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Parasynthesis

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Abstract

Parasynthesis is usually defined as the word formation process that requires the simultaneous presence of two affixes (a prefix and a suffix) for a categorial change to be possible. However, this phenomenon has often been understood in practice as involving a simultaneous addition of a prefix and a theme vowel with or without an additional suffix. Three main descriptive proposals on parasynthetic verbs have been put forward in the Romance literature in order to account for the apparent simultaneous attachment of a prefix and a suffix involved in their formation: 1) circumfixation; 2) prefixation as transcategorization/verbalization; and 3) first suffixation and then prefixation. The adoption of a diachronic perspective is shown to be needed when addressing some important issues that purely synchronic treatments of parasynthesis cannot account for. Accordingly, special attention is paid to the origin of verbal parasynthesis in Latin and its evolution to Romance languages. Next a formal synchronic analysis of parasynthetic verbs is offered by assuming a strong connection between syntactic word formation and syntactic argument structure. Finally, other types of parasynthetic forms (e.g., parasynthetic adjectives and parasynthetic compounds) are analyzed from this syntactic perspective.

Keywords
parasynthesis, derivation, compounding, prefixed denominal verbs, prefixed deadjectival verbs, Romance languages, Latin

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1. On the definition of what parasynthesis is or has been said to be

Although *parasynthesis* is usually defined as the word-formation process that requires the simultaneous presence of two affixes (a prefix and a suffix) for a categorial change to be possible, this phenomenon is often understood in practice as involving a simultaneous addition of a prefix and a theme vowel (TV) with or without an additional suffix. For

example, compare the prefixed deadjectival verb Sp. *envejecer* 'to grow old' in (1a), which includes the obligatory suffix *-ec-* (cf. **envejer*), with its equivalent form in Cat. *envellir* 'to age', which lacks this suffix: cf. (1a) with (1b). Despite this morphological difference, these two verbs are usually considered as parasynthetic forms in the literature since both are taken to involve a simultaneous attachment of a prefix and a theme vowel, with an additional suffix (cf. **vejecer*) or without it (cf. **vellir*). In contrast, this verb is not parasynthetic in French since, as shown in (1c), no prefix is required.

(1) a. en-vej-ec-e-r (Spanish)
pref-old-suf-TV-inf.
b. en-vell-i-r (Catalan)
pref-old-TV-inf.
c. vieill-i-r (French)
old-TV-inf

Following the tradition initiated by Ancient Greek grammarians, Darmesteter (1875) was the first author who introduced the concept of parasynthesis in Romance philology. According to Darmesteter (1875: 79-80), parasynthetic words "show the special characteristics of being the result of compounding and derivation on the basis of the same root, in a way that neither of them could be eliminated without the word disappearing as such" (Engl. transl. by Serrano Dolader (2015: 525)). For example, according to Darmesteter, the French verb *embarquer* 'to embark' is a parasynthetic form since there is a compound formed by the preposition *en* 'in' and a noun. Neither *en-* plus the nominal base *barque* 'ship' (**embarque*) nor the simple denominal verb (**barquer*) are possible forms. Similarly, Thorn (1909) defined parasynthesis as a "simultaneous process of compounding and derivation". However, most of Romance morphologists in the twentieth century analyzed the attachment of *en-* as a prefixation process (hence as a derivation process), rather than as a compounding process. The definition was then changed, since for many Romance morphologists a compound is not involved any longer in the formation of parasynthetic verbs like Fr. *embarquer*, which has become the typical complex denominal verb used in the Romance literature to exemplify the phenomenon of parasynthesis.

It should be pointed out that the formation of parasynthetic verbs is not a morphological process to be found only in Romance languages but also in other languages. For example, Rainer (2016: 517) notes that in German a complex verb like *verdeutschen* 'to translate into German' (cf. *deutsch* 'German') can also be considered a parasynthetic verb since it cannot be derived in two steps either: *deutsch* → **verdeutsch* → *verdeutschen*; *deutsch* → **deutschen* → *verdeutschen.* Accordingly, this author concludes that what turns out to be special about Romance parasynthesis is its terminology (in Slavic linguistics similar processes are referred to as "prefixal-suffixal formations").

In the Romance literature on parasynthetic verbs three main descriptive proposals have been put forward in order to account for the apparent simultaneous attachment of a prefix and a suffix involved in their formation (see Iacobini (2004) and Serrano Dolader (1995, 2015, 2016) for some overviews of the relevant literature). Let us briefly review

each of them in turn. The proposal that can be traced back to Darmesteter (1875) in a more direct way is the one put forward by Crocco Galèas and Iacobini (1992, 1993a,b) and Iacobini (2004, 2010). For example, Iacobini (2004) points out that in denominal verbs like Fr. *embarquer* 'to board' there is no derivative suffix with phonological content (e.g. cf. the suffix *-ec-* in the Sp. *envejecer* 'to grow old' in (1a)) but a conversion process is involved. Following his joint work with Crocco Galèas, Iacobini's claim is that the prefix and the verbal suffix behave like a single affix, i.e. a circumfix (see the chapter on circumfixation). According to Crocco Galèas and Iacobini (1993a: 58), "there are three requisites involved in a parasynthetic circumfixed verb: 1) the prefix is not productively prefixed to verbs and there is no simple denominal verb attested that can be claimed to be put in correspondence with the parasynthetic verb; 2) the prefix lacks a proper meaning that can be defined synchronically; 3) the category change from Noun/Adjective to Verb is due to a conversion process".

Serrano Dolader (2015) points out that the circumfixation proposal can be said to be problematic since Romance languages do not appear to present other cases of circumfixes beyond the alleged ones involved in parasynthetic verbs, making this kind of derivation an *ad hoc* word formation process. Moreover, he notes that the proposal that there is a circumfix in parasynthetic verbs is only apparent because the prefix and the suffix turn out to be morphologically independent and fulfil different functions. After all, only a null verbal suffix takes part in the transcategorization process, i.e., in the verbalization process.

A second proposal, the one put forward by Corbin (1980, 1987), is that there is no suffixation involved and that the category change is due to the prefix, whereby the non-trivial proposal is assumed that prefixes can change the category of the base. Corbin (1980, 1987) denies the existence of verbal parasynthesis since she claims that the suffix is not derivational but inflectional, whereby her proposal is to analyze parasynthetic verbs with the form [pref. + $X_{N/Adj}$ + infinitive ending] as the result of simple prefixation: [pref. $X_{N/Adj}]_V$. Following Corbin, González García (2021) makes the proposal that there are prefixes that can change the category of the base (e.g. so-called "internal prefixes" like the one involved in Sp. *embarcar* 'to embark' or *envejecer* 'to grow old'), whereas there are others that cannot (e.g. so-called "external prefixes" like the one involved in Sp. *preelectoral* 'preelectoral' or *prever* 'forsee'). However, as pointed out by many morphologists, the main problem with Corbin's controversial proposal is that she claims that the prefix can sometimes change the category of the base to which it is attached, which has been argued to be impossible.

Finally, a third classical descriptive proposal is the one put forward by Scalise (1986), who claims that the formation of parasynthetic verbs involves a consecutive two-step process: first suffixation and then prefixation. In the first stage a possible but not necessarily attested or actual word is generated (e.g., It. **vecchiare* 'to grow old, formed from adj. *vecchio* 'old'), whereas in the second stage (i.e., prefixation) the actual complex word is generated (e.g., *invecchiare* 'to grow old', which is formed from the prefix *in-* and the deadjectival verb **vecchiare*). An important advantage of this proposal is that the

binary branching hypothesis is preserved, although it is done at the expense of assuming an unattested intermediate stage.[1]

As pointed out by Iacobini (2004, 2010) and Serrano Dolader (2015), a problem with Scalise's double stage process proposal is that his approach does not distinguish among different types of parasynthetic verbs. For example, according to Iacobini (2004, 2010), true parasynthetic verbs like It. *invecchiare* 'to grow old' must be distinguished from verbs like It. *decaffeinare* 'to decaffeinate' since the former involves a non-meaningful prefix, whereas the latter involves a meaningful one. Iacobini also notes that the fact that an unprefixed verb like It. *°caffeinare* 'to caffeinate' does not exist is probably due to non-linguistic reasons (e.g., due to our encyclopedic or world knowledge),[2] whereas the reason of the absence of verbs like **vecchiare* 'to grow old' is linguistic. According to Iacobini, only *invecchiare* involves a circumfix (see the first proposal above), whereas *decaffeinare* can be claimed to be formed through Scalise's double stage derivation.

Although there appears to be no consensus in the literature regarding the correct descriptive proposal (see (2) for the three representations that have just been reviewed above), many morphologists have assumed the hypothesis that the verbalization in parasynthetic verbs is due to a zero morpheme. For example, Reinheimer-Rîpeanu (1974) claimed that zero derivation is involved in parasynthesis as well as in the formation of unprefixed denominal and deadjectival verbs (see Serrano Dolader 2015 for a recent review of different proposals for the zero morpheme in parasynthesis).

