Udi Clitics: a Generalized Paradigm Function Morphology Approach\textsuperscript{1}

Ana Luis, University of Coimbra, Portugal
Andrew Spencer, University of Essex, UK

1. Introduction

Subject person markers (henceforth PM) in Udi, a North East Caucasian language, can appear in any one of the following positions: at the right edge of a focused constituent, verb-finally, inside complex stems or inside monomorphemic verb stems. Harris (2000, 2002) accounts for the peculiar mobility of PM claiming that PM constitute words which appear word-finally, as enclitics, in (1a), and word-internally, as endoclitics in (1b):

\begin{align*}
(1) & \quad a. \text{ lašk’o q’un b esa} \\
& \quad \text{marriage 3PLPM LV PRES} \\
& \quad ‘they get married’ \\
& \quad b. \quad a z q ‘e \\
& \quad \text{take 1SGPM take AORII} \\
& \quad ‘I received’
\end{align*}

Harris shows in detail that the enclitic uses of the PM conform to standard definitions of clitic (for instance the tests of Zwicky and Pullum 1983).

The claim that the verb form in (1b) contains an endoclitic necessarily entails the assumption that words can break up other words or, paraphrasing somewhat, that the syntax can see inside words, in clear violation of the Lexical Integrity Hypothesis, under which only affixes can appear word-internally. In this paper we argue that the conclusion doesn’t follow if we change one important premise, namely, the assumption that the PM in their incarnation as clitics are placed by syntactic rules. On the contrary, we will argue that the enclitics are phrasal affixes and that phrasal affixes are morphological objects (affixes) placed with respect to syntactic categories rather than morphological categories. The analysis we will outline adopts the theory of Generalized Paradigm Function Morphology (Spencer ms., 2004) and specifically the notion of ‘extended paradigm function’ explored in Luís and Spencer (2005) for European Portuguese. The analysis accounts for the distribution of person markers by aligning subject agreement markers either a) within a verb stem as (true) affixes or b) to the right of a focussed phrasal host, as clitics. This means that, as in European Portuguese, affixhood or clitichood is not an inherent property of the PM itself. Moreover, the PMs themselves will be treated as morphological objects no matter where they are placed. It is therefore a consequence of our analysis that complex verb stems are not broken up by syntactic objects, but by morphological objects. Given this analysis, the facts illustrated in (1) are derived within the morphology and the Lexicalist Hypothesis can be maintained.

The structure of the paper is as follows: we start by offering a quick overview of the verb structure in Udi. Section 3 surveys the facts about PM placement in Udi, based on Harris’

\textsuperscript{1} Much of the work reported here was conducted while AS was the recipient of a British Academy/Leverhulme Trust Senior Research Fellowship and while AL was the recipient of studentships from the AHRB/British Academy and the Portuguese Foundation for Science and Technology. We are very grateful to these bodies for their support.
Udi verb structure
To understand the placement of Person markers, we start by presenting the morphological structure of the Udi verb stem (cf. 2.1) and the complete sets of Udi Person markers (cf. 2.2).

2.1 Verb stems: simplex and complex
Udi is an agglutinative language in which the minimal verb form comprises a verbstem and a tense-mood.aspect suffix 2. In (2), the verb form aq’o consist of the verbstem aq’ and the future suffix -o.

(2) aq’-o
   take FUTI
   ‘(someone) will take’

An important property about Udi is that verbstems can be either be simplex or complex. Simplex stems are monomorphemic and constitute the minority pattern in this language:

(3) aq’- ‘take’  bi- ‘die’
    ef- ‘keep’  buq’-‘love’
    baq’- ‘hold’

Complex verb stems, on the contrary, combine a verb or light verb with an incorporated element, as in (4) (p. 653):

(4) a. lašk’o-b-
    wedding-DO
    ‘marry’
 b. kala-bak
    big-BECOME
    ‘grow up’
 c. oc’-k’
    wash-LV
    ‘wash’

There are about six light verbs in Udi (b ‘do’, bak ‘be, become’, p ‘say’, eγ‘come’, d, k), three of which can be used as independent verbstems with independent meanings. Other verbs neither occur independently nor have their own meaning. We gloss the latter simply ‘LV’ (though it should be borne in mind that glosses for the other light verbs are essentially arbitrary). Incorporated elements can be nouns (4a), adjectives (4b), intransitive simplex verbstem (4c), borrowed verbs, adverbs, or unidentifiable elements (p. 65). In fact, most verbs in Udi are complex, with relatively small number of simplex stems (a matter we return to in section 5).

