Pronominal cliticization in European Portuguese: a postlexical operation[*]

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Abstract

Pronominal clitics in the Romance languages are known to display affix-like behaviour. This fact has led to proposals, such as Zwicky (1987) and Halpern (1995) for European Portuguese (EP), that pronominal clitics behave like lexical affixes because they *are* (inflectional) affixes. In this paper we argue against such an analysis of EP pronominal clitics. First, we present a bulk of phenomena —including distributional facts, the (non-)application of phonological rules, and the (non)application of morphophonological rules— that clearly differentiate EP pronominal clitics from inflectional affixes, and argue for the postlexical combination of verbs and clitics. We then survey the arguments put forward in favour of the lexical attachment of pronominal clitics in EP, and show that these are not compelling arguments for the lexical hypothesis. We conclude that pronominal cliticization must be treated as a postlexical operation in EP.

Key words: pronominal clitics, cliticization, European Portuguese.

Resum. *La cliticització pronominal en portuguès europeu: una operació postlèxica*

Els clítics pronominals en les llengües romàniques tenen un comportament semblant als afixos. Aquest fet ha inspirat propostes, com la de Zwicky (1987) i Halpern (1995) per al portuguès europeu (EP), que defensen que els clítics pronominals es comporten com afixos lèxics perquè *són* afixos (inflectius). En aquest article discutim una anàlisi com aquesta dels clítics pronominals de l'EP. En primer lloc, presentem un conjunt de fenòmens —que inclouen distribució, la (no-)aplicació de les regles fonològiques, i la (no)aplicació de les regles morfofonològiques— que diferencien clarament els clítics pronominals del PE dels afixos inflectius, i defensem la combinació postlèxica de verbs i clítics. Després mostrem els arguments a favor de l'adjunció lèxica dels clítics pronominals en PE, i demostrem que no són arguments suficients per a la hipòtesi lèxica. Concloem que la cliticització pronominal s'ha de tractar com una operació postlèxica en PE.

Paraules clau: clítics pronominals, cliticització, portuguès europeu.

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1. Introduction

It has been widely observed that pronominal clitics in the Romance languages display affix-like behaviour (e.g. Klavans 1985, Zwicky 1987, Spencer 1991, Halpern 1995). Among the properties pronominal clitics may share with lexical affixes are the following: *(i)* high selectivity with respect to the category of the host/base they attach to; *(ii)* special phonology triggered by the clitic-verb sequences; and in some cases, *(iii)* the ordering of clitics with respect to inflection. One way of making sense of this picture is to defend that pronominal clitics behave like lexical affixes because they *are* (inflectional) affixes (cf. Zwicky 1987 and Halpern 1995, for European Portuguese, Monachesi 1996, for Italian, and Miller and Sag 1997, for French). Under the assumption that pronominal clitics are lexically combined with their hosts, what needs to be accounted for is the bulk of properties clitics may share with «words»: namely, the ability of clitics to appear in different positions with respect to the verb, or the lack of (lexical) phonological interaction between verbs and clitics. In fact, the occurrence of such phenomena justifies the adoption of the opposite thesis, according to which pronominal clitics are postlexically inserted (cf. Peperkamp 1997, for Italian, Watson 1997, for French, and Van der Leeuw 1997 and Vigário 1999, for European Portuguese). However, in many cases no substantial evidence supports the specific view that is adopted.

In this paper we review the facts of European Portuguese (EP). We will try to show that the hypothesis that pronominal cliticization in this language is a postlexical operation is empirically superior to the hypothesis of lexical attachment of clitics, and we will propose an account of the (apparent) marks of lexicalization that is compatible with such a view.

2. Potential evidence for the lexical attachment of pronominal clitics

There are three potential arguments in favour of the lexical hypothesis for the attachment of pronominal clitics in European Portuguese, which we will present in the next paragraphs.[1]

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1. Except if stated otherwise, the data referred to in this paper belong to the variety of EP spoken in Lisbon by educated speakers.

2.1. Specialized host

Romance pronominal clitics attach to hosts belonging to a specific morphosyntactic category, a property that these clitics share with lexical affixes (cf. Zwicky and Pullum 1983, Klavans 1985): for instance, pronominal clitics in EP, like derivational affixes such as *–vel*, or verbal inflectional affixes, may only attach to elements belonging to the category V, not to N or Adj.

Conversely, this property distinguishes pronominal clitics from other phonological clitics in EP: for example, the definite article is a proclitic which can be hosted (within an NP domain) by words belonging to different morphosyntactic categories, as illustrated in (1).[2]

(1) a   caneta (N)   a   grande caneta (A)   a   então ministra da saúde (ADV)
    the pen   the big   pen   the then minister of health

High degree of selection of pronominal clitics in Romance languages with respect to their hosts is therefore a property these elements share with lexical affixes, and not with (other) clitics. However, in section 4.1 we will try to show that this similarity is not necessarily an evidence for the lexical attachment of pronominal clitics in EP, and in the Romance languages in general.

