

The Latin passive morpheme /-r/ and its morphosyntactic similarity with Romance *si*

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13.1 Introduction

Latin synthetic passive forms display a suffixal /-r/ that is apparently added to the AGR endings, as a comparison of the passive forms with their active counterparts in the case of the Present 1 and 3 singular readily indicates: *am-o-r/mon-e-o-r/aud-i-o-r* vs. *am-o/mon-e-o/aud-i-o*; *am-ā-t-[u]-r/mon-ē-t-[u]-r/aud-ī-t-[u]-r*—where [u] is epenthetic— vs. *am-a-t/mon-e-t/aud-i-t* “love/warn/hear.”* In fact, the idea that the morphology of the Latin passive should be analyzed as containing a morpheme /-r/ that is added to the personal desinences is standard in the traditional analyses of these forms (cf. Meillet 1964; Ernout and Thomas 1951/1972; Embick 2000; Weiss 2009).

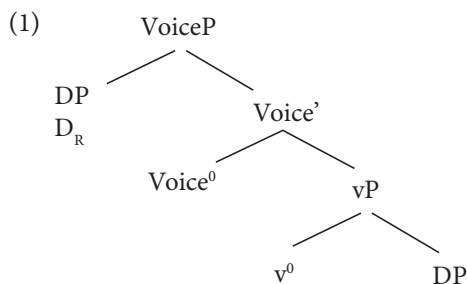
The appearance of this voice morpheme to the periphery of AGR, however, violates the basic generalizations on the positioning of verbal functional elements, according to which Voice should have a very low position in the extended projection of the verb lower than Asp^0 and close to v^0 (Cinque 1999). This unexpected positioning has been recently investigated by Zyman and Kalivoda (2019). In this chapter, I will propose an alternative analysis of this positioning based on the close similarity between the morpho-syntactic distribution of the Latin passive morpheme /-r/ and the Romance clitic *si*. It is, in fact, to note that Latin /-r/-forms are not restricted to the passive as in *superāmur a bestis* Cic., Fi 2.11 “We are surpassed by the animals”, but also have other uses: they appear in reflexive constructions ([*Epamīnōndas*]... *exercebātur plūrimum currendo et luctando* Corn. Nepos L, II.40 “E. was training himself a lot by running and wrestling” and in middle and anticausative ones (*aliud os amnis aperitur* “another mouth of the river opens up”; *cantando rumpitur anguis* Verg. Buc. 8, 71 “the snake blows out by singing spells.” Furthermore, they can also have an impersonal use (*Sic itur ad astra* Verg. “thus one goes to the stars”; *quom caletur* (Plaut., Capt. 80) “when

* I dedicate this chapter to Luigi Rizzi: *Sic itur ad astra!// Così si ascende alle stelle!*

one is warm/when it is warm” (Ernout and Thomas 1951/1972); *vītam vīvitur* “one lives life” (Wackernagel 1926); *precārio adeitur* (Corp. Inscr. Lat., I, 1215 “one enters on request”). As well-known, the same range of uses is a characteristic feature of Romance *si*-verbal constructions, as one can see in the following examples from Italian: (i) reflexive: *Gianni si lava spesso/si è lavato* ‘G. washes himself often/ washed himself yesterday’; (ii) middle and anticausative: *la macchina si rompe spesso/ si è rotta ieri* ‘The car breaks often/ broke yesterday’; (iii) impersonal *Qui si va allo sbaraglio* ‘one is risking everything here’ *Si suda molto in questo posto* ‘One is sweating a lot in this place’; *Quest’autunno si è mangiato molte mele* ‘this fall, people ate many apples’; *Quest’autunno le si è mangiate spesso* ‘this fall, people ate them often’; (iv) passive: *Le mele si mangiano in autunno* ‘the apples are eaten in the fall’; *le mele si sono mangiate in autunno* ‘the apples were eaten in the fall’.

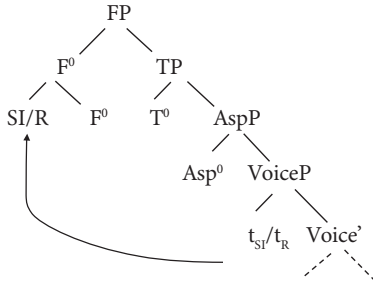
The parallelism with Romance *si*-constructions and Latin /-r/-forms is striking and commonly pointed out in traditional Italian grammars of Latin (e.g., Bettini, Fabbri, and Salvioni 2004). In a paper (1986), I proposed a possible account of this parallelism, which I updated in Calabrese (2019) in terms of Schäfer’s (2008) analysis of *si*-constructions in Romance and Distributed Morphology (Halle and Marantz 1993). These works remain unpublished, although quoted in the literature. Here I will provide a further, more compact, although more exhaustive, revision of Calabrese (2019), also incorporating the insights of Pinzin (2015), who independently developed an analysis along the same lines but was not known by me at that time.

Given the striking parallelism between Latin /-r-/ and Romance *si*-constructions, I will propose that they share the same properties: /-r/, like *si*, is a reflexive like the element R that, as in Schäfer’s (2008) analysis, can be merged in the internal argument position of transitive and unaccusative verbs but can also appear as the Spec of VoiceP in impersonal and passive constructions based on unergatives and transitive verbs as in (1). If not bound by a *c*-commanding antecedent, they are assigned an Arb interpretation, as in impersonal uses. In passive constructions, they lose argumental status and do not need a reference or a theta role.

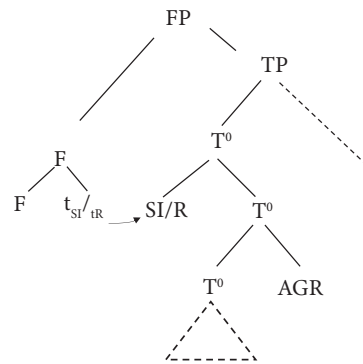


Both /*si-*/ and /*-r*/ are clitic elements. Assuming that “cliticization” involves first moving to a dedicated landing site in FP (Uriegarega 1995) in the clause left-periphery and then m-merger (true cliticization, Marantz 1988), they thus first move to FP (2a) from their position in Spec of VoiceP (or other argumental positions); from this position, they are then m-merged with the verbal X^0 complex (2b). Romance *si* stops here. The Latin /*-r*/ undergoes a further morphological operation that adjoins R to AGR (2c). This accounts for the relevant constructions in Romance and Latin.

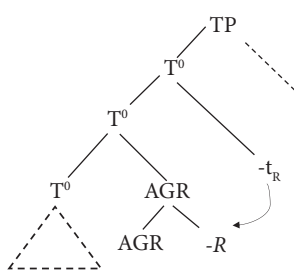
- (2) a. Movement to FP



- b. M-merger (true “cliticization”) after head-movement generates the verbal
- X^0
- complex.



- c. AGR-adjunction of R in Latin



This chapter is organized as follows. After providing some basic morphological facts about the Latin verbal system, I will discuss a brief morphological analysis of its forms in a Distributed Morphology framework (Halle and Marantz 1993) (§ 13.2.1–3). This section introduces some of the morphological machinery that accounts for the Latin surface verbal configurations used in the more syntactically oriented parts of the chapter. In § 13.2.3, I will discuss Latin /*-r*/-forms, the so-called passive forms, and consider their problematic aspect from the point of view of the Mirror principle. The reflexive, middle, anti-causative, and impersonal uses of the /*-r*/-forms will be crucial for my account of this issue. They will be described in § 13.2.4, where I also discuss the parallel uses of the Romance, or more specifically of the Italian *si*-constructions, that will be fundamental in my analysis of the Latin /*-r*/-forms. My analysis is developed in Sections 13.3

and 13.4. Section 13.3 deals with the *inflectum* system Latin /-r/-forms and Italian *si* constructions. It begins with a brief critique of the most recent accounts of the morpho-syntactic structure of these forms: Embick (2000) and Zyman and Kalivoda (2019) (§§ 13.3.1.1–2). The reformulation of Schäfer’s (2008, 2016) theory of Voice which will be central to my analysis, is discussed in § 13.3.2. I begin by analyzing Romance *si*-constructions (§ 13.3.2.1) and aspects of their cliticization patterns (§ 13.3.2.2). The analysis is extended to Latin *-r*-forms in § 13.3.3. I will propose that /-r/ has morpho-syntactic properties similar to those of *si*, and that, similarly to *si*, it is cliticized to the verbal form; a further operation merging it with AGR accounts for its surface morphological position, and for why the mirror principle is apparently violated. Section 13.3.4. deals with differences between the morpho-syntactic properties of Italian *si*-constructions and those of the /-r/-forms; they have to do with different agreement patterns and follow from the difference between the feature specifications of *si* and those of /-r/. Finally, § 13.4 deals with the Latin *perfectum* periphrastic /-r/-forms seen again in parallel with Italian passive periphrastic forms. An analysis of Romance periphrastic formation is sketched in § 13.4.1 and extended to their Latin counterparts in § 13.4.2. A brief conclusion ends this chapter.

13.2 Basic facts

13.2.1 The Latin verbal systems

Latin is traditionally described as having four conjugations characterized by different thematic vowels, as shown in (3). The thematic vowel may be absent in specific morphological categories such as irregular perfects or past participles and in specific verbs (e.g., *su-mus/es-se*):¹

(3) Traditional Label	Theme Vowel	Example 1 st Pl.	Infinitive	Gloss
Conj. I	-ā-	<i>laud-ā-mus</i>	<i>laud-ā-re</i>	‘praise’
Conj. II	-ē-	<i>mon-ē-mus</i>	<i>mon-ē-re</i>	‘warn’
Conj. III	-I-	<i>dūc-i-mus</i>	<i>duc-e-re</i>	‘lead’
Conj. III(i)	-ī- ²	<i>cap-ī-mus</i>	<i>cap-e-re</i>	‘seize’
Conj. IV -	-ī-	<i>aud-ī-mus</i>	<i>aud-ī-re</i>	‘hear’

¹ To be consistent with the Latin orthography I will use the macron $\bar{}$ to indicate intrinsically long vowels.

² Table (3) also follows Embick and Halle (2004:18) in treating *capīō* verbs as belonging to a fifth conjugation with respect to the traditional four ones, which they refer to as III(i). The short /-ī-/ of this conjugation could be underlying or derived from an etymological /-ī-/ which was shortened after roots with a certain prosodic shape, an issue that will not be addressed here).

Table (3) follows Halle's (2018) analysis of the short thematic vowel of the III conjugation, according to which it is an underlying [+high, +back] vowel /-I-/. This vowel, like /-ā-/, is deleted by (4) below, before vowel-initial suffixes (*am-ā-ō* → *amō*, cf. *dūc-I-ō* → *ducō*, vs. *mon-ē-ō* → *moneō*, *aud-ī-ō* → *audiō*, *cap-ī-ō* → *capiō*).

(4) [-cons, +back] → Ø / [___]_{TV} -V

When this vowel appears before a consonant, and therefore it is not deleted, it is fronted by the rule in (5) (cf. *dūcimus*, *dūcite*; otherwise, the /e/ in *dūceremus*, *dūcere* is accounted for by an independently needed rule lowering short [i] before rhotics (*cap-ī-mus* vs. *cap-e-re*) (see (6)):

(5) [-round] → [-back] / [___ , -low]

(6) [-back] → [-high] / $\begin{array}{c} X \\ | \\ \text{---} \end{array}$ [+cons, +son, -nas, -lat]

The Latin verbal system is characterized by a basic aspectual opposition between imperfective and perfective forms (*Īnfectum* vs. *Perfectum*). Tense distinctions are found in each of these aspectual categories, as shown in (7), although no future forms are present in the subjunctive (Note that the features I use in (7) are tentative but, I hope, can characterize the basic morphological contrasts of the system):^{3,4}

(7) a. <i>Active:</i>								
<i>Īnfectum</i>			vs. <i>Perfectum</i>					
[-perfect]			[+perfect]					
[-past]	[+past]	[+future]	[-past]	[+past]	[+future]			
Present	Imperfect	Future	Perfect	Pluperfect	Future Perfect			
Ind. <i>laudāmus</i>	<i>laudābāmus</i>	<i>laudābīmus</i>	<i>laudāvīmus</i>	<i>laudāverāmus</i>	<i>laudāverīmus</i>	[-irrealis]		
Subj. <i>laudēmus</i>	<i>laudārēmus</i>	—	<i>laudāverīmus</i>	<i>laudāvissēmus</i>	—	[+irrealis]		
b. <i>Passive:</i>								
<i>Īnfectum</i>			vs. <i>Perfectum</i>					
[-perfect]			[+perfect]					
[-past]	[+past]	[+future]	[-past]	[+past]	[+future]			
Present	Imperfect	Future	Perfect	Pluperfect	Future Perfect			
Ind. <i>laudāmur</i>	<i>laudābāmur</i>	<i>laudābīmur</i>	<i>laudāti sumus</i>	<i>laudāti erāmus</i>	<i>laudāti erimus</i>	[-irrealis]		
Subj. <i>laudēmur</i>	<i>laudārēmur</i>	—	<i>laudāti sīmus</i>	<i>laudāti essēmus</i>	—	[+irrealis]		

A basic segmentation of active Latin verbal forms is given in (8)–(9) (Halle 2004). Some of the functional nodes are treated as having a null exponent (see Section 13.2.3 for an analysis of the passive forms).

³ I am using only forms of the 1 Person Plural for expository simplicity.

⁴ For the Latin verb paradigms, see Gildersleeve & Lodge (2000), or any other standard Latin grammar. I have also drawn on Sommer (1914) and Leumann et al. (1963), in addition to specialized works such as Ernout (1953/1989), Sihler (1995), Meiser (1998), and Weiss (2009).

- (8)
- | | Root- | Asp ⁰ | T ⁰ | Mood ⁰ | AGR _{1pl} | | |
|----|--------------------------|-----------------------|-------------------------|-------------------|--------------------|------------|--------------|
| a. | <i>laud</i> - <i>ā</i> + | <i>u</i> - <i>e</i> + | <i>r</i> - <i>ā</i> + | ∅ | + <i>mus</i> | Indicative | Pluperfect |
| b. | <i>laud</i> - <i>ā</i> + | <i>u</i> - <i>e</i> + | <i>r</i> - <i>ī</i> + | ∅ | + <i>mus</i> | | Future Perf. |
| c. | <i>laud</i> - <i>ā</i> + | <i>u</i> - <i>ī</i> + | ∅ | + ∅ | + <i>mus</i> | | Perfect |
| d. | <i>laud</i> - <i>ā</i> + | ∅ | + <i>b</i> - <i>ī</i> + | ∅ | + <i>mus</i> | | Future |
| e. | <i>laud</i> - <i>ā</i> + | ∅ | + <i>b</i> - <i>ā</i> + | ∅ | + <i>mus</i> | | Imperfect |
| f. | <i>laud</i> - <i>ā</i> + | ∅ | + ∅ | + ∅ | + <i>mus</i> | | Present |
- (9)
- | | Root- | Asp ⁰ | T ⁰ | Mood ⁰ | AGR _{1pl} | | |
|----|--------------------------|-----------------------|----------------|--------------------------------------|--------------------|-------------|------------|
| a. | <i>laud</i> - <i>ā</i> + | <i>u</i> - <i>i</i> + | <i>s</i> - ∅ + | <i>s</i> - <i>ē</i> + | + <i>mus</i> | Subjunctive | Pluperfect |
| b. | <i>laud</i> - <i>ā</i> + | <i>u</i> - <i>e</i> + | ∅ | + <i>r</i> - <i>ī</i> ⁵ + | + <i>mus</i> | | Perfect |
| c. | <i>laud</i> - <i>ā</i> + | ∅ | + ∅ | + <i>r</i> - <i>ē</i> + | + <i>mus</i> | | Imperfect |
| d. | <i>laud</i> - | + ∅ | + ∅ | + ∅ - <i>ē</i> + | + <i>mus</i> | | Present |

As proposed by Halle (2004) (see also Embick and Halle (2004)), the phonological rules in (4), (5), (6) and the rhotacism rule in (10) allow the postulation of the underlying exponents in (11) (see Calabrese (2023) for more discussion):

- (10) [+cons, +cont, -nas, -lat] → [+son]/V ___ V
 (i.e. the so-called rhotacism: *s* → *r*/V_V)

