The Post-Syntactic Morphology of the Albanian Pre-Posed Article: Evidence for Distributed Morphology

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Abstract

The so-called "preposed article" (PA) is a functional morpheme that plays a central role in the morphosyntax of Albanian DPs but is poorly understood theoretically. In this paper I present an analysis of PAs morphology along the lines of Distributed Morphology (DM; Halle and Marantz, 1993). PA is taken to be a post-syntactically inserted agreement morpheme. It is argued that a correct account of the insertion contexts of PA and of its allomorphy presupposes reference to surface syntactic configurations thus supporting the conceptual framework of DM. The claim that PA is in certain instances a constitutive element of word formation (cf. e.g. Buchholz and Fiedler, 1987) is rejected.

1 Some Basic Empirical Facts

1.1 Occurrence

The Albanian Preposed Article (PA) mainly occurs in two contexts[1]. It marks a dative DP as possessor of a complex DP and it occurs with most adjectives used attributively or predicatively:

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[1]Besides other noun-modifying functional words (possessive pronouns, ordinal numbers, etc.) it also occurs with certain relative pronouns and nouns. For a more complete overview see (Buchholz and Fiedler, 1987, pg. 199)

(1) a. *klas-a   e   kapitalistë-ve*
         class-def PA capitalists-dat
         'The class of capitalists'
     b. *vajz-a   e   bukur*
         girl-def PA nice
         'the nice girl'
     c. *vajz-a ështe e   bukur*
         girl-def is   PA nice
         'the girl is nice'

While it functions as a grammatical marker in its first use, since it occurs with possessors perfectly regularly , and constitutes the only overt difference between dative verb complements and possessors,

(2) a. *libr-i   i   vajz-ës*
         book-the PA girl-dat
         ' the book of the girl '
     b. *Jap   vajz-ës libr-in*
         Give:1sg girl-dat book-acc:def
         ' I give the girl the book'

it seems to be a lexical part of the adjectives it occurs with for several reasons: First, it is to some extent idiosyncratic which adjectives require the PA, as shown by the following minimal pairs with approximately identical semantics (a) and phonology (b) of the adjective:

(3) a. *vajz-a   e   bukur/ vajz-a   bukurosh*
         girl-def PA nice   girl-def nice
         'the nice girl'
     b. *libr-i   i   ri/ libr-i   gri*
         book-the PA new book-the grey
         'the new book/the grey book'

Second, the PA, as shown by the contrast of (1b) and (1c) occurs in all syntactic constellations where the adjective is used. Finally, the adjective can't be separated by lexical material from "its" PA (4b), while the noun of a possessor-DP can (a):

(4) a. *hartim-i   i   një gramatike*
         writing-the PA a   grammar book
         'the writing of a grammar book'

    b.   *vajz-a më   e   bukur/ *vajz-a e më bukur*
        girl-the more PA nice
        'the nicer girl'

Nonetheless I will argue - based on data from word-formation - that PA also in its use with adjectives is inserted by a post-syntactic rule. Note that the presence of the PA per se doesn't imply any definiteness[2] (cf. (5)), even if it - like the suffix-Al case/article morpheme[3] - probably developed historically out of a definite article and still reflects definiteness of an embedding determiner phrase in its allomorphy (see below).

(5)   *një vajzë e   bukur*
       a   girl   PA nice
    'a nice girl'

1.2 Allomorphy

PA agrees with the head noun (or the subject of the sentence in 1c) in phi-features, case and definiteness.

(6)   **Case(nom/acc): 'the good boy'**
    a.   *djal-i   i   mirë*
        boy:DEF PA good
    b.   *djal-i-n   e   mirë*
        boy-DEF-AKK PA good

(7)   **Definiteness(def/indef): '(the) good girls'**
    a.   *vajz-at   e   mir-a*
        girl-PL-DEF PA good-FEM:PL
    b.   *vajz-a të mir-a*
        girl-PL PA good-FEM:PL

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[2]In certain marginal constructions there is still a definiteness effect, for example: *Kam parë tre djem,* "I have seen three boys" vs. *Kam parë të tre djem (të = PA)* "I have seen the three boys".(Buchholz and Fiedler, 1987, pg. 199). But even without the PA the definite reading is possible.

[3]The relation between these two morphemes is still transparent in many forms, e.g. *shoq-**ës** **së** mirë,* "to the good (girl)-friend", *djal-**i** **i** mirë,* "the good boy". The contrast between the article-suffix and the PA preceding adjectives and possessor phrases of course explains the term "preposed article".