(2) a. $[\text{pref. } [X]_{N/Adj} \text{ suf.}]_V$
b. $[\text{pref. } [X]_{N/Adj}]_V$
c. $[\text{pref. } [[X]_{N/Adj} \text{ suf.}]_V]_V$

Although most of the literature on parasynthesis has typically concentrated on prefixed denominal verbs like Fr. *embarquer* 'to board' and on prefixed deadjectival verbs like the ones in (1a,b), it is important to point out that there are other types of parasynthetic forms: e.g., parasynthetic adjectives like Cat. *afortunat* 'fortunate', which is formed from the non-meaningful prefix *a-*, the noun *fortuna* 'fortune', and the adjectival/participial suffix *-t*. Intermediate forms like **afortuna* or °*fortunat*, the latter being formed from the noun *fortuna* and the participial/adjectival morpheme *-t*, are not well-formed in Catalan (but cf. the well-formedness of It. *fortunato* 'fortunate'). Adjectives like Sp. *submarino* 'submarine' have also sometimes been included in the set of parasynthetic adjectives (see Serrano Dolader (1999, 2012b) for a complete taxonomy of different types of parasynthetic adjectives in Spanish). However, this case is different from the previous example since the base *marino* 'marine' does exist. Despite this, from an interpretational point of view, some authors have claimed that the prefix *sub-* does not modify the existing

[1] Similary, Alcoba (1987) assumes the non-existing intermediate stage hypothesis but, for him, this stage is formed by the prefix and the base: $[[[\text{pref.}] [X]]_X [\text{suf.}]]_V$. Unlike Corbin, Alcoba does not assume her controversial claim that the prefix assigns the grammatical category to the base. Rather, his claim is that the verbalizer is the thematic vowel involved in parasynthetic forms.

[2] Following Corbin (1987) and Iacobini (2010), i.a., I use the ° symbol for possible but not attested words.

base *marino* 'marine' but rather takes the root *mar* 'sea' as its complement. *Submarino* can then be said to be included in the set of parasynthetic words due to the ill-formedness of **submar.*

Furthermore, there are also some parasynthetic compounds, which involve the merger of two lexical bases, giving a non-existing compound, with a derivational suffix or through a conversion process (Serrano Dolader 2012a: 427; González García 2021: 19-26). For example, the Spanish adjective *mileurista* is formed from *mil* 'one thousand' and *eur(o)* 'euro', but there is no nominal compound like **mileuro(s)* nor a derived word like °*eurista* 'euro-ist'. Similarly, the Spanish verb *salpimenta(r)* 'to season' is formed from *sal* 'salt' and *pimienta* 'pepper', but there is no nominal compound like **salpimienta* 'salt-pepper' nor a denominal verb formed through a conversion process like °*pimentar* 'to pepper'. As pointed out by Serrano Dolader (2012a, 2015), parasynthetic compounding is a relatively marginal word formation process in Romance languages (see also Bisetto and Melloni 2008), at least compared to parasynthetic verbs, which are more productive.

After having presented some basic descriptive issues in parasynthesis, two important methodological considerations are worth being taken into account: on the one hand, Rainer (2016: 517) made the relevant remark that "an in-depth study of the mechanisms operative in affix coalescence, or reanalysis more in general, might be a more fruitful way of tackling the whole problem of parasynthesis than the purely synchronic treatments that have prevailed up to now". On the other hand, Serrano Dolader (2015) made the relevant remark that the formal analysis of parasynthetic word formation must be complemented with semantic considerations. I address and develop the importance of these two methodological remarks in the following two sections: Section 2 is devoted to offering a descriptive diachronic perspective, whereas Section 3 provides a formal synchronic analysis of prefixed denominal and deadjectival verbs in Latin and Romance languages. Section 4 deals with other, i.e. non-verbal, types of parasynthetic formations in Romance languages. Finally, Section 5 summarizes the main conclusions.

2. A descriptive diachronic perspective on the formation of complex denominal and deadjectival verbs in Latin and Romance languages

In this section I deal with Rainer's (2016) point that a diachronic perspective is also needed to address some important issues that purely synchronic treatments of parasynthesis cannot account for (see also Allen (1981)). What follows is then relevant to understand the phenomenon of verbal parasynthesis in Latin and Romance languages, in particular the formation of prefixed denominal and deadjectival verbs.

As for prefixed denominal verbs in Latin, I concentrate on the productive set of locative verbs, which can be divided into two well-known big classes: location verbs like the ones in (3), which are exemplified in (4), and locatum verbs like the ones in (5), which are exemplified in (6). The root expresses the location in the former and the theme in the latter. Accordingly, the former express a change of location (e.g., 'to cause the theme to

go {into/out of} the location'), whereas the latter express possession or acquisition (e.g., 'to cause the location to {have/lack} a theme').[3]

(3) a. *eliminare* 'to carry out of doors' (cf. *e(x)* 'out' and *limen* 'threshold')
b. *expectorare* 'to banish from one's mind ' (cf. *ex* 'out' and *pectus* 'chest, mind')

(4) a. Egredere, exi, ecfer
out-step.IMPERAT.2SG out-go.IMPERAT.2SG out-bring.IMPERAT.2SG
te, *elimina* urbe!
you.ACC.SG out-threshold.v.IMPERAT.2SG city.ABL.SG
'Leave, exit, be gone, depart from the city!' (Acc. *Trag*. 592)
b. Tum pauor sapientiam omnem mi
then dread.NOM.SG wisdom.ACC.SG all.ACC.SG me.DAT.SG
exanimato *expectorat.*
out-spirit.V.PERF.PART.DAT.SG out-mind.v.PRES.IND.3SG
'Then dread takes all cleverness away from my terrified mind'.
(Enn. *Trag*., Cic. *Tusc*. 4.19)

(5) a. *edentare* 'to render toothless' (cf. *e(x)* 'out' and *dens* 'tooth')
b. *decorticare* 'to deprive of bark' (cf. *de* 'off' and *cortex* 'bark')

(6) a. nimis velim improbissimo homini
much wish.PRES.SUBJ.1SG dishonest.SUPERL.DAT.SG man.DAT.SG
malas *edentaverint*
jaw.ACC.PL out-tooth.V.PERF.SUBJ.3PL
'I'd very much like them to knock the teeth out of the jaws of the most villainous fellow.' (Pl. *Rud*. 3, 662)

b. tradunt et abietem circa germinationes
say.PRES.3PL and pine.ACC.FEM.SG around germination.ACC.PL
decorticatam (...) aquis non corrumpi.
off-bark.V.PERF.PART.ACC.FEM.SG water.ABL.PL not spoil.PASS.INF
'It is said that the pine whose bark has been stripped off about its germination time does not spoil in the water.' (Plin. *Nat*. 16, 221)

According to Fruyt's (2017a,b) descriptive overview of parasynthetic verbs in Latin (see also Mignot (1969), Iacobini (2010), and Richard (2017)), the prefixed verbs in (3) can be claimed to "agglutinate" a PP expressing dislocation, whereas the ones in (5) contain a noun expressing the displaced object.

[3] See Clark and Clark (1979), Hale and Keyser (1993, 2002), Kiparsky (1997), Mateu (2002, 2008), and Harley (2005), among many others, for different approaches to this famous bipartite typology of denominal locative verbs.

The complex denominal verbs in (3) and (5) have been considered as parasynthetic verbs by Fruyt (2017a,b) since their corresponding simple verbs are not attested: **liminare*, **pectorare*, **dentare*, and **corticare*. It should however be pointed out that the prefix of the verbs in (3) and (5) is meaningful, whereby the non-existence of these simple/unprefixed denominal verbs should be put on a par with the case of It. °*caffeinare* 'to caffeinate' discussed in Section 1 (see footnote 2). These forms are not linguistically ill-formed but are just not attested or, in some cases, not possible for encyclopedic reasons. In this sense, an important empirical generalization put forward by Mateu (2021) is that unattested simple/unprefixed locative denominal verbs like °*liminare*, °*pectorare*, °*dentare*, and °*corticare* could only be interpreted as locatum predicates but not as location ones. For example, their meanings could be 'to provide with borders', 'to provide with a heart', 'to provide with teeth', and 'to provide with bark', respectively. Similarly, the attested unprefixed verbs in (7) can only be interpreted as locatum predicates: e.g., a verb like *terminare* in (8) is to be interpreted as a locatum verb ('to set bounds to X') rather than as a location one ('to put X in the boundary'). In contrast, as shown by Fruyt (2017a), location verbs in Latin are consistently prefixed.

(7) *terminare* 'to set bounds'; *marginare* 'to furnish with a border'/'to border'; *humare* 'to cover with earth/soil'; '*animare* 'to fill with breath/air'; *crustare* 'to cover with a rind', etc.

(8) terra mare et contra mare terras
earth.NOM.SG sea.ACC.SG and contrariwise sea.NOM.SG land.ACC.PL
terminat omnes. (*Lucr*. 1, 1000)
bound.V.PRES.3SG all.ACC.PL
'Earth bounds sea and contrariwise the sea is the boundary of all lands.'

In contrast to the verb *terminat* in (8), where a locatum reading is necessarily involved, the verb *exterminare* in (9) must be prefixed because of its (dis)location reading.