2.2. Phonological idiosyncrasy

Phonological idiosyncrasy involving the sequence verb-clitic is another argument that has been used to support the lexical attachment hypothesis, since the locus of idiosyncrasy is usually accepted to be the lexicon (cf. Zwicky 1987, Halpern 1995). In fact, in European Portuguese the sequence verb-clitic displays some special phonological behaviour. Two examples are provided in (2): (i) the accusative clitic, which otherwise has the form *o*, has the form *lo* when preceded by a verb ending in consonant (that subsequently deletes), and it has the form *no* when preceded by a nasal diphthong (cf. 2a); (ii) the final consonant of the verbal host deletes when followed by *nos* (cf. 2b).[3]

(2) a. comes;   como-o   but come-lo;   comem-no
       eat-PRES2sg eat-PRES1sg-3sgACC   eat-PRES2sg-3sgACC eat-PRES3Pl-
                                                                     3sgACC

    b. damos   but damo-nos
       give-PRES1Pl   give-PRES1Pl-1PlDAT

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2. Cf. Vigário (1999) for evidence that this function word is a phonological clitic.
3. In this paper we use the following abbreviations: PRES: indicative present; PAST: indicative past perfect; IMP: indicative past imperfect; SUBJ: subjunctive present; SUBJ IMP: subjunctive imperfect; FUT: future; COND: conditional; INF: infinitive; 1/2/3Sg: 1st/2nd/3rd/person singular; 1/2/3Pl: 1st/2nd/3rd person plural; ACC: accusative pronominal clitic; DAT: dative pronominal clitic; MASC: masculine; FEM: feminine; PL: plural; PN: person/number suffix; TMA: tense/mood/aspect suffix; TV: theme vowel. In the pronominal system, gender is indicated only in the feminine forms.

Although these facts have sometimes been (implicitly) considered to follow from pure phonological processes in the literature on EP, this analysis is in fact not tenable on synchronic grounds. Indeed, there are no general phonological rules in EP that could derive these forms.

Under the hypothesis that pronominal clitics are combined with their hosts postlexically, this kind of phenomena needs to be accounted for. In section 4.2. we will propose an analysis along the lines of Hayes' (1990) precompiled phrasal allomorphy, that allows for an account of phonological idiosyncrasy compatible with the postlexical insertion of pronominal clitics.

2.3. «Inflection» after cliticization

The third argument that has been put forward in favour of the affixal nature of pronominal clitics in European Portuguese is the possibility of pronominal clitics to precede inflection. This is argued in Zwicky (1987), and Halpern (1995) to occur in the construction traditionally called mesoclisis: as exemplified in (3), when a clitic follows a verb inflected for future or conditional it is inserted before what is taken to be a person/number affix (cf. Zwicky 1987:143), instead of appearing at the end of the inflected verb.

(3) a. perceberia   b.   perceber-te-ia (*perceberia-te)
     understand-COND3sg   2sgDAT
     falaremos   falar-lhe-emos (*falaremos-lhe)
     speak-FUT1Pl   3sgDAT

For both Zwicky (1985) and Halpern (1995) it is the lexical status of pronominal clitics in EP that explains why these elements may appear before inflection: since clitics are inflectional affixes it is predicted that they should be able to appear «inside of (other) inflections» (Halpern 1995:186).

As we will see below, this argument depends on the analysis of mesoclisis. In fact, we will argue in section 4.3. that what follows the clitic is *not* a lexical inflectional affix, and that mesoclisis must be the result of a syntactic operation. Thus, we will sustain that mesoclisis does not constitute a valid argument for the inflectional status of pronominal clitics in EP.

3. Evidence for the postlexical insertion of pronominal clitics

Despite the marks of lexicalization reported in the preceding section, there is also substantive evidence that pronominal clitics in EP must be independent of their hosts at the lexical level. We will present this evidence in the following paragraphs.

3.1. Distributional facts

Clitics are manipulated by syntactic (or at least non-lexical) operations: clitics may be either *pre* or *post*verbal, a pattern never found with lexical affixes, which either

attach to the right *or* to the left of their base. Moreover, the distribution of clitics depends on phrasal information: they are preverbal when preceded within a certain domain by certain adverbs, Wh-operators, quantifiers, complementizers and negative words (cf. 4).[4]

(4) a. dou-te   a'. não te dou
     give-PRES1sg-2sgDAT   not 2sgDAT give-PRES1sg

   b. eles ouviram-te   b'. todos eles te ouviram
     they hear-PAST3pl-2sgDAT   all of-them 2sgDAT hear-PAST3pl

Since the syntagmatic information relevant for the distribution of pronominal clitics is not available in the lexicon, the ordering of the sequence V-CL must be obtained postlexically.

Further, under the view that pronominal clitics are inflectional affixes, the very possibility of proclisis in an inflectional system such as the EP's is unexpected, since in this language inflectional morphology is exclusively suffixal.

In addition, interpolation is possible between a proclitic and the verb, as illustrated in (5), a fact that also indicates that the sequence CL-V cannot be created in the lexicon, and inserted as a unit at the moment of lexical instantiation.[5]

(5) Gostaria   que   o   não fizesses
   (I) would like   that   3sgACC   not   (you) do
   'I would like you not to do it'

As noted in Rouveret (1995) and Matos (1997), pronominal clitics may have scope over a conjunction (cf. 6), a behaviour that also distinguishes clitics from affixes.[6]

(6) Todos   o   aplaudiram e   festejaram
   all   3sgACC applauded   and   celebrated
   '(they) all applauded and celebrated it'

Finally, as pointed out in Spencer (1991), the fact that the clitic is not doubled by a full NP, adds to the non-inflectional nature of pronominal clitics in EP. By the same token, since in EP clitic pronouns may not co-occur with full NP's, clitic pro-

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4. The relevant domain is tentatively defined in Frota and Vigário (1996) as the syntactic domain CP and the intonational phrase (IP) prosodic domain, that is, the items that cause proclisis must be both within the same CP and within the same IP as the clitic.

