

LFG97---L. Mereu: For a lexical-functional representation of

**For a lexical-functional representation of agreement affixes  
and clitics**

**Lunella Mereu**

**Università degli Studi di Roma Tre**

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### 1. *Introduction*

In the linguistic literature it is common to distinguish between affixes and clitics according to the properties they have at different levels of analysis. Following in part Anderson (1985, 1992), we can summarize the similarities and the differences between the two grammatical categories as in (1) and (2):

(1) properties of affixes:

a) phonology:

b) morphology:

c) syntax:

word-internal;

partial and total allomorphy;

attachment to a stem;

impossibility to be interrupted by other words;

impossibility to function as independent words;

rigid affix order within a word

(2) properties of clitics:

a) phonology:

b) morphology:

c) syntax:

lack of independent stress;

partial allomorphy;

attachment to a stem;

impossibility to be interrupted by other words;

functioning as independent words;

order restrictions between clitics and their hosts, and specific locations, such as second position in Wackernagel clitics

Most of these properties are more or less applicable to distinguish, for example, between pronominal clitics and inflectional affixes in Romance languages; in these languages clitics are considered pronominal elements corresponding to independent words in argument positions, and affixes are considered grammatical markers, corresponding to inflectional heads within some functional projections.

Now, if we look at typologically different languages, we see that not all the properties in (1) and (2) help to characterize clitics and affixes or to distinguish between them. This is true both for their morpho-phonological properties, as Anderson

(1985, 1992) and Spencer (1991) have shown, and for their functional and syntactic properties, as the studies on agreement and pronominalization by Lehmann (1982, 1985) and by Bresnan and Mchombo (1986, 1987) show. For example, we know that there are languages, such as European Portuguese, in which clitic forms are included between a verbal stem and an inflectional affix, as in the following example from Spencer (1991):

(3) Leva-lo-ei            (verbal form: “levarei”, Spencer,1991: table 9.6b)

lift-CL-FUT1SG<sup>1</sup>

I will lift him

In other words, clitics can be attached to stems, and affixes can be interrupted by other lexical material. Also, as Bresnan and Mchombo (1987) have shown, inflectional affixes can function as independent words, that is as pronominal elements, and indeed, for some polysynthetic languages, strong interpretations of affixes as pronominal arguments have been proposed (Jelinek 1984, 1989).

Just to give an example from Bresnan and Mchombo (1987), the following sentence from Chichewa in which both an affix corresponding to an object marker and a lexical object are present, is interpreted as a sentence with a pronominal affix and a topicalized object:

(4) njũchi zi-ná-wá-lum-aalenje

bees SM-PAST-OM-bite-INDIC hunters

The bees bit them, the hunters

All this shows that it is not easy to distinguish between inflectional affixes and clitics. Therefore I will deal with the two categories as if they were members of the same category, without distinguishing between them, unless it is needed. Also, I will concentrate more on their functional and syntactic properties than on their phonological and morphological properties. This choice is due to the fact that, although the literature on clitics/affixes is at present rather rich, it is generally more concentrated on the morpho-phonology of these elements, rather than on their syntax<sup>2</sup>.

The aim of this paper is therefore to present a typology of functions that clitics/affixes can have in different languages and to propose lexical representations to associate with the types

distinguished according to the lexical-functional approach.

The paper is divided into two parts: in the first part I will present the typology and the diagnostic tests which help distinguish among the different types; in the second part I will introduce the lexical entries for verbs for the agreement affixes and clitics, and will discuss some problems which are specifically connected with affix forms in LFG.

The discussion will be mainly limited to subject clitics/affixes, as it is with subject forms that the whole range of types and phenomena occur. Also, as for the affixes, it will be limited to the agreement features, even though in inflectional languages, these may contain additional information relative to tense, aspect, or other.