2 The data used in this paper is taken form Harris (2002).
3 Page numbers refer to Harris (2002).
2.2 Person Markers

PM cross-reference the subject for person and number features and are generally not optional. There are three sets of PM, namely the Inversion set, the Question set and the General set, as shown in (5). Which set is selected in a given clause depends on verb’s category. The Inversion set is selected by verbs belonging to the inversion category (buq’ love, want, ak’ see, ababak know); the set labeled Possession is used mainly with verbs denoting possession, while the General set occurs with all other verbs.

(5) Person markers in Udi (p. 28)

<table>
<thead>
<tr>
<th></th>
<th>General</th>
<th>Inversion</th>
<th>Possession</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Sg</td>
<td>-zu, -z</td>
<td>-za</td>
<td>-bez, -bes</td>
</tr>
<tr>
<td>2 Sg</td>
<td>-nu, -n, -ru, -lu</td>
<td>-va</td>
<td>-vi</td>
</tr>
<tr>
<td>3 Sg</td>
<td>-ne, -le, -re</td>
<td>-t’u</td>
<td>-t’a</td>
</tr>
<tr>
<td>1 Pl</td>
<td>-yan</td>
<td>-ya</td>
<td>-bes</td>
</tr>
<tr>
<td>2 Pl</td>
<td>-nan, -ran, -lan</td>
<td>-va, -vaãn</td>
<td>-eãf</td>
</tr>
<tr>
<td>3 Pl</td>
<td>-q’un</td>
<td>-q’o</td>
<td>-q’o</td>
</tr>
</tbody>
</table>

Person markers in the (5) exhibit shape variations which are mainly triggered by rules of phrasal phonology. For example, first and second singular person markers -zu and -nu undergo vowel elision before a consonant or at the edge of words. Also, third singular -ne and second singular -nu assimilate to a preceding [l] and [r] (and optionally to [d] and [t]) (p. 34, 67). For the reader’s convenience we will present a morphophonemic transcription which doesn’t reflect such assimilations.

Finally, one of the PM variants seems to be triggered by the tense of the verb rather than by phrasal phonology. Vowel ellision with third singular PM (belonging to the General set) takes place (optionally) if -ne immediately follows the subjunctive particle –q’a- or if -ne follows markers of the subjunctive II –a-y- (not subjunctive I). In this latter context, ellision is compulsory (p. 33). It is not clear whether this alternation ought to be regraded as a genuine case of allomorphy of the person marker6.

2.3 Summary

This section has shown that there are three complete sets of Udi Person markers and two main types of verb stems. In section 4 we return to the internal structure of verbal stems to address an interesting aspect about the evolution of verb stems, namely their etymology. The diachronic evolution of the Udi verb will help us understand why PM occur word-internally as they do.

---

4 There is also a partial set which is labeled ‘Question’ set. (p. 28).
5 Harris (p. 27) also suggests that these verbs have in common the fact that the subject is an experiencer (cf. also chapter 8 on the historical origin of the Inversion set).
6 There is not enough evidence to go into more details about the exact nature of the phonological alternations displayed by the PM. Also, the phonology of Udi has not been stated explicitly yet, as pointed out by Harris (p. 33). We will therefore leave the morphophonology unaddressed.
3. Person Markers in Udi

We will now describe in more detail the positions in which PM occur and the conditions determining them. There are two basic types of placement patterns for Udi PM, verbal and phrasal.

3.1 Phrasal attachment

Phrasal attachment is perhaps the piece of evidence which most strongly suggests that PM constitute ‘special clitics’ (in the sense of Zwicky 1977). If there is a focused constituent in the clause, the PM encliticizes to it. Negative particles and question words are obligatorily in focus in Udi (cf. 6—7). If both a negative particle and a question word co-occur then the PM attaches to the negative particle (p. 119).

(6) nana-n te-ne  bụya-b-e (te-ne) p’a ačik’alšey
mother-ERG NEG-3SG find-DO-AORII two toy.ABSL
‘Mother did not find two toys’

(7) manu muz-in-nu ayt-exa?
which language-INST-2SG word-SAY.PRES
‘WHAT LANGUAGE are you speaking?’

PM can also attach to other focused arguments, as in (8). If a negative particle or a question word are present, then the negative particle or the wh-question take precedence (p. 120—121).