5. We should add that, although interpolation is distributionally very limited (nowadays it is only found with negation, and possibly with a few other simplex adverbs) and only occurs in certain styles and/or dialects, cases of interpolation can still arise in *lapsus linguae*, as documented in Frota (1994). This is suggestive of the psychological reality of a certain *mobility* of clitic pronouns in EP.

6. We thank D. Godard for drawing our attention to this point.

nouns are unlike inflectional affixes in that they are not obligatory —as, for example, inflectional subject agreement markers in EP are.[7]

3.2. Phonological facts

A number of phonological facts also call for a non-inflectional analysis of clitics.

First, there is no interaction between clitics and the verb's lexical phonology. For instance, clitics do not affect the location of verbal stress, as shown in (7), even if the addition of clitics causes the stress to fall on the fifth syllable of the verb-clitic sequence (cf. d'Andrade and Laks 1992). Since otherwise stress may never fall further leftward than the third syllable, we should conclude that pronominal clitics are not included in the EP stress window. A natural way of explaining this fact is to assume that pronominal clitics are not present in the string when word stress applies.

(7) diz[í]amos   diz[í]amo-lo   diz[í]amo-no-lo
    tell-IMP1Pl   tell-IMP1Pl-3sgACC   tell-IMP1Pl-1PlDAT-3sgACC

Moreover, the insertion of clitics does not block the process of word final nasal gliding, as example (8) illustrates: in the EP variety under observation we only find nasal gliding in word final position, never *inside* a word (regardless of its internal structure).[8] The existence of nasal gliding before clitics thus indicates that the clitic is not incorporated into the verb when this process applies.

(8) /e[+nas]/ word-internally: ent<u>e</u>diar 'to tire'; bat<u>en</u>te 'door-knocker' [ẽ]/*[ẽj]
    /e[+nas]/ word-finally: bat<u>em</u> 'they hit'   *[ẽ]/[ẽj]
    /e[+nas]/ before a word: bat<u>em</u> todos 'they hit all'   *[ẽ]/[ẽj]
    /e[+nas]/ before a clitic: bat<u>em</u>-te 'they hit you'   *[ẽ]/[ẽj]

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7. Clitic climbing is another distributional argument that is often argued to show that pronominal clitics do not behave syntactically as inflection. «Clitic climbing» is also found in EP, as illustrated in (i).

    (i) a. queria dar-*te* um livro   'I would like to give you (2sgDAT) the book'
        b. queria-*te* dar um livro

    However, it is possible that this argument is not valid to show that clitics are not affixes in a traditional sense, since, as pointed out in Halpern (1998:106), it may be a consequence of V-V restructuring. Indeed restructuring seems to occur in these cases in EP, according to Gonçalves (1994). Under this view, clitic positioning is not a case of clitic movement but is rather a consequence of the presence/absence of restructuring.

8. For the sake of comparison all the examples show the same underlying vowel followed by the nasal segment (/e[+nas]/). This segment is analysed in the EP literature as an autosegment [+nas] since d'Andrade and Kihm (1988). Our understanding of the process under observation is that it consists on the gliding of the nasal element, which surfaces as a nasalized [w] if the preceding vowel is [+back], or as a nasalized [j] if the preceding vowel is [-back]. The examples also show the centralization of /e/ when followed by a non-back glide (cf. Mateus 1975:1.3.3).

Further, clitics do not trigger the rule of dissimilation of non-back vowels follo-wed by palatal segments, as illustrated in (9). This is a general process that cen-tralizes a stressed non-back vowel when followed by a palatal consonant (cf. Mateus 1975:1.3.3). The non-application of this process in otherwise similar phonologi-cal conditions also indicates that clitics are not attached to their host when the rule applies.

(9) a. senha 'password'; tenho 'I have'; telha 'tile'; espelha 'it mirrors' [ɐ]/*[e]

   b. dê-lha 'give it (FEM) to him/her'   *[ɐ]/[e]

Finally, clitics do not trigger the general process of glide insertion to break a hiatus (cf. Mateus 1975:1.3.5.1). This process consists on the insertion of a non-back glide between two vowels, when the first is a stressed /e/, as illustrated in (10a); and it is word bounded, since it does not apply if the first vowel is in word final position, as in (10b). The absence of glide insertion when the following vowel belongs to a pronominal clitic, as in (10c), is again an indication of the non-lexical attachment of pronominal clitics.

(10) a. passe[j]o   'walk'   rece[j]o   'I fear'
          are[j]a   'sand'   rece[j]a   'he fears'
          recre[j]o   'playground' rece[j]e   'he fears (SUBJ)'

      b. vê o João   'see John'   vê animais 'see animals'

      c. vê-o   'see it'   vê-a   'see it (FEM)'
          lê-o   'read it'   lê-a   'read it (FEM)'
          dê-o   'give it'   dê-a   'give it (FEM)'

This sort of phonological interaction between the verb and the clitic exists in lan-guages such as Polish (cf. Booij and Rubach 1987, Spencer 1991), and is taken in Halpern (1995) to follow from the lexical attachment of (auxiliary and time mar-ker) clitics to the verb. The lack of this kind of effects in EP not only remains unac-counted for if the same affixal analysis of clitics is extended to European Portuguese, but also makes wrong predictions about the application of lexical phonological processes.

A second type of phonological argument against the lexical treatment of the sequences involving verbs and clitics comes from the possibility of clitics to under-go reduction, unlike lexical affixes. For instance, and although proclitics and pre-fixes are arguably prosodized similarly in EP (as adjuncts to the phonological word), only proclitics (including pronouns and other function words) may under-go postlexical reduction, as shown in (11) (cf. Vigário 1999).[9] The relevant cases of reduction consist on the deletion of a stressless non-back vowel that can also surface as a glide ([j]) if followed by a word starting in a vowel.

