

# Morphology-Syntax Interface: The Relation Between Prefixes of Brazilian Portuguese and Argument Structure

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## 1 Introduction

The formation of complex words brings to light the interface between morphology and syntax and the question of whether the composition of words is in fact directly related to the composition of sentences in a transparent interface between syntax and morphology. An important point to be analyzed in this respect is the fact that bound morphemes seem to be responsible for the introduction and relation of arguments in the argument structure of a given verb. If it can be shown that pieces of words can directly or indirectly build or change argument structure (as well as aspectual and semantic structure), we have to face the simultaneous nature of word and phrasal composition.

Some works on word formation have noted and discussed the status of derivational affixes and particles and their role in argument structure building. All of them recognize morphemic influence in argument structure definition, but most still keep the two-locus approach to word and sentence formation: lexicon vs. syntax (Hale and Keyser 2002, Markova and Padrosa-Trias 2008). On the other hand, Distributed Morphology-based approaches have argued for a single generative component for word and sentence formation. Under this view, complex morphological and syntactic objects can be treated as the output of the same syntactic generative system (Halle and Marantz 1993, Embick and Noyer 2006).

Prefixes are productive particles involved in complex word formation in many languages and can be a testing ground for the question raised here. Slavic languages, for example, show a wide range of prefixes with resultative, spatial, and idiosyncratic meanings (Svenonius 2004). Prefixes are also a common tool for word formation in Romance languages, where they are mostly historically derived from Latin prepositions that denote spatial and temporal relations.

Within this discussion, this paper investigates complex verb formation in Brazilian Portuguese, with special attention to the role of prefixes. In order to do that, I will look at verbs with prefixes *a-*, *en-*, and *es-*:<sup>1</sup>

- (1) *O guia a-grup-ou os turistas.*  
the guide **PREF-group-PST.3SG** the tourists  
'The guide grouped the tourists.'
- (2) *O João en-lat-ou as ervilhas.*  
the John **PREF-can-PST.3SG** the peas  
'John canned the peas.'
- (3) *A Maria es-vazi-ou o tanque.*  
the Mary **PREF-empty-PST.3SG** the tank  
'Mary emptied the tank.'

With this kind of data in mind I will try to answer the following questions:

- a. Do these prefixes, in any way, modify the final argument and aspectual structure associated with the stem/root to which they attach?
- b. What is the nature and function of prefixes *a-*, *en-*, and *es-* in complex verb formation? Are they verbalizing affixes? If not, what are they doing within these verbs?

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\*I am very grateful to The Group of Studies in Distributed Morphology/USP for discussion that helped me to improve the ideas presented here. I also would like to thank David Embick for discussion of some of the ideas presented here. All errors are my own responsibility. This research was conducted with the support of Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), grant n. 142898/2009-0.

<sup>1</sup>There is also verb formation by prefix and overt suffix simultaneous adjunction involving prefixes *a-*, *en-* and *es-*, but I will not focus on these cases in this paper.

## 1.1 Working Hypothesis and Proposal

Following a syntactic theory of word formation, I will suggest that the behavior of prefixes can be explained by a recent version of Distributed Morphology based on locality domains and cyclicity, along the lines of Embick (2010), and making use of the notion of phases in word formation (Marantz 2001). I assume that prefixes can be classified into three different types depending on where they merge in syntactic structure with different consequences to the word structure: a. prefixes attaching within rootP; b. prefixes attaching outside rootP but not above the first categorizer; c. event modifying prefix attaching above little *v*. This proposal can explain the empirical distinction between lexical (strict lexical or inner) and superlexical prefixes (Svenonius 2004, Markova and Padrosa-Trias 2008) in terms of locality. I also show that the division between prefixes attaching above and under VP is too wide to account for data specificity of Brazilian Portuguese.

I suggest that the Brazilian Portuguese prefixes *a-*, *en-*, and *es-* can either merge directly to rootP or within the first categorizing head above the root; however, they never attach as event modifier prefixes. In this sense, I can call them inner prefixes since they never merge above little *v*. I show that some prefixes like negative *in-* and repetitive *re-* contrast with verbal prefixes because they are event modifying particles.