(8) a. yaq’-a-ne ba-st’a
road-DAT-3SG in-LV.PRES
‘ON THE ROAD he opens it.’

b. merab-en ayt-ne ef-sa
Merab-ERG word.ABSL-3SG keep-PRES
‘Merab keeps his WORD.’

Finally, in clauses with zero copulas, the PM is hosted by the predicate nominal, unless the subject is in focus:

(9) nana k’wa-ne
mother.ABSL house.DAT-3SG
‘Mother is at the house’

These then are the four hosts to which PM attachment: a) a negative particle, b) a wh-word, c) other focused arguments and d) a nominal predicate. How these four contexts interact in terms of precedence relations is explained and exemplified in great detail in Harris (2002). For the present purposes however it suffices to say that the position of the PM, shown in (6—9), results from the interaction between syntax and information-structure. The data has also shown that person markers in Udi appear in places in which full words cannot occur and exhibit promiscuity with respect to the words they attach to. Based on Zwicky and Pullum (1983) and various other studies (see p. 114), Harris argues that properties such as these support the view that PM are special clitics.

3.2 Verbal hosts

There are also contexts in which Udi PMs seem to select their host. In this section, we focus on the attachment of PM to the verb, both verb-finally or verb-externally.
The first observation to make is that PM are final in the verb stem if the verb is in the future II, the subjunctive I, the subjunctive II, or the imperative\(^7\). These TAM categories, which take precedence over the phrasal contexts addressed in section 3.1, position the PM in verb-final position, regardless of whether there is a negative particle or a wh-word (p. 118—119).

(10) a. boš-t'-al-ne
    in-LV-FUT-3SG
    ‘s/he will plant’

b. eγ-a-q'un?
    come-SUBJII-3PL
    ‘will they come?’

c. besp'-a-nan
    kill-IMP-2PL
    ‘You kill [her].’

As to the verb-internal placement of PM, we start with placement inside the complex verb stem. At the outset of this paper we alluded to the fact that PM can break up the components of a complex stem, occurring between the incorporated element and the light verb or verb root. As (11) shows, the PM occurs between morpeme boundaries:

(11) a. eč-es-ne-st'a
    bring-INF-3SG-CAUS.PRES
    ‘(he) brought’

b. zer-ev-ne-k'sa
    decorate-CAUS-3SG-LV-PRES
    ‘s/he arranges [the house]’

c. lašk'o-q'un-besa
    wedding-3PL-DO-PRES
    ‘married’

The placement in (11) cannot occur if the verb form is future II, the subjunctive I, the subjunctive II, or imperative (i.e., in the presence of the TAM categories responsible for verb-final positioning). If it is, then the more general placement rule applies, namely PM appear verb-finally, as illustrated in (12).

(12) aš-b-al-ne
    work-do-FUTII-3SG
    ‘s/he will work’

Examining the behaviour of PM inside monomorphemic stems, PM can also appear immediately before the final consonant in monomorphemic verb roots. In (13), various examples of intramorphemic placement are given. We follow Harris (2002) in glossing the parts of the discontinuous root twice with different subscript numbers.

\(^7\) Verb-final placement also takes place with a very small set of suppletive roots consisting entirely of a single consonant (e.g., b-esan [make-PRES-3SG] ‘she makes’, p-e-ne [say-AORII-3SG] ‘she said’) and with irregular forms of other verbs (e.g. aba-t'u ‘she knows’ the shortened form of aba-t'u-bak-e [know-INV3SG-be-AORII]).
Intramorphemic placement however cannot occur if the stem consists entirely of a single consonant or a CV sequence, in which case PM occur verb-finally (p. 128).

Also, specific lexical class trigger intermorphemic placement - between the verbstem and the present tense marker – but only in the intransitive

3.3 Summary
Verb-final placement, which is triggered by TMA properties of the verb, constitute the default position. Phrasal attachment occurs if there is a focused constituent in the clause; verb-internal placement takes place when neither the factors triggering verb-final nor phrasal attachment are available in the clause. Simplifying somewhat: intermorphemic placement is only possible with complex stems, containing an incorporated element; intramorphemic placement takes place with monomorphemic stems ending in consonant. 4. Cliticisation vs affixation

The account of the Udi facts proposed by Harris’ (2000, 2002) within Optimality Theory treats the PMs as clitics wherever the occur: enclitics in word-final positions and endoclitics in verb-internal position. However, an alternative approach is possible if we take seriously the idea that clitics are affixes which have phrasal attachment (Klavans 1985, Anderson 1992, Luís and Spencer 2005). Before sketching our analysis we compare and contrast the two approaches.