(9) aliquem ex hominum communitate
somebody.ACC.SG out man.GEN.PL community.ABL.SG *exterminare*
out-boundary.INF
'to drive someone out of the human community' (Cic. *Off*. 3, 6, 32)

Mateu (2021) reviewed Fruyt's (2017a,b) descriptive insights on Latin denominal locative verbs and argued for the two following related claims: (i) "true" locatum verbs are unprefixed (e.g., *terminare* 'to set bounds') and (ii) prefixed locatum verbs (e.g., *elinguare* 'to tear the tongue off') can be derived from a location structure, which is always prefixed ('to cause the tongue to go out of X'). Alternatively, in some cases these prefixed verbs can be derived from a causative change of state structure, i.e., 'to cause X to become deprived of a tongue', i.e., *elinguare* can be analyzed as a deadjectival verb formed from the attested prefixed adjective *elinguis* 'deprived of a tongue', a parasynthetic adjectival form which is in turn formed from the prefix *e(x)* 'out' and the noun *lingua* 'tongue'.

As a result of adopting the two previous claims, there turns out to be no real parasynthesis when dealing with Early and Classical Latin prefixed denominal locative verbs. This situation is not surprising since, on the one hand, the simple denominal verb counterpart, even if not attested, can in principle be interpreted as a locatum predicate (e.g. 'to provide with X', where the root X = theme), and, on the other, the prefixes involved in these locative verbs can be claimed to be always meaningful, at least in Early and Classical Latin (but see Crocco Galèas and Iacobini (1993a) for a different, less categorical view).[4] Below I will examine the reasons whereby Romance languages differ from Classical Latin. As we will see, the present approach is quite compatible with Crocco Galèas and Iacobini's (1993a: 31) important descriptive claim that "it is, in fact, in Late Latin where, in our opinion, the birth of the word formation rule involved in verbal parasynthesis took place". According to these Italian scholars, it is in Late Latin where the locative prefix can be more clearly shown to be semantically bleached, acquiring a more abstract meaning by expressing change or acquisition of a state.

As for deadjectival verbs in Classical Latin, they can be unprefixed or prefixed: e.g., cf. *mollire* 'to soften' and *emollire* (*ex-* 'out'; *mollis* 'soft') 'to become completely soft'. See (10) and (11) for two examples.

(10) et umor arcus fundasque et
and moisture.NOM.SG bow.ACC.PL sling.ACC.PL.COP_CONJ and
iaculorum amenta *emollierat*
javelin.GEN.PL thong.ACC.PL out-soft.V.PLUPERF.3SG
'and the moisture had softened the bowstrings and slings and the thongs of the javelins.' (Liv. 37, 41, 4)

(11) Lacrimae meorum me interdum *molliunt*
tears.NOM.PL. my.GEN.PL me.ACC.SG sometimes soften.PRES.3PL
'The tears of those I love sometimes sap my resolution.' (Cic. *Att*. 10.9.2)

[4] For example, Crocco Galèas and Iacobini (1993a: 36-37) assume that a prefixed denominal locatum verb like *inuncare*, which is derived from the noun *uncus* 'hook', is a true parasynthetic verb since this verb is assumed to lack a meaningful prefix and lacks a simple/unprefixed counterpart (°*uncare*). However, why should one assume that the prefix *in-* in *inuncare* is not meaningful? In fact, this pattern is very productive in Classical Latin (see some examples in (i)) and there is no reason to claim that in some cases this prefix is non-meaningful at this stage. The mere fact that the simple/prefixed denominal verb °*uncare* 'to provide with hooks' is not attested should not be a reason for considering the prefix of *inuncare* 'to put hooks in' as non-meaningful. Similarly, we have already seen that the fact that °*dentare* and °*corticare* are not attested does not, of course, lead one to consider that the prefix in (5) is not meaningful.

(i) a. illuminare 'to put light in' (cf. *in-* 'in-' and *lumen* 'light')
b. inaurare 'to put gold in' (cf. *in-* 'in-' and *aurum* 'gold')
c. inescare 'to put food in' (cf. *in-* 'in-' and *esca* 'food')
etc.

In Classical Latin prefixed deadjectival verbs like *emollire* were basically telic, whereas in Late Latin and in Romance languages this is not necessarily the case.[5] For example, in Catalan the prefixed deadjectival verb *estovar* 'to soften' is derived from the adjective *tou* 'soft' through the intervention of a semantically bleached prefix *es-* (from Latin *ex-* 'out') and the complex verb can have both aspectual readings (telic and atelic ones). As predicted by Crocco Galèas and Iacobini (1993a,b), Cat. *estovar* is a parasynthetic verb (cf. **tovar*), in contrast to Lat. *emollire* (cf. ^{ok}*mollire*). Three stages have been said to be involved in the gradual desemantization of those prefixes that are typical of parasynthetic verbs like Cat. *estovar*. According to Crocco Galèas and Iacobini (1993a: 50), "the desemanticization of prefix *ex-* 'out' goes then from the culmination process, through an intensive process, into the semantic emptiness that is typical of circumfixed parasynthetic verbs". See also Brachet (2000), Jekl (2011), and Gibert Sotelo (2017, 2018) for further discussion on this productive prefix.

In Early and Classical Latin an aspectual opposition goes parallel with a morphological one: for example, in these two periods of the Latin language unprefixed deadjectival verbs like *crassescere* (from *crassus* 'fat') express an atelic process ('to grow fatter'), whereas prefixed verbs like *incrassescere* express a telic event ('to start to grow fatter').[6] In contrast, in Late Latin this prefixed verb can have an atelic value ('to grow fatter') and can then be claimed to behave as a parasynthetic verb by replacing the unprefixed form. In Haverling's (2003: 123) words: "In the earlier periods <in Early and Classical Latin: JM> *in-* emphasized the entrance into an action, but now <in Late Latin: JM> it indicates dynamicity more generally. Several new *sco*-verbs prefixed with *in-* occur in Late Latin (…) where they replace the old unprefixed verbs." In Late Latin the prefix *in-* of a complex deadjectival verb like *incrassescere* does not express entrance into the event but rather expresses mere change (or "dynamicity" in Haverling's terms above). Note that her claim is coherent with Crocco Galèas and Iacobini's (1993a,b) proposal that these prefixes can be semantically bleached in Late Latin and in Romance languages: e.g., cf. the prefix *in-/en-* in It. *ingrassare* or Sp. *engordar* ('to make fat'), respectively. Again, as predicted by Crocco Galèas and Iacobini (1993a,b), these verbs are parasynthetic in Romance: **grassare* and **gordar*.

[5] As shown by Haverling (2000, 2003, 2010), the complex prefixal system of Classical Latin collapsed in Late Latin. The following conclusion quoted from Haverling (2003: 132) summarizes the relevant linguistic change: "in Early and Classical Latin the verbal system was characterized by a rich and complex system in which prefixes are used to render verbs telic or to emphasize the beginning or end of a process or activity (…) In the later centuries this system breaks down, and there is a blurring of the semantic distinctions between the prefixed and unprefixed verbs and often also of those between the prefixes themselves".

[6] For example, Haverling (2010) and Mateu (2017) point out that unprefixed verbs like *siccescere* 'to go drier' are atelic and are found to be compatible with the expression *duos*$_{Acc}$ *menses*$_{Acc}$ 'for two months'. In contrast, prefixed verbs like *exarescere* 'to become totally dry' (lit. 'out-dry') are telic and are found with temporal adjuncts in ablative case, which express the amount of time in which the event is brought to its end: e.g., *diebus quindecim exarescere* 'to become dry in 15 days' (Var. R. 1.32.1).

Acedo Matellán and Mateu (2013) relate the previous diachronic change to a well-known typological shift from a satellite-framed pattern to a verb-framed one.[7] The burst of parasynthetic verbs in Late Latin (see Crocco Galèas and Iacobini 1993a,b) and in Romance languages and their lack/scarcity in Early and Classical Latin can be related to Talmy's famous typology: Early and Classical Latin fall under the satellite-framed type (see Acedo Matellán 2010, 2016), whereas Romance languages are of the verb-framed type, Late Latin being an intermediate stage (see Stolova 2006, 2015). Given this typological change, it was the case, for example, that the prefix *in-* in the Late Latin verb *incrassescere* became a morphological reminiscence of its previous satellite-framed status. As noted, unlike in Early and Classical Latin, it is the case that in Late Latin and in Romance languages (e.g. It. *ingrassare* 'to make fat' or 'to get fat') this prefix does not encode ingressive aspect/path (i.e. 'entrance' (into an event)) any longer but is a mere relational element (see Section 3 for a synchronic formal analysis of these prefixes found in Romance parasynthetic verbs).