This paper is organized as follows: Section 2 presents a description of the behavior of the prefixes *a-*, *en-*, and *es-* regarding their historical origins (briefly in 2.1) and the categorial (2.2) and argument structure (2.3) to which they attach. In Section 3, I present the analysis in some detail: I summarize some previous accounts for prefix types in Section 3.1; in Section 3.2, I detail my general proposal, and, in 3.3, I propose an account for the prefixes *a-*, *en-*, and *es-*. I finally contrast them to event modifying prefixes in 3.4. Section 4 concludes the paper.

## 2 Describing the Behavior of the Prefixes *a-*, *en-*, and *es-*

### 2.1 A Little Bit of History

Portuguese prefixes are mostly diachronically derived from Latin prefixes which, in most cases, corresponded to some preposition in that language. In other words, Latin prefixes were some kind of incorporated prepositions. The three verbal prefixes studied in this paper are related to Latin prepositions denoting directions: *a-* is historically related to the prefix *ad-* denoting approximation or approach; *en-* is derived from the prefix *in-* denoting inward movement or change of state; and *es-* is derived from the prefix *ex-* denoting outward movement or removal. In Portuguese, the prefixes *a-* and *en-* have homophonous directional prepositions, but *es-* does not. The prefixes under study inherit some kind of predicational function from their Latin origins which make them different from other prefixes with adverbial functions, as we will see.

### 2.2 Categorial Structure

These prefixes can be easily identified when attached to categorized words, in a synchronic decomposition process (e.g. *a-vermelh-ar* ‘to redden’, *en-gavet-ar* ‘to put in the drawer’, *es-faque-ar* ‘to knife’), but they can also be identified in contexts of bound roots in which the base is not a word in the language (e.g. *a-greg-ar* ‘to add’, *en-gren-ar* ‘to gear’) via commutation (*a-greg-ar/se-greg-ar* ‘to add/to segregate’; *a-gred-ir/re-gred-ir/pro-gred-ir* ‘to assault/to regress/to progress’; *a-vis-ar/re-vis-ar* ‘to warn/to review’), and some seem to occur with a single bound root (*afastar/\*refastar/\*profastar/\*defastar* ‘to depart’), in which case the real status of the prefix becomes unclear and cannot be recognized by some speakers.

In sum, the prefixes *a-*, *en-*, and *es-* adjoin to different categorial internal structures: adjectives (4–6), nouns (7–9), and bare roots (10–12), and they can also occur as prosthetic forms<sup>2</sup> in popular spoken language, most frequently with the prefix *a-* (13–15).

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<sup>2</sup>I will not focus on a different treatment for common prosthetic prefixes for the moment. I will treat them as standard cases of prefixation.

- |                                                                            |                                                                     |                                                                          |
|----------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------|
| (4) <i>a-vermelh-a-r</i> <sup>3</sup><br>PREFIX-red-TV-INF<br>'to redden'  | (5) <i>en-fraqu-ec-e-r</i><br>PREFIX-weak-SUF-TV-INF<br>'to weaken' | (6) <i>es-vazi-a-r</i><br>PREFIX-empty-TV-INF<br>'to empty'              |
| (7) <i>a-proveit-a-r</i><br>PREFIX-advantage-TV-INF<br>'to take advantage' | (8) <i>en-garraf-a-r</i><br>PREFIX-bottle-TV-INF<br>'to bottle'     | (9) <i>es-faqu-e-a-r</i><br>PREFIX-knife-SUF-TV-INF<br>'to knife'        |
| (10) <i>a-grad-a-r</i><br>PREFIX-√grad-TV-INF<br>'to please'               | (11) <i>en-gren-a-r</i><br>PREFIX-√gren-TV-INF<br>'to gear'         | (12) <i>es-cav-a-r</i><br>PREFIX-√cav-TV-INF<br>'to dig'                 |
| (13) <i>a-levantar</i><br>PREFIX-stand<br>'to stand up'                    | (14) <i>en-cobrir</i><br>PREFIX-cover<br>'to cover'                 | (15) <i>(se) es-bater</i><br>(REFL) PREFIX-bater<br>'to beat (yourself)' |

Although they may occur with categorized words, they cannot occur with already-prefixed words of any kind (16–18), including those prefixed by themselves (19–21). This fact is especially important since it is evidence for the proposal that these particles are structurally internal, an idea I will pursue in this paper.