Harris (2000, 2002) derives the positioning of the PMs through specific alignment constraints:

a) enclisis to a verb is derived through the alignment constraint which aligns the left edge of the PM with the right edge of the inflected verb form (in the future II, ending in –al; subjunctive I and II, imperative – all ending in -a);

b) enclisis to a focussed constituents follows from an alignment constraint which states that the left edge of the PM is aligned with the right edge of the Focused constituent.
c) intermorphemic placement (between IncE and light verb) is captured through an alignment constraint which aligns the left edge of the PM aligned with the right edge of the IncE;

d) intramorphemic placement is derived as ‘infixation’ incorporating McCarthy’s and Prince (1994) insight that certain grammatical structures may incur minimal violations of constraints. Here, the alignment constraint requires that the right edge of the PM be aligned with the right edge of the verbstem. Since this entails overlapping segments the constraint will always be violated to some degree. The least violation is incurred when there is a mismatch of only one segment, which effectively means that the PM is moved to the left of the rightmost consonant. This is illustrated in Harris’ Tableau 7.5 (p. 153), adapted here as (16), where ‘|’ indicates the right edge of the verbstem and ‘+’ the right edge of the PM:

<table>
<thead>
<tr>
<th>Candidates</th>
<th>ALIGN-PM-VERBSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ne+beγ</td>
<td>-e</td>
</tr>
<tr>
<td>b. b-ne+eγ+e</td>
<td>eγ!</td>
</tr>
<tr>
<td>c. be-ne+γγ</td>
<td>γγ</td>
</tr>
<tr>
<td>d. beγ</td>
<td>-ne+e ne!</td>
</tr>
</tbody>
</table>

The claim that PM constitute special words positioned by rules of syntax crucially implies that PM violate the lexical integrity of the verbal host when they occur word-internally. Harris’ analysis explicitly claims that rules of syntax clitics can see inside words.

The analysis works, but at typological cost: it depends crucially on an appeal endoclisis, i.e., the ability for words (clitics) to occur inside the verb root. As alluded to before, however, this is not an entirely uncontroversial claim, given that it is generally assumed that word-internal constituents are morphological elements not free words. If Harris’ analysis proves to be the only one available, then it means that Udi constitutes a counter-example to the widely-held assumption within lexicalist grammar that a) the internal structure of words is not visible to the syntax and that b) the syntax cannot manipulate the structure of words.

5. An alternative proposal

In this section we show that the complex Udi data can be given a different interpretation, though one which is only minimally different from Harris’ own account. One important property about person markers in Udi is indeed their local relationship with the verb. They not only realise morphosyntactic properties typically associated with verbs, but they also display a high degree of locality with respect to the verb, either when they occur at the edge of it (by default) or inside it. We will therefore explore the idea that they constitute verbal affixes. How can we account for their behaviour within an inflectional analysis?

As will be shown in section 5, an inflectional analysis of verb-internal placement can easily explain why a given affix breaks up verbal stems/roots. Complex stems, even though they behave syntactically and semantically as one word (mostly with non-compositional semantics), are historically composed of two ancient morphemes. Cross-linguistically it is not rare for stems to be discontinuous and split up by inflectional morphemes. Spencer (2003) discusses the discontinuous stems of Athapaskan languages in this light and Spencer (ms.) gives further examples from the Siberian (Yeniseian) language Ket.

Intramorphemic placement raises a different question: if simplex verb stems are single morphemes how is it possible that PM can split them up too? However, even this apparently strange pattern can be incorporated into our affixational account given one additional
assumption. Indeed Harris’ own discussion hints at a natural solution which involves restructuring the simplex verb stems.

“All of the light verbs that form complex verbs consist of a single consonant, except for bak- ‘become’. That is, in a typical complex verb, such as aš-ne-b-e, the PM is before the light verb, that light verb being the last consonant of the verbstem. (p. 213)”

We propose that the remaining simplex stems of the form (C)V(C) (i.e. the majority) have been reanalysed as complex stems in the modern Udi lexicon. The small number of remaining stems which have a different shape then constitute the exceptions to endoclisis accounted for by Harris’ Rule 6.