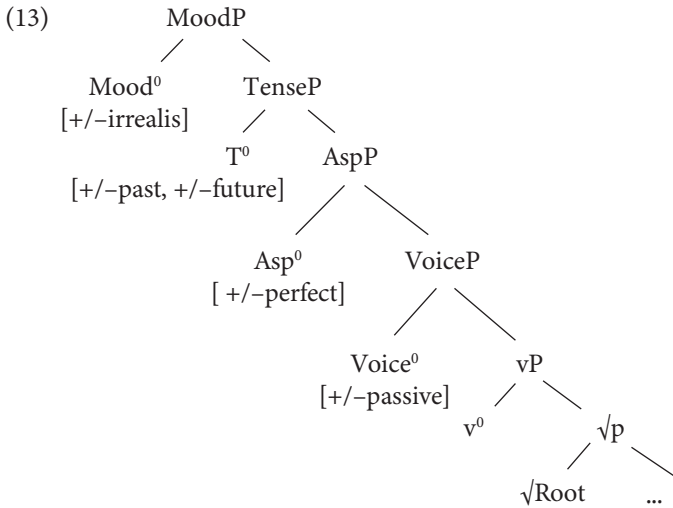
- (11)
- | | Root- | Asp ⁰ | T ⁰ | Mood ⁰ | AGR _{1pl} | | |
|----|--------------------------|-----------------------|-------------------------|-------------------|--------------------|------------|--------------|
| a. | <i>laud</i> - <i>ā</i> + | <i>u</i> - <i>i</i> + | <i>s</i> - <i>ā</i> + | ∅ | + <i>mus</i> | Indicative | Pluperfect |
| b. | <i>laud</i> - <i>ā</i> + | <i>u</i> - <i>i</i> + | <i>s</i> - <i>ī</i> + | ∅ | + <i>mus</i> | | Future Perf. |
| c. | <i>laud</i> - <i>ā</i> + | <i>u</i> - <i>i</i> + | ∅ | + ∅ | + <i>mus</i> | | Perfect |
| d. | <i>laud</i> - <i>ā</i> + | ∅ | + <i>b</i> - <i>ī</i> + | ∅ | + <i>mus</i> | | Future |
| e. | <i>laud</i> - <i>ā</i> + | ∅ | + <i>b</i> - <i>ā</i> + | ∅ | + <i>mus</i> | | Imperfect |
| f. | <i>laud</i> - <i>ā</i> + | ∅ | + ∅ | + ∅ | + <i>mus</i> | | Present |
- (12)
- | | | | | | | | |
|----|--------------------------|-----------------------|----------------|-------------------------|--------------|-------------|------------|
| a. | <i>laud</i> - <i>ā</i> + | <i>u</i> - <i>i</i> + | <i>s</i> - ∅ + | <i>s</i> - <i>ē</i> + | + <i>mus</i> | Subjunctive | Pluperfect |
| b. | <i>laud</i> - <i>ā</i> + | <i>u</i> - <i>i</i> + | ∅ | + <i>s</i> - <i>ī</i> + | + <i>mus</i> | | Perfect |
| c. | <i>laud</i> - <i>ā</i> + | ∅ | + ∅ | + <i>s</i> - <i>ē</i> + | + <i>mus</i> | | Imperfect |
| d. | <i>laud</i> - <i>ā</i> + | ∅ | + ∅ | + ∅ - <i>ē</i> + | + <i>mus</i> | | Present |

13.2.2 A morphological analysis of the Latin verbal system

Before proposing an analysis of the exponents in (11) and (12), let us look at the morphosyntactic structure of the string, in particular, the morphological structures of the forms we see in (11)–(12). Along the lines of Wurmbrand (2017) (but see also Cinque (1999)), I will assume the verbal functional structure in (13).

⁵ This vowel was long in early stages of Latin (cf. Ernout 1953/1989). It was, however, shortened in classical times. I adopt the classical time pronunciation in this chapter.

which expresses the essential core temporal, aspectual, and modal structure of eventualities:⁶



Assuming a universal hierarchical structure like that in (13) raises the question of how it is mapped onto surface word units. I will assume that this is done through the formation of X^0 -complexes, i.e., morphological words (Embick and Noyer 2001).

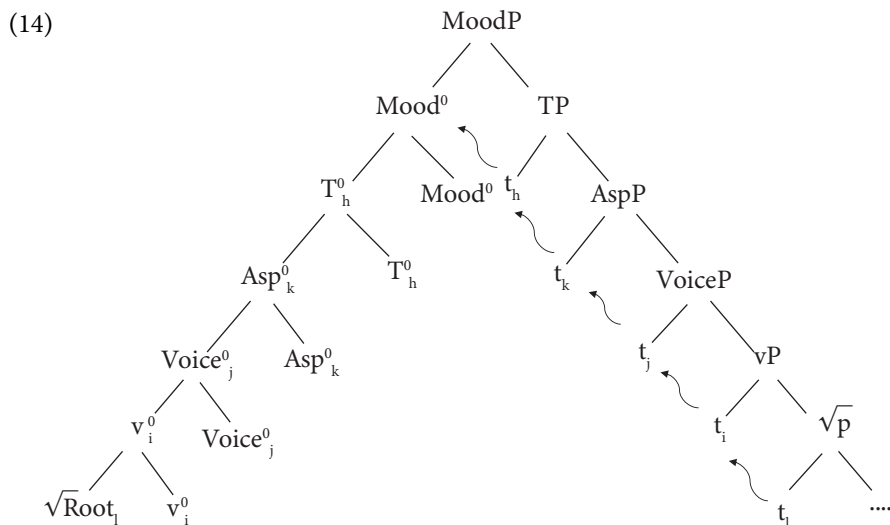
It is assumed that X^0 -complexes are generated by head movement operations (see below). These X^0 -complexes are the (abstract) morphosyntactic representations which are the input to phonological spell-out where phonological realizations are assigned to the terminal nodes via the cyclic application—from the inside out—of a process called *Vocabulary Insertion*. During Vocabulary Insertion, individual *Vocabulary Items* (VI)—rules that pair a phonological *exponent* with a morphosyntactic context—are consulted, and the most specific VI that can apply to an abstract morpheme is inserted (in the so-called Elsewhere (Subset, Paninian) ordering).

The universal hierarchical structure in (13) is then mapped onto surface morphological units (i.e., X^0 -complexes=morphological words; Embick and Noyer 2001) via cyclic, iterated head-rollup movement of Root through v , Asp, T, M. I will not linger over the technical aspects of head-movement and their justification here (see Calabrese 2019 for my implementation of this procedure).⁷ Therefore,

⁶ Along the lines of Wurmbrand (2017), additional functional heads may be provided by bleached lexical roots (=restructuring verbs). These functional heads express additional “nuances” of eventualities (see also Calabrese (2020) for discussion). The matter is not of relevance here and will not be pursued further.

⁷ Along the lines of Calabrese and Pescarini (2014), I assume that morphological operations and syntactic derivation are cyclically *interleaved* so that head-movement operations during what I call

given the structure in (13), head raising will create the structure in (14) by moving constituents upwards cyclically:^{8,9}



Putting aside the voice node, whose morpho-syntactic realization will be the topic of later sections, the structure in (14) nicely accounts for the morpheme orders we see in (11)–(12), as in the pluperfect subjunctive form *laud-a-vi-s-se-mus*, i.e., [[[[**laud-**]_{Root} [**-a**]_{TV}]_v-**v**-[**-i**]_{TV}]_{[+perf]-Asp⁰}] **-s**]_{[+past]-T⁰} **-s** **-**[**-e**]_{TV}]_{[+irr]-Mood⁰}]-**mus**]_[1Pl-AGR] ‘praise.PLUPRF.1PL’ (see below for a full derivation of this form).

Following Halle and Marantz 1993, and Bobaljik 2000, the node AGR is inserted in the morphology by the rule in (15).

(15) AGR-insertion:

Adjoin AGR to the highest X⁰ in the complex verbal X⁰ head

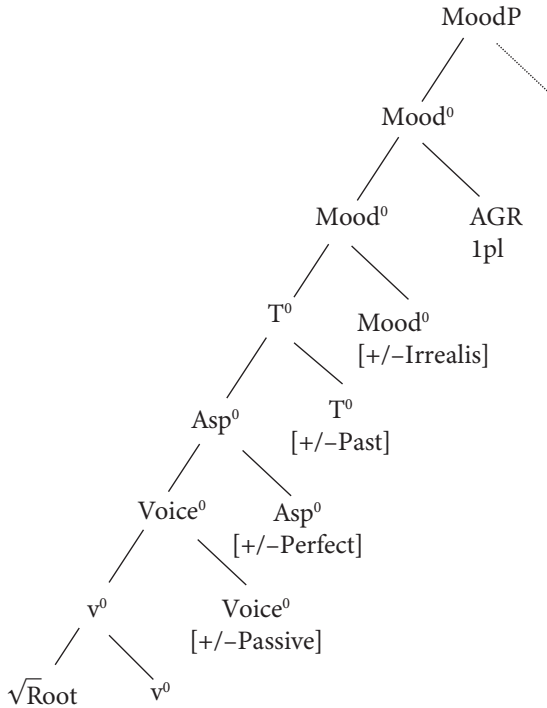
Application of (15) in the case of the complex head structure that is the output of (14) generates (16):

morphological spell out may first generate X⁰-complexes, i.e., words, that can then be targeted by other head-movement operations such as V-to C movement, etc. The word-forming head movement operation is the only one of relevance here.

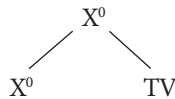
⁸ Under this view, periphrastic morphology, involves blocking of head movement. See below, Section 4. for discussion.

⁹ Along the lines of Bye and Svenonius (2012), I assume that the positioning of the exponent of the head as a suffix/prefix is due to information associated with the exponent and not a morphosyntactic property.

(16)



Along the lines of Oltra-Massuet (1999) and Oltra-Massuet and Arregi (2005), I assume that vowels in verbal forms are ornamental pieces inserted by the rule in (17), applying to all functional nodes (with some exceptions not discussed here (see Calabrese (2023) for further discussion).

(17) $X^0 \rightarrow$ 

Their vocalic exponents are then inserted by the rules in (18). They are sensitive to a special diacritic assigned to the head, inherited or copied from the root in the case of v^0 , otherwise assigned by the rules in (19) in the case of the other functional nodes.

- (18) a. TV → /-ē-/ Head^ē ____
 b. /-ī-/ Head^ī ____
 c. /-ĩ-/ Head^ĩ ____
 c. /-I-/ Head^I ____
 d. /-ā-/ Head ____

- (19) $\emptyset \rightarrow \bar{e} / [+irrealis]_{\text{Mood}^0} -$
 $\emptyset \rightarrow \bar{a} / [+past]_{\text{Mood}^0} -$
 $\emptyset \rightarrow \text{I} / [+F]_{\text{X}^0} -$

Let us turn to the consonantal exponents (where I also include \emptyset^{10}). /s/ is consistently the exponent of functional nodes with marked (+) features. At the same time, /s/ competes with two other exponents: with /b/ in the imperfect and future indicative and with /v/ in the regular forms of the perfect (where also /-s-/ and /-Ø/ can appear after special athematic roots). Otherwise, zero is used: it not only occurs as the exponent of functional nodes characterized by unmarked (-) features but also as the exponent of functional nodes characterized by marked features.¹¹

The following VIs for the functional nodes can be proposed (where +F can be any marked feature specification, and where \emptyset is assigned automatically to any node not satisfying (20a), (b), and (c) (see Calabrese (2023) for a detailed discussion of these VIs):¹²

- (20) a. /-b-/ $\langle - \rangle$ [-perfect, +F,¹³ -irrealis]_{Mood⁰}
 b. /-v-/ $\langle - \rangle$ [+perfect]¹⁴
 c. /-s-/ $\langle - \rangle$ [+F]
 d. /-Ø-/ $\langle - \rangle$ []

As proposed in Calabrese (2023), \emptyset s trigger null node pruning (i.e., delinking of nodes with non-overt exponence, followed by upward docking of the features that consequently become floating) as represented below.¹⁵ This results in the fusion of the two terminal nodes, where terminal node fusion is always triggered by this pruning operation. This is shown in (21), where Φ_1 and Φ_2 are exponents, and Φ_2 is phonologically empty. Null exponents \emptyset s are inserted when independently motivated terminal nodes fail to have a phonological realization:

¹⁰ In Calabrese (2023) I show the need for \emptyset exponents. There I argue that the distribution of morphological zeros does not follow from syntactic activity/inactivity but is simply a property of the node exponence.

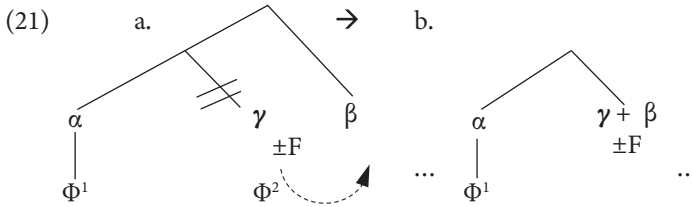
¹¹ Cf. the present subjunctive *laudēmus* where the mood node [+irrealis] is assigned a null exponent \emptyset . In this case, as argued by Calabrese (2023), we are dealing with an elsewhere insertion of \emptyset once the application of an impoverishment-like operation prevents the use of the marked feature.

¹² Note that the lower Voice node is systematically assigned \emptyset regardless of its specification (see below for further discussion).

¹³ By exclusion, here, [+F] can be either [+past] or [+future].

¹⁴ Note that this exponent alternates between vocalic [u] and consonantal [v] depending on syllable structure: it is [u] after consonants; otherwise, [v].

¹⁵ Pruning was originally proposed by Embick (2010) only for non-overt category defining nodes. Following Christopolous & Petrosino (2017) and Christopolous (2018), Calabrese (2019) extended it to all types of non-overt category nodes and reformulated it as in (21).



We now have all the machinery to fully derive surface structure of the Latin verbal forms in (11)–(12). I begin with the indicative imperfect *laudābāmus* ‘we. pl were praising’. The complex X^0 generated by head raising, followed by AGR insertion, for this form, is given in (16). Phonological spell-out operates cyclically node-by-node bottom up. TV insertion and vocabulary insertion, where in addition to overt exponents, \emptyset s are inserted when independently motivated terminal nodes fail to have phonological realization, followed by pruning of these \emptyset s and feature docking will generate the cyclic derivation in (22) where some of the verbal functional nodes are fused due to pruning—in cyclic steps, due to the cyclic nature of VI insertion (Remember Voice⁰ is always assigned \emptyset).^{16,17}

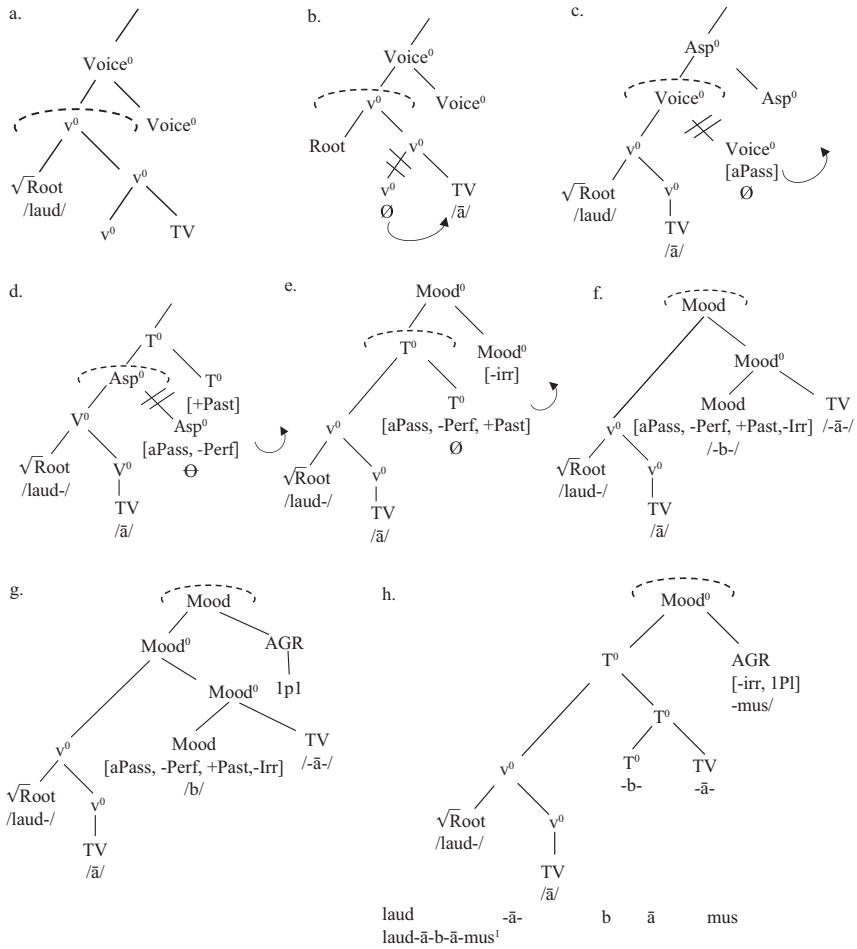
¹⁶ I follow Halle (2018) in assuming that the rule in (i) accounts for the insertion of an ornamental piece /-ē-/ in the imperfect indicative of verbal forms with [+high] TVs (including *I*) (i.e., (*aud-ī-ē-bam* → *audiēbam*, *cap-ī-ē-bam* → *capīēbam*, *dūc-I-ē-bam* → *dūcēbam* (after *I* deletion), vs. *am-ā-bam*, vs. *mon-ē-bam*):

(i) $\emptyset \rightarrow \bar{e} / [+high]_{TV} _ [perf., +past, irr.]$

¹⁷ Since I am considering only 1pl forms, the VI in (i) is enough to phonologically spell out AGR in the forms under discussion.