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9.   In examples, «0» stands for the absence of the glide.

(11) a. PREFIXES: readaptação   'readaptation'   [j]/*0
      b. CLITIC FUNCTION WORDS: de animais   'of animals'   [j]/0
      c. CLITIC PRONOUNS: não te ouvi   'I didn't hear you' [j]/0

This different behaviour is seen in Vigário (1999) as a consequence of the different locus of prosodization of clitics and prefixes: prefixes are lexically attached to their base and therefore reduction (which is a postlexical phenomenon) cannot affect these elements that are structurally attached; on the contrary, pronominal clitics as well as other function words may undergo reduction since they are prosodically unattached elements with respect to their hosts at the input of the postlexical component.

Again, under the assumption that pronominal clitics, like prefixes, are lexically attached, these facts remain unaccounted for.

3.3. Morphophonological facts

We can also argue against the inflectional status of pronominal clitics in EP on the basis of the application of morphophonological rules that clearly set apart inflection and cliticization.

One of these rules consists on the centralization to schwa of the theme vowel of verbs belonging to the 3rd conjugation (/i/) in stressless final position (cf. Mateus 1975:1.3.2), as illustrated in (12a). This process of centralization does not occur before inflectional affixes, as shown in (12b), but it does operate when the vowel is followed by a pronominal clitic, as in (12c).

(12) a. part[ə]   'he breaks'
      b. part[i]remos   'we will break'
      c. part[ə]-me   'he breaks me'

This shows that when the rule applies the clitic is not present in the string, and, even more importantly, that the pronominal clitic is not being treated as an inflectional affix.

There is another morphophonological rule that treats all inflectional affixes alike, and that shows pronominal clitics are not inflectional affixes: the general process of deletion of a vowel when followed by an inflectional affix starting in a vowel (cf. Mateus 1975:2.1). Examples of vowel deletion can be found with a Person/Number affix, as in (13a), or with a Tense/Mood/Aspect marker, as in (13b).

(13) a. como (<come+o)   b. coma (<come+a)
         eat-PRES1sg   eat-SUBJ1sg
         falo (<fala+o)   comia (<come+ia)
         speak-PRES1sg   eat-IMP1sg

The fact that vowel deletion does not apply when the vowel is followed by a pronominal clitic, as illustrated in (14), adds to the evidence that pronominal clitics are not inflectional affixes.

(14)   come-o (*como)   fala-o (*falo)   come-a (*coma)
      eat-PRES3sg-3sgACC   speak-PRES3sg-3sgACC eat-PRES3sg-3sgACCFEM

3.4. Other facts

Some additional facts follow naturally under the hypothesis defended here that pronominal clitics in EP are not inflectional affixes.

Pronominal clitics are peripheral with respect to inflectional suffixes. This is expected under the hypothesis that clitics attach postlexically to fully inflected words.[10] In addition, while portmanteaux forms in EP may involve inflectional affixes, on the one hand, and clitics, on the other hand, there are no portmanteau forms involving *both* inflectional affixes and clitics. Further, cliticization is never restricted to hosts with specific phonological characteristics. As exemplified in Carstairs-McCarty (1998), this sort of phonological constraints can be found both in derivation and in inflection. Finally, there are no arbitrary gaps or idiosyncratic semantics in sequences consisting of verb and clitics, contrary to what often arises with affixes (cf. Zwicky and Pullum 1983).

To sum up, the bulk of evidence presented above indicates that pronominal clitics in EP are not lexical affixes. However, the marks of lexicalization noted in the preceding section need further observation and analysis.

4. On the marks of lexicalization

We have seen so far that the sequence verb+pronominal clitics in EP displays properties that seem problematic both to an approach based on the hypothesis that these elements are combined in the lexicon, and to an approach, as the one we adopt, based on the hypothesis that cliticization is a postlexical operation. However, we believe that the bulk of phenomena that call for a postlexical analysis justifies the adoption of this approach. Moreover, we will try to show in the following sections that the facts that have been put forward to support the lexical attachment of pronominal clitics are not compelling arguments in favour of this hypothesis.

4.1. Selectivity with respect to the host

As we have seen, pronominal clitics in EP, like in other Romance languages, attach to verbs. In the survey of Klavans (1985) most of the clitics attach to phrasal nodes, but the case of Romance clitics, which attach at the level of X°, is taken to be exceptional. In her view, these clitics are becoming affixes since they have insertion requirements resembling verbal inflectional affixes. However, from what we have seen, pronominal cliticization in EP seems to be a phrasal phenomenon, since clitic positioning is dependent on phrasal information.

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10. Note that mesoclisis is not a counter-argument to this generalization, under the view presented in section 4.3.

Although a theory such as Klavans' excludes cliticization at the level of X°, other proposals have been made that allow for a *phrasal* treatment of pronominal cliticization in the Romance languages. Such view is sustained, particularly, in the work of Anderson.

Anderson (1992) defends the idea that affixation and cliticization are the result of the same kind of morphological operation, the former applying to words and the latter applying to phrases. Moreover, clitic placement rules may refer to the *head* of a syntactic constituent, namely the head of the sentence, V. Under this view, the property of selecting a host belonging to a specific class is the result of the specification of a parameter that rules the distribution of phrasal affixes, and, thus, it does not necessarily imply that the relevant clitics are becoming lexical affixes.