- (16) [desfazer]<sub>V</sub> 'undo' > \*adesfazer/\*endesfazer/\*esdesfazer  
 (17) [pré-escola]<sub>N</sub> 'preschool' > \*apréscolarizar/\*enpréscolarizar/\*espréscolarizar  
 (18) [informal]<sub>A</sub> 'informal' > \*ainformalizar/\*eninformalizar/\*esinformalizar  
 (19) [amedrontado]<sub>N/A</sub> 'frightened' > \*enamedrontizar/\*esamedrontizar  
 (20) [encaixe]<sub>N</sub> 'fit' > \*aencaixar/\*esencaixar  
 (21) [esguicho]<sub>N</sub> 'squirt' > \*aesguichar/\*enesguichar

Another condition on the occurrence of these prefixes is a restriction to verbal contexts. They only occur within nouns and adjectives in cases of deverbal derivation, particularly in adjectival participles and eventive nominalizations suffixed with eventive suffixes such as *-mento* and *-ção* (22a–c). For example, in (23a), the adjective *avermelhada* 'reddish' is a kind of result state of an event of getting red, and the adjective *vermelha* 'red' is a pure attributive; the prefix *a-* can only occur in the former context, never with a pure attributive reading, as can be seen in the ungrammaticality of \**avemelha*. In other words, in the terms of Embick's (2004) distinction for participles of English, these prefixes occur in contexts of resultative or target states (like *opened* or *lengthened*), but never in simple state environments (like *open* or *long*). The same holds in (23b–c), which show a nominal and a bound base, respectively, instead of an adjectival one. This is strong evidence that these particles are in fact active in verbalizing/eventive process.

- (22) Nominalizations  
 a. [*aproveitamento*]<sub>N</sub>/\*[*aproveito*]<sub>N</sub> *de estudos*  
     reclamation                                      of studies  
 b. [*encadernação*]<sub>N</sub>/\*[*encaderno*]<sub>N</sub> *de materiais*  
     binding                                              of materials  
 c. [*esclarecimento*]<sub>N</sub>/\*[*esclaro*] *de dúvidas*  
     clarification                                      of doubts
- (23) Adjectival Participles  
 a. *camisa* [*avermelhada*]<sub>A</sub> / [*vermelha*]<sub>A</sub>/\*[*avermelha*]<sub>A</sub>  
     shirt   reddish                                      red  
     'reddish/red shirt'

<sup>3</sup>For notation purposes, I represent verbs out of context in infinitive forms, with infinitive morpheme *-r*.

- b. *pão* [amanhecido]<sub>A</sub>/ [matinal]<sub>A</sub>\*[amanhal/\*amatinal]<sub>A</sub>  
 bread stale morning  
 ‘stale/morning bread’
- c. *dinheiro* [estornado]<sub>A</sub>/\*[estorno<sup>4</sup>]<sub>A</sub>  
 money refunded  
 ‘refunded money’

To sum up, two important facts emerge from this section: attachment of the prefixes *a-*, *en-*, and *es-* is not allowed to prefixed bases, and attachment is restricted to verbal contexts, i.e., restricted to event structure contexts.

### 2.3 Argument Structure

If we compare the bases to which the prefixes *a-*, *en-*, and *es-* attach to the verbs they form, we find that these prefixes seem to be interfering with, or, in fact, being responsible for, the introduction of an extra argument. For example, a noun like *garrafa* ‘bottle’, an adjective like *vazio* ‘empty’, or a root like *grad-* cannot “hold” an argument by themselves. It is clear that an adjective like *vazio* is attributive and needs an entity to refer to, but it cannot do this by itself in some languages, as Hale and Keyser (2002) have observed. The question is whether these prefixes are really responsible for the introduction of these arguments, or whether the *v* itself is able to account for this argumental change and the prefixes have some other function.

As I have shown, the prefixes *a-*, *en-*, and *es-* are always linked to a verbal derivation, i.e., an event structure building. I will take this fact to mean that they are responsible for the category definition together with *v*. In this sense, I will assume that, as regards argument structure, when attached to adjectives and nouns, these prefixes seem to introduce an internal argument, creating: i) unaccusative verbs (like (24)) that, in principle, can be provided with an external argument introduced later by *voice* (in terms of Kratzer 1996) or some other functional head, or ii) simple transitive structures (like (25)). They will never derive unergative structures (24c, 25c). This also seems to be the case for root-derived verbs, since they are mostly transitive too. Sometimes the internal argument is not present in the sentence, but its interpretation is always implicit (26).