(8) **Gender(mas/fem): 'the good boy/girl'**

    a. *djalë i   mirë*
        boy PA good

    b. *vajzë e   mirë*
        girl PA good

(9) **Number(sig/plu): 'the good boy(s)'**

    a. *djalë i   mirë*
        boy PA good

    b. djem   *të mirë*
        boy:PL PA good

The expression of definiteness interestingly depends on the surface syntactic position of the PA. Thus, *e* marking definiteness and structural case (10-a) neutralizes to the default-PA *të* , when anything intervenes between it and its head noun (10-b) or when the PA-adjective complex is moved in an DP-initial Focus-Position (10-d):[4]

(10) a. *vajza-t   e   shkret-a*
          girl:pl-def PA poor-PL
          'the poor girls'

      b. *vajz-a të   shkret-a*
          girl:pl PA poor-PL
          'poor girls'

      c. *vajz-at   më   të shkret-a*
          girl-PL-DEF more PA poor-PL PA poor-PL:DEF
          'the poorest girls'

      d. *të shkret-at   vajz-a*
          PA poor-PL:DEF girl:PL
          'the <u>poor</u> girls'

The situation is slightly different for *së* marking definite[5] oblique (case) feminine singular.

(11) a. *vajz-e   të shkretë*
          girl-OBL PA poor
          'to a poor girl'

---

[4]cf. Giusti (1996) the same effect as in (6c) occurs with possessor Dps. Full possessor Dps in DP-initial position aren't attested in the descriptive literature, but claimed to be "grammatical for at least some speakers" Giusti (1996, pg. ??).

[5]A treatment of *së* occuring in certain indefinite contexts is given in section 7

b. *vajz-ës   së shkretë*
    girl-OBL:DEF PA poor
    'to the poor girl'
c. *vajzës   më   të shkretë*
    girl-OBL:DEF more PA poor
    'to the poorest girl'
d. *së shkret-ës   vajzë*
    PA poor-OBL:DEF girl
   'to the <u>poor</u> girl'

When an element like *më* intervenes in post-nominal position again neutralization to *të* takes place (11-c). However in the DP-initial-position of definite DPs *së* is retained (11-d).

2   The Theoretical Framework

2.1   Linear Order Constituency and Morphology

I'm following Kayne (1994) in assuming that linear order of syntactic heads is determined 1:1 by the LCA (Linear Correspondence Axiom), i.e.the relation of asymmetric c-command, defined over structural configurations. However I assume that the ordering of affixes w.r.t. stems and to each other is determined partly by their status as prefixes and suffixes. This means that in an expression like (12-a) - as far as the LCA is concerned - the c-command-relations in (12-b) or (12-c) are possible:

(12)   a. *vajz-a   e   vogël*
           girl-def PA small
           'the small girl'

b.

c.

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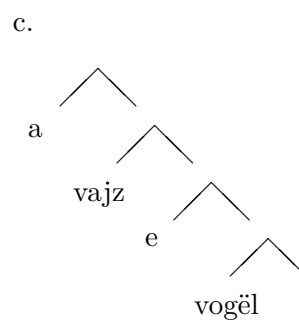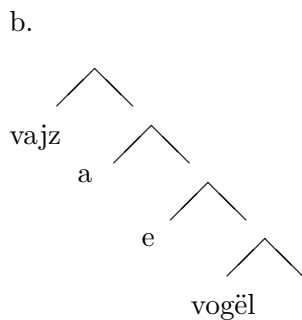
The notation used in (12), where partial trees denote asymmetric c-command - allows us to speak about structural relations relations in the Albanian DP, without giving a full account of its phrase structure, which goes beyond the scope of this paper[6].

2.2   Key Features of Distributed Morphology

Distributed Morphology (as introduced in Halle and Marantz, 1993) is characterized by the following features:

- Late Insertion

- Underspecification

- (Syntactic) Structure all the way down

Late Insertion means that the syntactic component manipulates lexical items (LIs) without phonological content, which are spelled out post-syntactically by so-called vocabulary items (VIs), mapping morphosyntactic features onto phonological ones. VIs are *underspecified* w.r.t their morphosyntactic features. Insertion is crucially driven by the elsewhere condition (Kiparsky, 1973), which means that for a given LI L the most specific VI is inserted that is non-distinct from L. The third feature points at a property that differentiates DM from other postsyntactic models of inflectional morphology like Anderson's Amorphous Morphology (Anderson, 1992) While for Anderson syntactic heads are spelled out without any reference to their syntactic context, this context in DM remains accessible for the operation of morphological rules. In the following section we will see compelling evidence for all three properties of DM.