## 2. *Some data and previous analyses*

Languages with affix/clitic (=CL/AFF) forms present the following patterns<sup>3</sup>:

(5)a.  $V_{[+AGR]}, CL/AFF^4$

b.  $V_{[-AGR]}, CL/AFF$

that is, they can have sequences of V stems with or without agreement (=AGR) affixes cooccurring with (other) CL/AFFs bearing AGR features or reference to the subject and sometimes also to the non-subject arguments of the sentence<sup>5</sup>. For both sequences in (5) it has been shown that there are languages whose forms can be interpreted as in (6):

(6)a. as pronominal elements;

b. as AGR markers

For example, interpretations of these elements as in (6a) have been proposed by Jelinek (1984, 1989) for the AGR affixes in Warlpiri and Choctaw, while the interpretation as in (6b) has been proposed by Brandi and Cordin (1981, 1989) and Rizzi (1986a) for the subject clitics in some Italian dialects, or by McCloskey and Hale (1984) and McCloskey (1986, 1990) for the personal endings of synthetic verb forms in Irish<sup>6</sup>.

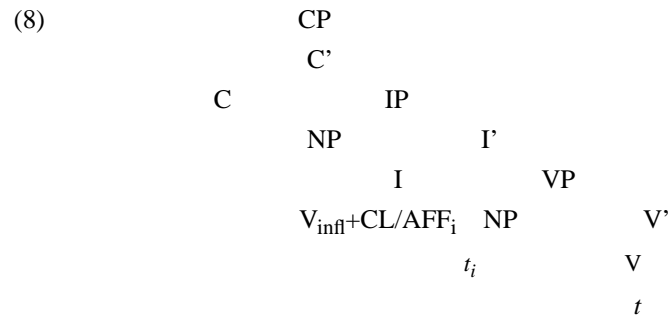
In generative terms, that is according to the framework adopted in the papers mentioned above, the two interpretations are associated with two different syntactic representations, which are approximately of the kind shown in (7):

(7)a.  $V + CL_i/AFF_i, t_i$ (incorporation analysis)

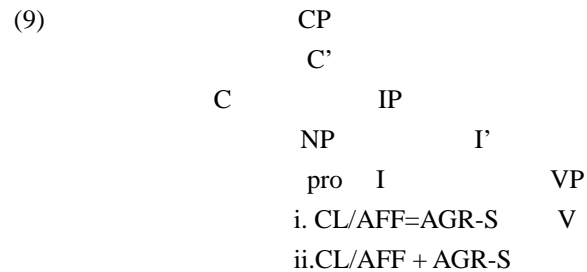
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b. V + CL<sub>i</sub>/AFF<sub>i</sub>, *pro*<sub>i</sub>(agreement analysis)

(7a) corresponds to the pronominal interpretation of CL/AFFs leading to the movement and incorporation of the pronominal argument into the V head<sup>7</sup>, with a trace left by its movement. This is illustrated in the syntactic tree representation in (8):



In (7b), instead, the CL/AFF is base-generated within some inflectional projection as an AGR head licensing an empty *pro*, whenever a lexical NP is not phonetically realized, or is topicalized. This is illustrated in the tree representation in (9):

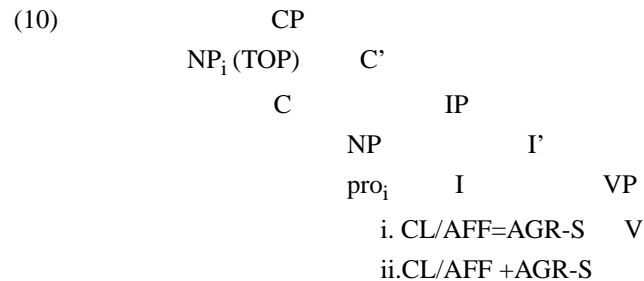


Notice that the two alternatives in (5bi,ii) correspond to the two possibilities for CL/AFFs to be either the only forms bearing AGR features (=i) or cooccurring with other AGR markers (=ii).

The difference between (7a) and (7b) is therefore that in (7a) the position occupied by *t* can never be occupied by a lexical NP, while in (7b) the position occupied by *pro* can also be occupied by a lexical NP, that is the difference is somehow between pro-drop and non-pro drop languages.