Also from the point of view of syntax, proposals have been made that treat pronominal cliticization in Romance languages as a phenomenon distinct from inflection. For example, Duarte and Matos (to appear) adopt such an approach in proposing that Romance pronominal clitics are generated as arguments of the verb, and not under a functional head, as inflection.

Clitics may also end up in different positions with respect to the verb, what constitutes a second major difference between inflectional affixes and pronominal clitics. Regardless of the exact mechanism that is responsible for proclisis in EP, it seems clear that this sort of mobility is suggestive of a certain independence of the clitic, as opposed to inflection.[11]

To sum up, although the fact that pronominal clitics attach to a specified class of words is a property clitics share *superficially* with lexical affixes, they still show differences with respect to affixes that seem to call for a syntactic or a morphological analysis distinct from inflection. In addition, from what we have seen, the relevance of this property as an argument in favour of the lexical treatment of pronominal cliticization appears to be dependent on theoretical assumptions, such as those made in Klavans (1985). Therefore, we believe that host selectivity does not necessarily imply that pronominal clitics are combined with their hosts in the lexicon.

4.2. Phonological idiosyncrasy

Let us now turn to the facts related to phonological idiosyncrasy.

First, there are alternations in the form of the accusative pronoun, which may be *o*, *lo*, or *no*. The clitic appears as *lo* when the preceding element (the verb or

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11. EP clitic positioning is shown in Frota and Vigário (1996) to be sensitive both to syntactic information and to prosodic information. They suggest that proclisis is triggered by heavy function words that have to precede the clitic pronoun within the same CP and the same Intonational Phrase. Adopting this hypothesis, Duarte and Matos (to appear) conclude that proclisis in EP is (in general) an instance of «*Move* occurring between Spell-Out and the P-A Interface». Note, in addition, that regardless the exact point in the grammar where clitic position is obtained, it still has to precede lexical insertion, as the form of clitics varies according to their position with respect to the verb (e.g. *come-lo* '(you) eat it' *versus não o comes* '(you) don't eat it').

another clitic) ends in a consonant (this consonant is in turn deleted when the clitic is added). The form *no* appears when the preceding verb ends in a nasal diphthong, which, at least for some speakers, must also correspond to the 3rd Person Plural suffix. The form *o* appears elsewhere. Moreover, these alternations only arise when the clitic is preceded by a verb or by another clitic, but not by other elements. Although we cannot discuss this issue in greater detail here for space limitations, it is clear that there are no phonological processes in EP that could relate these three forms.

A second type of phonological idiosyncrasy consists on the deletion of a consonant preceding certain clitic forms starting in consonant.

Consonant loss only occurs *regularly* in verb final position before accusative clitics, and not before clitics marked for a different case. Otherwise, it affects specific combinations of verb forms and clitic forms: the verb final consonant deletes if it belongs to the 1st Person Plural marker, and if the following pronoun is a dative clitic of the form *nos* or *vos* (but not *lhes*). Further, it affects specific combinations of clitics: namely *nos* and *vos* (but not *lhes*) followed by the accusative forms. Again, this process must be considered idiosyncratic, since these sequences of consonants are well-formed in EP, and are not subject to consonant deletion.

Phonological idiosyncrasy affecting strings of morphemes is one of the properties listed in Zwicky and Pullum (1983) that distinguishes clitics and affixes, in that it is more characteristic of combinations involving affixes than of combinations involving clitics. And it is considered in Zwicky (1987) to be an evidence for the inflectional status of clitic personal pronouns in Portuguese.

However, there are various examples in the literature of phonological processes that occur between words that have lexical properties, i.e. they are restricted to specific items or classes of items. Numerous examples of such processes in different languages can be found, for example, in Hayes (1990), Kaisse (1990), Odden (1990) and Nespor (1990). Although some of the cases reported do involve the combination of a clitic with its host, many cases can also be found that involve elements different from clitics. We will mention just one example, taken from Hayes (1990): in Hausa there is a shortening process that applies to final long vowels of verbs when the verb precedes an NP direct object. In this case, it would be doubtful to analyse every instance of a verb-direct object NP sequence as a lexical combination. Cases such as this show that phonological idiosyncrasy associated with the combination of specific items or classes of items is not restricted to sequences of verbs and clitics, and that phonological idiosyncrasy associated with certain combinations of words does not necessarily imply that those words are combined in the lexicon.

In order to account precisely for this kind of phenomena, Hayes (1990) develops a theory of precompiled phrasal allomorphy which provides a framework that enables us to analyse the phonological idiosyncrasy found in the combination verb-clitic as a lexical phenomenon, *without* having to assume that verbs and clitics are combined in the lexicon. This seems the best approach since, as we have shown, on the one hand, the alternations in the form of the verb and in the form of the clitic

do not follow from pure phonological rules of EP, and, on the other hand, there is compelling evidence for the nonlexical combination of verbs and clitics in this language.

Precompilation may consist on lexical listing of allomorphs, specified with the environment for their phonological instantiation, or it may consist on lexical rules that derive allomorphs and that refer to instantiation frames in their structural description. The instantiation frames, in turn, define the syntactic context for the insertion of the appropriate allomorph.

Adopting this framework, we propose to account for the alternations in the form of EP accusative pronominal clitics as instances of lexical listing, since these alternations are specific to these elements. The lexical entry of the accusative clitic pronoun will therefore include the information shown in (15).

$$(15) \begin{pmatrix} \dots \\ \text{no} \, / \, [\, \dots \,]_{\text{Vb} -} \\ \phantom{\text{no} \, / \, [} _{[\, 3\text{rd PPL}]} \\ \text{lo} \, / \, [\, \dots_{[+\text{cons}]}]_{\text{Vb} -} \\ \text{o} \, / \, (\text{elsewhere}) \\ \dots \end{pmatrix}$$

As for the consonant loss, both in verb final position and in 1$^{\text{st}}$ PPl morpheme final position, we will consider that it follows from a lexical rule, formalized in (16), that refers to the instantiation frames formalized as in (17).