3   Underspecification

Evidence for underspecification is abundant in all areas of morphology and this is also true for the PA. To see this consider the following table[7] that contains the forms of the PA for all occurring feature combinations and positions:

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[6]For some discussion see Dimitrova-Vulchanova and Giusti (1998) and Harrison (1997). Note that the used tree diagrams *don't* express any claim about constituency apart from c-command. Thus *vajz* and *-a* which don't form a constituent in (12-a) might do so in the actual corresponding phrase structure.

[7]following largely Buchholz and Fiedler (1987, pg. 201)

(13)

a. **Prenominal Position(Position1)**

	m	**f**	**n**	**Plural**
Nom	*i*	*e*	*të*	*të*
Acc	*të*	*të*	*të*	*të*
Obl	*të*	*së*	*të*	*të*

(Singular spans m, f, n; Plural is the last column)

b. **Postnominal Position without intervening Material(Position2)**

	m	**f**	**n**	**Plural**
Nom	*i*	*e*	*e*	*e*
Acc	*e*	*e*	*e*	*e*
Obl	*të*	*së*	*të*	*të*

c. **Postnominal position <u>with</u> intervening material(Position3)**

	m	**f**	**n**	**Plural**
Nom	*i*	*e*	*të*	*të*
Acc	*të*	*të*	*të*	*të*
Obl	*të*	*të*	*të*	*të*

There are 24 combinations, but only 4 possible realizations (*i, e, së, të*). The optimal (most parsimonious) account obviously states the insertion conditions, roughly in the following way[8]

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[8] *Struct* stands for structural case, i.e. Nominative or Accusative, *Obl* for oblique, i.e. dative and ablative. It is clearly desirable to get only one entry for *e*, which works perfectly well for position 2 or for positions 1 and two separately, but not across positions. A possible solution would be to let an impoverishment rule (cf. Halle and Marantz, 1993) delete features like accusative and plural in the context, where the second *e* appears in (14). Plausibly insertion of default features (Noyer, 1998) could take place, namely sig and fem. Effectively the fem sig *e* would be inserted in the contexts where the first *e* applies in (14). This solution would be consistent with the other proposals in this paper, however for reasons of space I don't work it out here.

(14)   Feature Realization Conditions[9]

Features		Realization	Conditions
[Obl sig fem (def)]	$\leftrightarrow$	$së$	in position 1 or 2
[Nom sig masc]	$\leftrightarrow$	i	
[Nom sig fem]	$\leftrightarrow$	e_1	
[Struct (def)]	$\leftrightarrow$	e_2	in position 2
[ ]	$\leftrightarrow$	$të$	

Of course this has to be interpreted according to the elsewhere condition. There is no consistent and exceptionless characterization for the second e or $të$. These items simply occur when no more specific item is available. In the terms of DM we can now say that the items in (14) are Vocabulary Items which are inserted into abstract syntactic heads at the level of morphological structure (MS). This explanation of course is possible only if insertion takes place late. In the next sections we will see further evidence for late insertion and the third characteristic of DM, the visibility of syntactic configurations at MS.

4   Insertion Contexts for the PA

4.1   Arguments against the Lexical Status of PA

The PA usually is taken to be a "lexical part" (Buchholz and Fiedler, 1987, pg. 199) of the adjectives it occurs with. In a DM-perspective this is infeasible: the lexicon only contains non-complex X^0s. In fact there are strong arguments that adjectives shouldn't be marked idiosyncratically for occurring with the PA: **First**, there are much more adjectives that take the PA than those that do not. If we need idiosyncratic marking, it would be more economic to mark the adjectives that *don't* occur with the PA. **Second**, the PA occurs with virtually all adjectives that are formed by derivation[10]:

(15)   a.   *shkruaj*
              write:1sg
        b.   *letr-i i   shkruar*
              letter PA written
              'the written letter'

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(16) a. *ndryshoj*
          change:1sg
      b. *i   ndryshueshëm*
          PA changeable

(17) a. *fuqi*
          strength
      b. *i   pa-fuqi*
          PA strength-less

Third, compounded adjectives, whose second constituent is an article adjective don't take the PA, which is unexpected if it is a part of the lexical entry for these adjectives[11]:

(18)

ballë, 'forehead' + *i bardhë,* 'white'	⇒	*ballëbardhë,* 'with white forehead'
fatë, 'fate' + *i mirë,* 'good'	⇒	*fatmirë,* 'happy'
dritë, 'light' + *përkueshëm,* 'sensitive'	⇒	*dritëpërkueshëm,* 'light-sensitive'

4.2   Accounting for PA-Insertion by Structural Context

Assuming that the PA is generally inserted before all adjective phrases accounts for the fact that it's used regularly with derived adjectives. However we must exclude compounds from the context in the insertion rules, since these regularly don't take the PA:[12]

(19)   Merge an PA with a maximal A projection if it doesn't dominate more than one stem.