A consequence of this two-way distinction is that, whenever there is a lexical NP, in languages whose CL/AFFs undergo an incorporation analysis, this is dislocated and interpreted as a topic while these forms perform the role of resumptive pronouns (=RPs); this is not the case with languages whose CL/AFFs are interpreted as AGR markers, as a lexical NP is either

an argument of the sentence, or, if it topicalized<sup>8</sup>, it is associated with an empty resumptive pronoun, as illustrated in the syntactic tree in (10):



### 3. Clitic/affix typology and supporting evidence

The problem with these analyses is that in many languages these elements do not show the same behaviour in all contexts, that is, they sometimes give place to phenomena such as the so-called ‘clitic doubling’, sometimes they appear in topicalized structures, and sometimes they determine ‘disagreement phenomena’ (Anderson, 1974, 1992), that is the impossibility of cooccurrence of full subjects and CL/AFF forms, as in the Celtic languages.

Bresnan & Mchombo (1987), on the basis of data from Chichewa, have introduced the important distinction between CL/AFFs as pronominal markers determining anaphoric agreement (the object markers, or OMs, in Chichewa) and as ambiguous markers (the SMs in Chichewa), that is CL/AFFs that can undergo grammatical and anaphoric agreement in different contexts. Ambiguous markers, therefore, would perform both the function of AGR markers and of pronominal elements in some languages; as the authors show, this undermines the distinction, made by generative syntacticians, between pro-drop and non-pro-drop languages, as in many languages the argument role of the missing NP would be taken up by the CL/AFF.

Now, given the fact that there are also languages in which CL/AFFs just perform the role of AGR markers, we should have a three-way distinction as to the functions that these forms may have. This yields the typology of CL/AFFs in (11), which I have recently proposed on the bases of cross-linguistic data (Mereu, 1994, 1995a):

- (11)a.
- b.

c.

AGR forms;

pronominal forms;

ambiguous between the two, in other words performing both the function of AGR forms and of pronominal arguments

(11a) corresponds to the interpretation that personal endings in Italian, or clitics in Basque, invariably have; (11b) corresponds to the interpretation that pronominal clitics in Italian or French, or personal endings in the synthetic forms in Irish, have; lastly, (11c) corresponds to the interpretation that subject markers in Chichewa, or, according to Mereu (1994, 1995a), subject clitics in Italian dialects such as Fiorentino and Trentino, have.

In this three-way typology, only languages whose CL/AFF forms behave as in (11a) are truly pro-drop languages, while languages whose forms behave as in (11b) and (11c) correspond to languages which can be null-subject, that is they can lack full subjects, but not pro-drop, as in every sentence in which the lexical NP is missing, the CL/AFF takes up the argument function of the missing NP.

This three-way typology is based on the different behaviour which CL/AFFs in various languages have in relation to the following phenomena:

(12)i.cooccurrence with lexical NPs (even independent pronouns, not used contrastively);

ii. extension of use of the forms (obligatory versus optional use; cases of non-occurrence of the forms, or gaps, not to be interpreted as 0-forms);

iii.use of the forms as resumptive pronouns (RPs) in contexts such as 'long-distance relative clauses', that is relative clauses embedded in complement clauses

(12i) helps us to distinguish between languages in which CL/AFFs cannot cooccur with full subjects and languages in which they cooccur in the same sentence, the former associated with pronominal forms, while the latter with AGR forms. (12ii) separates out CL/AFFs with no gaps and obligatorily present in the sentence, just as AGR forms are, from CL/AFFs with gaps or optionally present in the sentence, as bound pronominal forms are. (12iii) is specifically associated with relative clauses, and , in particular, with long-distance relative clauses. These structures are more crucial than, for example, topicalization structures, as they often select RPs in long-distance contexts,

while universally they tend to avoid them in simple subject relative clauses (Keenan & Comrie, 1977). Therefore, if CL/AFF forms are not present in these contexts, this is good evidence that they behave as pronominal forms, that is as RPs which cannot be selected in simple relative clauses. Topicalization structures, instead, always select RPs; therefore, CL/AFFs in these contexts might also be interpreted as AGR forms, given the fact that these are characterized as having no limitation of use or gaps.