(i) /-mus/ <→ [+participant, +author, +plural]_{AGR}

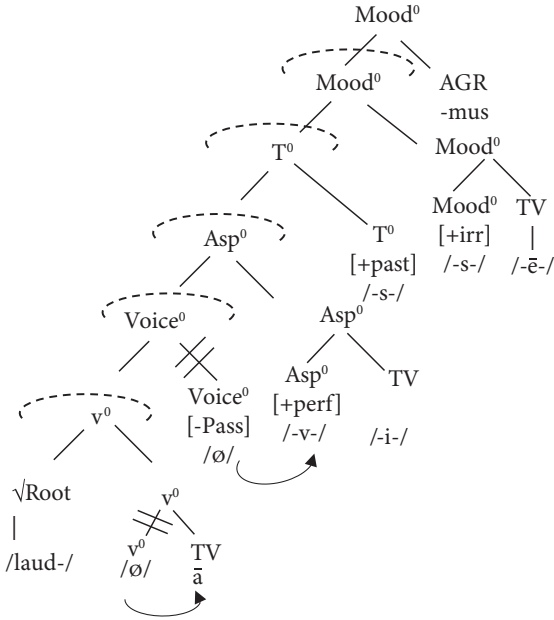
(22)



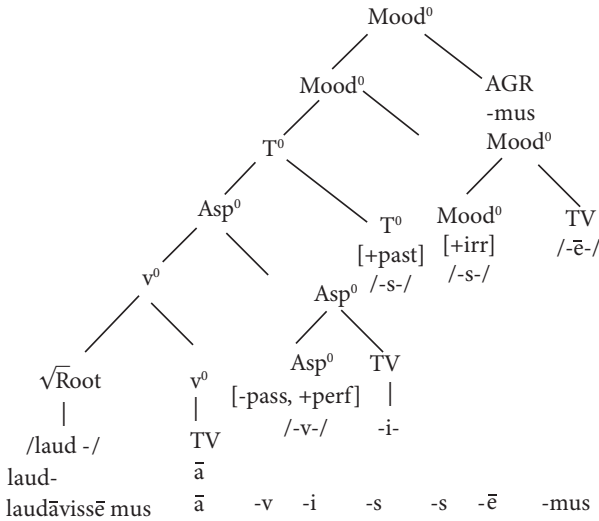
The subjunctive pluperfect form *laudāvissēmus* can be cyclically derived as in (23a), where all the different cyclic derivation steps in (22) are compacted together. The output is given in (23b):¹⁸

¹⁸ Only a maximum of three TVs per verbal form is allowed. Calabrese (2023) accounts for this fact by postulating a language-specific constraint against a Tense^0 TV when followed by a [+Irrealis] Mood^0 . This constraint is active in the derivation of these forms.

(23) a.

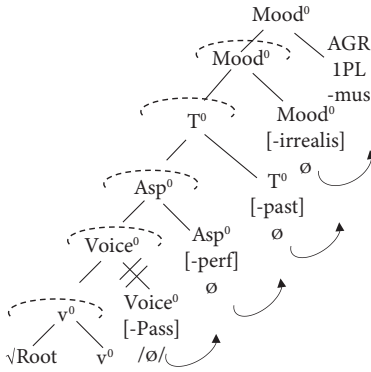


b.

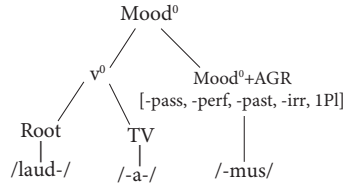


The present indicative form *laudāmus* is derived in (24a); the output is in (24b) (see Calabrese (2023) for a detailed discussion of all other Latin verbal forms).

(24) a.



b.



13.2.3 Passive forms

In Latin, a periphrastic participle construction for the passive, as in the canonical passive of languages such as Italian and English, is found only in the *perfectum* but not in the *infectum* forms of which a sample is given below (indicative):

(25)	‘praise’	‘warn’	‘hear’
Present:	<i>am-o-r</i>	<i>mon-e-or</i>	<i>aud-i-or</i>
	<i>am-ā-ris</i>	<i>mon-ē-ris</i>	<i>aud-ī-ris</i>
	<i>am-ā-tur</i>	<i>mon-ē-tur</i>	<i>aud-ī-tur</i>
	<i>am-ā-mur</i>	<i>mon-ē-mur</i>	<i>aud-ī-mur</i>
	<i>am-ā-mini</i>	<i>mon-ē-mini</i>	<i>aud-ī-mini</i>
	<i>am-a-ntur</i>	<i>mon-e-ntur</i>	<i>aud-i-untur</i>
Imperfect:	<i>am-ā-ba-r</i>	<i>mon-ē-ba-r</i>	<i>aud-iē-ba-r</i>
	<i>am-ā-ba-ris</i>	<i>mon-ē-ba-ris</i>	<i>aud-iē-ba-ris</i>
	<i>am-ā-ba-tur</i>	<i>mon-ē-ba-tur</i>	<i>aud-iē-ba-tur</i>
	<i>am-ā-ba-mur</i>	<i>mon-ē-ba-mur</i>	<i>aud-iē-bā-mur</i>
	<i>am-ā-ba-mini</i>	<i>mon-ē-ba-mini</i>	<i>aud-iē-bā-mini</i>
	<i>am-ā-ba-ntur</i>	<i>mon-ē-ba-ntur</i>	<i>aud-iē-ba-ntur</i>
Perfect:	<i>am-ā-t-us sum</i>	<i>mon-i-t-us sum</i>	<i>aud-ī-t-us sum</i>
	<i>am-ā-t-us es</i>	<i>mon-i-t-us es</i>	<i>aud-ī-t-us es</i>
	etc.		

A comparison of the passive forms in (25) with their active counterpart forms readily indicates that they are formed by adding a suffixal /-r/ to the AGR ending:

(26) Present:	<i>am-o</i>	<i>mon-e-o</i>	<i>aud-i-o</i>
	<i>am-ā-s</i>	<i>mon-ē-s</i>	<i>aud-ī-s</i>
	<i>am-a-t</i>	<i>mon-e-t</i>	<i>aud-i-t</i>
	<i>am-ā-mus</i>	<i>mon-ē-mus</i>	<i>aud-ī-mus</i>
	<i>am-ā-tis</i>	<i>mon-ē-tis</i>	<i>aud-ī-tis</i>
	<i>am-a-nt</i>	<i>mon-e-nt</i>	<i>aud-i-unt</i>
Imperfect:	<i>am-ā-ba-m</i>	<i>mon-ē-ba-m</i>	<i>aud-iē-ba-m</i>
	<i>am-ā-ba-s</i>	<i>mon-ē-ba-s</i>	<i>aud-iē-ba-s</i>
	<i>am-ā-ba-t</i>	<i>mon-ē-ba-t</i>	<i>aud-iē-ba-t</i>
	<i>am-ā-ba-mus</i>	<i>mon-ē-ba-mus</i>	<i>aud-iē-bā-mus</i>
	<i>am-ā-ba-tis</i>	<i>mon-ē-ba-tis</i>	<i>aud-iē-bā-tis</i>
	<i>am-ā-ba-nt</i>	<i>mon-ē-ba-nt</i>	<i>aud-iē-ba-nt</i>
Perfect:	<i>am-ā-v-i</i>	<i>mon-u-i</i>	<i>aud-i-v-i</i>
	etc.		

Treating the passive endings as indivisible units, which are specified contextually to instantiate agreement features when [+passive] is present as in (27), would fail to account for the fact that the majority of the passive endings include components that are found in active AGR as well. In fact, the idea that the morphology of the Latin passive should be analyzed as containing a morpheme /-r-/ that is added to the personal desinences is standard in the traditional analyses of these forms (cf. Meillet 1964; Ernout and Thomas 1951/1972, Embick 2000; Weiss 2009):

(27) /-(o)r/	<->	1sg	/ [+pass]	__
/-ris/	<->	2sg	/ [+pass]	__
/-tur/	<->	3sg	/ [+pass]	__
				etc.

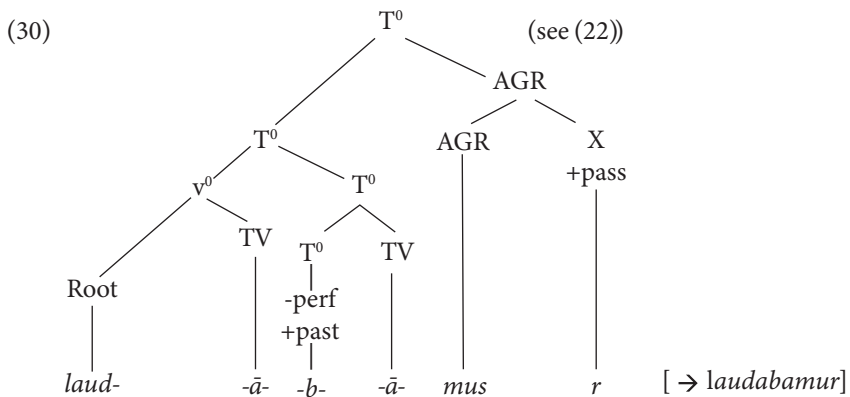
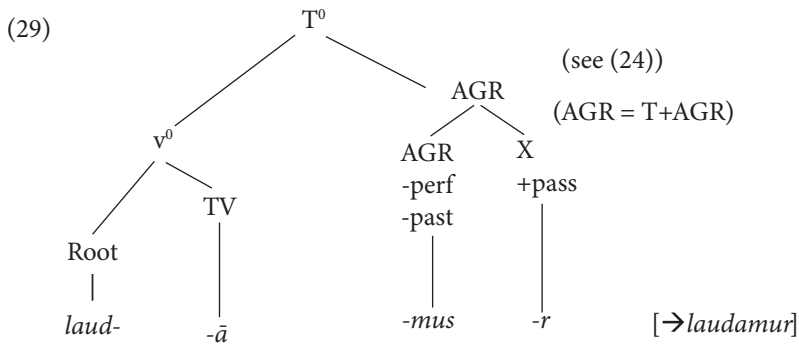
(28) Passive and active

1sg. passive	- (o)-r;	cf. active	-ō
2sg. passive	-r-i-s;	cf. active	-s
3sg. passive	-t-u-r;	cf. active	-t
1pl. passive	-mu-r;	cf. active	-mus
2pl. passive	-mini;	no active counterpart	
3pl. passive	-nt-u-r;	cf. active	-nt

In addition to the VIs needed for the active endings and the VI insertion of the exponent /-r/, some further morpho-phonological adjustments are needed to account for the surface shape of the endings in these forms: (i) a rule of epenthesis inserting [u]: *-ā-t-r* → *-ātur*, *-ā-nt-r* → *-āntur*, etc.; (ii) a rule deleting [s] before [r]: *-ā-mus-r* → *-amur*. In the case of the 2nd sg. where we have a basic *-ā-r-s*,

one could assume a metathesis operation switching /r/ and /s/: $-ā-s-r \rightarrow a-r(i)s$, or, assuming an archaic form /-re/(Ernout and Thomas 1951/1972; Sihler 1995) for this person, we could resort to fission introducing the default marker of the 2sg. /-s/.¹⁹

Given this segmentation and given what was assumed before about the morphosyntactic structure of Latin verbal forms, one can assume that the passive marker /-r/ is attached to the AGR head as proposed in Embick (2000) (see (29) and (30) for sample forms in the case of the present or imperfect indicative).



What is the X node in these structures? Is it voice? How can voice be positioned there? An answer to these questions will be provided below.

¹⁹ See footnote 49 for the special VI needed for the 2pl /-mini/.

13.2.4 Other uses of Latin *r*-forms

It is to note that Latin *-r*-forms are not restricted to the passive but also have other uses: they appear in reflexive, middle, and anticausative constructions (cf. (32)), and they can also have an impersonal use (see (33)).

Passive uses of Latin *-r*-forms are listed below:

- (31) *dabitur tibi amphora* (Plut., Caes. 121)
 give-FUT-3SG-R you-DAT amphora-NOM
 ‘An amphora will be given to you’
- iam lepidus vocor* (Ter., Ad. 911)
 now fascinating-NOM say-PRES.1SG-R
 ‘I am said to be fascinating’
- Maerore conficior*²⁰ (Caes. B.G. 2.175.)
 sadness-ABL knock.down- PRES.1SG-R
 ‘I am knocked down by the sadness’
- superāmur ā bestis* (Cic., Fi 2.11)
 surpass- PRES.1PL-R by animals-ABL
 ‘We are surpassed by the animals’

We can see the reflexive, middle, and anticausative use of Latin *-r*-forms in examples like those in (32):

- (32) a. Reflexive:
- lavor* ‘I wash myself’
 wash- PRES.1SG-R
- tergor* ‘I dry myself’
 wash- PRES.1SG-R
- purgātur* ‘He justifies himself’
 justify- PRES.3SG-R
- [*Epamīnōndas*] *exercebātur plūrimum currendo*
 E-NOM train- IMP-1SG-R a.lot run-GER
et luctando (C. Nepos L, II.40)
 and wrestle-GER
 ‘E. was training himself a lot by running and wrestling’

²⁰ The Latin counterpart of a by-phrase appears as a simple ablative with inanimate nouns and with *ab* + the ablative with animate nouns as in the following example (see Ernout & Thomas (1951/1972), Pinkster 1992) on the complements of passive forms).

vix teneor quin dicam (Plaut., Cas. 239)
 scarcely hold-PRES.1SG-R that.not say- SUBJ-PRES.1SG

‘I can hardly keep myself from talking.’

reliquās armārī et sēsē subsequi
 remainder arm-INF-R. and REFL follow-INF

iussit (Caes., BG 4.32)
 order-PERF-3SG

‘The rest he ordered to armor up and follow him directly.’

b. Middle/Anticausative:

aliud os amnis aperitur
 Another- NOM mouth-NOM river-GEN open-PRES-3SG

‘Another mouth of the river opens up’

cantando rumpitur anguis (Verg. Buc. 8, 71)
 sing-GER break-PRES.3SG-R snake-NOM

‘The snake blows out by singing spells’

Ibi insula in aquā
 There island-NOM in water-ABL

commovētur (Varro, De lingua latina 5.71)
 move-PRES-3SG

‘An island moves about in the water.’

omnia mutantur (Ovid, Metamorphoses 17.165)
 all-NOM.PL change-PRES-3PL

‘All (things) change.’

The impersonal use of the medio-passive is very common in Latin: There are many examples of this use (Ernout and Thomas 1951/1972; Wackernagel 1926) (see Section 13.3.3 for some discussion of the impersonal use of these forms):

(33) Impersonal

Sic itur ad astra
 thus go-PRES-3SG to stars

‘Thus one goes to the stars.’

turbātur agris
 agitate-PRES-3SG fields- ABL

‘There are some troubles in the countryside.’

non parcitur labōrī
not spare-PRES-3SG work- DAT

‘One should not save work.’

quom caletur (Plaut., Capt. 80)
when be.warm-PRES-3SG

‘When one is warm/when it is warm.’

facile nūbitur (id. Pers., 386)
easily marry-PRES-3SG

‘one marries easily.’

precārio adeitur (Corp. Inscr. Lat., I, 1215)
upon.request enter PRES-3SG

‘one enters on request.’

vītam vīvitur (Ennius Fragm. 100, from Wackernagel 1926: 146)
life live-PRES-3SG

‘one lives life.’

Now observe that the same range of uses is a characteristic aspect of Romance si-verbal constructions, as seen in the following Italian examples. This parallelism is commonly pointed out in traditional Italian grammars of Latin (e.g., Bettini, Fabbri, and Salvioni 2004).

(34) Reflexive:

Gianni si lava spesso
G. SI wash-PRES-3SG often

‘G. washes himself often.’

Gianni si é lavato ieri
G. SI be-PRES-3SG wash-PTCP-MSG yesterday’

‘G. washed himself yesterday.’

Middle/Anticausative:

Questi vasi si rompono facilmente
these vases SI break-PRES-3SG easily

‘These vases break easily.’

Il vaso si é rotto ieri
the vase SI be-PRES-3SG break-PTCP-MSG yesterday’

‘The vase broke yesterday.’

Impersonal

qui si va allo sbaraglio
 here SI go-PRES-3SG to-the defeat

‘One is risking everything now.’

Si suda molto in questo posto
 SI sweat-PRES-3SG much in this place’

‘One sweats a lot in this place.’

Si ha caldo qui
 SI have-PRES-3SG heat here’

‘One is warm here.’

Ci si sposa facilmente in Nevada
 there SI marry-PRES-3SG easily in Nevada

‘One marries easily in Nevada.’