There is a further systematic exception, which has to refer to the phonological content of VIs, namely adjectives that end in a non-reduced (non-schwa) syllable like *allatúrka*, "turkish" or *anarkist*, "anarchic" normally appear without PA: The following deletion rule accounts for this.

(20)   Delete PA if it c-commands an A ending in a non-reduced syllable

There remain very few exceptions in both directions, like *i keq*, "bad", or *gegë,* 'geg'. These might have simply to be listed as exceptions in the formu-

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[11]For an explanation of the PAs "disappearance" see 4.2 below

[12]This is also true for compound adjectives, which don't contain an adjective at all, kok*ë, "head" + kungull,* 'pumpkin' ⇒ *kokëkungull,* 'stupid'.

lation of rules , e.g. for *keq* in (20)[13] or by a further deletion statement that refers to the VIs that occur irregularly without the PA. (21) shows typical examples for all cases:

(21)   Example Adjectives with and without PA

Adjectives	PA	Reason
bosh,'empty'	no	
anarkist, 'anarchic'	no	non-reduced final syllable
gri, 'grey'	no	
kokë-kungull, 'stupid'	no	two-stem compound
gegë, 'geg'	no	idiosyncratic
mirë, 'good'	yes	regular case
keq, 'bad'	yes	idiosyncratic

4.3   Prospects for a Unified Account of PA-Insertion

While it is clearly possible to add a further rule like (22) to the grammar accounting for the appearance of the PA with possessor DPs

(22)   Merge an PA with a maximal D projection if it is a sister of a non-maximal D.

it would be more desirable to arrive at a single rule, describing the regular insertion of the PA like

(23)   Merge an PA with a maximal nominal projection if it is a sister of a non-maximal nominal projection.

I will only sketch here, what remains to be done to get to this conclusion. But note that the PA also occurs with other DP-internal categories like possessive pronouns and ordinal numbers. First we have to separate the "single stem condition" out from the insertion rule (19) since it is not true for possessors. We can restate the condition as a deletion rule

(24)   Delete PA- sister to a maximal A projection that c-commands more than one stem.

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[13]Interestingly, most of the adjectives standing "irregularly" with the PA belong to a class of adjectives exhibiting various stem changes and a bigger paradigm than "regular" adjectives.

Two further problems have to be resolved: We need an account, why the adjectival PA doesn't occur outside of adjectival modifiers (see (4) above) and we have to account for the occurrence of the PA with predicatively used adjectives.

5 PAs Allomorphy Refers to its Syntactic Context

The interesting point in the allomorphy of the PA is that it depends not only on the features present in the matrix DP but also on its surface constituency. This is stated informally in (14) by the insertion conditions for the VIs. If this is the correct account it means that allomorphy and hence morphological processes are directly sensitive to syntactic constituency, one of the central claims of DM. Let's first give a more formal specification of "position" and consider then possible counterarguments:

5.1 A Formal Account of Position Effects

The insertion condition for e_2 can be captured straightforwardly in the following way:

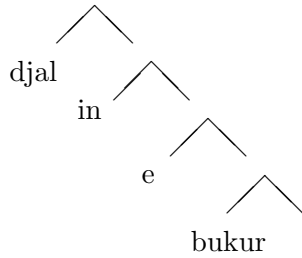(25) e_2 is inserted, when the PA's closest asymmetric c-commander is a definite X^0.

This clearly predicts that e is inserted in (26a) , while it is blocked in (26b), where the closest c-commander is the comparative particle[14] $m\ddot{e}$.
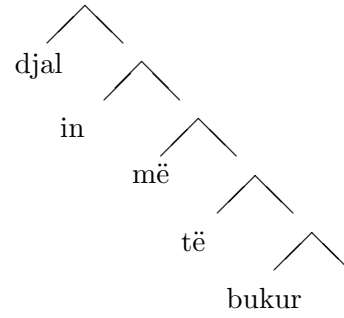
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[14]I assume that the article suffix c-commands the adjective of a preposed adjective phrase. Note that this doesn't violate the LCA as it is conceived here (see 2.1). It is plausible also for syntactic reasons. The movement of adjectives in prenominal positions seems to be an instance of phrasal, not head movement. (Harrison, 1997; Dimitrova-Vulchanova and Giusti, 1998) To merge with a stem the article might have to (head-)move up into its specifier, where it would then c-command the adjective.
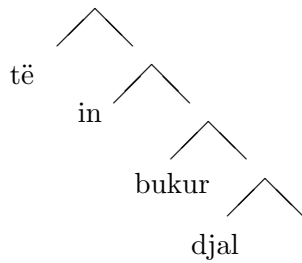
(26)