Now, the facts in (12) act as diagnostic tests to determine which of the three functions in (11) these forms have.

Schematically, we can say that: (I) if there are no gaps in the AFF/CL system, these forms can cooccur with full subjects, and are obligatorily associated with all kinds of relative clauses (long-distance and not), the forms are to be invariably interpreted as AGR forms; (II) if the AFF/CL forms are always optional, that is if, like object clitics in Italian or object markers in Chichewa, they occur only when lexical NPs are not present or are in topic position, they are undoubtedly cases of pronominal forms; (III) if the cooccurrence of full NPs and AFF/CL forms is never allowed, NPs cannot occur, that is, if there is an obligatory pro-drop of the lexical argument, and if AFF/CLs occur in long-distance relative clauses, again the forms invariably perform the role of pronominal arguments; lastly (IV) if the cooccurrence of full NPs and AFF/CLs is possible, the extension of use of these forms is reduced either in terms of the person/number system and/or of the syntactic contexts in which they occur; if in addition they can act as RPs in long-distance relative clauses, they are the ambiguous markers in (11c).

Let us now have a short look at three examples of languages containing the types of subject CL/AFFs distinguished.

#### *4. Languages exemplifying the typology*

##### *4.a Italian*

As it is well known, the Italian affix system on the verb is rich, optionally yielding the omission of the full NP, or licensing an empty *pro* in subject position according to generative syntax, as (13b), the pro-drop counterpart of (13a) shows:

(13a). Mario parte



M. leave-PRES3SG

Mario is leaving

b Parte

(He) is leaving

In Italian there are no cases of optional presence or lack of affixes; all finite verbal forms are associated with personal endings.

If we look at relative clauses, in no way can we interpret subject affix forms as RPs, as in no contexts relative clauses in Italian are associated with RPs. As a matter of fact, while object clitics obligatorily occur as RPs in topicalization structures, as (14) shows:

(14)a. Il libro<sub>i</sub>, I<sub>i</sub>' ho comprato  
the book CL have-PRES1SG bought  
(as for) the book, I bought it

b. \*Il libro, ho comprato  
\*(as for) the book, I bought

they never occur either in simple (ex.(15)) or long-distance relative clauses (ex.(16)):

(15)a. \*Il libro<sub>i</sub> che I<sub>i</sub>'ho comprato  
The book that CL ..  
\*The book that I bought it

b. Il libro che ho comprato  
The book that I bought

(16)a. ??L'uomo che Maria hadetto che  
the man that M. have-PRES3SG say-PASTPART that  
I' ha incontrato  
CL have-PRES3SG meet-PASTPART  
??The man that Maria said that she met him

b. L'uomo che Maria ha detto che ha incontrato  
The man that Maria said that she met

Therefore simple and long-distance subject relative clauses such as (17) and (18) contain affix forms which cannot be interpreted as pronominal forms, yielding a RP strategy:

(17). Il ragazzo che legge un libro  
the boy that read-PRES3SG a book  
The boy who is reading a book

(18) Il ragazzo che Maria ha detto che legge un libro

The boy that Maria said that is reading a book

They invariably contain AGR forms. However, given the existence of topicalized structures with object clitics functioning as RPs (see ex.(14)), and the lack of subject clitics in Italian, we might still conclude, though, that a sentence such as the following:

- (19) Maria, è venuta ieri  
M., be-AFF come-PASTPART yesterday  
(as for) Maria, (she) came yesterday

might be interpreted as containing an empty RP strategy, as shown in the syntactic tree in (10). But this would apply also to relative clauses, giving place to wrong interpretations of these structures. In addition, consider the difference between subject and non-subject arguments in Italian: the former can always be dropped (under the appropriate conditions), while the latter cannot (except in cases of a generic interpretation of the non-subject argument; see Rizzi (1986b)). This means that there is an asymmetry between subject and non-subject arguments; therefore the RP strategy is applied only to topicalized objects, while the personal endings of the verb in Italian remain AGR forms