Quest’ autunno si é mangiato molte mele
 This fall, SI be-PRES-3SG eat-PTCP-MSG many-FPL apple-FPL

‘People ate many apples this fall’

Quest’ autunno le si é mangiate spesso
 This fall, CL-FPL SI be-PRES-3SG eat-PTCP-FPL often

‘People ate them often this fall’

Passive

Le mele si mangiano in autunno
 the apple-FPL SI eat-PRES-3SG in fall

‘The apples are eaten in the fall’

Le mele si sono mangiate in autunno
 the apple-FPL SI be-PRES-3PL eat-PTCP-FPL in fall

‘The apples were eaten in the fall’

Note that like in Latin *itur* ‘one is going’, *caletur* ‘one is warm’, SI-impersonal forms can also appear with unaccusative verbs:²¹

(35) *si va a Roma su questa strada*
 SI go-PRES-3SG to Rome on this road

‘One goes to Rome on this road’

²¹ In Italian also with passives:

(i) *si é trattati male in quel ristorante* ‘One is treated poorly in that restaurant’

si parte presto in estate
 SI leave-PRES-3SG early in Summer

‘One leaves early in Summer’

si ha caldo qui
 SI have-PRES-3SG heat here’

‘One is warm here’

Before leaving this section, however, it is very important to point out that, beyond the similarities, there is also a crucial difference between Italian *si* constructions and Latin */-r/-* morphology. Agreement in *si* constructions always appears in 3rd Person, although it can vary in Number, as discussed below. This is not the case for the Latin */-r/-* forms that can appear with all possible Person and Number contrasts. Putting aside impersonal uses, which are typically 3rd person in Italian and Latin (cf. (36)), the difference is striking in the passive and reflexive uses of these forms. Although different-person objects can appear in impersonal *Si* constructions (37a), the passive *SI* ones are compatible only with 3rd person subjects (37b). No such restriction, in contrast, is found in the Latin */-r/-* forms (37c).

(36) a. *si combatte si è combattuto*
 SI fight-PRES-3SG SI be-PRES-3PL eat-PTCP-MSG
 ‘people are fighting’ ‘people were fighting’

b. *pugnatur pugnatum est*
 fight-PRES-3SG-R fight-PTCP-MSG be-PRES-3SG
 ‘people are fighting’ ‘people were fighting’

(37) a. *li si loda* ‘one praises them’ b. *I studenti si lodano* ‘the students are praised’
mi si loda me’ **Io si loda* ‘I am praised’
ti si loda you’ **tu si loda* ‘you are praised’
ci si loda us’ **noi si loda* ‘we are praised’
vi si loda you’ **voi si loda* ‘you(pl) are praised’

c. *laudantur* ‘They are praised’
laudor ‘I am praised’
laudaris ‘you are praised’
laudamur ‘we are praised’
laudamini ‘you(pl) are praised’

Any analysis that assumes a similarity between Italian *si*-constructions and Latin medio-passive */-r/-* forms must account for this striking difference. My attempt is in Section 13.3.4.

13.3. An analysis

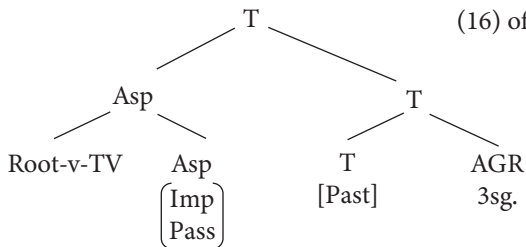
13.3.1 Previous accounts

The two previous proposals of Latin Passive morpho-syntax (Embick 2000; Zyman and Kalivoda 2019) focus only on the positioning of the Latin passive /-r/ but do not consider the other uses of Latin passive pointed out in the preceding section. They are undeniably successful, but at a considerable cost as their accounts must resort to stipulatory operations that lack independent motivation.

13.3.1.1 Embick (2000)

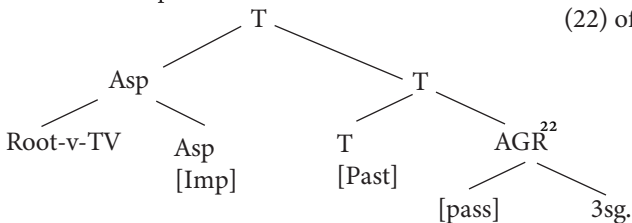
Embick (2000), whose primary focus is, however, an investigation of deponency and passive periphrastic morphology in Latin, accounts for the position of the passive /-r/ morpheme in this language using two operations: first, the [pass] feature which is generated low in the structure and eventually located in the Asp node is separated from this node through the process of Fission; and, second, it is adjoined to Agr, via Morphological Merger (see below). The modified structure, following the relevant operations, is shown in (39) for a passive imperfect form like *am-ā-ba-tur*:

(38) (16) of Embick(2000)



(39) Structure after operations

(22) of Embick 2000



²² In order to account for the fact that on the surface the -r component follows Agr in 1sg., 1pl., 3sg., and 3pl., while preceding it in 2sg., Embick resorts to the fact that the structure in (22) is hierarchical:

The two obligatory morphological operations (one instance of Fission and one of Morphological Merger) are posited exclusively to handle the peripheral position of the /-r/-element in passive forms and cannot motivate independently.

Furthermore, Embick's analysis requires fission and morphological merger to apply to the configuration (38). Such configuration is unfortunately no longer available in the model adopted here, where morphological structure is built cyclically from the inside out. Once the computation reaches Aspect in (38), all the functional nodes above it are still present, and there is no way that the feature [+passive] can directly merge with AGR. Thus, this operation must be done cyclically node by node by applying merge and fission to each of them until AGR is reached. Such a scenario would be highly complex and stipulatory.

13.3.1.2 Zyman and Kalivoda (2019)

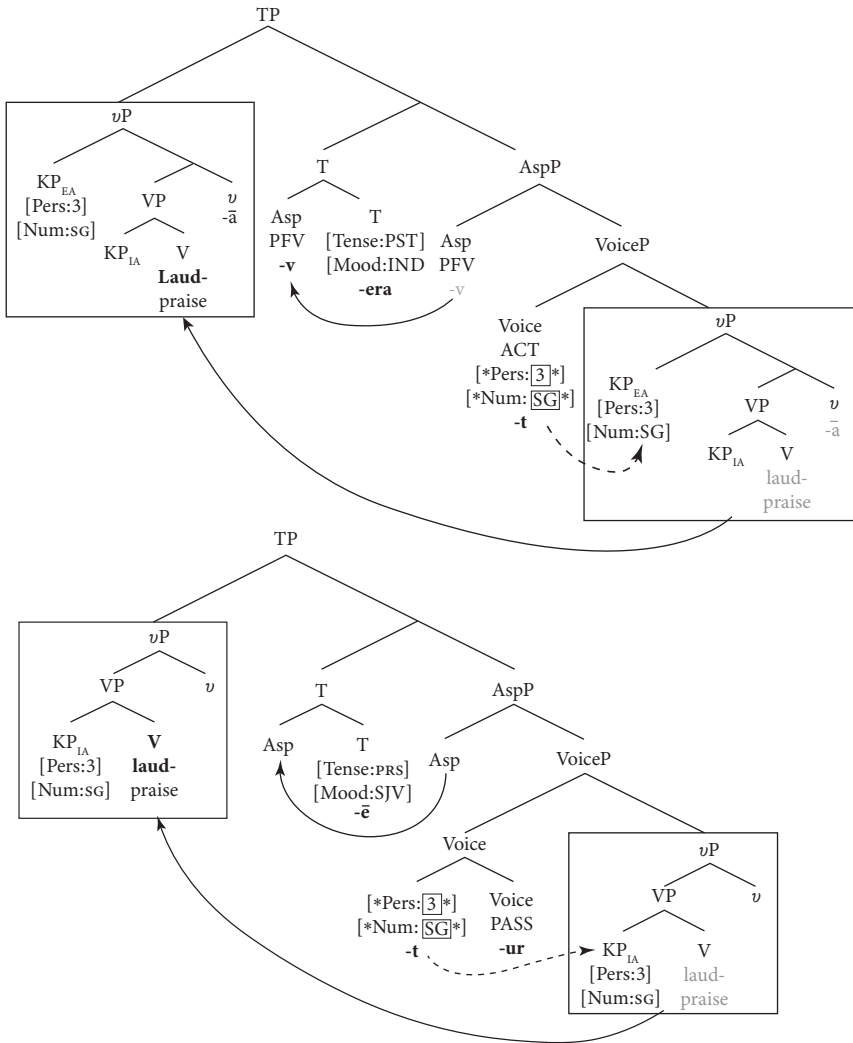
Another account for the positioning of the voice morpheme is proposed by Zyman and Kalivoda (2019). They develop an analysis on which all Latin finite verbs, whether mirroring or anti-mirroring (Baker 1985), share the same derivation, involving one step of head movement (Asp to T) and one step of XP-movement (vP-movement to [Spec, TP]). It is phrasal movement that gives rise to apparent violations of the mirror principle.

It is shown before in the derivation both of the active indicative pluperfect form *laud-ā-v-era-t* and of the passive subjunctive present form *laud-ē-t-ur* (here I am assuming the morphological segmentation assumed by Zyman and Kalivoda, which is quite different from the one I assume before).

- (40) a. *laud-ā-v-era-t*
 praise-TV-IMP-3SG
 'he/she/it had praised.'
 b. *laud-ē-t-ur*
 praise-TV-IMP-3SG
 '(that) he/she/it may be praised.'

during vocabulary insertion, it is then linearized as Agr-pass in the default case, but as pass-Agr when 2sg. is present.

(41)



As shown in (41)a) and b), on the one hand, vP undergoes phrasal movement to [Spec, TP], and it thereby comes to precede the T head -ē, which is assumed to expone both subjunctive Mood and present Tense; on the other hand, Asp undergoes head movement to T. Crucially, vP's phrasal movement to [Spec, TP], and Asp head movement are part of the operations leading to verbal word formation in Latin.

Furthermore, both in (41)a), as in (41)b), voice probes to value its φ -features and gets the values it seeks from the structurally closest KP/DP. A tight connection is assumed in the Latin verb between the exponence of Voice proper (active vs. passive/nonactive) and the exponence of φ -features. Then in their analysis, Voice_{PASS}

undergoes post-syntactic fission, the result of which is shown in (41)b) so that there are separate exponents for the φ -features (-t) and Voice proper (-ur).²³ In the mirroring form, i.e., *laud-ā-v-era-t* ‘he/she/it had praised’, by contrast ((14)), Voice_{ACT} is not exponed separately from the φ -features, so by hypothesis, there is no Fission.

This analysis too, like Embick’s, requires a certain number of stipulations. For example, this is the case of vP-movement to [Spec, TP]. Although it plays a key role in deriving the morpheme orders in anti-mirroring and mirroring forms alike, it is essentially needed only to get the anti-mirroring position of passive voice.

A further stipulation involves the claim that, like the φ -feature-probes, the AGR node is morphologically realized on Voice. Now, AGR node in most other languages, like English or Italian, is morphologically realized on T. And even in Latin, it could also be assigned to T (or Mood) without any issues in active forms. So, the move is needed only to account for the peripheral positioning for the passive /-r/-element in terms of their theory. Note that this move is not enough in so far as fission is also required to account for the proper position of this element with respect to AGR, as in Embick’s account.²⁴

It is also unclear to me why head movement should be restricted just to Asp and not also apply to Voice. If Voice moves, all the explanation falls apart. This is another stipulation regarding Voice in addition to that of how AGR is morphologically realized there.

The analysis furthermore requires that Latin verbal forms are not complex heads. They are not even syntactic constituents but can instead be considered “reflexes of linearly contiguous series of morphemes suspended across potentially vast regions of syntactic space” (Zyman and Kalivoda 2019), which are assembled by the prosody from syntactic terminals on the basis of phonological properties of the exponents of those terminals (Julien 2002; Svenonius 2018; Myler 2017). A characteristic feature of Latin verbal morphology is the presence of allomorphic interactions between the root within the vP in [Spec, TP] and Asp with root information triggering aspectual allomorphy and vice versa aspectual information triggering root allomorphy (see Calabrese (2023) for detailed analysis). These interactions in Zyman and Kalivoda’s framework must occur across maximal projection boundaries. Thus, to account for them, Zyman and Kalivoda depart from standard theories of the locality of allomorphy and propose a different one based on Ostrove (2018), which indeed allows such interactions across maximal projection boundaries.

²³ VoicePASS does not always undergo Fission: VoicePASS in the 2pl is realized, in fact, by the portmanteau *-mini*.

²⁴ A somewhat similar account for the anti-mirroring position of voice /-r/ in Latin is proposed by Kastner and Zu (2017). To do that, they first raise Voice to Spec, TP. Then, once linearization (Embick 2010) occurs, they reverse the order of the adjacent string NonActive Voice - T to T-NonActive Voice by local dislocation (Embick & Noyer 2001). Neither step is independently motivated. They are required only as stipulations to account for the anti-mirroring behavior of the Latin passive morpheme.

An in-depth discussion of this theory is not possible here. Current evidence suggests allomorphic interactions are possible only in the same morphological word as a complex head where no non-minimal (non- X^0) is present. They never cross the XP phrase boundary (Bobaljik (2012) (see also Thornton (2020)). For example, Thornton observes that root suppletion is restricted to synthetic verbal forms, as in English, *I went* where the past tense can determine root suppletion. It never occurs in periphrastic constructions; so in *I did go*. The past tense in AUX cannot influence the selection of the suppletive form of the verb root in the lower XP piece. To the best of my knowledge, no language allows root suppletion such as a hypothetical **I did went* or any type of morpho-phonological interaction across XP boundaries. This contradicts what one observes in Latin, where Root-Asp morpho-phonological interactions, including suppletion, are extremely common (cf. Embick 2000; Embick and Halle 2004; Calabrese 2023). A theory that does not depart from this finding fares better than one that does, like Zyman and Kalivoda's.

Furthermore, in rejecting the notion of morphological word and allowing a direct mapping between syntax and phonology, Zyman and Kalivoda also reject the idea that there is a morphological component. The evidence is that such a component is indeed necessary. This component must operate before phonological spell out and requires the presence of word-like units, i.e., complex heads, where dedicated morphological operations can apply before vocabulary insertion and other morpho-phonological and phonological operations (Calabrese 2019, 2023). This is needed, for example, to account for the properties of root suppletion (Bobaljik 2012), ornamental morphology, and syncretism (Calabrese 2019); the properties of tonal and vowel harmony domains (Thornton 2020; Calabrese Forthcoming), the properties of the interaction between vowel harmony, stress, and other phonological processes (Fenger 2020). Discussing this evidence is impossible here; I refer readers to the quoted works. Again, a theory that does include this component, like the one adopted here, fares better than one that does not, like Zyman and Kalivoda's one.

13.3.2 Latin passives, Romance si-construction, and a theory of voice

The parallelism with Romance si constructions and Latin /-r/-forms is striking. In Calabrese (1986), I proposed an account based on this parallelism, which tried to connect the reflexive and the passive uses of these constructions through their impersonal ones; I tried to update it in Calabrese (2019)²⁵ adopting Schäfer (2008), Embick (2004), Alexiadou, et al. (2015), and Distributed Morphology (Halle and Marantz (1993)).²⁶ I will propose a further revision of it in this chapter.

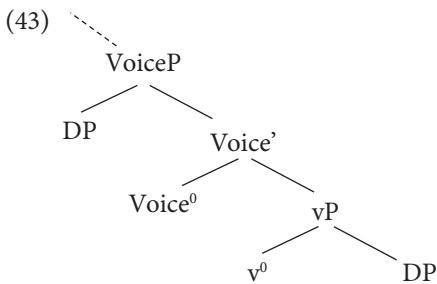
²⁵ A preliminary version of this update appears in the unpublished Calabrese (2019). This version is quoted in Zyman and Kalivoda (2020).

²⁶ Pinzin (2015) offers an analysis in part similar to the one adopted in Calabrese (2019). It was unknown to me until recently.

13.3.2.1 A theory of voice

Here I will adopt the main lines of Schäfer (2008, 2016) and Alexiadou et al. (2015) with the crucial difference that the impersonal uses of *si* constructions are considered a fundamental nexus towards the other uses of these constructions. I will do that by using, though, a simpler, more intuitive approach grounded in earlier syntactic models, which I prefer, and does not rely on the complex minimalist idiom used by those linguists, hoping that my simplification does not lead to theoretical mishaps which obviously would be only due to my own misunderstanding of the basic issues. The analysis I propose, which is closer to the theory proposed in Schäfer (2008) than the more complex one offered in Schäfer (2016), uses the two main ingredients of Schäfer's (2008) analysis in (42). It thus adopts the split voiceP - vP structure as in (43), with the presence of a Spec, VoiceP determined by (42)a): and the presence of a theta role by (42)b):

- (42) a. Syntactic transitivity: Voice has a DP in its specifier.
 b. Thematic transitivity: Voice introduces a θ -role.



The thematic active Voice is present in all active verbs (unergatives and transitives, including SE-reflexive verbs). It contains a DP merged in Spec, VoiceP, i.e., the external argument. It also can come with different Theta-roles (agent, causer, holder ...), which are assigned to this DP (Kratzer 1996; Schäfer 2008; Alexiadou et al. 2015; Wood 2014, 2015; a.o.).

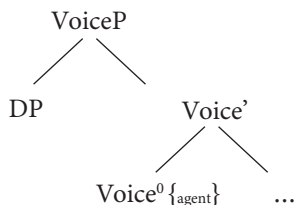
A thematic passive Voice does not have a Spec, VoiceP, as Schäfer (2008) assumes, following Kratzer 1996. Along the lines of what I proposed in (1986), here I will also hypothesize that the absence of the Spec, VoiceP in (45)b) is the output of the operation in (44). This operation is associated with the feature [+passive] and accounts for the absence of Spec, VoiceP through a derivational step instead of doing it representationally as in Schäfer's framework. This operation changes the argumental structure of the Voice node, making Spec, VoiceP syntactically void.²⁷ In this case, the agent theta role may be parametrically (a) deleted/suppressed or (b) discharged. If it is discharged, it can be picked up by a by-phrase.