A similar situation is relevant when accounting for the prefix *en-* in Spanish complex denominal verbs of the locatum type like *embaldosar* 'to tile', *ensillar* 'to saddle', *enharinar* 'to flour', *engrasar* 'to grease', etc, where the semantically bleached prefix *en-* is not a meaningful marker any longer. Cf. the following mixed patterns in French and in Italian, respectively: e.g. Fr. *carreler* 'to tile', *seller* 'to saddle', and *graisser* 'to grease' are unprefixed, whereas *enfariner* 'to flour' is prefixed; It. *piastrellare* 'to tile' and *sellare* 'to saddle' are unprefixed, whereas *infarinare* 'to flour' and *ingrassare* 'to grease' are prefixed (but cf. the unprefixed forms It. *oliare* and Sp. *aceitar* 'to oil'). Unlike in Classical Latin, where prefixation is quite relevant for lexical aspect (see Romagno 2003, Haverling 2003, 2010, and Acedo Matellán 2010, 2016, i.a.), in Romance languages these morphological differences involved in denominal verbs of the locatum type (i.e., whether these are prefixed or unprefixed forms) do not have consequences for their lexical aspectual interpretation.

In contrast, as for denominal verbs of the location type, it seems reasonable to assume that it must not be a coincidence that these verbs are typically prefixed in Latin, as well as in Romance languages (but see Fábregas (forthcoming) for some counterexamples in Spanish) and are typically telic (see Acedo Matellán and Real Puigdollers (2015) for this claim). According to Fruyt (2017a), these verbs can be claimed to "agglutinate" a prepositional phrase in Latin: *in humo* > *inhumare* 'to inhumate, to bury'; *ex humo* > *exhumare* 'to exhumate'; *e limine* > *eliminare* 'to carry out of doors, to eliminate'

[7] According to Talmy (1991, 2000), languages can be classified in two typological groups depending on how they lexicalize the "path" of a change event. In so-called "satellite-framed languages", this semantic component is lexicalized as a non-verbal element associated with the verb that he calls *satellite*, instantiations of which are Germanic directional particles and Latin and Slavic directional/resultative prefixes (e.g., the aspectual prefix *in-* 'in' of Class. Lat. *incrassescere* 'to start to grow fat', i.e. 'to enter into the event of growing fat'). In so-called "verb-framed languages", the path is typically lexicalized in the verbal root (e.g., the aspectual verb *sortir* in Cat. *sortir gras* 'lit. 'to go-*out* fat', i.e. 'to become fat'). See Levin and Rappaport Hovav (2019) and Acedo Matellán and Mateu (2015) for two recent overviews of the vast literature on Talmy's (2000) typology of lexicalization patterns.

(cf. Serbat 1989). Furthermore, this French latinist assumes that the original preposition involved in these PPs was finally reanalyzed in Latin as a preverb. See Lüdtke (2011) for a recent proposal that in Romance languages location verbs like Sp. *embarcar* 'to board, to embark' also involve the incorporation of a Prepositional Phrase. However, as pointed out by Iacobini (2010: 2-3), this proposal cannot be maintained synchronically since in languages like French the prefix of location verbs like *enfourner* 'to put in the oven' does not always correspond with the relevant locative preposition: cf. Fr. *mettre dans le four* 'to put in the oven'.

3. A formal synchronic analysis of prefixed denominal and deadjectival verbs in Latin and Romance languages

Oniga (1988: 108-111; 2014: 162-163) provides a synchronic analysis of parasynthetic verbs in Latin. His proposal is based on Scalise's (1986) double stage process. For example, the analysis of the prefixed denominal location verb *irretire* 'to catch in a net' (which is formed from the prefix *in-* 'in' and the noun *rete* 'net') is claimed to involve the following derivation*: °retire* > *in-retire*. As noted above, it has often been said that an important advantage of this proposal is that the binary branching hypothesis is preserved, although it is done at the expense of assuming an unattested intermediate stage (°*retire*). However, it should be pointed out that this is not a problem at all, at least in Latin, since, as noted in Section 2, the unattested unprefixed denominal verb °*retire* would have an unequivocal locatum reading: e.g. 'to cover with net(s)'.

Oniga's analysis of the morphological formation of complex denominal verbs like *irretire* can be said to be intuitive and simple but raises some qualms if the syntax of word formation is identified with the syntax of argument structure (as claimed by Hale and Keyser (1993; 2002), Marantz (1997, 2001, 2013), Mateu (2002, 2014), Harley (2005), and Haugen (2008), among many others) since, as shown below, the syntactic structure of a prefixed location verb like *irretire* cannot be derived from that of an unprefixed locatum verb like °*retire*: location verbs are never syntactically formed from locatum ones. We will see that, if any, it can be the other way around: for example, prefixed locatum verbs have been claimed to be syntactically derived from prefixed location ones (Acedo Matellán (2010: 146-147); see also Mateu (2008, 2021)).

Following Haugen's (2008) and Mateu's (2012) syntactic approach to incorporation and conflation processes,[8] Mateu (2021) claims that prefixed (dis)location verbs like the

[8] For example, as shown by Mateu (2012), the distinction between Incorporation and Conflation can be exemplified in denominal verb formation with the English verb *smile* in (i). The syntactic formation of an unergative verb like *smile* in (ia) can be argued to involve movement (i.e. incorporation) of the root √*SMILE* from the complement position of the null verb (see Hale and Keyser 1993), whereas the surface transitive use in (ib) can be argued to involve direct adjunction (i.e. conflation) of this root onto the null verb: cf. (iia) and (iib), respectively. Note that in the Conflation case in (iib) the root does not come from an inner position, e.g., from the complement of the verb, which is occupied by the DP *his thanks*, but is directly adjoined to the null verb. Unlike in (iia), the root is analyzed as an adjunct in (iib). Following Hale and Keyser (2002), both examples in (i) can be claimed to involve a creation predicate: cf. 'to do a smile' and 'to express (i.e., create) his thanks

one exemplified in (12) are formed via *Incorporation* (i.e. Internal Merge), whereas prefixed (dis)locatum verbs like the one exemplified in (14) are formed via *Conflation* (i.e. External Merge).[9] Following Fruyt's (2017a) "agglutination"-based analysis of prefixed location verbs in Latin (see Section 2), these complex verbs can be regarded as incorporating a PP: e.g. in (13) the syntactic formation of the complex verb *exterminare* involves the incorporation of a compound (√EX-√TERMIN-).[10] In contrast, the root in prefixed locatum verbs is conflated (i.e. externally merged) with the null verb: see (15).[11] Following

with a smile', respectively. Furthermore, as shown by Mateu (2012), the Conflation analysis is also involved in Small Clause Result (SCR) constructions (Hoekstra 1988, 2004) such as the ones exemplified in (iii): see (iv) for their corresponding syntactic analyses. See also Irwin (2019) for a more recent discussion on the syntactic argument structures of verbs like *smile*.

(i) a. John smiled.
b. John smiled his thanks.

(ii) a. [$_{vP}$ v √*SMILE*]
b. [$_{vP}$ √*SMILE*-v his thanks]

(iii) a. John smiled his way to the top.
b. John smiled himself stupid.
c. John smiled his sorrows away.

(iv) a. [$_{vP}$ √*SMILE*-v [$_{SCR}$ his way to the top]]
b. [$_{vP}$ √*SMILE*-v [$_{SCR}$ himself stupid]]
c. [$_{vP}$ √*SMILE*-v [$_{SCR}$ his sorrows away]]

[9] It is interesting to point out the nice terminological parallelism with Pottier's (1962) and Mignot's (1969) concepts: Fr. "parasynthétiques internes" (the ones of the *exterminare*-type; see (12)) *vs.* Fr. "parasynthétiques externes" (the ones of the *exoculare*-type; see (14)), respectively.

[10] As pointed out by Fruyt (2017a: 28-29), this agglutination process is not only typical of (dis)location verbs like *exterminare* (see (12)) or *expectorare* 'to banish from one's mind' (see (4b)), i.a., but can also be found in the formation of other categories. See (i) for some examples drawn from her work. Note that the example in (ic) is -or, at least, can be claimed to be- similar to the parasynthetic adjectival type described at the end of Section 1: cf. *submarine, subterraneous*, etc. See Section 4 for the corresponding syntactic analysis of this pattern.

(i) a. ab-origin-es (< *ab origine*$_{ABL}$ 'from the beginning')
from-origin-NOM.MASC.PL
'the original people of Italy'.
b. ante-luc-an-um (< *ante lucem*$_{ACC}$ 'before light')
before-light-der.suf.-NOM.NEUT.SG
'the dawn'
c. e-greg-ius (< *ex grege*$_{ABL}$ 'outside of the herd')
out_of-herd-der.suf.NOM.MASC.SG
'outstanding, distinguished'

[11] In his analysis of Latin parasynthetic verbs, Serbat (1989, 2001) paraphrases the meaning of prefixed denominal locatum verbs like *e-dent-are* (see (5a) and (6a)) as follows: 'to carry out a removal operation with regard to the teeth' [Fr. 'c'est opérer un enlèvement à propos des dents']. Serbat (2001: 151) makes the important claim that the nominal root in (15) has the role of a "circumstant" (i.e., an adjunct in the modern terminology I use here). At first sight, the idea that the root in (15) is an adjunct is not intuitive since this noun seems to encode an obligatory participant: it is the Figure (i.e. the Theme in motion) in the conceptual scene. However, Serbat's proposal that the nominal element of prefixed locatum verbs is an adjunct has been argued to be essentially correct (see also Acedo Matellán (2010: 146-147)).