a.

```
    /\
djal  /\
   in  /\
      e  /\
       bukur
```

b.

```
    /\
djal  /\
   in  /\
      më  /\
        të  /\
          bukur
```

c.

```
    /\
të  /\
  in  /\
    bukur /\
        djal
```
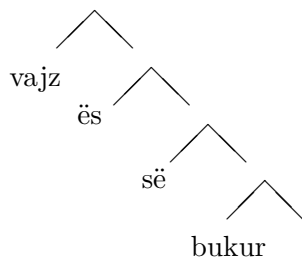
In (26c) there is no intervention but the definite article c-commands the PA and not vice-versa.
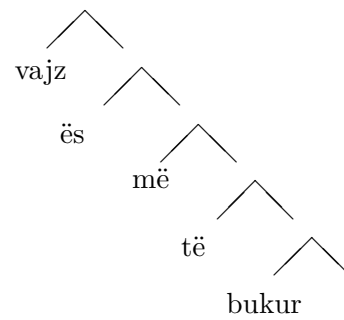
The relevant condition for *së* is somewhat looser:

(27)   *së* is inserted, when the PA stands in a closest-c-command- relation-
         ship with a definite X^0. (i.e. its closest c-commander is a definite
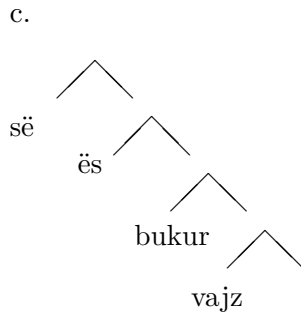 X^0. or it is the closest c-commander of a definite X^0.)

(28)

a.

```
    /\
vajz  /\
   ës  /\
      së  /\
       bukur
```

b.

```
    /\
vajz  /\
   ës  /\
      më  /\
        të  /\
          bukur
```

12

c.

```
         së
            ës
               bukur
                     vajz
```

(27) is satisfied in (28a) because the PA is c-commanded without any intervention by the definite article, in (28b) because it c-commands it in the same way. In (28c) the closest item c-commanded by the PA is the adjective, while its closest c-commander is *më*, so (27) isn't met.

5.2 The PA Is Not an Affix

To escape the conclusion that the PAs allomorphy is determined by its syntactic context one could claim that it is an affix attaching to a noun together with the article suffix. in something like the following:

(29)   [[libr in] e] bukur

This however is implausible, just because the PA can be moved without its alleged nominal host as in (10-d) or can be separated from it as in (10-c).[15]

5.3 The PAs Allomorphy Is Not Determined by Selection or Feature Checking

Lexicalist accounts of agreement rely on selection (Pollard and Sag, 1994) or feature checking (Chomsky, 1995) as the result of lexical processes. One could assume for example that *e* in (10-a) selects a definite constituent[16], while *të* (10-c) selects an indefinite one. Apart from the problems lexicalist approaches have in general to account for non-monotonicity in allomorphy (cf. section 3), it is unclear how lexical material like *më* in (10-c)could effect turning the constituent selected by the PA indefinite. Additionally, under a

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[15]There's some plausibility in the assumption that the PA is an prefix to its adjective. However this analysis is excluded for the PA in the possessor construction, since there can be syntactic material between the head noun of the possessor DP and the PA. Since the PAs allomorphy in both cases identical it is implausible that it is an prefix in one construction and a free morpheme in the other.

[16]which is probably moved into pre-adjectival position later.

selection approach movement should have no influence on allomorphy, which is determined exclusively by relations in base positions, i.e. the forms of the PA in (10-a) and (10-d) should be identical. An account that relies on feature checking seems more promising. *e* could be said to have a +def feature that can be checked in (10-a) while checking is blocked by *më* in (10-c) . However, this leaves unexplained, why feature checking should be blocked in (10-d) , where no intervening element is present, or why *më* should block checking of +def but not of other features effecting allomorphy as the case feature responsible for the contrast in (30)[17]

(30)   a.   *libr-i   më   i   mirë*
            book-def:nom more PA good
            'the best book(nom)'
       b.   *libr-in   më   të   mirë*
            book-def:acc more PA good
            'the best book(acc)'

Finally it cannot be true that checking of +def is uniformly blocked as is evident from the contrast between (10-d) (+def in-visible in PA) and (11-d) (+def visible in PA). Thus the best expression for the allomorphy effects seems to lie in the idiosyncratic context specifications of VIs which refer to but cannot be reduced to syntactic configurations.