(16) $C \rightarrow \emptyset \, / \, [\, \dots \, \_ \, \dots \,]_{\text{[Frame 1]; [Frame 2]}}$

(17)   Frame 1: $[\, \dots \, [\, \dots \, \_ \,]_{\text{Vb}} \, [\, \dots \,]_{\text{CL[acc]}} \, \dots \,]_{\text{Vb}}$

        Frame 2: $[\, \dots \, [\, \dots \, \_ \,]_{\text{Vb[1st PPL]}} \, [\, \dots \,]_{\text{CL['nos'/'vos']}} \, \dots \,]_{\text{Vb}}$

As for the sequences of clitics, they display a number of properties that suggest they form a single unit (we won't be able to elaborate on this issue here for space limitations). Their special phonology can therefore result from the fact that these sequences are lexically formed clusters.

In conclusion, according to the proposal made in this section, we hope to have shown that the phonological idiosyncrasy involving the sequence verb plus clitic is far from being a conclusive argument for the lexical combination of verbs and pronominal clitics: on the one hand, phonological idiosyncrasy is not specific to combinations of words obtained in the lexicon, on the other hand, in a framework such as Hayes', it is possible to treat this kind of phenomena as lexical without having to assume that the combination of verbs and clitics is lexically obtained.

4.3. Mesoclisis

As we have seen, mesoclisis is also used as evidence to support the inflectional status of pronominal clitics, since pronominal clitics appear to precede inflection

in this construction (cf. Zwicky 1987, Halpern 1995). However, a number of facts indicate that the EP construction of future and conditional that yields mesoclisis should not be analysed as formed in the lexicon, and therefore, mesoclisis is not a valid argument for the lexical combination of verbs and clitics.

As it is well known, future and conditional forms have developed in EP, like in other Romance languages, from an analytic construction found in Vulgar Latin involving an infinitive verb followed by the present/imperfect form of *habere*. In syntactic structures that trigger proclisis, instead of enclisis, and in structures without pronominal clitics, it is clear from a phonological point of view that the ancient EP auxiliary *haver* has been reanalysed as part inflection: the verb stem and affixes are treated by phonological rules as consisting of a single phonological word, since there is a single primary stress, and vowel reduction applies to the vowel that would bear stress if reanalysis didn't occur (cf. 18a). In contexts of enclisis, in contrast, the clitic pronoun appears to occur *inside* the verbal form, and the whole structure consists of two phonological words: there are two primary stresses, and vowel reduction does not apply to the stressed vowels (cf. 18b).

(18)   a. d[ɐ]r[í]amos   b. d[á]r-te-[í]amos
          give-COND1Pl   -2sgDAT-
          perceb[ə]r[á]s   perceb[é]r-me-[á]s
          understand-FUT2sg   -1sgDAT-

In several studies on EP, mesoclisis is conceived as involving a verb form inflected for the future or conditional that is split up by the insertion of a pronominal clitic. Specifically, the verb inflected for future/conditional is (implicitly) seen as forming a lexical unit that exists prior to the insertion of pronominal clitics. With differences of implementation, this view is shared, for example, by Mateus (1983), d'Andrade (1992) and Van der Leeuw (1997). In addition, it is generally assumed that the lexical formation of future/conditional has a complex internal structure, and is obtained from the infinitive form of the verb. However, several facts show that clitics are not inserted *inside* the lexically inflected verb.

There are three very frequent verbs in EP that have an independent infinitive form that is not identical to the first portion of the future/conditional form, which derives historically from an irregular infinitive, as shown in (19).

(19)   INFINITIVE   FUTURE   CONDITIONAL
       fazer   fará (*fazerá)   faria (*fazeria)
       'to do'   3sg   3sg
       trazer   trará (*trazerá)   traria (*trazeria)
       'to bring'   3sg   3sg
       dizer   dirá (*dizerá)   diria (*dizeria)
       'to tell'   3sg   3sg

With mesoclisis, both forms may be found (although the one with the regular infinitive is not standard), as in (20a). More interestingly, in the case of verbs mor-

phologically derived from these forms, there is a clear tendency for speakers to select the *regular* infinitive form for mesoclisis, as shown in (20b).

(20) a. far-lhe-ia   (?)fazer-lhe-ia   'he would do him'
          trar-lhe-ia   (?)trazer-lhe-ia   'he would bring him'
          dir-lhe-ia   (?)dizer-lhe-ia   'he would tell him'

      b. WITHOUT MESOCLISIS   WITH MESOCLISIS
          refaria   *refazeria   *?refar-lhe-ia   refazer-lhe-ia
          'he would do (him) again'
          satisfaria   *satisfazeria   *?satisfar-se-ia   satisfazer-se-ia
          'he would satisfy (himself)'
          desdiria   *desdizeria   *?desdir-te-ia   desdizer-te-ia
          'he would contradict (you)'

Thus, these facts strongly suggest that the clitic is not added to the lexically inflected verb, but rather to the verbal host in the infinitive form.