- (24) a. *O tanque esvaziou.*  
 The tank emptied.  
 b. *Eu esvaziei o tanque.*  
 I emptied the tank.  
 c. \**Eu esvaziei.*  
 I emptied.
- (25) a. *Eu acaricieei o cachorro.*  
 I petted the dog.  
 b. \**O cachorro acariciou.*  
 The dog petted.  
 c. \**Eu acaricieei.*  
 I petted.
- (26) a. *O cantor agradou/encantou o público.*  
 The singer pleased/delighted the public.  
 b. *O cantor agradou/encantou (alguém).*  
 The singer pleased/delighted (someone).

Additional evidence supporting an analysis of these prefixes as argument introducers together with *v* is the fact that it is impossible, in most cases, for verbs formed by the same bases and suffixes but lacking prefixes to serve as equivalent counterparts of these prefixed verbs:<sup>5</sup>

<sup>4</sup>*Estorno* ‘reversal’ is in fact a deverbal noun deriving from the verb *estornar*. It has traditionally been treated as an instance of regressive derivation due to the loss of the verbal suffix; however, the direction of the derivation is not so clear.

<sup>5</sup>An unsolved challenge to this assumption is the fact that in some dialects (especially in the countryside),

- (27) a. *afunilar*/\**funilar*  
       ‘to taper’  
       b. *esfaquear*/\**faquear*  
       ‘to knife’  
       c. *engavetar*/\**gavetar*  
       ‘to put in the drawer’

Although I will not focus on the semantic structure of these verbs here, it has been observed that the argument structure definition is totally related to the event semantics they present. As the final event always involves a transference/change, it is predictable that there will be an entity/argument (animate or not) upon which this result state will fall. With respect to aspectual structure, because of this almost predicted final point delimitation, these prefixes integrate mostly achievement and accomplishment verbs, being related to a punctual temporal event structure (Peireira 2004). Gradual adjectives like *vermelho* ‘red’ or *cheio* ‘full’ will result in accomplishment verbs, and non-gradual adjectives or nouns like *padrinho* ‘godfather’ or *noite* ‘night’ will result in achievement verbs.

## 2.4 Final Word for this Section

It is important to keep in mind that these structural descriptions are not so easy to identify among bound root structures. For verbs with bound roots like *agradar*, *engrenar*, and *escavar*, it is possible to recognize at least some aspectual (directional) and argument contribution of the prefixes. In these cases it seems that they have more or less the same empirical properties just pointed out for deadjectival and denominal structures.

However, in other verbs with bound roots, the prefixes’ contribution seems to be quite opaque: it seems that they are completely integrated into the root and are no longer active in the derivation. Some examples are *acessar* ‘to access’ and *esquecer* ‘to forget’.

Traditional approaches consider these formations as cases of lexicalized or historical prefixes. I will argue that the activeness of a prefix depends much more on where it is attached in syntactic structure than on whether it is derived in the lexicon or in the syntax.

## 3 Analysis

### 3.1 Previous Accounts

Many treatments distinguishing productive vs. semi-productive, systematic vs. non-systematic, or compositional vs. non-compositional processes of complex word formation resort to a distinction between syntactic and lexical formation where the former is the locus for systematic processes and predictable results, and the latter for idiosyncratic and unpredictable results (Marantz 2001).

The treatment of prefixed words crosslinguistically has been similar. For example, the approach dividing lexical and superlexical prefixes to account for prefix differences in Slavic languages has been well accepted.

Markova and Padrosa-Trias (2008), in an attempt to account for English, Catalan, and Slavic prefixes, suggest a revision of the distinction made by Svenonius (2004) between lexical and superlexical prefixes. They offer an analysis in terms of differences between lexically derived and morphologically derived prefixes: **a. Lexically derived prefixes:** i) have an idiosyncratic meaning, ii) are not recognized by speakers, iii) are semantically non-transparent, iv) are derived in the lexicon; **b. Morphologically derived prefixes:** i) are compositional, ii) are active in the language (can create new forms), iii) are formed in the morphological component (independently of syntax), iv) divide between: 1. **inner:** (a) quantificational perfectivizing prefixes, (b) directional prefixes

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these prefixes can be erased with no structural modification to the verb. This raises the question of whether these prefixes are really realized in functional structure but are erased in the phonological component, or are not present at all in these cases. I prefer the first option, but leave this question for future research.

which attach to motion verbs, (c) locative prefixes, which include both locatum and location prefixes, and (d) causative prefixes which causativize a verb; 2. **super-lexical**: have aspectual and quantificational meanings and do not change the argument structure of the verb they attach to.