5.4   Towards Explaining the Asymmetry between Types of Allomorphy

This discussion however brings us to an important question: If the PA is sensitive in the selection of its actual form to different features like case and definiteness, why do we see locality effects in some cases but not in others. So, why is *e* neutralized to *të* if *më* intervenes (10-c), but *i* (31) is not?

(31)

a.   *djal-i   i   mirë*
        boy-def PA good
        'the good boy'

---

[17]One could expect under such a approach that gender and number , which are realized on the noun, are checked against the noun itself (perhaps in its base position) while +def and case are blocked. This however isn't the case, as can be seen in (30).

b.   *djal-i   më   i   mirë*
           boy-def more PA good
           'the best boy'

This fact which must remain mysterious under any lexicalist account has a natural explanation in the framework of Distributed Morphology. Note that in DM two processes of very different character work together to determine the form of an agreement head. Agreement in its technical sense is effected by a process of feature copying which generally doesn't obey strict locality in the sense that a single X^0 can cause intervention effects. For example in English subject verb agreement any amount of syntactic material can be put between the verb and the subject-DP without affecting agreement:

(32)   John (very, very...) often sneezes.

A process of this type must be responsible for the transmission of features to the PA from the article/case-complex. On the other hand it is a proto-typical property of contextually determined allomorphy to exhibit strict locality.

For example the 1st singular affix in (33-a) and (33-b) depends in an idiosyncratic manner on the verb stem. However this contrast is neutralized in (33-c), (33-d) where the imperfect affix *-j* intervenes between stem and agreement-formative:

(33)   a.   *ve-te*
              go-1sg
              'I go'

         b.   *ble-j*
              buy-1sg
              'I buy'

         c.   *ve-j-a*
              go-imf-1sg
              'I was going'

         d.   *ble-j-a*
              buy-imf-1sg
              'I was buying'

If the contrast between agreement and allomorphy is indeed a principled one this lends further support to the claim that the effects in (10) and (11) have to be attributed to allomorphy determined by the syntactic context. In fact, it allows a significant simplification of (25) and (27) as (25') and (27')

(25') e_2 is inserted, when the PA is asymmetrically c-commanded by a definite X^0.

(27') $s\ddot{e}$ is inserted in the context of a definite X^0.

, where the intervention effects stipulated in the earlier formulations follow from a more general condition on the locality of vocabulary insertion like (34):[18]

(34)

a.   **If** A, B, and C are heads and, A c-commands B and there's no C $\neq A \neq B$ such that A c-commands C and C- c-commands B, **then** A and B are in the same morphological domain.

b.   Only heads that are in the morphological domain of a head H can serve as contexts for the spell-out of H.

It should be clear that vocabulary insertion in such a model even if allowed to "see" its syntactic context is restricted in a non-trivial way, and even predicts asymmetries that aren't expected in lexicalist theories where allomorphy is adduced to a single mechanism.

5.5   Do Insertion Rules Obey Strict Locality?

The natural question arises if the rules that we postulated in section 4 to account for the insertion contexts of the PA also obey strict locality.

The question doesn't arise in this form for the general insertion rule in (23) which is defined in terms of sister-hood. The following example shows that locality is restricting the application of the non-schwa deletion rule in (20):

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[18]For a more formal account of locality in spell-out see Trommer (1999). For further discussion and possible counterexamples cf. Bobaljik (1999).

(35) *grua-ja e burr-it   besnik*
      wife-def PA man-def:dat faithful
      'the wife of the faithful man'

While the PA immediately preceding *besnik* is deleted the possessor PA
e is retained even if it satisfies the structural description of the non-schwa
deletion rule, since *burr-it* intervenes.

The double stem deletion rule (24) also shows locality effects. A certain
class of adjectives bearing derivational affixes retains the PA even if they
contain two stems:

(36) *baras-vler-shëm*
      equal-value-aff
      'of equal value'

This can be accounted for if we assume the following representation which
is suggested by the compositional semantics of the word reflected also in its
English gloss:

(37)
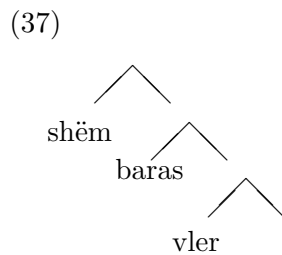
Note that *-shëm* isn't subject to the LCA as discussed in 2.1. While
-shëm thus seems to create an intervention effect as the ones we observed
for allomorphy in 5 to capture this fact we must modyfy the definition of
morphological domain from (34) slightly to allow for contexts which consist
of more than one head. To this purpose I introduce the notion of a *head
string* which corresponds to the intuitive notion of an uninterrupted sequence
of adjacent heads.