Besides the form of infinitive, the form of the material that follows the infinitive verb and the clitic constitutes another problem for the lexical analysis of this construction. According to Zwicky (1987), in addition to the clitic pronouns, the elements that participate in this construction are the infinitive form plus the PN suffix. The problem with this approach is that the forms that follow the clitic do not match entirely the forms of PN suffixes found in the rest of the verbal paradigm, as shown in (21).[12]

(21)   a. PN SUFFIXES   b. FORMS THAT FOLLOW THE CLITIC IN MESOCLISIS
                                  FUTURE   CONDITIONAL
      1Sg o/ Ø   -ei   -ia
      2Sg s   -as   -ias
      3Sg Ø   -a   -ia
      1Pl mos   -emos   -iamos
      3Pl m (/[+nas]/)   -ão (</a[+nas]/)   -iam (</ia[+nas]/)
           (adapted from Mateus and d'Andrade 1998)

Indeed, both in the future and in the conditional, we can identify the same PN markers as in the rest of verbal paradigm, listed in (21a), plus some additional segmental material that cannot be fully identified with some other inflectional morpheme of EP, at least in the case of the future tense. This means that what we have after the sequence infinitive verb+clitic is not simply a (PN) inflectional suffix.

The status of the vowel *a/e* that surfaces in the future tense is not clear under an analysis that treats it as part of a lexical inflexional affix. An alternative analysis is therefore to consider this vowel as the portion that remains of the stem of the

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12. In the perfect tense, TMA and PN are portmanteau forms (cf. e.g. Villalva 1994), and therefore these are not considered in (21a).

old auxiliary *haver* (from now on, we will refer to this element as –*haver*). Note that, under this view, the absence of the stem-vowel in the forms of the conditional, which are marked with the imperfect suffix –ia-, is straightforwardly explained by the general rule of the verbal paradigm that is responsible for the deletion of the first of two adjacent vowels in inflectional environments (cf. section 3.3).

There is yet another piece of evidence that shows that the sequence clitic plus –*haver* cannot be treated as a complex of inflectional morphemes: the morpho-phonological rule mentioned in the preceding paragraph shows that this sequence can not be considered an inflectional complex, nor can it be considered an «inflec-ted pronominal clitic» (cf. Klavans 1985:116), since the first of two adjacent vowels deletes in inflectional environments (cf. 22a), but not when a clitic+-*haver* sequence is involved (cf. 22b).

(22)   a. falo (<fala+o)   comia (<come+ia)   coma (<come+a)
           speak-PRES1sg   eat-IMP3sg   eat-SUBJ3sg

        b. falar-t[j]-emos   (*falar-temos)   'we will speak to you'
           falar-lh[j]-ia   (*falar-lhia)   'he would speak to him'
           falar-lh[j]-á   (*falar-lhá)   'he will speak to him'

The stress pattern observed in mesoclitic structures is another puzzling fact for an analysis of mesoclisis as a lexical operation involving the addition of inflectio-nal suffixes. Descriptively, in the EP verbal system stress location varies according to tense paradigms: in the present tenses, stress falls on the last vowel of either the root or the stem; in the past tenses, it falls on the last vowel of the stem. In the fu-ture/conditional forms without clitics, the addition of inflection «attracts» word stress, and there is no secondary stress on the verb root or stem. In every case, regardless of the exact location of word stress, there is only one stress per word.

As it was already noted, pronominal clitics do not affect word stress position, although the presence of clitics may yield a sequence of four stressless vowels, in a violation of the EP three syllable stress window. This fact was regarded in section 3.2 as evidence that clitics are not combined with the verb at the moment word stress applies in EP. Now, what we find in mesoclisis is that the addition of what is argued to be inflectional suffixation does not cause the primary stress to shift to the right (cf. 23a), nor is it simply ignored by word stress rules (cf. 23b). Instead, the element that follows the clitic seems to carry its own primary stress (cf. 23c).

(23)   a. *falar-te-[é]mos   b. *fal[á]r-te-emos   c. fal[á]r-te-[é]mos 'we will
                                                                      speak to you'

In other words, the element that follows the clitic behaves phonologically as a word, not as an inflectional morpheme.

There is still another fact that seems problematic to an analysis that assumes mesoclisis to be a logical result of the inflectional status of pronominal clitics —that can therefore interact with other inflectional affixes (cf. Halpern 1995). This view also presupposes that mesoclisis is a lexical operation of inflection. However,

mesoclisis only occurs in the syntactic contexts of enclisis, not of proclisis. Since pre- and postverbal positioning of clitic pronouns is conditioned by syntagmatic information, as we have seen in 3.1, mesoclisis, like pronominal cliticization, should not analysed as obtained in the lexicon.

We can thus conclude that mesoclisis is not formed in the lexicon, but is rather the result of a syntactic construction.

We will adopt here the hypothesis formulated in Duarte and Matos (to appear) in the following terms: «suppose that, in the grammar of standard EP, two forms for the future and conditional co-exist: the "new" synthetic form used in proclisis and enclisis […], which is inserted fully inflected, and a survival of the analytic form found in Old Romance, where the ancient auxiliary is interpreted as a "lexicalized" T-affix, generated under the T head…».

In the next paragraphs we will briefly explore this hypothesis.

There are at least two basic syntactic distinctions between the «lexicalized T-affix» and a regular auxiliary (as *ter* 'to have'): its position relative to the main verb, obligatorily adjacent to the infinitive verb+clitic, and to its right; and its position with respect to pronominal clitics, to their right (cf. 24a *versus* 24b).