Fábregas (forthcoming), in (13) and (15) I assume that the verbalizer head (*v*) is null and is, then, not to be identified with the theme vowel (*-a-*).[12]

(12) aliquem ex hominum communitate
somebody.ACC.SG out_of man.GEN.PL community.ABL.SG
exterminare
out_of-boundary.INF
'to drive someone out of the human community' (Cic. *Off*. 3, 6, 32)

(13) [$_{vP}$ v [$_{ResultP}$ aliquem$_i$ [$_{Res'}$ Result [$_{PP}$ ~~aliquem~~$_i$ [√EX-√TERMIN-]]]]]

(14) ni ei caput *exoculassitis*
if.not him.DAT.SG head.ACC.SG out_of-eye.V.FUT.PERF.2PL
'If you don't beat his eyes out of his head…' (Pl. *Rud*. 3, 731)

(15) [$_{vP}$ √*OCUL*-v [$_{ResultP}$ caput$_i$ Result [$_{PP}$ Ø [ex- ~~caput~~$_i$-]]]]

In incorporation cases (see the analysis of the prefixed denominal verb *exterminare* 'to drive out of boundaries' in (13)), the compound √EX-√TERMIN- moves from the innermost position in the syntactic argument structure.[13] Furthermore, in (13) the direct object *aliquem* 'someone' can be claimed to be interpreted both as the Figure/Theme of the inner locative PP and as the Resultee of the ResultP (see Ramchand 2008). As pointed out by Mateu (2008, 2012), the Ramchandian *ResultP* can also be regarded as Hoekstra's (1988, 2004) *Small Clause Result*, whose empirical and theoretical validity has been shown in his syntactic approach to the formation of Germanic prefixed/complex verbs.

In contrast, in conflation cases, the root (e.g., √*OCUL*- 'eye' in (15)) does not come/move from an inner Small Clause-like predicate position but is directly adjoined to the null causative verb via External Merge, as depicted in (15). For example, complex locatum verbs like the one in (14) can be syntactically analyzed as in (15) (see also Acedo-

[12] See Fábregas (forthcoming: chapter 2) for the claim that Spanish theme vowels (ThVs) are the spell out of the upper Event head, which defines the voice of a predicate and adds time and world parameters to the event description provided by vP. EventP corresponds to the external-argument introducing projection VoiceP, which is distinct from the verbalizing head vP. For example, according to Fábregas, the Spanish verbalizers *-ific-*, *-ec-*, and *-iz-* in (i) are the spell out of v, whereas the ThV is the spell out of the upper Event/Voice head. See also Harley (2013) for arguments for the distinctness of Voice/Event and v.

(i) a. clas-ific-a (Spanish)
class-ify-ThV
b. humed-ec-e
wet-verbalizer-ThV
c. vandal-iz-a
vandal-ise-ThV

[13] The hyponymous PP *ex hominum communitate* 'out of the human community' in (12) has the same function as the lower adjunct PP *on the top shelf* in an example like *John shelved the book (on the top shelf)*); see Hale and Keyser (1997, 2002), Haugen (2009), and Mateu (2008), i.a., for related proposals on hyponymous and cognate objects.

Matellán (2010: 146-147)). Following Mateu's (2008) derivational analysis of German prefixed locatum verbs like *unter-kellern* 'to put a cellar under' or *über-dachen* 'to roof over' (cf. Stiebels 1998), the initial structure of Latin prefixed locatum verbs like (14) can be shown to correspond to the same structure argued for complex location verbs like (12): cf. (13) with (15).

Following Svenonius (2004), Mateu (2008), Acedo Matellán (2010), and Mare (2018), i.a., a correlation can be drawn from (15) between *pro*moting the Ground argument *caput* 'head', which initially occupies the complement position of the prepositional prefix *ex-* 'out of', to an affected direct argument position, i.e., to the specifier of ResultP (see Ramchand (2008)), and *de*moting the Figure/Theme argument, which appears as an adjunct: e.g. in (15) the root √*OCUL-* is adjoined to the verbal head. The syntactic structures that involve promotion of the Ground argument to a direct object position and demotion of the Figure to an adjunct status (aka "Ground object constructions") can be analyzed as a sort of passive construction: the internal argument *caput* 'head' is moved to an upper prominent position, whereas the internal "subject" argument (i.e. the specifier of the PP in (15)) is not projected).[14]

Furthermore, as noted above, simple/unprefixed locative verbs like *terminare* 'to set bounds'; *marginare* 'to furnish with a border'/'to border'; '*animare* 'to fill with breath'; *crustare* 'to cover with a rind', etc. can only be interpreted as locatum predicates: e.g., a verb like *terminare* is interpreted as a locatum verb ('to set bounds') rather than as a location one ('to put in the limit').

As pointed out by Romagno (2003) and Acedo Matellán (2010, 2016), there is an important connection between prefixation and resultativity in Latin. The syntactic

[14] Ground object constructions are also relevant when dealing with the so-called "locative alternation". For example, the Ground object variant exemplified in (i) can be compared with the Figure object variant *Aquam*$_{Acc}$ *frigidam*$_{Acc}$ *per caput*$_{Acc}$ *fundere* ('to spray cold water through the head'). Acedo Matellán and Mateu (2013, 2016) argue that the prefixed locatum structure in (i) can be claimed to be derived from the more basic change of location variant *Aquam*$_{Acc}$ *frigidam*$_{Acc}$ *per caput*$_{Acc}$ *fundere* ('to spray cold water through the head'). The formation of the Ground object variant involves demotion of the Figure object 'cold water' (*aquam*$_{Acc}$ *frigidam*$_{Acc}$) to adjunct status (*aqua*$_{Abl}$ *frigida*$_{Abl}$) and promotion of the Ground object 'the head' (*caput*$_{Acc}$) to direct object. Accordingly, an interesting structural parallelism can be shown to be drawn between the Ground object variant of the locative alternation (see (i)) and prefixed/complex locatum verbs like the one in (14): cf. (ii) with (15).

(i) Caput aqua frigida perfundere
head.ACC.SG water.ABL.SG cold.ABL.SG through-pour.INF
'to wet the head with cold water' (Cels. *Med.* 4, 2, 7)

(ii) [$_{vP}$ √*FUND*-V [$_{ResP}$ caput$_i$ Res [$_{PP}$ Ø [per- ~~caput$_i$~~-]]]]

A prefixed Ground object construction like *Caput*$_{Acc}$ *aqua*$_{Abl}$ *perfundere* is sometimes descriptively referred to as an "unselected object construction" in the literature since the unprefixed verb (*fundere* 'to pour') does not semantically select the location argument (*caput*$_{Acc}$) as its direct object: cf. **caput*$_{Acc}$ *aqua*$_{Abl}$ *fundere*. See Spencer and Zaretskaya (1998), Mateu (2001), Acedo Matellán and Mateu (2013, 2016), Lewandowski and Mateu (2014), and Mare (2018), i.a., for different approaches to so-called "unselected object constructions".

argument structure of unprefixed denominal locatum verbs is not resultative, whereby there is no ResultP included in (16), which can be paraphrased as 'to provide the sea with bounds' (see also Hale and Keyser 2002). As noted, the resultative prefix is necessary for location verbs. This fact can be accounted for by claiming that complex location verbs like *exterminare* in (12) involve a kind of Small Clause Result (Hoekstra 1988, 2004) (see (13)), whereas locatum verbs like *terminare* lack it (see (16)).

(16) $[_{vP}$ V $[_{PP}$ mare [WITH √TERMIN-]]]

One could claim that a more intuitive analysis of the Latin locatum denominal verb *terminare* 'to sets bounds' is not the one argued by Hale and Keyser (2002), which is depicted in (16) (i.e., 'to provide the sea with bounds'), but rather the following one: *[$_{vP}$ v [$_{PP}$ √TERMIN- [IN mare]]]*, i.e., 'to set bounds to the sea'. However, as pointed out by Hale and Keyser (1993) in their analysis of denominal verb formation, no incorporation process can take place from a specifier position. Accordingly, the previous alternative structure where the root occupies a specifier position is not a good source for deriving a locatum denominal verb.[15]

The present analysis of denominal locatum verbs in Latin has then been shown to be based on the two following claims: (i) "true" locatum verbs are unprefixed (e.g., *terminare* 'to set bounds'; *marginare* 'to provide with (a) border(s)', etc.) and (ii) prefixed denominal locatum verbs (e.g., *exoculare* 'to deprive of eyes/sight'; *edentare* 'to render toothless') can be derived from an underlying location structure, which, as claimed above, is always prefixed, i.e., these complex locatum verbs constitute "Ground object constructions" where the Ground has been generated as the complement of the prepositional prefix and raises to the affected direct argument position (i.e., to the specifier of ResultP).