Now, assuming that verbal attachment (i.e., verb-final, intermorphemic and intramorphemic) can be derived purely within the morphology, the next important question we need to address is how to account for the phrasal attachment of PM which for Harris clear proof that the PMs are positioned by rules of syntax. Recall that PM attach to a focused constituent, regardless of the category of the host. In this respect, one could say, descriptively, at least, that PM behave partly like of genuine verbal affixes and partly like special clitics.

European Portuguese exhibits a very similar patterning of clitics to Udi. In ‘enclitic’ contexts the Portuguese formatives behave like canonical suffixes, while in ‘proclitic’ contexts they behave like canonical clitics. In Luís (2004) and Luís and Spencer (2005) European Portuguese clitics are treated as identical formatives in each case but subject to different rules of placement or attachment depending on various morphosyntactic factors. Those works take the clitic contexts to be contexts of phrasal affixation in which morphological formatives are placed with respect to syntactically defined nodes rather than morphologically defined stems. In other words, in phrasal affixation morphology has access to syntactic structure.

Likewise, the Udi PMs constitute (subject agreement) affixes, irrespective of where they are placed. The PMs are placed either as stem/root-suffixes (in verb-final and verb-internal position) or as phrasal affixes (in focused contexts). This proposal crucially relies on the assumption that the morphology a) defines the realisation of inflectional exponents over lexemes (not lexemic roots) and b) the definition of exponence (realization), domain (placement) and linearization are treated separately.

One consequence of our analysis is that verb forms in Udi are no longer broken up by syntactic objects (as suggested by Harris 2002), but by morphological objects (cf Luis and Spencer, 2005 on ‘mesoclisis’ in European Portuguese). It is important to highlight the fact that clitic constructions are not an instance of periphrasis, in which syntactic words realize morphosyntactic properties. Clitics have no syntactic representation (in particular, they aren’t syntactic heads). PM aren’t even non-projecting words in the sense of Toivonen (2001).

6. Generalized Paradigm-Function Account
Our analysis can be couched within the extension to Stump’s (2001) theory of Paradigm Function Morphology (PFM) proposed in Luis and Spencer (2005) and Spencer (ms.). In
PFM a paradigm function takes a pairing of a root and a set of features and delivers a fully inflected word form. In general the paradigm function is defined in terms of a sequence of realization rules which add successive affixes to the root. We can think of the paradigm function as a set of assembly instructions for word forms.

In Stump’s original model the realization rules take the general form X \Rightarrow X-suffix/prefix-X, where the ‘X’ can be the lexeme’s root or any intermediate affixed form. In the extended PFM model we separate out two distinct aspects of the realization rule, exponence (a definition of the form of each affix) and placement (what kind of stem it attaches to and in what direction). We code this idea by reformulating the notion of paradigm function. This is now a mapping from a pairing of the full representation of the lexeme and a set of features. The paradigm function defines the word form of a given lexeme corresponding to that feature set. In the extended model the paradigm function itself is split into four components, as seen in (17):

(17) Paradigm Function in Extended PFM

(i) Domain
(ii) Host
(iii) Exponence
(iv) Linearization

For affixation the Domain is the word and the Host is some appropriate stem. Like the realization rules of standard PFM, the rules introducing exponence are furnished with a ‘rule block index’. This is an integer which is used to linearize affixes within a string. The default Linearization is for each affix to be placed in the order defined by the rule block index, but as Stump (2001) details there are numerous exceptions to this within ordinary affixation (see also Spencer 2003).

The modification of the paradigm function given in (17) allows us to collapse stem affixation with phrasal affixation (cliticization). The parameters in (17) are very similar to the parameters for cliticization proposed by Klavans (1985). Thus, in typical instances of phrasal affixation we have a clitic cluster, whose exponents are defined under (17(iii)) and linearized under (17(iv)). The domain parameter determines the phrase or prosodic category with respect to which placement takes place and the host specifies where within that domain attachment is made. A simple illustration of the difference between the two modes of attachment as defined by a paradigm function is given by the English plural (18) and the English possessive inflections (19):