(24)   a. O João falar-lhe-á sempre nisso   'John will always tell him about it'
          *O João á-lhe sempre falar nisso

        b. O João tinha-lhe já falado nisso   'John had already told him about it'

Both the behaviour just mentioned and all the bulk of phenomena presented in the preceding paragraphs may be accounted for with the simple assumption that *-haver* is a syntactic, but not a phonological clitic: it has the syntactic distribution of a clitic, but it is not a prosodic clitic, since it is marked with (non-contextually determined) word stress. The existence of syntactic clitics that are not phonological clitics is not specific to EP, as cases of this sort can be found in other languages: e.g. disyllabic clitics in Biko (cf. Zwicky 1977), certain particles in Tagalog (cf. Anderson1992), and the Italian pronoun *loro* (cf. Nespor 1993). We therefore propose that *-haver* is treated in the lexical component as a (prosodic) word and in the syntactic component as an element that is dependent on a verb form, in a way similar to the verbal dependency of pronominal clitics.

We thus defend that mesoclisis in EP should be analysed as involving a sequence of syntactic clitics (one of the hypotheses excluded in Zwicky 1987:144).[13] Under this approach, the three constituents that participate in the mesoclitic constructions are independently treated in the lexical component and are combined only when syntactic rules have operated. This accounts straightforwardly for the phonological facts associated with mesoclisis: the infinitive verb and *–haver* are each prosodized in the lexicon as a prosodic word, and are subject to stress assignment rules, and to vowel reduction; as for the clitic pronouns, they are phonologically deficient ele-

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13. We use the term «syntactic clitic» to express the fact that *–haver* has a syntactic distribution different from other «free» auxiliaries, as it is «dependent» on the infinitive verb+clitic. Whether or not this is the best terminology will be left as an open question.

ments, and therefore they are prosodized in the lexicon as syllables, and undergo vowel reduction.[14]

As for the syntactic formation of the future/conditional, our understanding of this construction is that it is always obtained through the combination of features associated with the infinitive and with the present/imperfect tenses, as in Vulgar Latin, and thus the syntactic representation is identical both when we find the «synthetic» and the «analytic» forms. The choice between one or the other, in turn, is made at the moment of phonological instantiation, in the following way. The main verb that is syntactically marked with the infinitive features raises to the T-head specified with the present/imperfect features. When no clitic pronouns are present, the syntactic representation marked for the adjacent clusters of features that characterize the infinitive and the present/imperfect are formally interpreted by the fully inflected verb. However, when there is an enclitic pronoun, the pronoun attaches to the verb marked for infinitive, in the course of verb rising to T. It is precisely the presence of the clitic to the right of the verb marked for infinitive that blocks the selection of the lexically inflected verb: the clitic intervenes between the infinitive verb and the features in T, and therefore only the «analytic» form can be selected.

Regardless of the details of implementation, which we won't develop here further, this proposal solves a number of problems that other analyses face: *(i)* it explains the phonological behaviour of the elements that participate in the «synthetic» and in the «analytic» constructions; *(ii)* it explains the positioning of clitic pronouns in the «analytic» construction; *(iii)* it explains why there are «analytic» effects only in the contexts of enclisis; and *(iv)* it is compatible with the existence of contrasts such as the ones presented in (20).

We should add that for some speakers of EP there is a different position for pronominal clitics in future/conditional tenses in contexts of enclisis, which is after the whole verb form (e.g. *falarias-lhe* '(you) would speak to him/her'). We interpret these facts as meaning that for these speakers the formation of the future/conditional is identical to the formation of «simple» tenses, that is, the analytic construction was lost. In this case, the «synthetic» fully inflected verb form is always selected, which originally developed from a true case of reanalysis of *–haver* as inflection. This verb form displays the effects we would expect from such a reanalysis: *(i)* the whole inflected verb behaves phonologically as any other lexically inflected verb, namely, it has only one primary stress; and *(ii)* most interestingly, the clitic pronoun being enclitic to a verb attaches to the whole inflected verb, thus occurring *after* it and not *inside* of it. It seems to us that this (apparent) shift in the position of pronominal clitics, while a logical step under our proposal, is not predicted by an analysis that explains mesoclisis as following from the inflectional status both of clitic pronouns and *-haver*.

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14. See, e.g. Booij (1988), Booij and Lieber (1993), and Nespor (1990) for the view that prosodic structure up to the prosodic word level is built in the lexicon; and Vigário (1999) for the arguments in favour of the lexical prosodization of clitics, and of the lexical status of stress assignment and vowel reduction in EP.

5. Conclusion

To conclude, the facts that have been put forward as evidence in favour of the inflectional status of EP pronominal clitics appear to be either motivated by an erroneous analysis or driven by disputable theoretical choices.

We have seen that host selectivity of Romance pronominal clitics may follow from a parameter setting of clitic placement (namely, the selection of the head of a constituent, in this case the sentence), and thus their similarity with lexical affixes may just be apparent. We have also proposed to analyse the phonological idiosyncrasy involving pronominal clitics within the framework of precompilation theory, which allows for the lexical rules to apply to combinations of items that are not obtained in the lexicon. In this way we have eliminated phonological idiosyncrasy from the set of compelling arguments in favour of the lexical attachment of pronominal clitic. In addition, we hope to have shown that mesoclisis cannot be analysed as a case of inflection operating in the lexicon, and therefore it is not a valid argument for the proposal that pronominal clitics are combined with their host in the lexicon.

Therefore, under our account of the facts, EP seems to present no sound evidence for the inflectional status of pronominal clitics. Since, in contrast, there is clear evidence that the combination of verbs and pronominal clitics cannot be achieved in the lexicon, we conclude that pronominal cliticization should be considered a postlexical operation in this language.

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