²⁷ This suppression operation may be implemented through expletivization, i.e., the assignment of an identity function over predicates of the type of its complement (Wood 2014, 2015), as discussed for a variety of similar cases in Schäfer (2016). Expletivization makes the Spec, VoiceP syntactically and semantically void. What matters for me here is that it is syntactically voided: there is no syntactic external argument.

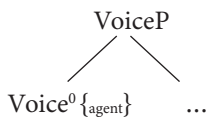
(44) Suppress argumental status of Spec of VoiceP.

Therefore, only the two structures below are assumed in the analysis here:²⁸

(45) a. Thematic Active Voice:



b. Thematic Active Voice:

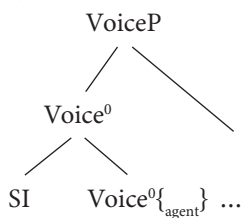


Applying a similar operation to passivizing *si* forms in Italian will account for the difference between them and the periphrastic participial passive forms (on which see Section 13.4). In particular, I propose that whereas referential expressions can occur only in an argumental position, non-referential ones, like *si*, can lose argumental status by means of the operation in (46), a parametric option that can apply when the anaphoric element *si* is in Spec, VoiceP:

(46) Suppress the argumental status of Spec of VoiceP if it contains a non-referential element.

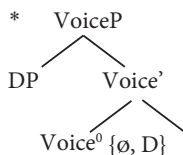
When *si* is no longer in Spec, VoiceP, and has lost argumental status, it is adjoined as a morpho-syntactic ornamental node to the Voice head (a similar move is proposed in Pinzin (2015)). This is a non-argumental position; however, the element there can still be assigned an agent theta role, with further parametric options of deleting or discharging it.

(47) Non-argumental SI:

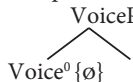


²⁸ Other possible structures Schäfer 2008 considers are those in (i) below. In this chapter I will assume that they are excluded because of the plausible two following requirements: (i) Voice is always assigned a θ -role and (ii) A DP in spec of VoiceP must receive Theta-role. See Schäfer (2016); Myler (2016) for further discussion of this issue, and for the postulation of other similar structures:

(i) a. Non-thematic Active Voice:



b. Non-thematic (Expletive) Passive Voice:



This is the basic machinery required to account for all *si* constructions' uses in Italian.²⁹ Let us proceed with such an account, beginning with reflexive *si*. As standard, I assume that *si* forms in Romance are anaphoric pronominal elements devoid of Phi-features and reference.³⁰ They get them from the antecedent they are coindexed with. If a *c*-commanding antecedent binds them, they transmit to it the theta-role they saturate in the argument position they are merged with. These are the reflexive forms. I follow Schäfer (2008) in assuming that *si*-reflexive verbs have the structure in (48); I assume that the Voice head is assigned the feature [+R] (reflexive) when one of these elements is merged as one of its arguments.³¹

(48) [TP T [VoiceP DP_{AGENT} Voice_{+R} [VP V SI_{PATIENT}]]] (*si*-reflexive)

They are syntactically transitive, with the nominative DP being the external argument (agent) and the SE- reflexive being the internal argument (patient), referentially bound by the former.³²

Remember that I am assuming that at the syntactic level, before vocabulary insertion, anaphors are purely abstract, fully unspecified, and therefore non-referential, nominal, or D, elements, e.g. []_D. To acquire a reference, they need to get coindexed. Otherwise, they get an Arb interpretation (Yule 1982; Jaeggli 1986, Lebeaux 1984; Manzini, 1983, Cinque, 1988 on the Arb interpretation of *si*, see also D'Alessandro (2007)). Their exponence is established once they receive their features from their antecedent or through the Arb interpretation procedure (see Section 13.3.4). In Italian, I assume the VI in (49) for these elements once they receive their features (I use the feature [direct] to distinguish subject [-] from complement [+] pronouns).³³ In this list, /ci/ is the least specified complement exponent given its status as an elsewhere item in the Italian clitic system (Pescarini (2010); *si* can be a subject or complement but always in 3rd person ([-participant]):

(49) vi	<-> [+ direct, +participant, +plural] _D	2nd Plural ³⁴
mi	<-> [+ direct, +participant, +author] _D	1st Singular
ti	<-> [+ direct, +participant] _D	2nd Singular
ci	<-> [+direct] _D	1st Plural, Locative
si	<-> [-participant] _D	si

²⁹ Some further assumptions, though, are required to deal with the peculiarities of *si* agreement (see § 13.3.4).

³⁰ In the DM model assumed here, these elements are just abstract feature bundles that receive exponence only later in the derivation.

³¹ Observe that, as already noted for Latin, also in Italian, Voice⁰ is assigned a null exponent \emptyset regardless of its features.

³² I assume that inherently reflexive verbs like Italian *sbrigarisi* "haste", *arrabbiarsi* "get angry", *immaginarsi* "imagine", etc. are characterized by this feature. The non-thematic *si* required by these verbs perhaps is ornamentally adjoined to v⁰ as a low counterpart of what we see in (47).

³³ As proposed in Calabrese (1997), an unspecified nominal can be merged as the subject in a non-finite clause, in this case their exponent in this case is \emptyset (i.e., PRO (or pro)). Defending this analysis here would take too long.

Under the Arb interpretation (see Section 13.3.4), [_D] receives the feature [-participant], which means that *si* is inserted in this case. Other languages may opt for different exponents, such as French *on*, German *man*, English *one*, etc.³⁵

Crucially, an anaphoric pronominal element can also merge to the spec position of VoiceP and saturates its theta-role as in the sentence in (50), whose embedded clause has the structure in (52) (Schäfer 2008):

(50) *Mario spesso si vede corteggiare Sandra nei suoi sogni.*
 ‘M. often sees himself courting S. in his dreams.’

(51) [_{TP} T [_{VoiceP} *si* [_{Voice+R} [_{VP} v DP_{THEME}]]]]

As explained below, I assume that the structure in (51) is also present in impersonal, middle, and passive *si* constructions based on unergatives and transitive verbs.

Crucially, if one of these anaphoric elements is in an argumental position but is not bound by a c-commanding antecedent, it is assigned an Arb interpretation, as mentioned above.³⁶ This is the impersonal *si* (note that verbal agreement is 3sg in this case):³⁷

(52) *Quest'autunno le si è mangiate spesso, le mele*
 this fall CL-FPL *si* be-PRES-3SG eat-PTCP-FP often, the apple-FPL
 ‘this fall, people ate them often, the apples.’
si è lavorato molto in questi mesi
si be-PRES-3SG work-PTCP-MSG much in these months
 ‘people worked a lot during these months.’

I assume that the details of Arb interpretation are established by special language-specific rules, perhaps even applying at different stages of the derivation. See Section 13.3.4 for more discussion of the special paradoxical properties of impersonal *si* with respect to Agreement: the verb of the impersonal construction

³⁴ /vi/ is also the exponent of the obviative locative clitic. Probably an additional VI is needed to account for this use.

³⁵ One could hypothesize that the insertion of impersonal *you*, as in English, is due to the assignment of different features to the element [_D] under the arb interpretation, e.g., in particular, the assignment of the feature [+participant].

³⁶ As also assumed in Burzio (1992) and D'Alessandro (2007), among others, I am considering that reflexive and impersonal *si*, as well the passive ones, are closely related. In addition, along their lines but differently than Cinque (1988) I assume that there is a single impersonal *si* (see Dobrovie-Sorin 1996, 1998, 1999; D'Alessandro 2007 in this regard).

³⁷ Note that the auxiliary shifts from *avere* ‘HAVE’ to *essere* ‘BE’: cf. *le hanno mangiate spesso, le mele* ‘They ate them often, the apples’, *hanno lavorato molto questi mesi* ‘they worked a lot during these months’. There is a vast literature on auxiliary selection starting from Burzio (1986), and discussion of this topic is not possible in this chapter. As is well known, agentive, transitive and intransitive, nonreflexive, or impersonal verbs take the auxiliary *avere* ‘HAVE’ otherwise, reflexive, impersonal, passive, and unaccusative verbs take the auxiliary *essere* ‘BE’. I try to express this informally by saying that HAVE is assigned if the DP in spec VoiceP is a referential Agent with no involvement in the action or eventuality described in the verb, otherwise BE is assigned.

appears in 3sg. However, when adjectives, and therefore participles, must agree with SI in being the internal arguments of predicative, unaccusative, or passive structure, they appear in masculine plural (cf. *si è allegri in questa casa* SI be-PRES-3SG happy-PTCP-MPL in this house ‘one is happy in this house’, *si è arrivati presto oggi* SI be-PRES-3SG arrived-PTCP-MPL early today ‘One arrived early today’, or *si è lodati spesso in quella classe* SI be-PRES-3SG praise-PTCP-MPL in that class ‘one is often praised in that class’).

Unlike Schäfer, I assume that the derivational step of merging SI in the spec position of VoiceP and assigning it an impersonal interpretation is crucial for the following steps leading to middle, anticausative, and passive constructions. It is known that one of the properties of impersonal constructions is the demotion of the semantic prominence of the agent (cf. Myhill 1997; Siewierska 2008). As D’Alessandro (2007) states, these constructions are “used when the intention of the speaker is to remain vague about the exact identity of the subject”, or better, I would say, of the agent. Who implements the agency does not really matter. I assume this is the initial step that eventually leads to the full suppression of the agency.

So, whereas Schäfer assumes the following implication among the type of SI-constructions, where the reflexive one may lead directly to the anticausative one: SI reflexive>SI-anticausative>SI-middle>SI-passive, I assume that the impersonal SI is fully part of this implication: SI reflexive>SI-impersonal>SI-anticausative>SI-middle>SI-passive (with parametrical choices dealing with the presence of by-phrases in passive and the compatibility of the SI element only with the 3rd person, or with all persons) (see footnote 43 for a brief discussion of the cross-linguistic typological variation in this regard and for an account of the absence of impersonal SI-construction in languages with SI-reflexives and SI-anticausatives).

Note that, as expected from its reflexive use, the SI pronominal element can also be merged to any argumental position and specifically can also be merged in the internal argument position of unaccusative verbs and of passive verbs:

(53) [TP T [VoiceP Voice_{+R} [vP v SI_{THEME}]]]

(54) *si va* / *si è andati*
 SI go-PRES-3SG SI be-PRES-3SG go-PTCP-MPL

‘one goes/one has gone.’

si parte / *si è partiti*
 SI leave-PRES-3SG SI be-PRES-3SG go-PTCP-MPL

‘one leaves/one has left.’

(55) *si è invitati spesso in quella casa*
 SI be-PRES-3SG invite-PTCP-MPL

‘one is often invited in that house.’

Then, the sentence will be locally searched for a c-commanding antecedent that can bind it. If there is no such antecedent, as obviously in this case, it acquires Arb interpretation.

As discussed, a further parametric option can occur when the anaphoric element *si* is in Spec, VoiceP. Specifically, rule (46) can apply; the *si* in Spec of VoiceP loses argumental status and is adjoined to Voice⁰ (cf. (47)). When this occurs, *si* still has an Arb interpretation, as in the case of true impersonals. This is the interpretation characterizing the sentence in (56). Note that the internal argument triggers verbal and adjectival agreement and that the impersonal interpretation is required if the purpose clause is present:

- (56) *Quest'autunno si sono spesso mangiate mele*
 this fall SI be-PRES-3PL often eat-PTCP-FP apple-FPL
 (*per migliorare la salute*)
 to improve the health
 'this fall, people often ate apples (to improve health).'

However, as mentioned above, further options are possible: the agent theta role may be parametrically (a) deleted or (b) discharged. If the first option is selected, we have an agent-less passive *si*. This option is selected in standard Italian, where a by-phrase is incompatible with the passive *si* constructions.

- (57) *Quest'autunno le mele si sono mangiate spesso*
 this fall the apple-FPL SI be-PRES-3PL eat-PTCP-FP often
 (**da tutti noi*)
 by all us
 'this fall, the apples were eaten often (*by all of us).'

Purpose clauses are impossible in the case of the sentences in (57) under the passive interpretation:

- (58) *Quest'autunno, le mele si sono mangiate spesso*
 this fall the apple-FPL SI be-PRES-3PL eat-PTCP-FP often
 (**per migliorare la salute*)
 to improve the health
 'this fall, the apples were eaten often (*to improve health).'

As expected, the difference between a sentence with passivizing *si* and a canonical passive regards the implied presence of an agent. So, compare (59) (a) and (b):

- (59) a. *Quest'autunno, le mele si sono mangiate spesso*
 this fall the apple-FPL SI be-PRES-3PL eat-PTCP-FP often

- b. *Quest'autunno, le mele sono state mangiate*
 this fall the apple-FPL be-PRES-3PL stay-PTCP-FP eat-PTCP-FP
spesso
 often
 'this fall, the apples were eaten often.'

In the case of (59) (a), attention is focused on the act of eating apples regardless of the agent: the action is described irrespectively of who did it. In the case of (59) (b), the agent, although missing, is presupposed or implied: it could be *da tutti noi* 'by all of us', or *da Carlo* 'by Carlo', or *da loro* 'by them', etc. This is predicted by the structure in (45) (b), where the agent is present in Voice⁰, whereas it is assumed that it is deleted in (59) (a).³⁸

If discharged, the agent theta role can be picked up by a *by*-phrase. As mentioned above, this second option is not selected in Italian. However, it is by Romanian as shown in (60) (from Cornilescu & Nicolae (2015: 321/323/327) and Spanish (from MacDonald and Maddox (2018), under the special condition discussed by Otero (1986), Mendikoetxea (1999), Miguel (1996), and Sánchez-López (2002)),^{39,40}

- (60) a. *Vesela se spală de el*
 dishes se_{PASS} wash by him
 'Dishes are washed by him.'
- b. *Esta obra se escribió por un autor totalmente desconocido.*
 This work se_{PASS} wrote by an author totally unknown
 'This work was written by a totally unknown author.'

To account for the surface shape of these constructions, I also need to deal with Agreement and the case assignment properties of verb arguments. I follow Bobaljik's (2008) theory of Agreement, according to which Agreement tracks morphological Case. It is enough to say here that in a nominative-accusative system, the controller of Agreement on the finite-verbal complex is the highest NP that is assigned nominative Case in the clause directly dominating the verbal complex.

³⁸ Note that the purpose clause is possible with a canonical passive:

*le mele si sono mangiate (*per pulire il frigo)*
le mele sono state mangiate per pulire il frigo 'the apples were eaten to clean the fridge'

³⁹ Latin selects this option too, as discussed below.

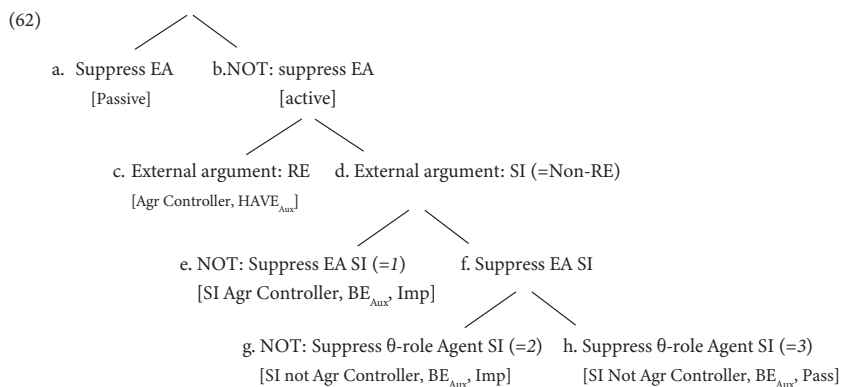
⁴⁰ Some literary variety of Italian according to Lepschy and Lepschy (1977: 196) seem to allow this too:

- (i) *quest'opera si accoglie con entusiasmo da tutti*
 this opera SI receive-PRES-3SG with enthusiasm by everyone
 'this opera piece was received with enthusiasm by everyone'

In Bobaljik's theory, morphological cases are assigned according to Marantz (1991). Marantz proposes that there are three primary types of morphological Case: (i) lexical (including quirky) Case assigned idiosyncratically by particular lexical items, (ii) unmarked Case (conventionally called Nominative for Nominative-Accusative languages and Absolutive for Ergative languages), and (iii) "dependent"-Case. A dependent Case is assigned only when more than one NP in a single domain can receive a Case from the case-assignment rules. For Nominative-Accusative languages, the dependent Case is Accusative. It is assigned to the lower NP in the domain, while for Ergative languages, the dependent Case is Ergative, which is assigned to the higher NP. Simplifying a little bit, I adapt Schäfer's 2008's formulation of the Case algorithm for a Nominative-Accusative language as in (61) (see also Alexiadou et al. 2015).

- (61) a. A DP is realized at PF with dependent Case (ACC) if a different argumental DP is in the Spec of VoiceP.
 b. A DP that is not realized with dependent Case appears with default Case (NOM).
 c. Inherent/lexical Case takes precedence over default and dependent Case.

