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M. Rita Manzini - Leonardo M. Savoia

‘CASE’ CATEGORIES IN ALBANIAN

Abstract

In several recent publications we have proposed analyses for the morphology and syntax of case in Albanian (Manzini and Savoia 2010a, 2011a, 2011b) as well as in Latin and the Romance languages (Manzini and Savoia 2010b, 2011a, 2011c, Manzini to appear a, b). The main innovation of these works is the introduction of new categories for so-called case. These allow us to treat case inflections as ordinary lexical entries, characterized by a pairing of PF and LF properties, and projecting syntactic structure (Chomsky 1995). In other words, there is no compelling reason to treat them as abstract matrices of features, lexicalized by exponents (Halle and Marantz 1993). Here we apply these categories to the case system of Albanian, on the basis of the Geg data analysed in Manzini and Savoia (2010a, 2011b). The emphasis will be on showing that our model provides an account for the data as complete as that provided by conventional (and richer) morphological models.

1. The traditional case categories of Albanian

The grounds for recognizing traditional case categories lie at the intersection of classical morphological and distributional criteria. Concretely, certain nominal morphologies have certain distributions; as long as there is at least a specialized morphology M for a given distribution D, one says that D is the context for assigning M case. For instance the internal argument (the theme) of transitive verbs as in (1)-(2) and a subset of preposition which includes *mε* ‘with’ uniquely corresponds to the *-n* ending in (1b) (the singular definite). Therefore the listed environments are traditionally singled out as assigning ‘accusative’ case and *-n* is a non-syncretic exponent of that case. Here and in what follows, unless otherwise noted, (a) is the indefinite singular, (b) the definite singular, (c) the indefinite plural and (d) the definite plural.

(1) *Accusative*

- a. pa:f ni vajz/ msus-ε/ burr/ dial
I.saw a girl teacher-fs man boy
- b. pa:f vajz-ε-n/ msus-ε-n/ burr-i-n/ dial-i-n
I.saw girl-fs-Acc.def/ teacher-fs-Acc.def/ man-ms-Acc.def/ boy-ms-Acc.def
'I saw a/the girl/teacher/man/boy'
- c. pa:f fum vajz-a/ msus-ε/ burr-a/ diem
I.saw many girl-pl/ teacher-fpl/ man-pl/ boys
- d. pa:f vajz-a-t/ msus-ε-t/ burr-a-t/ diem-t
I.saw girl-pl-Acc.def/ teacher-fpl-Acc.def/ man-pl-Acc.def/ boys-Acc.def
'I saw many/the girls/teachers/men/boys'

(2) *Preposition - Accusative*

- b. ε vuna mi/nen kmif-ε-n/ kmif-a-t
it I.put on/ under shirt-fs-Acc.def/ shirt-pl-Acc.def
'I put it on/under the shirt/ shirts'
- b'. ai vien mε mu/ ty/ atε
he comes with me.Acc/ you.Acc/ him. Acc
'He comes with me/ you/ him'

On the basis of this criterion five cases can be distinguished in Albanian, namely nominative, dative, genitive and ablative (or may be two 'ablatives', see below) besides the accusative. Nominative (uniquely characterized in particular by *-a* as a feminine singular) occurs as the noun phrase agreeing with the verb in main sentences and again as the object of prepositions, as in (3)-(4).

(3) *Nominative*

- a. εrði ni vajz/ msus-ε/ burr/ dial
came a girl/ teacher-f/ man/ boy
- b. εrði vajz-a/ msus-ja/ burr-i/ dial-i
came girl-fs.def/ teacher-fs.def/ man-ms.def/ boy-ms.def
'There came a/the girl/teacher/man/boy'
- c. εrðen fum vajz-a/ msus-ε/ burr-a/ diem
came many girl-pl/ teacher-fpl/ man-pl/ boys
- d. εrðen vajz-a-t/ msus-ε-t/ burr-a-t/ diem-t
came girl-pl-Nom.def/ teacher-fpl-Nom.def/ man-pl-Nom.def/ boys-Nom.def
'There came many/the girls/teachers/men/boys'

(4) *Preposition - Nominative*

- b. ai ʃkan tɛ vɔʒz-a/ dial-i
 he goes to girl-Nom/ boy-Nom
 ‘He goes (close) to the boy/ the girl’
- b’. ai vien tɛ un/ ti/ ai
 he comes to me.Nom/ you.Nom/ he.-Nom
 ‘He comes (close) to me/ you/ him’

Dative and genitive can be told apart only if we look at pronouns, which have a form uniquely associated with contexts like (5), namely the second internal argument of a ditransitive verb like ‘give’ (the traditional dative).