#### 4.b Irish

As it has been discussed in McCloskey and Hale (1984), McCloskey (1986, 1990), and in Andrews (1990), Irish presents an alternation of synthetic and analytic forms in different tenses and with different persons, that is forms containing the following two patterns:

- (20)a. Vstem + tense + AFF(synthetic form)  
b. Vstem + tense (analytic form)

When the verb contains a person which selects the synthetic form, no full NP<sup>9</sup> can be present (ex.(21a); the same results are obtained both with pronominal and lexical NPs), nor can the analytic form and the independent pronoun be selected (ex.(21b). The only grammatical form is the one in (21c) with no subject phonetically realized:

- (21)a.\*Chuirfinn mé isteach ar an phost sin<sup>10</sup>  
put.COND.1SG I in on that job  
b.\*Chuirfeadh mé isteach ar an phost sin  
put.CONDI.....  
c.Chuirfinn isteach ar an phost sin

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put.COND.1SG .....  
I would apply for that job

Instead, with a person yielding an analytic form only the cooccurrence of the verb and a separate NP is allowed:

(22) Chuirfeadh sibhisteach ar an phost sin  
put.COND you(PL) ...  
You would apply for that job

The morphology of Irish verbs, that is the lack of person affixes with some forms of the verb, and the syntactic property concerning the impossibility of cooccurrence between full subjects and personal affixes are evidence of these affixes receiving a pronominal interpretation, rather than an AGR interpretation, as Andrews (1990) has proved.

The data about relative clauses confirm this analysis. There are two ways in which Irish relative clauses are built: the first is given by a structure with a gap for the relativized argument and is introduced by the complementizer *a* causing a lenition mutation of the initial phoneme of the following verb; the second is given by a structure with a RP coindexed with the relativized argument and introduced by the same complementizer causing the nasalization of the initial phoneme of the following verb. Examples of both structures are (23a-b):

(23)a. An rud aL choinníonn tú ceilteorthu  
the thing COMP keep.PRES you concealed on-them  
The thing that you keep concealed from them  
b. An rud aN gcoinníonn tú ceilte orthu é  
COMP keep.PRESit  
The thing that you keep (it) concealed from  
them

(23a-b) are simple object relative clauses, (23a) is a gap structure, while (23b) is a structure with a RP. The interesting fact about these kinds of clauses is that in long-distance subject relative clauses, the only instance of relative structures in which a subject can be associated with RPs, Irish applies the RP strategy, as the following examples show:

(24)a. Na daoine aN raibh mé ag dúil goN gcuirfeadh siad  
the people COMP was I expect PROG COMP  
put.COND they  
isteach ar an phost sin  
in on that job

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The people that I expected (that they) would apply for  
that job

b.Na daoine aN raibh mé ag dúil goN gcuirfidís isteach ar an  
phost

.... put.COND.3PL ....

The people that I expected (that they) would apply for  
that job

(24a,b), taken from a dialect which allows both the synthetic and the analytic forms, show that the same strategy applies in both sentences, that is both the independent pronoun and the affix are used as RPs.

We can therefore conclude that the personal endings of Irish synthetic forms are pronominal forms.

#### 4.c *Italian dialects*

Dialects such as Trentino (T) and Fiorentino (F) have subject clitics and are associated with fully inflected forms of the verb. However, these forms are not associated with all persons in the two dialects: T has no clitics for the first singular and first and second plural persons, and in F the first singular person is optional.

