D'Alessandro and Roberts, 2010: 51). While the Old Florentine pattern can be related to v's ability to introduce an EA and assign accusative case, I have proposed an alternative solution. This solution is more coherent with the overall approach to auxiliary selection adopted in this dissertation. More precisely, I related the difference between the two systems to the properties of transitive v. In particular, in direct transitive clauses the reflexive clitic is probed by v via "regular" φ-probes, rather than via the insertion of EF, as in Modern Italian. Such parametric difference is motivated primarily by the differing patterns of PPA found in the two varieties. Unlike Modern Italian, Old Florentine commonly required PPA with an *in situ* object.

This parametric difference has visible consequences for the overall system of auxiliary selection. In transitive direct reflexives, by the time v probes the clitic, the clitic still has a 0-person value. As a result, the φ-features on v acquire the 0-person value as well. v Shares its 0-valued person value with v_{Aux}. By the end of the derivation, T and v_{Aux} are not co-indexed, because T bears the EA's person value, while v_{Aux} bears the 0-person value: therefore, HAVE is selected. In transitive indirect reflexive, the participle typically agrees with the IA, not with the oblique clitic. Hence, it is natural to assume that v_{Aux} and T can never be co-indexed in these particular constructions and HAVE is always selected. Diachronically, the use of BE with reflexives began to spread as a consequence of a different agreement mechanism, namely Agree via the

insertion of EF on v. The use of this distinct process with clitics affected auxiliary selection with reflexives, establishing identity at the T-v level and thus yielding BE selection. Eventually, Modern Italian dispensed with *in situ* agreement and kept EF-Agree as the sole option, with transitives.

6 Concluding Remarks

This dissertation proposed an analysis of Romance languages, adopting an approach based on φ-Agree and feature identity. The overall proposal agrees with recent contributions, such as Ledgeway (2022) and Olivier (2025), that BE selection in argument-structure-based systems results from co-indexation. As for the parametric difference between argument-structure-based, person-driven, and mixed-systems, the analysis took into account the relevant differences by investigating the properties of v and φ-Agree in varieties with different systems of auxiliary selection.

6.1 Main outcomes

I turn now to the main outcomes of the syntactic analysis. First, the overall analysis suggests that auxiliary selection and PPA are not entirely independent phenomena. More precisely, it suggest connections that can explain some interesting correlations within the analyzed languages. The strong correlation between BE selection and PPA, found in argument-structure-based systems such as those of Italian and French, receives a principled explanation by the assumption that richer agreement is a pre-condition for BE selection, with unaccusatives and reflexives, in argument-structure-based systems. When this is not the case, as in Italian impersonal *si* constructions with a transitive structure, an alternative explanation is available. I proposed the presence of a person restriction on T, which triggers BE selection in impersonal *si* constructions with a transitive/unergative predicate. This is not to say, of course, that PPA requires BE selection. Quite differently, it is BE selection that is made possible by richer agreement on the participle. BE selection does not occur in contexts where PPA takes place but no identity

arises between v_{Aux} and T, as in clauses with a non-reflexive object clitic. As for cross-linguisic variability, we do not expect to find auxiliary selection of the Modern Italian kind in varieties where the participle exhibits particular properties, such as *in situ* agreement. This prediction is borne out in a number of varieties. In varieties with a person-driven system, the participle tends to occupy a low structural position and to probe the IA. While v and v_{Aux} cannot enter in a Share relation, possibly due to v-V φ-inheritance and the PIC, these varieties rely on the presence of φ-probes on v_{Aux} for auxiliary selection. When φ-probes on v_{Aux} are absent, then the variety has a single auxiliary.

Second, the analysis suggests a further reduction of the parametric difference between argument-structure-based and mixed systems. While previous works (Amato, 2021, 2022) have focused on how mixed systems are similar to argument-structure-based system, I explored this similarity in the opposite direction. In the account proposed here, Italian too has a particular kind of lexical restriction, characterizing impersonal *si* constructions with a transitive/unergative structure, where the general rule of auxiliary selection does not apply, and BE selection is lexically determined. In other words, while in the analyzed varieties with mixed systems HAVE/BE alternation only affects the 3rd person, in Italian it affects all the positvely valued person, but not the 0-person attributed to impersonal *si*.