Furthermore, for those prefixed locatum verbs that have an equally prefixed adjectival counterpart (e.g., cf. *elinguare / elinguis* 'to deprive of tongue' / 'tongueless'*; exanimare / exanimis* 'to deprive of spirit' / 'lifeless'*; exossare / exossis* 'to debone' / 'boneless', i.a.), there is an alternative analysis that is worth being pursued: i.e., these verbs can be argued to be derived from a causative change of state structure. For example, *elinguare* can be directly analyzed as a deadjectival verb formed from the attested adjective *elinguis* 'deprived of a tongue': i.e., 'to cause someone to become deprived of a tongue'. As shown in (17), parasynthetic adjectives such as *elinguis* 'deprived of a tongue' (cf. **linguis*) can be argued to be formed by embedding a predicative locatum/possessive structure into a stative adjectival category instead of into an eventive verbal one (see Embick (2004) for the claim that stative adjectival participles do not involve the *v*(erbal) category). However, as pointed out by Richard (2017: 23-24), this possibility cannot be extended to all prefixed locatum verbs since it is not the case that all of them turn out to have a prefixed adjectival counterpart. Following him, I conclude that both parasynthetic patterns -the verbal one and the adjectival one- coexisted in Latin.

[15] See also Espinal and Mateu (2011) for the related ban that prevents bare singular nominals from occupying specifier positions of syntactic argument structures.

(17) a. *Elinguis* (cf. **linguis*)
out-tongue.adj
'(someone) deprived of a tongue'
b. [$_{aP}$ -is [$_{PP}$ DP [e(x)- √LINGU-(A)]]][16]

As pointed out in Section 2, a structural and aspectual parallelism can be established between Latin prefixed denominal verbs like the ones analyzed above (e.g. *exterminare* 'to drive out of boundaries' and *exoculare* 'deprive of eyes/sight') and prefixed deadjectival verbs like Lat. *emollire* 'to make (completely) soft' (formed from *e(x)* 'out' and *mollis* 'soft'). As noted, these prefixed deadjectival verbs are not typically parasynthetic in Latin (cf. *mollire* 'to soften'), whereas their corresponding ones in Romance languages are typically prefixed (e.g. Cat. *es-tovar* 'to soften'; cf. **tovar* from *tou* 'soft'). These Latin prefixed verbs have been argued to be basically telic (see Romagno (2003), Haverling (2003, 2010), Devine and Stephens (2013), Acedo Matellán (2016), and Mateu (2017), i.a.) and can then be claimed to project a ResultP headed by the prefix: for example, see (19) for the syntactic argument structure analysis of *emollire arcus*$_{ACC}$ in (18), which can be literally paraphrased as 'to cause the *bows* to turn *out* to be *flexible*'.[17] In contrast, following Ramchand (2008), the resultative phrase can be argued to be absent from atelic unprefixed denominal verbs like *terminare* 'to set bounds' and atelic unprefixed deadjectival ones like *mollire* 'to soften': for example, see (21) for the syntactic argument structure analysis of *mollire me*$_{ACC}$ in (20), which can literally be paraphrased as 'to make me soft'.

(18) et umor arcus fundasque et
and moisture.NOM.SG bow.ACC.PL sling.ACC.PL.COP_CONJ and
iaculorum amenta *emollierat*
javelin.GEN.PL thong.ACC.PL out-soft.V.PLUPERF.IND.3SG
'and the moisture had softened the bowstrings and slings and the thongs of the javelins.' (Liv. 37, 41, 4)

(19) [$_{vP}$ V [$_{ResultP}$ arcus$_i$ [$_{Result'}$ e- [$_{PredP}$ ~~arcus~~$_i$ [$_{Pred'}$ Pred [√MOLL-]]]]]]

(20) Lacrimae meorum me interdum *molliunt*
tears.NOM.PL. my.GEN.PL me.ACC.SG sometimes soften.PRES.3PL
'The tears of those I love sometimes sap my resolution.' (Cic. *Att*. 10.9.2)

[16] In (17b) the DP argument is included in the syntactic representation. Following standard analyses of so-called 'externalization' in adjectival structures, this subject argument should be external to the adjectival structure, its slot being then occupied by an operator coindexed with it (see Bruening (2014) for a proposal along these lines). For the sake of clarity, I omit this further complexity here.

[17] A Pred(icative)P in the syntactic decomposition of "deadjectival" verbs can be claimed to be posited in order to maintain the syntactic asymmetry between the Figure (the specifier/subject of predication) and the Ground (e.g., the property √*MOLL*- 'soft' in (19)). See Mateu (2002), Kayne (2008), and Fábregas (2020, forthcoming), i.a., for the claim that the syntactic decomposition of adjectives involves a predicative/relational element similar to the adpositional head of PPs.

(21) [$_{vP}$ V [$_{PREDP}$ me [$_{PRED'}$ Pred [√MOLL-]]]]

Despite its morphological identity, it is also worth pointing out that the prefix *e(x)-* of the complex deadjectival verb *emollierat* in (18) and that of an equally complex deadjectival verb like *erudire* 'to educate' in (22) (lit. 'to get someone out of the state of rude', which is formed from *e(x)* 'out' and *rudis* 'rude') have different properties. In the former the prefix encodes egressive resultativity, whereas in the latter the prefix takes the property expressed by the root as its complement: cf. the syntactic argument structure analysis of *erudire Magnam Graeciam* 'to educate the Great Greece' in (23), where the root √*RUD-* 'rude' is the source (i.e. it is the complement of the prepositional prefix *e(x)-* 'out'), with the analysis of *emollire arcus* 'lit. to soften out the bows' in (19), where the root √*MOLL-* expresses the goal. Note then the structural parallelism between the syntactic argument structure of complex deadjectival verbs like *erudire* in (23) and that of prefixed denominal verbs like *exterminare aliquem* 'to exile someone' (lit. 'to drive someone out of boundaries'; from *terminus* 'boundary') in (24).

(22) Magnamque Graeciam institutis et
Great.ACC.SG-and Greece.ACC.SG institution.ABL.PL and
praeceptis suis *erudierunt*
precept.ABL.PL poss.adj.ABL.PL out_of-rude.v.PERF.IND.3PL
'They brought Great Greece out of its ignorance with their teaching and precepts.' (Cic. *Lael.* 13)

(23) [$_{vP}$ V [$_{RESP}$ Magnam Graeciam$_i$ [$_{RES'}$ Res [$_{PP}$ ~~Magnam Graeciam~~$_i$ [√E(X)-√RUD-]]]]]

(24) [$_{vP}$ V [$_{RESP}$ aliquem$_i$ [$_{RES'}$ Res [$_{PP}$ ~~aliquem~~$_i$ [√EX-√TERMIN-]]]]]

To say that *erudire* is a parasynthetic form (cf. *°rudire*) but *exterminare* is not (cf. *terminare*) is not linguistically relevant. There is nothing wrong with the syntactic formation of *°rudire* 'to make rude', which is identical to the one assigned to *mollire* 'to make soft'. The mere fact that *°rudire* is an unattested verb, but *terminare* is an attested one (as expected, on the locatum reading but, crucially, not on the location one; see Section 2) is not grammatically relevant. Accordingly, it seems to me that to try to define parasynthesis on the basis of performance or usage factors (see González García (2021) for a recent attempt) will not lead us too far.

On the other hand, the prefixes of allegedly parasynthetic verbs like *effeminare* (lit. 'to cause (someone) to turn *out* to be *woman*') and *evirare* (lit. 'to cause (someone) to go *out* of the state of *male*') in (25) involve a different lexicalization: see their different syntactic argument structures in (26). Note that the syntactic formation of the verb *effeminare* is more similar to that of *emollire* (cf. (26a) with (19)) than to that of *evirare* (see (26b)). In contrast, the syntactic formation of the verb *evirare* is more similar to that of *erudire* (cf. (26b) with (23)) than to that of *effeminare* (see (26a)).[18] In the complex verbs

[18] But see Gibert Sotelo (2017: 326) for an alternative Ground object analysis of the Lat. verb *effeminare*.

effeminare and *emollire* the prefix *e(x)-* only encodes an egressive result and the roots √*FEMIN-* and √*MOLL-* express an abstract goal. In contrast, in the complex verbs *evirare* and *erudire* the prefix lexicalizes the source preposition involved in leaving the state of being male and rude/uneducated, respectively: as a consequence, the roots √*VIR-* and √*RUD-* do not express the goal but the source.[19]

(25) a. avaritia (...) corpus animumque virilem
greed.NOM.SG body.ACC.SG spirit.ACC.SG-et manly.ACC.SG
effeminat
out_of-woman.v.3SG
'Greed effeminizes both body and manly mind.' (Sall. *Cat*. 11, 3)

b. et corpus *evirastis* Veneris
and body.ACC.SG out_of-man.v.PERF.IND.2PL Venus.GEN.SG
nimio odio
excess.ABL.SG hate.ABL.SG
'You have unmanned your body from excess hate for Venus.' (Cat. 63)

(26) a. [$_{vP}$ V [$_{ResP}$ corpus$_i$ [$_{Res'}$ ex- [$_{PredP}$ ~~corpus~~$_i$ [$_{Pred'}$ Pred [√FEMIN-]]]]]]
b. [$_{vP}$ V [$_{ResP}$ corpus$_i$ [$_{Res'}$ Res [$_{PP}$ ~~corpus~~$_i$ [√E(X)-√VIR-]]]]]