The clitic is obligatory, while the lexical subject can be omitted, as the following examples from Rizzi (1986a) show:

(25)a.El Gianni el magna(Trentino)

the G. CL eats

Gianni is eating

b.El magna

c.\*magna/\*El Gianni magna

Brandi & Cordin (1981, 1989) and Rizzi (1986a) have stated that subject clitics and personal endings in these dialects are discontinuous forms, both contributing to the AGR specification for the subject. And indeed, the possibility of cooccurrence of full subjects and clitics, and the obligatory presence of the clitics is evidence in favour this interpretation. But, as we mentioned above, the lack or optionality of subject forms with some persons does not totally confirm this reading.

In addition, if we look at the data about relative clauses, we find that we cannot consider subject clitics in T and F exclusively as AGR markers. As a matter of fact, T and F apply a RP strategy in some kind of relative clauses, as, for example, in non-restrictive and long-distance relative clauses<sup>11</sup>; the

following examples are from T:

(26)a.\*La Maria, che ha ciapà quatro de matematica  
the M. that has got four of mathematics  
Maria, who got four in mathematics

b.La Maria<sub>i</sub>, che l<sub>i</sub>'ha ciapà quatro de matematica  
.... CL

(27) Le putele<sub>i</sub> che gh'è en giro la voze che le<sub>i</sub> è rivade  
algeri

the girls that rumour has itthat CL is arrived yesterday  
The girls I heard say they arrived yesterday

while disallowing this strategy in simple subject relative clauses, in which no agreement, or 'anti.agreement' (Mereu, 1995b; Ouhalla, 1993) is present (=28b):

(28)a.\*Le putele<sub>i</sub> che le<sub>i</sub> è vegnudealgeri  
the girls that CL is come-PASTPART yesterday  
The girls who came yesterday

b.Le putele che è vegnù algeri

All these facts are evidence of the ambiguous status of subject clitics in T and F, that is of their double function as AGR and pronominal forms in different contexts..

##### 5. *Lexical functional representations for CL/AFFs*

Let us see now how the CL/AFFs in the languages exemplifying the three types in (11) can be represented in LFG<sup>12</sup>. As we have tried to show, the three languages behave differently as to the possibility of omission of the subject: there is optional pro-drop in Italian, obligatory pro-drop in Irish (with the synthetic V forms) and apparent pro-drop in T and F, given the double function that subject clitics in the two dialects have. Therefore, the lexical representations of CL/AFFs in the three languages should register the different behaviour of these forms.

Let us consider first CL/AFFs which are interpreted as pronominal arguments only, that is the Irish affixes. The lexical entry for a synthetic form such as the one in (21), is (29), which is taken from Andrews (1990):

(29) Chairfinn: V  
      PRED='CUIR <SUBJ, PRT, OBJ<sub>ar</sub>>'  
      SUBJ PRED='PRO'  
      PERS=1

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NUM=SG  
PRT=ISTEACH  
TENSE=COND

In (29) the PRED='PRO' equation is a specification obligatorily associated with all synthetic forms of the verb in Irish, exclusively yielding partial f- structures of the kind in (30)<sup>13</sup>:

(30) SUBJ PRED 'PRO'  
PERS=1  
NUM=SG

PRED 'APPLY <SUBJ, PRT, OBJ<sub>ar</sub>>'  
PRT=ISTEACH  
TENSE=COND

As for the representation of ambiguous forms, such as the subject clitics in the Italian dialects, for a sentence such as (25), we would have the alternative lexical entries in (31) for the clitic, and the one in (32) for the verb:

(31)a.el: CL  
PERS=3  
NUM=SG  
GENDER=M  
b. el: CL  
SUBJ PRED='PRO'  
PERS=3  
NUM=SG  
GENDER=M

(32) magna: V  
PRED='EAT <SUBJ>'  
SUBJ CL=+  
PERS=3  
NUM=SG  
GENDER=M

(31a) corresponds to the AGR reading of the clitic in (25a), and (31b) (in the spirit of Grimshaw (1982)) to the pronominal reading in (25b); the equation SUBJ CL=+ in (32) is needed to rule out the ungrammatical sentences in (25c).