Finally, the already mentioned relation between auxiliary selection and PPA emerges, although differently, in the analysis of the Old Florentine pattern of auxiliary selection, for which a previous discussion in the Minimalist framework was not available. Throughout the discussion of that particular pattern, I referred to the rule proposed by D'Alessandro and Roberts (2010: 51) for argument-structure-based systems in general. That rule can capture

the Old Florentine pattern. However, it fails to account for auxiliary selection in other argument-structure-based systems such as that of Modern Italian. Moreover, it does not account for the difference between Old Florentine and Modern Italian auxiliary selection. For these reasons, I proposed a different explanation, consistent with the overall theory of auxiliary selection developed in this dissertation, and able to explain the difference between Old Florentine and Modern Italian. More precisely, Old Florentine generally requires the participle to agree with an *in situ* object, as in many Modern Italian dialects. This can explain why the Old Florentine pattern of auxiliary selection is partly different from that of Modern Italian. However, it does not explain why Old Florentine exhibits an argument-structure-based system and not a person-driven system or a single auxiliary. To explain the difference between Old Florentine and Modern Italian, I accounted for the agreement pattern found in Old Florentine by resorting to a different explanation than the one adopted for person-driven systems and varieties with a single auxiliary. More precisely, I posited the presence of a set of uninterpretable φ-features on transitive v. This makes Old Florentine participles different from those of person-driven varieties and from those of Modern Italian, and explains why auxiliary selection in Old Florentine is partly, but not greatly, different from that of Modern Italian.

6.2 Further research directions

The overall work presented here opens the way to further and interesting questions about Romance auxiliary selection. Although the general interaction between auxiliary selection and PPA seems to separate argument-structure-based systems (exemplified by the Italian/French pattern of auxiliary selection and PPA) from person-driven systems (with person-splits, low

participles, and agreement *in situ*), exceptions to this generalization exist, and they should be addressed and explained. Among these exceptions, we can include varieties of Catalan, such as Majorcan Catalan, where PPA is associated with cliticization and unaccusatives, but a single auxiliary HAVE is found (Salvà, 2025). This raises the question of why BE is not available in this language. Possibly, these exceptional patterns can be explained by investigating the structural properties of v and the diachronic development of auxiliaries. As a matter of fact, Old Catalan varieties did have HAVE/BE auxiliary selection, albeit with a different distribution than modern Italian or French. Interestingly, some nothern Catalan dialects exhibit a person-driven systems of auxiliary selection (Pineda et al., 2024), which would be interesting to address in a formal approach to investigate their structural similarity or difference with respect to person-driven systems found in Italian dialects.

Finally, I would like to thank an anonymous reviewer for bringing to my attention another interesting topic for future research. Beyond the domain of Romance/Indo-European languages, there is a potential parallelism between the co-indexing system of auxiliary selection discussed in this dissertation and the systems of switch-reference marking found in various languages in the Americas, Australia, and New Guinea. Switch reference refers to the morphological marking that tracks whether the subjects of two related clauses are coreferent, and they are often analyzed as a grammaticalized system of comparing indices of different subevents (Arregi and Hanink, 2022). The examples in (1, next page) illustrate switch reference morphological marking in a North American language, Washo. In Washo, the overt different subject (DS) suffix -š surfaces at the right periphery of a verb when the subject in its own clause is referentially distinct from the one in the clause embedding

it (see 1a). Same subject (SS) marking on the other hand is null (see 1b)[95].

(1) *Washo* (Hanink and Bochnak, 2018: 67)

a. *pro*$_i$ [Adele$_j$ díme? súːbi?-i-š-ge]
pro A. water 3/3.bring.IND-DS-NM-ACC
di-hámup'ay?-éːs-i
1/3-forget-NEG-IND
'I$_i$ remember that Adele$_j$ brought the water.'

b. Adele$_i$ [*pro*$_j$ dalá?ak ?-íːgi-yi-Ø-ge]
A. *pro* mountain 3/3-see-IND-SS-NM.ACC
hámup'ay?-éːs-i
3/3.forget-NEG-IND
'Adele$_i$ remembers that she$_i$ saw the mountain.'

It would be interesting to assess whether a unified formal approach can successfully account for Romance auxiliary selection and switch reference morphological marking.

[95]Note that in Washo examples transitive verbs have a portmanteau prefix indicating the person of the subject and object, represented as 1/2 ('one-on-two'), 3/1 ('three-on-one') (Arregi and Hanink, 2022: 652, n4).

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