It is also interesting to compare the Latin complex verb *effeminare* 'to effeminate' with some of their Romance counterparts in (27): e.g. Cat. *efeminar* and Sp. *afeminar*. This comparison exemplifies Crocco Galèas and Iacobini's (1993a,b) claim that these prefixes turn out to be semantically bleached in Romance languages and basically signal a caused change of state. In contrast, the egressive meaning of the prefix *e(x)-* in Latin *effeminare* is quite evident, which can also account for its productivity: e.g. cf. *exclarare* 'to make clear' (from *clarus* 'clear'), *edulcare* 'to make sweet' (from *dulcis* 'sweet'), *exsiccare* 'to make dry' (from *siccus* 'dry'), etc. As pointed out by Brachet (2000: 250-282) and Iacobini (2010: 11), all these Latin prefixed verbs signal the *ex*it from a previous state that is not expressed (i.e. 'to be male, 'to be unclear', etc.). Interestingly, the original Sp. verb *efeminar*, which became obsolete, has been replaced by the current one *afeminar* with prefix *a-* (from Lat. *ad-* 'to'), which is another indication of the semantic shift: i.e. from the particular/concrete egressive meaning expressed by the Latin prefix *e(x)-* to the abstract meaning of acquiring a state in Spanish. Due to their lexicalization, the most plausible analysis of the Romance

[19] It can also be quite instructive to compare the Latin satellite-framed pattern *effeminare* 'out_of-woman.inf.' with the Catalan verb-framed pattern *fer sortir algú dona* 'to make someone become (lit. go_*out*) woman', i.e., to make someone acquire properties of a woman. Cf. also the satellite prefix *ex-* 'out' in *efferare* 'to make fierce', which is formed from *ferus* 'fierce', with the Catalan verb-framed construction *fer sortir algú ferotge* 'to make someone become (lit. go_*out*) fierce'. As noted in footnote 7, in so-called "satellite-framed languages", the path/result component is lexicalized as a non-verbal element associated with the verb that Talmy calls *satellite*, instantiations of which are Latin directional/resultative prefixes (e.g., the prefix *ex-* 'out' in *efferare* 'to make fierce'). In so-called "verb-framed languages", the path/result is typically lexicalized in the verbal root (e.g., Cat. *sortir* 'to go out, to exit' in *fer sortir algú ferotge* 'to make someone become (lit. go_*out*) fierce').

verbs in (27) is to consider them as "deadjectival" verbs that semantically express a caused change of state: i.e. 'to cause someone to become *effeminate*'.

(27) a. efeminar (Catalan)
pref-woman.inf
'to make effeminate'
b. afeminar (Spanish)
pref-woman.inf
'to make effeminate'

As pointed out in Section 2, Crocco Galèas and Iacobini (1993a,b) and Iacobini (2010), i.a., made the important descriptive observation that the prefix in Latin complex denominal verbs typically encodes a clearly specific (locative or aspectual) meaning, whereas the prefix in Romance parasynthetic verbs typically encodes a less clear, more bleached meaning, which, basically, is signalling an acquisition of a change of state. Furthermore, in her study of French, Labelle (2000) claims that in prefixed denominal verbs of the location and locatum type the incorporated noun semantically identifies the final state of the process/change.

Acedo Matellán (2006) provides an interesting theoretical account of Crocco Galèas and Iacobini's (1993a,b) descriptive proposal by claiming that in Latin the semantically rich prefixes can take full arguments (NP/DP) as complements, whereas in Romance the semantically bleached prefixes can only take roots as complements, where the root is interpreted as a Ground that is expressing a final state (see also Gibert Sotelo (2017) for a development of this idea). As pointed out by Mateu (2021), this important contrast between Latin and Romance languages becomes relevant when dealing with prefixed denominal locatum verbs. Let us exemplify this contrast by comparing the syntactic formation of a non-parasynthetic verb like Lat. *inflammare* 'to set fire in' (cf. Lat. *flammare* 'to cover with fire', 'to set fire') with the Catalan parasynthetic verb *inflamar* 'to ignite' (cf. Cat. **flamar*). As shown above, in satellite-framed Latin, the root of prefixed locatum verbs like *inflammare* (see (28)) can be conflated with (i.e. directly adjoined onto) the null causative verb, whereas in verb-framed Catalan the root is incorporated (i.e. moved) into the verb from an inner position. Cf. (30) and (31) for the different syntactic argument structure analyses of (28) and (29), respectively.[20]

(28) *inflammare* taedas ignibus
in-flame.INF torch.ACC.PL fire.ABL.PL
'to ignite torches with fire' (Cic. *Verr*. 2, 4, 48)

[20] See Montalbetti (1996), Acedo Matellán (2006), Mateu and Rigau (2009), and Martínez Vera (2016) for independent reasons that point to the fact that in (31) the prefix *in-* attaches to an already verbalized base predicate. It is then not the case that in (31) there is a compound formed by the prefix *in-* and the root √*FLAM-* (cf. the PP agglutinated (i.e. incorporated) in prefixed location verbs in Latin) but, as predicted by Scalise (1986), the verbal form is first formed (*flamar*) and then prefixation takes place (*in-flamar*). See Mateu & Rigau (2009) for a proposal that the syntactic formation of verbs like (31) does not violate the Head Movement Constraint.

(29) *inflamar* la pólvora (Catalan)
in-flame.INF the gunpowder
'to ignite the gunpowder'

(30) [$_{vP}$ √*FLAMM*-v [$_{ResP}$ taedas$_i$ Res [$_{PP}$ Ø [in- ~~taed~~$_i$-]]] (ignibus)]

(31) [$_{vP}$ v [$_{PP}$ la pólvora [in- √FLAM]]]

In conflation cases like the one exemplified in (30), the root √*FLAMM*- 'flame' does not come/move from an inner Small Clause-like predicate position but is directly adjoined to the null causative verb via External Merge. As noted, the syntactic analysis in (30) captures Serbat's (1989, 2001) important claim that the nominal element *flamma* in (28) is structurally interpreted as a "circumstant", i.e., an adjunct, which can also be further specified through the ablative adjunct *ignibus* 'with fire(s)' (see footnote 11). Accordingly, it is important to note that the initial structure of Latin prefixed locatum verbs can be shown to correspond to the same structure argued for complex location verbs. Furthermore, in (28) the Figure/Theme argument can be expressed via an instrumental-like adjunct in ablative case (e.g., *ignibus* 'with fire(s)'); cf. also the *mit*-phrase in German Ground Object constructions: e.g. Germ. *unterkellern mit einem Kohlenkeller* (lit. 'under-cellar-Verb with a coal cellar'; see Stiebels (1998) and Mateu (2008) for more discussion). As shown above, there is a correlation between *pro*moting the Ground argument *taedas* 'torches', which initially occupies the complement position of the prepositional prefix *in-* 'in', to an affected direct argument position, i.e., to the specifier of ResultP (see Ramchand (2008)), and *de*moting the Figure/Theme argument, which appears as an instrumental-like adjunct: e.g. in (30) the root √*FLAMM*-, which is adjoined to the verbal head, is further specified by the ablative adjunct *ignibus* 'with fires'. As noted above, the constructions that involve promotion of the Ground argument to a direct object position and demotion of the Figure to an adjunct status have been analyzed as involving a sort of passive construction: the internal argument *taedas* 'torches' is moved to an upper prominent position, whereas the initial "subject" argument (the specifier of the PP in (30)) is not projected, this being allowed to be recovered as an adjunct (e.g. cf. *ignibus* 'with fire(s)' in (28)).

The different syntactic analyses of the apparently similar prefixed denominal locatum verbs in (28) and (29) (see (30) and (31), respectively) are to be interpreted as a structural representation of Crocco Galèas and Iacobini's (1993a,b) and Iacobini's (2010) important descriptive observation that the prefix in Latin complex denominal verbs typically encodes a clearly specific (locative) meaning (in fact, recall that the prefixed locatum structure has been claimed to be derived from a prefixed location structure), whereas the prefix in Romance parasynthetic verbs typically encodes a more bleached meaning, which is, basically, signaling an acquisition of a state. For example, in (29)/(31) the DP *the pólvora* 'the gunpowder' acquires the state of being 'ignited'. See Acedo Matellán and Mateu (2013) and Fábregas (forthcoming) for more discussion on how the typological change from the satellite-framed status of Latin to the verb-framed one of Romance languages is related to the burst of parasynthetic verbs in the latter via the

intermediate stage of Late Latin, a process that is described in detail by Crocco Galèas and Iacobini (1993a,b).[21]

Finally, it should be noted that it is not accidental that the abovementioned variation in (un)prefixed forms can sometimes be found in the area of locatum/possession meaning (e.g., cf. Fr. *enfariner/fariner* and Cat. *enfarinar/ºfarinar* 'to flour') but much less frequently in the area of location meaning (e.g., cf. Fr. *embouteiller/*bouteiller* and Cat. *embotellar/*botellar* 'to bottle'). As noted above, the difference between obligatorily prefixed location verbs and optionally prefixed locatum verbs is not accidental but can be claimed to have a structural explanation:[22] only location verbs involve a *Result*ative head in their syntactic argument structure (see also Acedo Matellán and Real Puigdollers (2015) for a proposal along these lines). In contrast, what is accidental is that some locatum verbs are prefixed, while others of the same type are not. For example, it is not accidental that the location verb *to bottle* is consistently prefixed in Romance languages: cf. Cat. *embotellar* / Fr. *embouteiller* / Sp. *embotellar* / It. *imbottigliare*, etc. As shown above, the typical location pattern in Romance languages is the prefixed one, whereby a possible verb like ºbotellar is not expected to have the location meaning. In fact, a relevant prediction can be made in this case: if a verb like ºbotellar was created in Catalan, its meaning would be the locatum one (e.g. 'to cover with bottles)' rather than the location one (e.g. 'to put a locatum or figural object into bottles').[23]

4. Other types of parasynthetic formations in Romance languages

Parasynthesis has traditionally been regarded as a verbal phenomenon in Romance linguistics. However, as pointed out in Section 1, there are other types of parasynthetic formation. For example, as shown in (32), Catalan parasynthetic adjectives like *afortunat*

[21] See also Schroten (1997) and Fábregas (forthcoming), on the one hand, and Darteni (2017) and Todaro (2017), on the other, for an empirical demonstration that parasynthesis is a productive process of verb formation in contemporary Spanish and Italian, respectively.