(38) head string: $S = H_1 \dots H_n$ is a head-string if for all pairs (i, j) $1 \leq i \leq j \leq n$ H_i asymmetrically c-commands H_j and there is no $Z \neq H_k$ for all k $1 \leq k \leq n$ that is asymmetrically c-commanded by H_i and c-commands asymmetrically H_j

The definition of morphological domain in (34) must thus refer to head strings, not to heads[19] then the fact that deletion obeys strict locality follows from (34) the assumption justified in Trommer (1999) that deletion rules are a special instance of (zero) vocabulary items.

There is a second class of adjectives containing two stems and a derivational affix which deletes the PA:

(39)   *dritë-ndje-shëm*
        light-feel-aff
        'light-sensitive'

Again following the semantics I assume for these the following structure:[20]

(40)
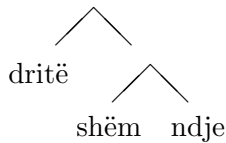
$< \textit{dritë, ndje} >$ is a head string according to (39) and serves as the context of the double stem deletion deletion rule in (24). (The one member head string) *-shëm* doesn't interrupt the head string because it doesn't asymmetrically c-command any head in it. This of course means that it doesn't c-command the whole head-string and cannot cause an intervention effect as in (36).

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[19]A head-string H_1 c-commands a head-string H_2 iff all members of H_1 c-command all members of H_2

[20]which is identical in most respects to N+A compounds with simple adjectives like *pendëkuq*, feather-red, 'with red feathers'. Note that *-shëm* independently from this construction combines with verbs to form adjectives, e.g. *ndryshueshëm* in (16-a)

6 Evidence from the Fusion of PAs and Possessive Adjectives

6.1 Basic Facts

Most possessive adjectives behave just like other adjectives in appearing with the PA in its usual allomorphy:

(41)   a.   *shoku-u   i   tij*
              friend-def:nom PA his
              'his friend'

         b.   *shoq-et   e   mi-a*
              girl-friend-nom:def PA my-plu
              'my girl-friends'

1st and 2nd plural possessives in all forms and 1st and second singular possessives agreeing with singular noun phrases however exhibit forms without the PA and with a great deal of seemingly idiosyncratic allomorphy:

(42)   a.   *shoku-u   im*
              friend-def:nom my
              'my friend(nom)'

         b.   *shok-un   tim*
              friend-nom:acc my
              'my friend(acc)'

While descriptive work on Albanian simply states the existence of two classes of possessive adjectives, an intriguing pattern becomes visible, once we compare the "article-less" possessives with corresponding cases of preposed adjectives with PA:

(43)

|	'my friend'	'the nice boy'	'my girl-friend'	'the nice girl'
Nom	*shoku **i**m*	***i** bukur-i djalë*	*shoq-ja **i**me*	***e** bukur-a vajzë*
Akk	*shokun **t**im*	***të** bukur-in djalë*	*shoq-en **t**ime*	***të** bukur-ën vajzë*
Obl	*shokut **t**im*	***të** bukur-it djalë*	*shoq-es **s**ime*[21]	***së** bukur-ës vajzë*

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[21]In this context *time* is also possible. See section 7 for an account

The possessive adjective starts with s when the corresponding preposed adjective appears with $së$, with t hen the corresponding form is $të$ and with i if the PA starts with i or e[22]. Assuming a process of fusion between PA and possessive thus seems to account for the lack of the PA in these forms and for the observed allomorphy as well.[23] Since the fused forms are subject to idiosyncratic phonological rules, it seems clear that they form a "morphological unit" in lexicalist terms. But the mere notion that syntactically independent units fuse morphologically is in-available in lexicalist theories. Thus, if the fusion approach is correct, this constitutes a further argument against lexicalism and for a late-insertion-approach like DM.

6.2 Deriving Fused Allomorphy from the Model

Assuming the fusion analysis however raises the question why the shape of the fused possessives corresponds to the PAs of prenominal adjectives even if the possessives themselves are postnominal. So, why do we not find *shokun **im*** corresponding to *djal-in **e** bukur*? To see this let's take the notion of fusion seriously and assume with Halle and Marantz (1993) that the fused heads actually both appear on the same node.