Svenonius (2004:1) does not resort to an explanation in terms of different generative loci of prefix formation. He argues that the division between lexical and superlexical prefixes “should be analyzed in terms of the place of the different prefixes in a syntactic decomposition of the clausal structure.” More precisely, he proposes that “lexical” prefixes (with resultative, spatial and idiosyncratic meaning) attach under VP, and superlexical prefixes (with aspectual and quantificational meaning) attach above VP.

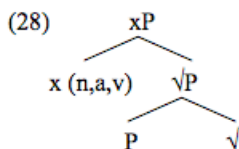
Despite following the same locality idea, I will argue that this distinction is too rough to account for a wide variety of observed behaviors of prefixes in natural languages. Data on prefixed verbs in Brazilian Portuguese will lead us to a more refined analysis of prefixes in terms of locality of attachment, particularly for those which attach lower, under  $\nu P$ .

### 3.2 General Proposal

Under a version of DM based on phases in word formation (Marantz 2001) and a theory of cyclic derivation (Embick 2010), I will propose that prefixes can be attached in three places in syntactic structure, and, depending on where they attach, they may be able to be active, i.e., determine or change semantic and syntactic relations in the whole structure.

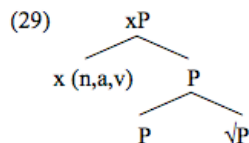
#### 3.2.1 Prefixes Attaching within rootP

Although these can be recognized as prefixes from a diachronic perspective, they cannot contribute any changes to the structure. As they attach directly to the root, they also do not contribute with any predictable meaning to the final word; the meaning is idiosyncratic. We could say that they are part of a complex root. As rootP does not constitute a phase, it cannot be spelled out before being categorized. In the terms of Embick (2010), we can say that rootP is not a cyclic head and so depends on a cyclic head to be spelled out ( $x$  in the hypothetical example below).<sup>6</sup>



#### 3.2.2 Prefixes Attaching Outside rootP but not above the First Categorizer/Cyclic Head

These are a kind of inner prefix that attaches immediately before the first categorizing element above a root, i.e., the first cyclic head. They head their own projections, being able to change argumental, semantic, and aspectual structure, and have compositional meaning but are non-cyclic heads, as they can never be spelled out before another cyclic head is attached. They are subwords, i.e., terminal nodes within another head (an M-word, in the sense of Embick and Noyer 2001).

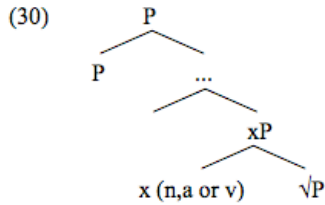


#### 3.2.3 “Word”-Modifying Prefixes

These are prefixes that can have scope on a categorized word. I assume that they attach somewhere above  $xP$ , where  $x$  is a categorizing head. As argument structure is already defined at this

<sup>6</sup>Lowercase letters represent cyclic heads and uppercase letters represent non-cyclic heads.

point, they cannot change it. They are able to effect aspectual changes to the event and can scope over external arguments (in the sense of Marantz 2009) in case they are attached above *voiceP* or any other functional category that introduces external argument. They are modifiers.



**3.3 An Analysis of the Verbal Prefixes *a-*, *en-*, and *es-***

So far, we have seen that the prefixes *a-*, *en-*, and *es-* can display double behavior: a) they can be synchronically recognizable, being active in the structure and attaching to what seems to be adjectives, nouns, and, in some cases, bound roots and contributing with all the characteristics highlighted in Section 2; or b) they can be historically incorporated with roots that are not words in the language, being inactive in the structure;. So, I propose that these prefixes can occur structurally in two scenarios.