The consequences of these assumptions for *si* are the following (cf. steps d-h in (62)): If *si* is in Spec, VoiceP, and is argumental, it receives nominative case and is the controller of Agreement.⁴¹ In this case there is an impersonal (*imp*) interpretation of the *SI*-construction. If the *si* in the spec of VoiceP becomes non-argumental (by (46)), the object DP is assigned Nominative case. This is the DP that then controls the verb Agreement. A passive (*pass*) interpretation is generated if the non-argumental *si* in the spec of VoiceP loses the agent role. The different parametric steps found when *si* is the Spec, VoiceP are illustrated below (EA=External Argument, RE=Referential Expression, []_D = non-referential expression. The numbers 1–3 refer to the examples below.):



⁴¹ Remember that *si*, as a controller of agreement, assigns 3rd Sg to verbal AGR and Masculine Plural, e.g., *si e' venuti* 'One BE3sg. come-Prtcp-Msc.Pl' to Adjectival AGR. See below for discussion.

1. Impersonal agentive, verbal agreement with *si*:⁴²

si è mangiato mele /si è
 SI be-PRES-3SG eat-PTCP-MSG apple-FPL SI be-PRES-3SG
rotto sedie
 break-PTCP-MSG chair-FPL

2. Impersonal agentive, verbal agreement with internal argument:

si sono mangiate mele /si sono rotte
 SI be-PRES-3PL eat-PTCP-FPL apple-FPL SI be-PRES-3PL break-PTCP-FPL
sedie
 chair-FPL

‘one has eaten apples/ one has broken chairs.’

3. Middle/Anticausative/Passive:

le mele si mangiano con piacere
 the apple-FPL SI eat -PRES-3PL with pleasure
le sedie si sono rotte
 the chair-FPL SI be-PRES-3PL break-PTCP-FPL
le mele si sono mangiate ieri
 the chair-FPL SI be-PRES-3PL eat -PTCP-FPL YESTERDAY

‘apples are eaten with pleasure/ chairs are broken/the apples were eaten yesterday.’

Schäfer (2008) observed that the anticausative interpretation of *si* is characteristic of transitive verbs with internal causation like OPEN, BREAK. All other interpretations (excluding the reflexive one) are also possible with these verbs in *si* constructions (cf. (64)). Many factors, including, for example, the aspectual properties of the sentence, appear to play a role in the selection of the anticausative, middle, or passive interpretation, a topic that cannot be addressed here.

(63) a. *Transitive*

Carlo ha rotto i vasi questa notte
 C. have-PRES-3PL break-PTCP-MSG the vase- MPL this night’

‘C. broke the vase last night.’

⁴² A special type of agreement that is substandard but marginally acceptable by many speakers is the one in (i). Here is the plural object clitic that appears to trigger agreement:

(i) ?*Gli spaghetti, li si mangiano al dente*
 The spaghetti CL-MPL SI eat-PRES-3MPL al dente

This special substandard agreement pattern may be accounted for in terms of some form of featural attraction. If AGR and the closest referential argument share one feature, they can share all. Further research is needed in this regard.

b. Anticausative:

I vasi si sono rotti questa notte
 the vase- MPL SI be-PRES-3PL break-PTCP-MPL this night
 ‘the vases broke last night.’

(64) a. Impersonal:

li si è rotti questa notte
 CL-MPL SI be-PRES-3SG break-PTCP-MPL this night
si sono rotti quei vasi
 SI be-PRES-3SG break-PTCP-MPL those vase—MPL

per far spazio in giardino
 to make space in the garden

‘people broke them last night/people broke the vases to make space in the garden.’

b. Middle

I vasi si rompono facilmente
 the vases SI break-PRES-3PL easily
 ‘vases break easily.’

c. Passive

I vasi si rompono con un martello
 the vases SI break-PRES-3PL with a hammer
 ‘the vases are broken with a hammer.’

Before turning to SI-cliticization, let us consider the contrast in (65):

(65) a. *si è mangiata la torta*
 SI be-PRES-3SG break-PTCP-FSG the cake
 ‘one has eaten the cake.’

b. *è stata mangiata la torta*
 be-PRES-3SG stay-PTCP-FSG break-PTCP-FSG the cake
 ‘the cake has been eaten.’

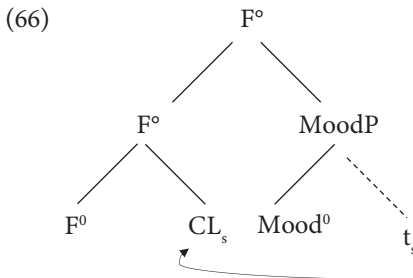
c. **si è stata mangiata la torta*
 SI be-PRES-3SG stay-PTCP-FSG break-PTCP-FSG the cake

The issue is why (65) (c) is unacceptable. As discussed in Section 13.4, the periphrastic construction AUX BE + *sta*-Participle+ V-Participle can only be passive. Therefore, it is characterized by the operation in (44). Therefore, there is no

position where *si* could have merged: nor in Spec, VoiceP (because of (44)), nor any other. The presence of *si* is, therefore, unlicensed and excluded.⁴³

13.3.2.2. *si*-cliticization

Let us consider the clitic properties of *si*. Following Uriagereka (1995), I assume that clitics move to the left periphery—high in the inflectional domain—to the head of a functional projection,⁴⁴ which he calls FP. I will not deal with the details of this movement here.



This movement is followed by a morphological operation that *m*-merges—perhaps an instance of head-lowering—the clitic to its verbal host, as shown in (67).⁴⁵ Cliticization involves head movement and *m*-merge, bracketing a functional head—the clitic—with a host (which may include another clitic). If structure building is cyclic, *m*-merger of the clitic must wait until the verbal X^0 complex, i.e., the verbal word, is generated.

(67) Cl ... [T° V] → [Cl V]

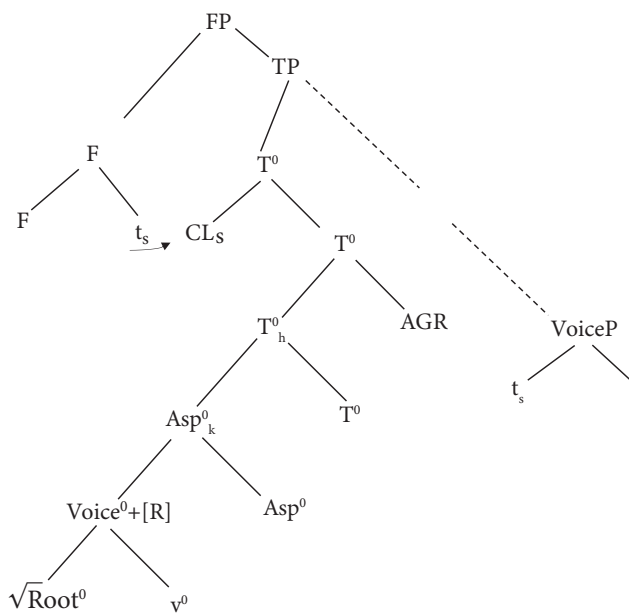
⁴³ As mentioned above, I am assuming the implication: *si*-reflexive > *si*-impersonal > *si*-anticausative > *si*-middle > *si*-passive (where further parametrical choices deal with (a) the presence of *by*-phrases in passive and (b) the compatibility of the *SI* element only with the 3rd person, or with all persons) (see Section 13.3.4 for a brief discussion of this issue). Crucially relying on Schäfer (2016) but reinterpreting his work according to what was proposed earlier, I hypothesize that in Italian, as in the other Romance languages, where one finds *si* reflexive/ *si*-impersonal/ *SI*-anticausative/ *SI*-middle/ *SI*-passive, all of the parametric options in (62) are implemented with the further restriction that the Theta-role is deleted so that no *by*-phrase is allowed with *si*-passives. In Romanian, instead, Theta-role is discharged; therefore, it allows *by*-phrase with *si*-passives. In all these languages, the presence of *si* requires 3rd person. Scandinavian, East-Slavic, and Bulgarian are like Romanian, with the further possibility that *si* can appear with all persons. In the case of Polish, which has *SI* reflexive/ *SI*-impersonal/ *SI*-anticausative/ *SI*-middle but no *SI* passive, I assume that EA suppression in (62) (h) is allowed only with transitives with internal causation, but not with the remaining transitives, i.e., there is a lexical restriction on this process. German and Dutch are like Polish but do not have impersonal *si* construction. I propose that this is because the impersonal []_D element has a specialized exponent, e.g., German *man*, which bleeds the insertion of *si* during vocabulary insertion (see also French *on*, English *one*, etc.).

⁴⁴ I follow Uriagereka's (1995) analysis that clitics move to this head; however, it is possible that the clitic moves via phrasal movement to a specifier position in the high inflectional domain (as in Kramer 2014).

⁴⁵ Along the lines of Calabrese and Pescarini 2014, I am distinguishing between the movement to F^0 , which accounts for the positioning of the clitic in the clause, and *m*-merger, which accounts for why the clitic forms a constituent with the following verb.

Applying these ideas to impersonal and passive *si*, we can postulate that it moves from its position in Spec of VoiceP (or other argumental positions) to its landing site in FP, from where it is then m-merged with the verbal complex X^0 (see (68)):

(68)

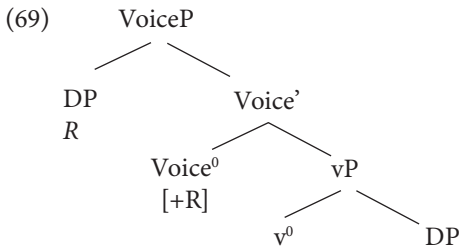


This accounts for the properties of Italian *si*.

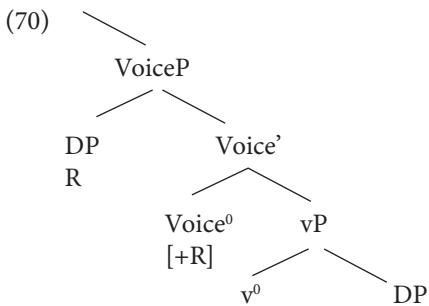
13.3.3 Latin /-r-/ forms

Let us turn to the Latin /-r-/. Given the striking parallelism between Latin /-r-/ and Romance *si*-constructions, I would like to propose that they share the same properties: /-r-/ is a reflexive like element *R* that can be generated in Spec of VoiceP as in (69) or in internal argument positions, including the internal argument of unaccusative verbs, where it is associated with reflexive, impersonal, and passive construction (obviously only with transitive verbs) as discussed with *si* above where, as assumed for Italian, the feature [+R] is assigned to Voice⁰ in the presence of such argumental elements:⁴⁶

⁴⁶ As mentioned, Voice⁰ is always assigned a null exponent regardless of its features.



To account for the fact that in Latin, there is no contrast between periphrastic passive construction and impersonal/passive constructions, like in Romance, I assume the rule in (44) does not apply. Only (45) (a) is, thus, possible, a matter of parametric choice.



Thus, the only strategy for passivization in Latin involves using the *si*-like non referential element R in Spec VoiceP. Latin furthermore selects the option of discharging the Agent theta role saturated by R so that by-phrases are possible with the /-r/-passives as shown again below (see (31)):

- (71) *superamur a bestis* (Cic., Fi. 2.11)
 surpass-PRES.1PL-R by animals-ABL
 'We are surpassed by the animals.'⁴⁷

Ferae aut fame aut timore coguntur ad pugnam Sen.
 Beasts or hunger-ABL or fear-ABL force-PRES.3PL-R to fight
 'The beasts are forced to the fight by hunger and fear.'

As for Italian *si*, R can appear in different argumental positions. If it appears in an argumental position *c*-commanded by another DP, it will be a reflexive as in (72) ((32)a):

⁴⁷ The use of a by-phrase as in this example is, however, not common (cf. Ernout and Thomas 1951/1972).

- (72) Reflexive: [_{TP} T [_{VoiceP} DP_{AGENT} Voice_{+R} [_{VP} V R_{PATIENT}]]]
Epaminondas exercebatur plurimum currendo et luctando
 E-NOM train-IMP-1SG-R a.lot run-GER and wrestle-GER
 ‘E. was training himself a lot by running and wrestling.’

If it is the highest DP in the clause, it will be assigned impersonal interpretation, as discussed for the Italian *si*, as in (73) (see (33)):

- (73) Impersonal: [_{TP} T [_{VoiceP} R Voice_{+R} [_{VP} V DP_{THEME}]]]/
 [_{TP} T [_{VoiceP} Voice_{+R} [_{VP} V R_{THEME}]]] (Cic., de Or. 2, 210)
invidetur praestanti florentique fortunae
 envy-PRES-3SG-R important flourishing-CONJ situations
 ‘one envies important and flourishing situations.’

EA suppression, and subsequent Agent theta-role suppression, will generate a passive interpretation (or a middle/anticausative one with the proper verbal roots (32b)):

- (74) Passive: [_{TP} T [_{VoiceP} R Voice_{+R} [_{VP} V DP_{THEME}]]] (with agent suppression)
dabitur tibi amphora Plut., Caes. 121
 give-FUT-3SG-R you-DAT amphora-NOM
 ‘An amphora will be given to you.’

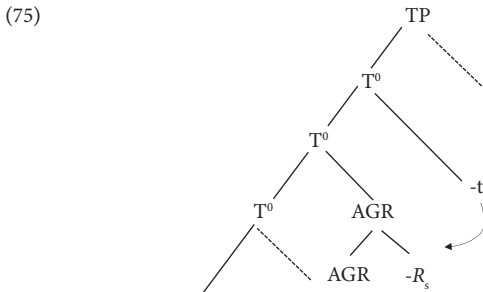
Anticausative:

- aliud os amnis aperitur*
 another-NOM mouth-NOM river-GEN open-PRES-3SG
 ‘another mouth of the river opens up.’

It is important at this point to observe that, in contrast to Italian, impersonal uses of transitive forms with accusative objects (cf. Italian (62).1)) are unattested according to Ernout & Thomas (1951/1972: 205) with the possible exception of the early Latin example *vitam vivitur* ‘one lives the life’ (Ennius Fragm 100) quoted by Wackernagel (1926: 146). If the analysis proposed earlier for Italian is correct, this indicates that by the Classical period, EA suppression must apply systematically so that Latin cannot have a counterpart of the Italian *li si ama* ‘one loves them’, where I use the clitic to show the assignment of the accusative case. A sentence like **amicos amatur* should be impossible in classical Latin and be systematically replaced by *amici amantur* (Vendryes (1913)), where the internal argument is assigned the nominative case and triggers verbal agreement as discussed earlier. It follows that a verb like *amantur* should be ambiguous between an impersonal and a passive interpretation, like the Italian *si amano*, which could be both passive and impersonal, putting aside the reflexive interpretation. This is precisely what Ernout and Thomas (1951/1972: 206) states: “*le passif personnel* [i.e. the transitive *r*-form agreeing with the internal argument AC], *en effet, n’implique pas nécessairement que le sujet subit l’action. Souvent, il garde la valeur de l’impersonnel,*

désignant un état ou une action indépendamment de tout sujet détermine, ce qui en fait aussi une expression de l'indéfini: PL. Cas. 121: *dabitur tibi amphora* "on te donnera une amphore" [...]. Cette valeur peut être sensible même à une 1^{re} personne: Ter., Ad 911: *Iam Lepidus vocor* "voici qu'on m'appelle charmant".⁴⁸

I also propose that, as in Italian, R is moved to F⁰, from where it is then merged with the verbal form (see (68)). The characteristic property of Latin /-r/ is a further merger operation that adjoins R to AGR, as shown in (75):⁴⁹



Note that the traditional historical reconstruction of the Latin medio-passive /-r/ assumes that it originates from an ancient reflexive element (Claflin 1927) or a similar nominal suffix (Hrozný 1917; Marstrander 1919) (see also Vendryes (1913), Wackernagel (1926); Meillet (1964), Ernout and Thomas (1951/1972), Jasanoff (1977)). This element must have undergone cliticization, specifically encliticization, given the surface position of the /-r/-element. One can assume that this element underwent the movement in (67) and the subsequent cliticization as in Italian *si*. Encliticization which is independently necessary in Latin to account for the behavior of enclitics such as the conjunction *-que*, disjunction *-ve*, pospositions such as *-cum* "with", *-propter* "because of", etc., could be captured by an operation of metathesis, which reverses the order of morphological element (see Halle and Harris 2005 for a possible implementation (cf. also Marantz 1988, Embick and

⁴⁸ In addition, in their impersonal use, transitive /-r/-forms appear with a phonologically null internal argument, with an indefinite interpretation, which could be accounted for as involving a case of "subject" pro-drop, in so far as it is nominative, in the analysis proposed above. In this way, as suggested in the functionalist literature (cf. Pinkster (1992); Napoli (2013)), by dropping overt mention of agent and patient/theme, the verbal form, or better the action or event described by it, is given semantic prominence and becomes the focus of communicative attention: *pugnatur* "there is fighting going on", *saltatur* "there is dancing-going on". The same interpretation could be assigned to *itur* "the act of going is performed", *caletur* "the event of being warm is occurring".

⁴⁹ I still need to account for the 2pl. suffix *-mini*. To do this I assume that in addition to the morphophonological rules discussed in § 13.2.3, there are two following VIs: (i) the AGR exponent is \emptyset in the context of the 2plural (i)a). This triggers pruning and fusion of the AGR feature with R. (ii) The VI of the fused AGR+R is then that in (i)b).