[22] For example, see Di Sciullo (1997: 71; fn. 9), who claims that a prefix is required in denominal verbs including a location, as in Fr. *emboîter/*boîter* 'to box' or *accrocher/*crocher* 'to hook', whereas no prefix is required in denominal verbs including an entity undergoing a change of position, as in Fr. *beurrer* 'to butter', *saler* 'to salt', or *seller* 'to saddle'. In contrast, Acedo Matellán and Real Puigdollers (2015) claim that in Catalan "the presence of this prefix <*en-/em-*> seems orthogonal to the location/locatum distinction". However, this statement should be relativized: while most of Catalan location verbs of the *embotellar*-type (lit. *in-bottle* 'to bottle') do involve prefixation, there are many locatum verbs that are unprefixed: e.g., Cat. *ferrar* 'to shoe', *minar* 'to mine', *salar* 'to salt', etc.

[23] As pointed out by Gibert Sotelo and Pujol Payet (2015) and Martínez Vera (2016), i.a., a prefixed denominal verb like Sp. *abotellar* is not possible on the locative reading but rather on the property one: i.e., 'to cause X to have the shape of a bottle'. For relevant distinctions between *en-* and *a-* prefixation in parasynthetic verbs, see these works and Acedo Matellán (2006), i.a. For example, compare the locative readings of Cat. *envinagrar* (both the location and the locatum interpretations are possible: 'to put X in vinegar' and 'to provide X with vinegar', respectively) with the property reading of Cat. *avinagrar* 'to make sour as vinegar'. See also Pujol Payet (2014) for a diachronic approach to the polysemy of denominal parasynthetic verbs prefixed with *a-*. Finally, see Fábregas (forthcoming) for a complete typology of Spanish parasynthetic verbs.

(cf. º*fortunat* 'fortunate') are formed by embedding a locatum/possessive structure into a stative adjectival/participial category instead of a verbal one. Parasynthetic adjectives of the *submarí* type (see (33)) are, in turn, formed by embedding a location structure into a stative adjectival category (see Embick 2004 for the claim that adjectival stative participles do not involve the *v*(erbal) category).[24] The formation of parasynthetic adjectives like *afortunat* involves these two steps: first, incorporation of the root into the upper adjectival head, giving the unattested participial form (º*fortunat* 'provided with fortune'; cf. It. *fortunato*, which shows that the unprefixed adjectival locatum/possessive form can be linguistically well-formed) and then affixation of the prefix *a-* to the adjective, giving the final prefixed form *afortunat*. In contrast, the formation of parasynthetic adjectives like *submarí* involves compounding two roots √SUB and √MAR- and then moving the resulting compound to the upper adjectival head, giving the final form *submarí*.

(32) a. afortunat (Catalan)
pref-fortunate
'fortunate' (i.e. 'provided with fortune')
b. un home afortunat
'a fortunate man'
c. [$_{aP}$ -t [$_{PP}$ un home [$_{P'}$ a- √FORTUN-(A)]]]

(33) a. submarí (Catalan)
under-sea-der.suf
'submarine'
b. un viatge submarí
'a submarine journey'
c. [$_{aP}$ -i(n) [$_{PP}$ el viatge [$_{P'}$ √SUB-√MAR-]]]

Finally, parasynthetic compounds like *salpebrar* 'to season' can be claimed to be formed by merging two roots: √SAL 'salt' and √PEBR(E) 'pepper'. As depicted in the syntactic analysis in (34c), the resulting compound is embedded into a locatum/possessive structure selected by a verbal category, which is headed by a zero morpheme ('to provide X with *root*'):

(34) a. salpebrar
'add salt and pepper'
b. salpebrar la carn
'to season the meat'
c. [$_{vP}$ $v_{PROVIDE}$ [$_{PP}$ la carn P_{WITH} [√SAL-√PEBR-]]]

[24] In (32c) and (33c) the Figure DP argument (*un home* 'a man' and *un viatge* 'a journey') is included in the syntactic structure. However, following standard analyses of so-called 'externalization' in adjectival passives (e.g., see Bruening 2014), the subject argument should be external to the adjectival participial structure, its slot being then occupied by an operator coindexed with it. Again, for the sake of clarity, this further complexity is omitted here.

5. Conclusions

Three main descriptive proposals on parasynthetic verbs have been put forward in the Romance literature in order to account for the apparent simultaneous attachment of a prefix and a suffix involved in their formation: 1) circumfixation (Crocco Galèas and Iacobini 1992, 1993a,b, i.a.), 2) prefixation as transcategorization/verbalization (Corbin 1980, 1987, i.a.), and 3) first suffixation and then prefixation (Scalise 1986, i.a.). The combination of the diachronic perspective presented in Section 2 and the synchronic formal syntactic approach presented in Section 3 has led us to claim that, descriptively speaking, Scalise's (1986) proposal is the most adequate one. Syntactically speaking, the formation of parasynthetic verbs like Cat. *envellir* or Sp. *envejecer* ('to grow old') has been claimed to involve the two following steps: first, incorporation of the root into the upper verbal head, the latter having a suffix (*-ec-* in Sp. **vejecer* 'to grow old') or not (Cat. **vellir* 'to grow old'), and then affixation of the prefix *en-* 'in-' to the verb.

Following Rainer (2016), special attention has been paid to the origin of verbal parasynthesis in Latin and its evolution to Romance languages. The adoption of a diachronic perspective has been shown to be necessary to surmount some deficiencies of purely synchronic accounts of the formation of parasynthetic words. In this sense special attention has been paid to Crocco Galèas and Iacobini's (1993a,b) and Iacobini's (2010) important descriptive observation that the prefix in Latin complex denominal and deadjectival verbs typically encodes a specific (locative or aspectual) meaning, whereas the prefix in Romance parasynthetic verbs typically encodes a less clear, more bleached meaning, which, basically, is expressing an acquisition of a change of state. Acedo Matellán (2006) provides an interesting theoretical account of Crocco Galèas and Iacobini's (1993a,b) descriptive proposal by claiming that in Latin the semantically rich prefixes can take full arguments (NP/DP) as complements, whereas in Romance the semantically bleached prefixes can only take roots as complements, where the root is expressing a final state (Labelle 2000). This important contrast between Latin and Romance languages has been shown to be relevant when dealing with prefixed denominal locatum verbs: e.g. in Latin, the root of prefixed locatum verbs like *inflammare* 'to set fire in' can be claimed to be conflated with (i.e. directly adjoined onto) the null verb, whereas in Romance languages the root (e.g. of Cat. *inflamar* 'to ignite') is incorporated (i.e. moved) into the verb. Despite appearances, the Latin non-parasynthetic verb *inflammare* 'to set fire in' (cf. *flammare* 'to set fire') and the Catalan parasynthetic verb *inflamar* 'to ignite' (cf. **flamar*) are then claimed to be formed in a very different way. Similarly, prefixed denominal location verbs are also formed differently in Latin and in Romance languages: Latin verbs like *inhumare* 'to bury, to inter' have been claimed to involve incorporation or "agglutination" (Fruyt 2017a) of a PP (*in humo* 'in soil'), whereas this is not the case in Romance languages, where the prefix (e.g. *en-* in Cat. *enterrar* 'to bury, to inter') takes as its complement a root that expresses a final state. The adoption of a diachronic perspective has then been shown to be needed when addressing some important issues that purely synchronic treatments have failed to explain.

As for the relevant remark made by Serrano Dolader (2015) that formal aspects of parasynthesis must be complemented with semantic ones, the present formal synchronic

analysis of parasynthetic verbs has been shown to be based on a strong connection between syntactic word formation and syntactic argument structure (see Fábregas (forthcoming) for a more detailed account)).

Finally, although parasynthesis has been traditionally regarded as a verbal phenomenon in Romance linguistics, other types of parasynthetic formation have also been analyzed: for example, parasynthetic adjectives like Cat. *afortunat* (cf. °*fortunat* 'fortunate') have been claimed to be formed by embedding a locatum/possessive structure into a stative adjectival/participial category.

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