The entry in (31) would be associated with the following f-

structure:

(33)                   SUBJ   PRED ‘GIANNI’  
   PERS=3  
   NUM=SG  
   GEN=M  
                           PRED ‘EAT<SUBJ>’

The entry in (31b) would have the f-structure in (34), that is, it would have the PRED ‘PRO’ equation always associated with the pronominal readings of CL/AFFs:

(34)                   SUBJ   PRED ‘PRO’  
   PERS=3  
   NUM=SG  
   GEN=M  
                           PRED ‘EAT<SUBJ>’

As for Italian, given the possibility of pro-drop and the role of personal endings on the verb exclusively as AGR markers, we might choose to represent the personal ending and the verb “parte” in the sentences in (13) as in (35):

(35)a. -e:AFF           b. Part-:V  
                           SUBJ PERS=3           PRED=‘LEAVE<SUBJ>’  
                           SUBJ NUM=SG       SUBJ           PRED=‘PRO’  
                           (optional)

While the personal ending *-e* in (35a) would bring only the grammatical information related to the AGR features, the PRED=‘PRO’ equation in (35b) would be an optional specification associated with the lexical entries of all verbs in Italian, as they all allow the omission, or pro-drop, of the subject.

When the lexical subject is present as in (13a), the PRED=‘PRO’ equation would not appear, yielding the following f-structure:

(36)                   SUBJ   PRED ‘MARIO’  
   PERS=3  
   NUM=SG  
   GEN=M  
                           PRED ‘LEAVE<SUBJ>’

Instead, when the lexical subject is omitted as in (13b), the PRED=‘PRO’ equation would be selected, and the f- structure for (13b) would be the following:

(37)                   SUBJ   PRED 'PRO'  
                                  PERS=3  
                                  NUM=SG  
                                  PRED 'LEAVE<SUBJ>'

But, if we adopt these representations for Italian, we end up distinguishing between the three types of CL/AFFs just in terms of the presence versus absence of the PRED='PRO' equation, optional in Italian and in the Italian dialects, and obligatory in Irish. In other words, we do not have a means to distinguish among the three-way behaviour in relation to the pro-drop phenomenon, yielding real, but optional (Italian) versus apparent (T and F) versus obligatory pro-drop (Irish). In addition, in cases of subject topicalization or relative clauses in Italian, we would have the RP strategy applying both in the dialects and in Italian. In other words, an Italian sentence such as (19), in which the subject is topicalized, would have the following f-structure:

(38)                   TOP    PRED `MARIA`  
  
                                  SUBJ   PRED 'PRO'  
  PERS=3  
  NUM=SG  
                                  PRED 'EAT<SUBJ>'

This would determine a binding rule to coindex the topic and the pronominal subject in (38) and an interpretation of this structure as if a RP strategy had applied, which we have proved not to be the case for Italian.

All this leads us to propose lexical entries for verbs in Italian which do not include the PRED 'PRO' equation. In line with Hale's (1983) concept of null anaphora, the inflected verb would only include the grammatical information relative to the subject AGR features; the PRED 'PRO' equation would be rescued in the f-structures as default values (Austin & Bresnan, 1996), through rules that supply the equation whenever there is an argument lacking its PRED specification<sup>14</sup>.

## 6. *Conclusions*

In this paper I have presented a typology of CL/AFFs in line with Bresnan & Mchombo 's (1987) distinction between grammatical and anaphoric agreement; the typology includes also cases of CL/AFFs exclusively behaving as subject AGR



forms, such as the personal endings of verbs in Italian.

In the second part of the paper I have proposed lexical-functional representations of AGR affixes and clitics in three languages: Italian, the Trentino and Fiorentino dialects and Irish. The different behaviour of these languages relative to the phenomenon of the omission, or pro-drop, of the subject, has been crucial to determine the kind of lexical entries and partial f-structures associated with the forms in each language.