- (i) a. \emptyset <-> [+part, -auth, +plur]_{AGR} / ____ D_{RS}
 b. *-mini* <-> [+part, -auth, +plur]_{AGR} + D_{RS}

Noyer 2001) (e.g., & [X Y Z → [X=& Y Z in the case of the conjunction *-que*). A further diachronic step was the morphological integration of this enclitic element into the preceding verbal form as a suffixal element, a common diachronic development.⁵⁰ This is exactly what (75) does by means of head lowering. Hence, the clitic element becomes an affixal part of the inflectional ending, which includes AGR. So, one can assume that the analysis I proposed for Latin must be correct, at least from the point of view of its diachronic development. However, here I suppose that it is still part of Latin's synchronic morpho-syntax. Thus, an account for the surface position of Latin /-r/ (and for its *si*-like properties) can be achieved.^{51,52,53}

⁵⁰ As well known, enclitics have a tight connection with the preceding morphological word (see, for example, Benincà and Cinque (1993) on the different behavior of Italian proclitics and enclitics in this regard), something that leads to the historical tendency for enclitics to become suffixal endings (cf. Fuß (2005); Roberts and Roussou (2003)). An associated phenomenon is endocclisis/mesocclisis of enclitics inside verbal endings cf. what happens in southern Italian varieties where enclitics can be found inside the verbal form before the agreement ending:

- (i) *pōrt-a-llā- 'mu-llā* (dialect of Albidona, Manzini, and Savoia 2005)
bring-TV-him-1pl -it
'Let us bring it to him'

⁵¹ Note also that although an encliticization step is necessary to account diachronically for the surface position of the element /r/, and its subsequent integration into the suffixal AGR ending by (75), it is unclear to me if such a step is still needed synchronically insofar as the head lowering operation in (75) operates locally regardless of the surface position of the clitic.

⁵² It is to observe that also Classical Greek medio-passive, as well known, has the same range of uses of Latin /r/-forms (Schwyzer 1959): (a) It can be used with a reflexive meaning *κλινάμενος σταθμῶ* "he leaned himself against the jamb", *λοῦσθαι ποταμοῦ ροῆσι* "to wash themselves at the sides of the river", *ἐνδύομαι* "I clothe myself"; (b) It can be used with a reflexive benefactive middle ending; for example see the contrast between the active *φέρω*, which means "I bring", and the medio-passive *φερομαι*, which means "I bring for myself= I win"; or between the active *λουω τους ποδας*, which means "I wash the feet of others", and the medio-passive *λουομαι τους ποδας*, which means "I wash the feet to myself= I wash my feet"; (c) It can be used with a passive meaning: *γαμεισθαι* "to be married (Wackernage 1926), *ὁ παις παιδεύεται* 'the boy is being trained'; d) it can also be used with impersonal meaning (data from Wackernage 1926): *ου παιωνιζεται* "one does not sing any paean here", *ωθειται* "one drinks", *λέγεται* "one says", *δεδοκται* "one teaches". Sihler (1995: 472) (see also Lehman (1973) who proposes that the Proto-Indo-European middle endings, from which the Greek endings developed (cf. Meillet 1964), are derived from the active ending by adding an element /*-o-/ at least in some person (e.g., 2nd *-s-o-3rd *-t-o, Greek -(σ)οι, -τοι where /-i/ is a temporally deictic element, the so-called *hic-et-nunc*-particle (Ringe 2006: 32) (see (Sihler (1995: 476) on the development of the other Greek endings -(σ)αι, ται). I speculate that the same analysis I proposed for Latin /-r/ could be maintained for Greek (and PIE) /-o-/. As a matter of fact, Sihler (1995: 472) reconstructs an original PIE medio-passive /*-o-r/, whose /-r/ part is preserved in Italic (and therefore in Latin), as well as in Celtic, Tocharian, and Anatolian. The /-o/ part was preserved in the other IE languages. One could speculate that this /*-o-r/ was originally reflexive and developed as outlined above for Latin. Crucially, I would also like to assume that the same analysis holds synchronically in a language like Greek. The issue obviously cannot be fully addressed here and remains food for thought for future research.

⁵³ I will not be able to deal with deponent verbs here. As for now, I will just assume that their roots are characterized by the feature [+R] that is transmitted to Voice⁰. As it was proposed earlier for inherently reflexive verbs in Italian like *sbrigarsi* 'haste', this features requires the presence of a semantically void []_D element which may receive features from a coindexed antecedent (e.g. *mi sbrigo, ti sbrighi*, etc.). I assumed this element is ornamentally adjoined to the Voice⁰ head. In the same way, an ornamentally adjoined element could be postulated for deponent verbs. From this, it does not follow, though that

Note that all the operations involving the Latin *-r-*, except the step in (75), are independently motivated in terms of the parallel we see with Romance *si*-constructions and the similar constructions we find in Germanic and Slavic languages. In all of them, we see an original reflexive element that eventually becomes the characteristic element of impersonal, anticausative, and medio-passive constructions. As for (75), it can be solidly grounded in what we independently know about the grammaticalization of enclitics as suffixal elements and their consequent behavior. It follows that an account for all the properties of Latin *-r-*-forms, as well as the positioning of this voice morpheme to the periphery of AGR, can be readily and adequately achieved.

13.3.4 Peculiarities of *si* agreement with respect to Latin *r*-morphology.

We can now deal with the peculiarity of *si* agreement with respect to the Latin *-r-*-morphology.

Note at first that Latin *-r-* behaves perfectly in terms of Schäfer's (2008) framework, at least in the re-interpretation of it given in this chapter. It is essentially a purely abstract, fully unspecified, non-referential expression that can be merged into both internal or external argument positions. It triggers a reflexive interpretation if c-commanded by a higher antecedent; otherwise, an impersonal or passive interpretation is assigned, depending on whether EA suppression, and the subsequent agent Theta role removal, occurs (with the anticausative interpretation due to the nature of the verb). In being fully unspecified for person and number, it is compatible with any subject.

This is not the case with *si* constructions. The presence of *si* always requires a 3rd person's verbal agreement, although Number may be determined by the internal argument. As for adjectival (and hence participial) agreement, it is associated with the features [+masculine, +plural]. Other persons are excluded:

(76) Impersonal

Li si Lava / li si è
 CL-MPL SI wash-PRES-3SG CL-MPL SI be-PRES-3SG

lavati (cf. Lat. *Lavantur*)
 wash-PTCP-MPL

'one washes them/one has washed them.'

a deeper analysis grounded in the syntax and semantics of these verbs cannot be proposed as Pinzin (2015) does for deponent denominative verbs. (See Embick (2000), Grestenberger (2019) for further discussion of deponent verbs.)

Le mele, le si è lavate / le mele si
 the apple CL-FPL SI be-PRES-3SG wash-PTCP-FPL the apple SI
sono lavate
 be-PRES-3SG wash-PTCP-FPL
 ‘people washed the apples.’

Mi si lava / mi si è lavato
 CL-1SG SI wash-PRES-3SG CL-1SG SI be-PRES-3SG wash-PTCP-MPL
 ‘people wash me/people have washed me.’

- (77) **io si lavo / *Io si sono*
 1SG SI wash-PRES-1SG 1SG SI be-PRES-1SG
lavato (cf. Lat. *Lavor*)⁵⁴
 wash-PTCP-MPL
 etc. (cf.0)

A possible explanation of the just observed pattern includes the following assumptions:

- (1) The diagram in (62) implies a series of derivational steps. Thus, the merger of a non-referential expression—which will eventually receive the exponent *si* in Italian—into spec VoiceP precedes EA suppression (by (46)); this step, in turn, precedes agent theta-role suppression.
- (2) Verbal Agreement applies cyclically when Spec, VoiceP is reached and may reapply after EA suppression.
- (3) The exponent *si* is specified for the feature [-Participant] in the VI list of non-referential expressions. It is, however, unspecified for number, as shown by the fact that it co-occurs with both the singular and plural antecedent (cf. *lui si lava/loro si lavano* ‘he washes himself/they wash themselves’).
- (4) The featural properties of [_D] and *si* after VI insertion are assigned by special rules. In parallel with the phonological allomorphy rules of later PF and the allosemantic rules of CI-interface proposed by Marantz (2013) (and see also Schäfer (2016) regarding *si*), one can assume that there are also morphological, or better morpho-syntactic, allomorphy rules that contextually assign morphological/morpho-syntactic features to morphemes.

One can then assume the following derivation:

Let us start by merging the non-referential expression [_D] in Spec VoiceP. The element [_D] expression has no antecedent in the VoiceP domain. A default

⁵⁴ Remember from the preceding section that these /r/-forms can also have an impersonal interpretation as in the Italian impersonal counterparts.

morpho-syntactic allomorphy rule then assigns it the “impersonal” features: [-participant, -plural], i.e., 3rd person singular. VI insertion then applies. The [-participant] exponent *si* is, therefore, inserted. Let us assume that at this point, the feature [-participant] in the morpho-syntactic representation of the verbal form is bound by the presence of *si* and that bound features cannot be overridden. Cyclic verbal agreement applies when Spec Voice P is reached and it is crucially sensitive to the features bound by the exponent present there. In this case the verbal AGR will appear as 3rd Singular,^{55,56}

EA suppression may only apply at this point but only after *si* insertion at Spec VoiceP. The internal argument being the highest NP is assigned nominative and, therefore, must now become the trigger of verbal agreement. However, the feature [-part] was already assigned to verbal AGR, and cannot be overridden, although feature matching is allowed. The only feature that can be overridden is the Number one, which is unspecified for *si* and, therefore, not bound by it. Therefore, verbal AGR can acquire the feature [+plural] of the internal argument, and feature matching in the case of Person is allowed.

- (78) *si mangia mele qui/ le mele si mangiano spesso qui*
 /* *le mele si mangia spesso qui*
 ‘one eats apples here/the apples are eaten here.’

If the internal argument is [+participant], first or second person, a featural clash will occur between the features required by Agreement and those bound by *si*'s presence. Therefore, *si*-passive forms like those in (76) will be impossible.

Let us now consider cases lacking an internal referential argument that can trigger Agreement—the internal argument is non-referential *si*. At AspP, after the cyclic insertion of the exponent *si* in the lower cycle, a rule of last resort featural interpretation applies. This rule is of the allosemantic type and has access to aspectual information about the event; it leads to the generic inclusive or purely generic interpretation of *si*, discussed by Cinque (1988) and D’Alessandro and Alexiadou (2003) and, which are assigned according to aspectual features: a generic interpretation inclusive of the 1st person, if Aspect is perfective, otherwise a generic interpretation when Aspect is imperfective, or under other special circumstances discussed by Cinque (1988), and D’Alessandro and Alexiadou (2003). Crucially at this point, *si* is assigned the features [+plural, +masculine], which, although are unable to override the Number (and Person) features established at VoiceP for verbal agreement, can be used to determine agreement in outer positions as for participial and adjectival forms, therefore: *si è allegri in questa casa* ‘one is

⁵⁵ Under any theory, one must assume that featural agreement configurations established at the VoiceP level are then somehow transmitted to TP or to the highest phrase in the verb extended projection and, from there, assigned to verbal AGR.

⁵⁶ One could assume that all of this occurs through parallel derivations of argument structure and verb formation.

happy in this house” or *si è lodati spesso in quella classe* “one is often praised in that class”, *spesso non si è facili con se stessi* “often one is not easy with himself/herself”. This cyclic derivational approach to SI interpretation and Agreement solves the paradoxical aspects of SI-agreement properties.

Crucially, Latin /-r/ is fully featurally unspecified, as mentioned above; hence no features of verbal AGR are bound. They, therefore, can be readily overridden. So, Latin /-r/-passive forms can appear with all persons.⁵⁷

13.4 Periphrastic passive constructions

Latin passive is periphrastic in the perfect.

- (79) *am-ā-t-us sum mon-i-t-us sum aud-ī-t-us sum*
am-ā-t-us es mon-i-t-us es aud-ī-t-us es etc.

An analysis of this periphrastic formation is developed in the next section.

13.4.1 A brief analysis of periphrastic constructions

Suppose synthetic verbal forms are due to the cyclic application of head movement, which can convert the extended functional projection of a verb into a single complex X^0 (i.e., a single word involving a root plus affixes). In that case, one can plausibly assume that, in contrast, periphrastic verbal forms—in which similar verbal extended functional projections are broken into different complex X^0 (i.e., different words, auxiliaries, and other verbal morphological pieces)—are due to the failure of the application of this operation to certain functional heads. This approach to periphrasis formation, which was first formulated by Embick (2000), has been more recently fully developed by Bjorkman (2011), Pietraszko (2017), Fenger (2020), and Calabrese (2019).⁵⁸ In Bjorkman and Pietraszko’s works, the

⁵⁷ It should be pointed out that if the analysis developed here is correct, the Latin morpheme /-r/ shares obvious properties with the Swedish morpheme -s (called “reflexive verbal suffix”) and the East Slavic reflexive verbal affix -sja (cf. Schäfer (2016) for references). In the same way as Latin /-r/, these morphemes appear in an outer position with respect to tense and verbal agreement endings and appear in reflexive (although with many lexical restrictions in the case of Swedish), impersonal, middle, anticausative, and passive constructions. In addition, they are invariant insofar as they can appear with all persons, and not just the third person as the SI-constructions of Romance.

They all developed from a 3rd person reflexive element. Along the lines of Schäfer (2016), one can speculate that, like Latin /-r/, in their historical development, they lost person feature specifications.

⁵⁸ An obvious advantage of such approaches over purely lexical ones that assume that periphrastic formation is just due to paradigmatic gaps (see Kiparsky 2004, for example) is that the periphrastic structure, and the subsequent formation of auxiliaries, follows the hierarchical functional structure: it is expected that when there is a higher and lower head, the lower head will end up on the verb, whereas the higher head ends up on the auxiliary.

failure of functional heads to combine with the verb is due to the action of certain nodes (or better, the feature complexes of those nodes) as interveners (Rizzi 1990) in syntactic processes—such as Agree⁵⁹—that lead to head movement. For example, the *v*-complex may not raise to Tense because (marked) aspect features intervene for the tense feature to be agreed with and checked. In contrast, the failure of head movement in Calabrese’s model is formalized in terms of morphological filters disallowing combinations of functional head features: movement is blocked if such a combination may be generated. Fenger proposes that head movement may be blocked by phasal boundaries such as that between the verbal thematic complex, which include Aspect and the higher T-C complex (see Bošković 2014; Wurmbbrand 2017)—some form of phasal extension would be required to account for the cases where movement crosses these boundaries. A thorough discussion, comparison, and selection of these different theories are far beyond the goals of this chapter. What matters here is that periphrasis results from head movement blocking. A simple way of implementing this, without taking a stand with respect to the theories mentioned above, is to propose that word-forming head movement⁶⁰ from one head position in the extended functional verb projection to the one directly higher up may be parametrized with a parameter allowing or not allowing movement from this position. If higher-up movement is blocked, the complex X^0 head that was cyclically constructed up to that point remains stuck. This leads to a periphrastic formation in which the extended functional projection is split in at least two complex X^0 , i.e., two different-words: a lower one, i.e., the blocked complex X^0 , and a higher one, including the higher functional heads of the projection. The head movement parameters may have their deeper grounds in the theories mentioned above, but choosing what they are will not be an issue here.

Consider the derivation of the periphrastic construction in (80), i.e., of an Italian periphrastic perfect form:

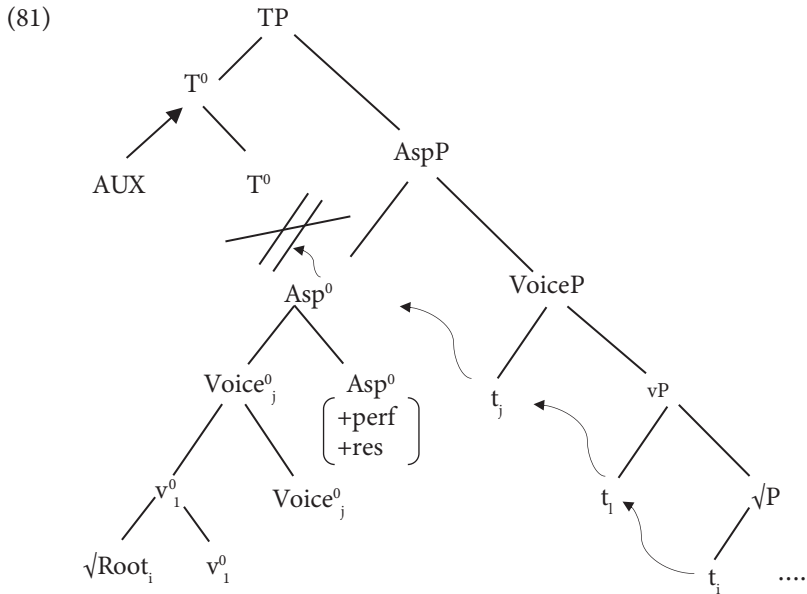
- (80) *siete andati a casa*
 be-PRS-2PL go-PTCP-MPL to home
 ‘We went home.’