(44)
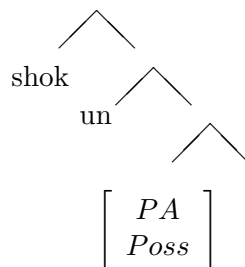
For the insertion of e_2 this means actually that it is blocked. Poss c-commands PA, since they are in the same node and c-command is reflexive, and is on its side c-commanded by un, which means by (34) that *-un* and PA are not in the same morphological domain and *un* cannot serve as a context for the insertion of e. Hence the default-VI *të* is inserted. This however

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[22]In other contracted forms it corresponds to y or j, e.g. *shoku **y**në*, "our friend"; *shoqja **j**ote,* "your(sg) girl-friend".

[23]Apart from the first segment in these forms there occurs further allomorphy that has to be dealt with separately, e.g. *shokut t**ëndë***, "to your friend" *shoqes **s**ate*, "to your girl-friend"

brings us into trouble with *shoq-es **s**ime* (23), where we would expect *të* for the same reasons:

(45)
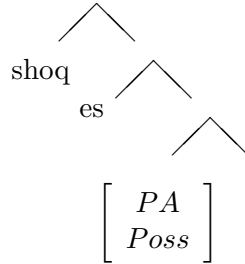
This can be accounted for easily, if Poss itself carries a definiteness feature, which can serve as a context for the insertion of *ë*. Independent evidence for this comes from NPs with indefinite article and possessive adjective, where the latter can trigger nonetheless the appearance of the definite suffix-morpheme:[24]

(46)   *një nip-i   ynë*
        one nephew-def:nom our
        'one of our nephews'

Since Poss c-commands PA and nothing different from the two heads intervenes, Poss always can serve as a context for the insertion of *së.* By the way this doesn't mean that Poss can serve as a context for the insertion of e_2 in (44) since PA isn't c-commanded by Poss asymmetrically. Thus we see that the allomorphy in the fused possessives actually falls out naturally from the insertion conditions developed earlier, and thus give independent support for the model. A further prediction made by this account is that fused possessives in contrast to unfused ones don't show any allomorphy w.r.t to their position.

7   Variants

In some contexts two variants of the PA are possible. When fused with the possessive the 3rd fem sig def item *së* can be neutralized to *të*. (47). In

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[24]Schoorlemmer (1998) gives independent evidence for the presence a definiteness feature in possessives for several other languages.

prenominal position (position 1) *së* can optionally appear instead of *të*, if the article/case-complex is indefinite (48):

(47) *shoqe-s   s-ime/t-ime*
      friend(fem.)-dat PA-my
      'to my friend'

(48) *së/të bukur-e fjalë*
      PA   nice-dat word
      'to a nice word'

I assume that this variation is the expression of different coexisting grammars which differ minimally w.r.t the insertion conditions for *së*. If the following variant of (27') holds *së* cannot be inserted in cases of possessive fusion (47), since its relation to the definite Poss is symmetric:

(27")   *së* is inserted when the PA stands in an asymmetric c-command-relation-ship with a definite X^0.

To account for (48) a more complex condition is necessary

(27"')   *së* is inserted if the PA is (a) in the context of a +/-def[25] X^0 and (b) is not c-commanded by an indefinite X^0.

The second condition excludes the appearance of *së* in immediate post-nominal position (position 2) of an indefinite DP. In position 3 (post-nominal with intervening material) it is excluded since the first condition is violated. Crucially, in prenominal position it is licensed regardless of the definiteness value of the case/article- complex.

8   Summary

In this paper I tried to show that the distribution (section 4) and allomorphy (section 5) of the Albanian PA give strong support to a late-insertion model of morphology like Distributed Morphology. Further support for the analysis was given by extending it in a natural way to cases of possessive fusion (section 6) and certain variant forms (section 7). Doing morphology post-syntactically however doesn't necessarily mean non-restrictiveness. In fact, I showed that allomorphy obeys a particular, strong form of locality

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[25]I assume that only Poss and the article/case-complex have specified definiteness features, while members of lexical categories and functional elements like the comparative particle *më* are simply unspecified for definiteness.

(section 5.3). A further result of theoretical importance is the following: As assumed for the syntactic component in Chomsky (1995) morphology can find deeper explanations by taking c-command and minimality as the relevant primitives of grammatical theory. At least for the Albanian data the notion of government (Chomsky, 1981; Halle and Marantz, 1993) seems to be superfluous.

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