## NOTES

### 1. Abbreviations

AFF=affix; AGR=agreement; AGR-S=subject agreement; CL=clitic; comp=COMPLEMENTIZER; COND=conditional; FUT=future; GEN=gender; INDIC=indicative; IMP=impersonal; M=male; NUM=number; OM=object marker; PAST=past tense; PASTPART=past participle; PERS=person; pres=present tense; PROG=progressive; PL=plural; SG=singular; RP=resumptive pronoun; SM=subject marker; TOP=topic.

2. The works by Bresnan & Mchombo (1986, 1987) on Chichewa represent an exception to this tendency; also Givon (1976 and Lehmann (1982, 1985), presenting their hypotheses on the relation between agreement and pronominalization on the basis of synchronic and diachronic evidence, are important points of reference for syntactic studies of agreement affixes and clitics. Finally, there are many syntactic analyses of AGR affixes and clitics in generative syntax (see, for example, Sportiche (1992)), but in this approach the configurational properties of these elements are more relevant than their functions.

3. Of course there are also languages which do not have CL/AFFs bearing AGR features in the sentence; I will not deal with these languages in the present paper.

4. The comas in (5) indicate that the patterns in the text do not include information about the order between the CL/AFF and the V.

5. The cooccurrence of a CL/AFF with a  $V_{[+AGR]}$  is generally associated only with the subject argument, whose features may be present both on the personal ending of the V and as a CL/AFF in the sequence. This may concern both a language whose subject CL/AFFs are pronominal as it is the case in French, and a language whose subject CL/AFFs are considered AGR markers, as, for example, the Italian dialects mentioned in the text (see later in the text for an illustration of AGR and pronominal interpretations of subject clitics in these dialects). However, there are also cases of the sequence in (5a) related to non-subject arguments; take, for example, Basque whose AUX or main V can have both a sequence of a CL/AFF referring to the NP at the absolutive case plus another affix bearing the number feature of that NP.

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6. It has to be said that the references mentioned in the text for Irish contain statements about an interpretation of the affix forms as pronominal elements, but these are only statements, since the authors treat the affixes as elements in AGR licensing a pro in subject position. Only in Hale (1987) do we get an analysis of subject synthetic forms in Irish as pronouns incorporated into the V.

7. The syntactic trees in (8)-(10) are incomplete and simplified representations: they are built according to a pre-Split-Infl framework, that is, they are pre-Pollock (1989). Also, the tree in (8) includes a maximal projection, the trace for the CL/AFF, moving to a head position in I, which violates the 'head movement constraint' (Baker, 1988); see, amongst others, Rizzi & Roberts (1989) or Sportiche (1992) for some of the solutions that generativists have proposed to solve this problem.

8. By topicalization I mean the phenomenon by which a constituent representing given information is dislocated and/or coindexed with a RP; in the literature the term is sometimes used to refer to focalization, that is to contexts in which a constituent is contrastively represented as new information. This is not the case with the use I make of the term.

9. I ignore here the Irish dialects, discussed by Andrews (1990), in which synthetic and analytic forms are in free variation; but see the example in (24) which is taken from one of these dialects

10. The examples from Irish are mainly taken from McCloskey & Hale (1984).

11. The RP strategy in long-distance relative clauses are applied only within islands, as the example in (27) shows. They are not applied in all long-distance relative clauses, as illustrated in the following example from T (Brandi & Cordin, 1989):

- (i) Le putele che te pensi che sia vegnù con mi  
the girls that you think that be-IMP come with me  
The girls who you think that (they) came with me

12. The representations I adopt in the paper are according to an LFG framework preceding Bresnan (1996). Therefore, among other things, no specification for the binding relations of PRO elements are included in the representations, as they are not discussed in the paper.

13. For space reason I do not include c-structure representations in the text. Given the recent adoption of an X-Bar framework containing functional projections such as CP and IP, the LFG c-structures would not be very different from the ones in (8)-(10). The important differences would be: the lack of empty categories such as pro and *t*, the lack of functional projections associated with inflectional material within words (see Bresnan & Mchombo (1995) and Mohanan (1995), and the addition of the functional annotation to the c-structure nodes.

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