As proposed in the works quoted above, it is derived by blocking the head movement of the lower complex with Asp^0 characterized by the features [+perfect] to the

⁵⁹ In Bjorkman’s system this is done via a version of Agree (Chomsky 2000, 2001), namely Upward Agree (see Merchant 2011, a.o.); in Pietraszko’s system this happens through a type of selection, similar to cyclic agree (Béjar and Rezac 2009).

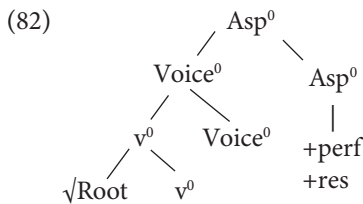
⁶⁰ Here we are dealing only with head raising. The same blocking could also occur with head lowering, which is not considered here (see Calabrese (2019) for this type of case).

higher T⁰ node (For the sake of the exposition, trees are represented here before cyclic pruning, which will create a lower fused node including Voice⁰+Asp⁰):^{61,62}



In the higher part of the structure in (81), T⁰ violates a constraint against stray functional nodes (Bjorkman 2011; Calabrese 2019). A dummy root—the AUX root—is therefore inserted as a “holder” for T⁰ (Bjorkman (2011)). Further operations such as TV and AGR insertion and pruning generate the auxiliary form in (84b).

The lower part of the structure in (82) contains a tenseless, moodless verbal Asp⁰ constituent.



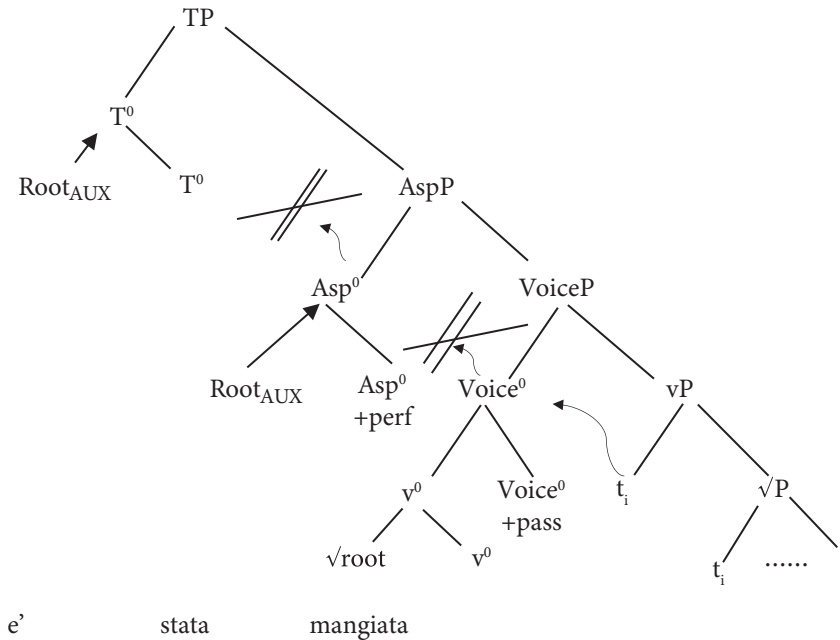
⁶¹ Note that impersonal passive like the Italian form in (i) are impossible in Latin insofar as a single strategy of impersonalization/passivization is possible in Latin: R insertion + obligatory EA suppression:

(i) Si è lodati
 si è stati lodati

⁶² A complete discussion of periphrastic verbal constructions in Italian is unfortunately not possible here due to space restrictions; the reader is referred to Calabrese (2019) for this.

passive construction, in contrast, displays the full range of the distinction generated by the combination of tense and aspect features (see 87b). This is expected given (86). Furthermore, the analysis of the perfect and passive participle forms just proposed predicts a perfect passive structure with two participles: one for the ASP that does not merge with T and the other for the low voice. This prediction is correct (cf. *la torta è stata mangiata* ‘the cake was eaten’) (see also Ippolito (1999), as illustrated by the tree in (88) (before the insertion of TV and AGR elements and pruning operations):⁶³

(88)



13.4.2 Latin periphrastic perfect passive constructions

As mentioned above (cf. (79)), in Latin verbal morphology, a periphrastic participial construction is found in the case of the passive perfect.

- (89) *Regina ā milite interfecta est*
 Queen- NOM by soldier kill-PTCP-FSG be-PRES-3SG
 ‘The queen was killed by the soldier.’

⁶³ An important issue is the surface convergence between perfect and passive participle forms. Calabrese (2020) argued that it is not due to trivial accidental homonymy but has a principled morphological reason. However, the reasons for this convergence cannot be discussed here and I refer the reader to the above-mentioned chapter.

Rex ad proelium est ā servīs portātus
king to the battle be-PRES-3SG by slaves carry-PTCP-FSG

‘The king was carried to the battle by his slaves.’

Numquam... ā Pomponiā nostrā certior sum
Never by Pomponia our aware be-PRES-1SG

factus (Cic Ad Atticum 1.5)
make-PTCP-MSG

‘I was never made aware by our Pomponia ...’

Note that also reflexive, middle, and impersonal uses of these constructions pattern with the passive ones in displaying periphrastic formations:

- (90) Reflexive and middle periphrastic forms:

sed quoniam in balneis lavar lautus
but when in baths wash-PRES-1SG wash-PTCP-FSG

sum (Varro, On Lat. 15)
be-PRES-1SG

‘since in baths (we say) ‘I wash myself, I washed myself’

et eamst indutus? (Ter. Eun. 4, 4, 40)

and that put.on-PTCP-MSG

‘and did he put it (the dress) on himself?’

sed neque unguento unctus sum (Jer. Vulg. Dan 10)

but neither oil anoint-PTCP-MSG be-PRES-1SG

‘but neither anointed myself with oil.’

Facile est ex vulnere recreatus (Cic. Inv. 2, 51)

easily be-PRES-3SG from wound recover-PTCP-MSG

‘he recovered easily from the wound.’

Equites... dispersi ac dissipati
horsemen disperse-PTCP-MPL and scatter-PTCP-MPL

discedunt (Caes. BG 58)

depart-PRES-3PL

‘the horsemen depart dispersing in disorder.’

Ex alto suffuses est rubor

out.of deep spread-PTCP-MSG be-PRES-3SG blush

‘the blush spread over his face (arising) from the depth.’

- (91) Impersonal periphrastic forms (cf. Deckman 1920):

In oppidum ventum est

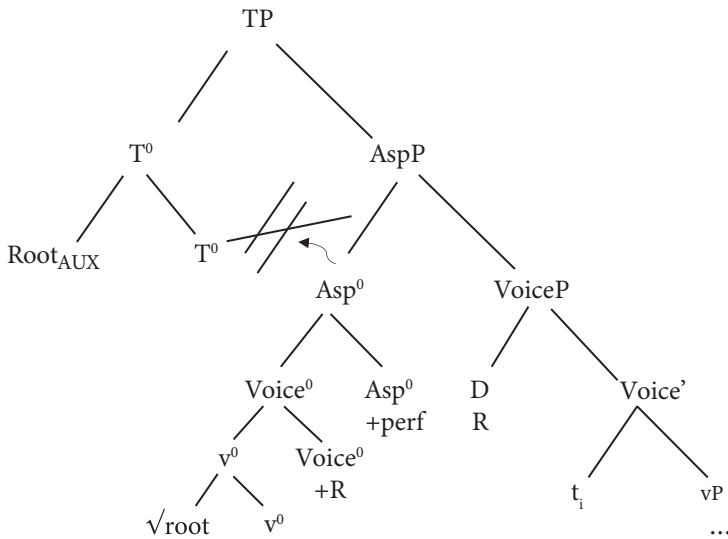
In city come-PTCP-MSG be-PRES-3SG

‘People came into the city.’

This indicates that, in Latin, Asp^0 has not moved to the auxiliary complex including T^0 . In terms of the theory developed here, this difference between Latin and Italian is that the verb movement stops in a higher position, as in (93). Hence, the Latin passive participle includes Asp^0 differently than an Italian passive one. The participle must include aspectual [+perfect] features.

So, the periphrastic passive in Latin can be derived as proposed earlier for Italian perfect (84) but with the crucial addition of the feature [+R]. The parameter defining Latin is that the configuration [+perf] Asp^0 + [+R] Voice cannot move to T^0 in this language, as shown in (93). Insertion of Adjectival AGR by (83a), as shown in (94), will account for the presence of a participle in this forms. It follows that Latin perfect reflexive, impersonal, middle, and anticausative constructions must be periphrastic like the passive ones (For the sake of the exposition, as before, trees are represented here before cyclic pruning, which will create a lower fused node including $Voice^0+Asp^0$):^{66,67}

(93)



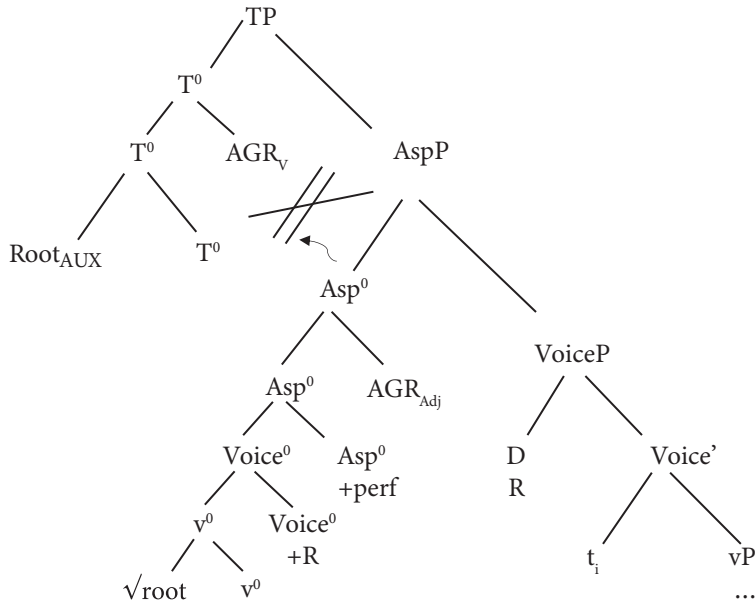
⁶⁵ The perfect auxiliary *fuit* can be used with a participle, but in this case, the participle is used as an adjective and is not verbal. Gildersleeve and Lodge (2000, §250): Perfect *fuit* is “[T]he favorite form when the participle is used as an adjective: *convivium exōrāntum fuit*, ‘the banquet was furnished forth.’”

⁶⁶ Note that impersonal passive like the Italian form in (i) are impossible in Latin insofar as a single strategy of impersonalization/passivization is possible in Latin: R insertion + obligatory EA suppression:

- (i) Si è lodati
si è stati lodati

⁶⁷ Bertocci and Pinzin (2021), following Kastner and Zu (2017), account for the Latin periphrastic perfect passive as involving the selection of a verbal adjective + Aux BE construction as a last resort way of filling a paradigmatic gap that cannot be filled due to morphosyntactic reasons. The details of how this selection is implemented are not fully developed in either article. It is difficult to evaluate both proposals (see also footnote 57).

(94)



A final point must be addressed. Note that given what was proposed earlier concerning the */-r/* element, one would potentially expect the presence of an */-r/* also in periphrastic formations. However, forms such as those in (95) are just unthinkable in Latin.

- (95) a. **Laudati-r sumus*/* *Laudatu-r est*
 b. **Laudati sumur-r*/* *Laudatus estu-r*

Their absence is, however, readily accounted for if one considers that the feature [+R] is overtly realized in the participle exponent */t/*. Then *[-r]* element in Spec VoiceP cannot longer cliticize in a higher syntactic position in so far as the participial */-t-/* acts as an intervener blocking a chain between this element and a trace/copy in the lower verbal phrase, a clear instance of relativized minimality (Rizzi (1990)):

- (96) * $[R_i \quad [AspP \quad /-t-/ \quad [VoiceP \quad t_i \quad]]]$
 $\left(\begin{array}{c} +R \\ +perf \end{array} \right)$

The R-element is bound to remain in the lower phrase with no cliticization site. I assume that in this case, it is deleted.⁶⁸

⁶⁸ No such problem occurs in Italian. Consider the forms in (i). They have the structure in (ii); the adjectival */-t-/* only contains the [+perfect] feature and therefore does not interfere with the movement of the clitic *si*.

13.5 Conclusions

As standardly assumed (cf. Meillet 1964; Ernout and Thomas 1951/1972; Embick 2000), Latin synthetic passive forms display a suffixal /-r/ that is added to the active AGR endings: *am-o-r/ am-a-t-[u]-r/ etc.* ‘love-PASS.1sg/3sg.’ The positioning of this voice morpheme to the periphery of AGR, however, violates the mirror principle, according to which the positioning of verbal functional elements should be parallel to the positioning of functional heads in the syntax: it is assumed that Voice is close to v and lower to Asp. This is not what is observed in Latin verbal forms.

In this chapter, I proposed an account of this positioning based on the close similarity between the morpho-syntactic distribution of the Latin passive morpheme /-r/ and the Romance impersonal passive clitic *si*. They both share the same properties: /-r/ is a reflexive-like element, which, like *si*, can be generated in Spec VoiceP or in vP-internal argumental position. If it appears in an argumental position c-commanded by another DP, it will be reflexive. If it is the highest DP in the clause, it will be assigned impersonal interpretation.

I then proposed a parametric EA suppression applying to *si* // -r/ elements when in Spec VoiceP, and subsequent Agent theta-role suppression. If they apply, a passive interpretation (or a middle/anticausative one with the right verbal roots) will be generated. Crucially, I assume that an impersonal *SI*// -r/ element play a derivationally fundamental role in the account so that the following implicature for the uses of these forms/constructions can be established: reflexive > impersonal > anticausative/passive. An impersonal step, at least abstractly, must be considered to get to the middle/anticausative and passive interpretations.

- (i) *si è lodati* ‘one is praised’
si è venuti ‘one has come’
- (ii) [*SI*_i [_{AspP} /-t-/ [_{VoiceP} t_i]]
 [+perf]

At the same time, if one deals with a participial passive, as argued above, the blocking of head raising would leave it in a position lower than the Spec, VoiceP that contains the *si* element. Therefore, also in this case, the participial /t/ would not interfere with the *si* movement as shown in (iv):

- (iii) *si sono lodati i ragazzi* ‘one has praised the boys’
- (iv) [*SI*_i [_{AspP} [_{VoiceP} t_i /-t-/]]
 +R
 +pass

Remember that the sentence in (v) is excluded for independent reasons. The form is passive and therefore characterized by the operation in (44). It follows that there is no position where *si* could have merged: nor in Spec, VoiceP (because of (44)), nor any other argumental position. The presence of *si* is then excluded.

- (v) **si sono stati lodati i ragazzi*

Furthermore, like Italian *si*, /-r/ is moved to F⁰, from where it is merged, i.e., cliticized, with the verbal form. The characteristic property of Latin /-r/ is a further merger operation that adjoins R to AGR, thus accounting for its positioning to the periphery of the verbal forms.

The absence of a parametric choice simply suppressing the EA so that Passive forms can be generated only contextually through the insertion of the /-r/ element in Spec, VoiceP accounts for why, in Latin, there is no contrast between periphrastic passive construction and impersonal/passive constructions, like in Romance. The only strategy for passivization in Latin involves using a *si*-like non-referential element. Latin, furthermore, selects the option of discharging the Agent theta role saturated by R so that *by*-phrases are possible with the *r*-passives.

It was observed that all the operations involving the Latin /-r/ are independently motivated. On the one hand, they are grounded on the obvious parallel between the Latin /-r/ constructions, the Romance *si*-constructions, and the similar constructions we find in Germanic and Slavic languages. In all of them we see an original reflexive element that eventually becomes the characteristic element of impersonal, anticausative, and medio-passive constructions. In this regard, it was also noted that Latin /-r/ behaves perfectly in terms of the theoretical framework developed here in essentially being a purely abstract, fully unspecified, non-referential expression that can be merged both into internal or external argument positions, triggering a reflexive interpretation if c-commanded by a higher antecedent, otherwise an impersonal, middle, or passive interpretation, depending on whether EA or agent Theta role suppression occur (with the anticausative interpretation due to the nature of the verb). In being fully unspecified for person and number, it is compatible with any subject. Latin /-r/-passive forms can, therefore, appear with all persons differently than *si*-constructions.

On the other hand, the further step that is needed to account for the Latin /-r/-constructions—the final morphological merger of /-r/ with the AGR ending—is fully grounded in what we know about the morphological evolution of clitic, and especially enclitic, elements. Thus, assuming a synchronic operation of head-lowering, or morphological merger, for the clitic /-r/ is a plausible theoretical move.

The chapter also accounted for the Latin periphrastic perfect passive forms as involving blocking of head movement as also proposed for the Italian periphrastic counterparts. The fact that periphrasis is found in both reflexive, middle, and impersonal constructions, as well truly passive ones, indicates that it is the feature [+R] of Voice⁰ (=Italian [+passive]) that plays a role in head movement blocking.

The analysis presented here is consistent with the traditional historical reconstruction of the Latin medio-passive /-r/ as originating from an ancient reflexive element and could provide novel ways to account for the behavior of medio-passives in other Indo-European languages.

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