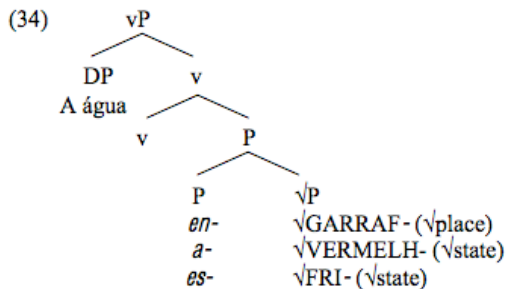
**3.3.1 First Scenario: Attaching above rootP**

In this scenario, these particles are responsible for changes in argument, semantic, and aspectual structure within *vP*. In principle, we could say that these prefixes attach above the first categorizer (deadjectival and denominal cases), or just above rootP (root derived).

An important question that now arises concerns the categories of the roots being verbalized. At first glance, and in all traditional descriptive works, these roots are described as adjectives or nouns. However, it seems that what is at stake is the semantics of the root and not its category. I will assume, then, that we are dealing with bare roots denoting states (usually also related to adjective formation), or places and manners (usually related to noun formation). However, they cannot affect external arguments since they are *vP* internal.

We can conclude that for these kinds of prefixed verbs, the prefixes function as verbalizers together with *v*; in other words, they are active in argument (introduction of internal argument), semantic (change or transfer), and aspectual (telicity) structure. As they are bound morphemes, or, in other terms, subwords and non-cyclic heads, they are not capable of being spelled out without the help of a categorizer. Within this configuration, they are part of an extended verbal projection *v-p*, as in (34) for verbs prefixed by *a-*, *en-*, and *es-* attached to different semantic kinds of bases.

- (31) *engarrafar a água*  
to bottle the water
- (32) *avermelhar o cabelo*  
to redden the hair
- (33) *esfriar a sopa*  
to cool the soup

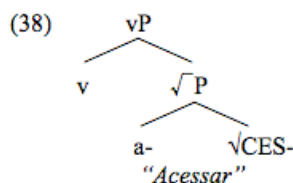


One question that emerges is why the prefixes *a-*, *en-*, and *es-* cannot be phonological realizations of *v*. These prefixes are not realizations of *v* because they frequently occur in verbs with open verbalizer morphemes like *-iz-*, *-ec-* and *-e-*, which I believe to be the realizations of little *v* in BP. Some examples have already been observed despite the fact that they are not the focus of this paper (*esverdear* ‘to green’, *energizar* ‘to energize’), and some others are listed below.

- (35) *a-rox-e-a-r*  
 PREF-purple-V-TV-INF  
 (36) *en-coler-iz-a-r*  
 PREF-anger-V-TV-INF  
 (37) *es-clar-ec-e-r*  
 PREF-clear-V-TV-INF

### 3.3.2 Second Scenario: Attaching within rootP

The prefixes *a-*, *en-*, and *es-* can also behave like root-attaching prefixes within rootP (38), leading to a special interpretation and having no influence on argument, semantic, or aspectual structure. Some cases are the verbs *acessar* ‘to access’ and *esquecer* ‘to forget’.



Another way to represent these structures could be to consider these roots as reanalyzed roots and represent them as  $\sqrt{\text{ACES-}}$  and  $\sqrt{\text{ESQU-}}$ . However, these verbs share the same roots with other words in the language, which is important evidence in favor of a prefix morpheme, rather than of its inactivity.

One could argue that it is impossible to assume the existence of roots like  $\sqrt{\text{CES-}}$  and  $\sqrt{\text{QU-}}$  since they never show up as independent words in the language, and that resorting to them would be a kind of historical device. However, I assume that these roots can be part of the language’s root repository but never show up alone because they are not listed in the Encyclopedia as valid entries. Roots like these can only be interpreted in contexts like the one in (38). I borrow this argument from Borer’s (2011) analysis of English compounds like *truck-driver*, for which she assumes a constituent *truck-drive* with no category that cannot be interpreted because it is not listed in the Encyclopedia.

Finally, the prefixes *a-*, *en-*, and *es-* never occur above little *v*, where they would scope over the whole event. In the next section I contrast their behavior with other prefixes of BP that seem to be event modifiers.