(18) English plural:
PF(CAT, [Num: Pl]) =
Domain(CAT, [Num: Pl]) = word
Host(CAT, [Num: Pl]) = root(CAT) (by default) = kat
Exponence: Formative string(CAT, [Num: Pl]) = /z/ (default plural)
Linearization: /z/ = suffix (by default)
Ignoring the question of ‘endocisis/infixing’ for a moment, we now have the basis for a simple unified description of the Udi facts. Where some (non-verbal) phrase in the clause is in focus that phrase serves as the domain/host for attachment of the PM. A full account of this will require the paradigm function to have access to whatever feature is used to code non-default focus in Udi. For the sake of exposition we will simplify and just assume a feature [Default focus: {yes, no}], where default focus is on the verb. To some extent this means that PM placement is at least a partial exponent of this focus feature. Once we grant to the paradigm function the possibility of making explicit reference to the nature of focussing, the revised definition of the paradigm function will permit us to treat the PM as a focus-seeking enclitic or as a verbal affix.

A salient property of the Udi PM’s is that they appear as infixes with certain classes of verb stem. Harris (2002) offers a description of this patterning within Optimality Theory which relies on making a phonological segmentation of the verb stem and placing the PM phonologically. However, Harris’ meticulous tracing of the historical development of the structure of the verb stem suggests an alternative way of looking at the Udi verb lexicon (see especially Harris 2002: 211f). Very few Udi verbs are monomorphemic and those there are often have a form (C)VC. The typical form of the light verb element is just a consonant. Moreover, the LV is typically a cranberry form, devoid of any meaning (indeed, this is often true of both parts of a complex verb stem). We propose, therefore, that the verb lexicon has undergone a type of reanalysis under which (nearly) all verbs are taken to be morphologically complex: IncE + LV. Thus, even a simplex verb stem such as aq’ ‘take’ is treated as morphologically complex, which we will represent as a0 + q’II. The subscripts represent morpheme template positional slots (see Spencer 2003 for discussion of discontinuous stems in Athapaskan). (We stress that nothing of substance hinges on this interpretation being correct, but it seems to provide a straightforward account of the facts).

Assuming such a reanalysis simplifies the statement of the infixation process. Where the paradigm function is defined over a feature set containing [Default Focus: yes], the Domain/Host parameter is defined as the verb stem, and the exponence defines the PM as occupying slot I (with obvious abbreviations), whether slot I intervenes between an etymologically complex stem, as in (20), or between the components of a reanalysed stem, as in (21):

(20) PF for lašk’oq’unbesa ‘they get married’

\[
\text{PF(<LAŠK'O, \{3plSubj, Pres, DefaultFocus\} > =}
\]

- **Domain**: verb
- **Host**: verb stem = lašk’o0 + bII
- **Exponence**: zI, esaIII
- **Linearization**: default

**Output**: laško-q’un-b-es
(21) PF for *azq’e ‘I received’
PF(<AQ’, {1sgSubj, AorII, DefaultFocus}> =

Domain: verb
Host: verb stem = a₀ + q’₁₁
Exponence: z₁, eᵢᵢᵢ
Linearization: default
Output: a-z-q’-e

All we have presented here, of course, is the sketch of a preliminary analysis, or, more accurately, re-interpretation of Harris’ analysis. There are various exceptional patterns to account for with default focus in which infixation isn’t found, including the various Future and Subjunctive examples and a variety of other morphosyntactic contexts. However, each of these special contexts is indeed special, in the sense that the context has to be characterized by additional features and thus will pre-empt the default intra-verbstem placement outlined above. Thus, as far as we can tell, those exceptional subcases will not materially affect our argument. Our account successfully unites the phrasal and stem affixational properties of these unusual markers, but it does so by treating both clitics and affixes as morphological objects introduced by a paradigm function. Thus, what is odd about Udi is not that a syntactic object is allowed to violate lexical integrity. Rather, we have an instance of exactly the same patterning as that found in European Portuguese and a number of other languages, in which a clitic has been grammaticalized as an affix in some morphosyntactic contexts but has remained a clitic in other contexts. The Generalized Paradigm Function Morphology model, with its extended notion of paradigm function, permits us to capture the dual behaviour of a single morphological formative by providing a unified treatment of clitics and affixes which correctly reflects the essentially morphological nature of these formatives.

Ana Luís
Department of Anglo-American Studies
University of Coimbra
3004-530 Coimbra, Portugal
aluis@ci.uc.pt

Andrew Spencer
Department of Language and Linguistics
University of Essex
CO4 3SQ Colchester
spena@essex.ac.uk
References
Spencer, Andrew (ms.) Generalized Paradigm Function Morphology. Unpublished manuscript, University of Essex. [Available from website]