### 3.4 *a-*, *en-*, and *es-* in Contrast with Event Modifying Prefixes

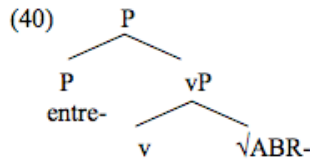
In displaying these behaviors, the prefixes *a-*, *en-*, *es-* contrast with prefixes like *in-* (negative), *trans-*, *sub-* and *super-* (directional/evaluative), *re-* (repetition), and *entre-* (measure), among others (*des-*, *anti-*, *vice-*, *bi-*, *contra-*, *inter-*, *circum-*) which seem to be able to introduce aspectual modification of the whole event. A morphological fact that comes together with this is that these prefixes can attach directly to M-words, i.e., to categorized words. Some examples are in (39).

- (39) Event modifying prefixes
- |                                                                                              |                                                           |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| a. <i>indeterminar/inadmitir</i><br>not-determine/not-admit<br>‘to indetermine/not to admit’ | d. <i>supervalorizar</i><br>super-value<br>‘to overvalue’ |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------|



- |                                                              |                                                                                   |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------|
| b. <i>transportar</i><br>trans-port<br>‘to transport’        | e. <i>reorganizar/refazer</i><br>re-organize/re-make<br>‘to reorganize/to remake’ |
| c. <i>subespecificar</i><br>sub-specify<br>‘to underspecify’ | f. <i>entreabrir</i><br>between-open<br>‘to open a little’                        |

I assume that these event modifying prefixes can attach at some level above little *v*, unlike the prefixes *a-*, *en-*, and *es-*. The final verbal formation is composed by the outer attachment of a prefix to a categorized word (so, to a cyclic head), which results in compositional meaning. The structure in (40) illustrates this case.



However, it is important to realize that prefixes like *in-*, *trans-*, *super-*, *re-*, and others can also be root internal, and that, in these cases, they show no semantic contribution to event modification and are hardly recognized synchronically by speakers as a separate unit within the word (41).

- (41) Prefixes in the  $\sqrt{P}$  projection
- a. *insrir/incitar*  
‘to introduce/to stimulate’
  - b. *transmitir/transstornar*  
‘to transmit/to upset’
  - c. *supervisionar*  
‘to supervise’
  - d. *reparar/revoltar*  
‘to repair/to revolt’
  - e. *entreter*  
‘to entertain’

Once again, prefixes do not have a predetermined function in the structure. I believe they may have internal semantics and aspectuality that can be activated by locality positioning in syntactic structure. Unlike some lexicalist proposals for BP data (Schwindt 2001), I do not have to double entries for these prefixes based on their distinct behavior in different environments. Moreover, an additional advantage of this proposal regards economy: it is not necessary to assume a two-place theory of word formation to account for the idiosyncratic behavior of some prefixed words (that would be called lexical formations) and the systematic and compositional behavior of other prefixed words (syntactic formations).

## 4 Conclusion

In this paper, on an empirical level, I show that the prefixes *a-*, *en-*, and *es-* can contribute semantic, aspectual, and argument structure to the root to which they attach when they combine with *v* forming a kind of complex head (*v-p*). On the other hand, the same prefixes can show no structural contribution and contribute no predictable meaning to the verb in some bound root formations. On a theoretical level, I have proposed that prefixation contribution is determined by locality domains of attachment, rather than resorting to a lexical/non-lexical formation explanation. So, I have proposed that prefixes can merge in three different places in syntactic structure: a. within rootP; b. outside rootP but not above the first categorizer (cyclic head); c. above little *v* or some other categorized structure, functioning as word modifiers. Within this approach, the distinction among lexical, inner, and superlexical prefixes (Markova and Padrosa-Trias 2008) can be treated in terms of

locality attachment on syntactic structure, dispensing with a two place theory of word formation. Moreover, the proposal of an “above VP” and “below VP” attachment for prefixes (Svenonius 2004) is too rough to account for BP data like that treated in this paper, since we would have to assume that the prefixes *a-*, *en-*, and *es-* attach below VP, which would make the distinction between rootP internal and rootP external prefix attachment impossible.

Finally, the term “prefix” refers to a position within the word, but does not reveal anything detailed about the function of the morpheme in relation to the whole structure. In this paper, I have discussed BP prefixes that function as modifiers briefly, and studied more extensively those that behave like heads.

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