(5) *Oblique*

- a. ja ða:ʃ ɲi vɔʒz-ɛ/ msus(ɛ)-jɛ/ burr-i/ dial-i
 her.it I.gave a girl-fs.Obl/ teacher-fs.Obl/ man-ms.Obl./ boy-ms.Obl
- b. ja ða:ʃ vɔʒz-s/ msus-ɛ-s/ burr-i-t/ dial-i-t/
 her.it I.gave girl-fs-Obl.def/ teacher-fs-Obl.def/ man-ms-Obl.def/ boy-ms-Obl.def
 ‘I gave it to a/the girl/teacher/man/boy’
- c. ja ða:ʃ ʃum vɔʒz-a-vɛ/ msus-ɛ-vɛ/ burr-a-vɛ/ diɛm-vɛ
 them.it I.gave many girl-pl-Obl/ teacher-pl-Obl/ man-pl-Obl/ boys-Obl
- d. ja ða:ʃ vɔʒz-a-vɛ/ msus-ɛ-vɛ/ burr-a-vɛ/ diɛm-vɛ
 them.it I.gave girl-pl-Obl.def/ teacher-fpl-Obl.def/ man-pl-Obl.def/ boys-Obl.def
 ‘I gave it to many/the girls/teachers/men/boys’

With noun phrases of the type illustrated in (6) there is a complete coincidence between the endings of the dative and those of the genitive in (6), in essence the complement of a noun (here (a) is the feminine singular, (b) the masculine singular and (c) the plural). For those contexts the pronominal systems has so called possessive pronouns, which we will keep out of the present picture. Correspondingly we will say that there is a unique case ‘oblique’ for both (5) and (6). This case is associated with endings that single out these contexts such as *-s*.

(6) *Genitive*

- a. libr-i/ ɲi libr i msus-ɛ-s/ ɲi vaiz-ɛ
 book-ms.Nom.def a book the teacher-fs-Obl.def/ a girl-fs.Obl
 ‘the/a book of the teacher’
- b. ka:m-a/ ɲi ka:m ɛ tʃɛn-i-t/ ɲi tʃɛn-i
 paw-fs.Nom.def a leg the dog-ms-Obl.def/ a dog-ms.Obl
 ‘the paw of the dog’

- c. libri i diem-vε/ i vaiz-a-vε
 book-ms.Nom.def the boy-Obl.pl/ the girl-pl-Obl
 ‘the book of (the) boys/ girls’

Finally the ablative is traditionally recognized as a case because there are prepositional contexts like (7), where the *-t* inflection, shows up on feminine singular nouns of a locative class (and on 1st/2nd singular person pronouns). In similar contexts the equally specialized *-f* shows up on 1st/2nd plural pronouns and on not just indefinite, but generic nouns. By the traditional criterion, a unique pairing of inflectional material and syntactic context defines a ‘case’. Yet note that with all other nouns the traditional ablative simply overlaps with the oblique, as in (8).

(7) *Ablative*

- a. prei/ poft/ para fpi-ε-t/ ðom-ε-t/ tε-jε-t
 from/ behind/ before house-fs-Abl.def/ room-fs-Abl.def/ you-NC-Abl.def
 ‘from/ behind/ before the house/ the room/ you’
- b. pun prej gra:-f
 job for women
 ‘a women’s job’
- b’. prei/ poft/ para ne-f
 from/ behind/ before us-Abl
 ‘from/ behind/ before us’

(8) *(Ablative)*

- a. ε kam vu: para/ poft/ sipər libr-i-t/ karig-ε-s
 it I.have put before/ behind/ on book-ms-Obl.def/ chair-fs-Obl.def
 ‘I have put it before/ behind/ on the book/ chair’
- b. prej/ mas/ para vqjz-s/ burr-i-t
 from/ behind/ before girl-fs-Abl.def/ man-ms-Abl.def
 ‘from/ behind/ before a/the girl/man/house’
- c. vft tʃεp prej fʊm vaiz-a-vε/ burr-a-vε
 it.is sewn by many girls-pl-Abl/ girls-pl-Abl
- d. vft tʃεp prej vaiz-a-vε/ burr-a-vε
 it.is sewn by girls-pl-Abl.def/ men-pl-Abl.def
 ‘It has been sewed by many/the girls/men’

Assuming the five case categories that precede as well as gender (masculine, feminine) and number (plural) categories we obtain the traditional nominal declension schemata in Table 1 for the definite and in Table 2 for the indefinite.

Morphemic analysis is quite transparent revealing the existence of three nominal class vowels *-i*, *-a* and *-ε* and of five consonantal/syllabic endings, namely *-n*, *-t*, *-s*, *-vε* and *-f*.

	Masc	Fem	Pl	Pl ‘teacher’
Nom	-i	-a	-a-t	-ε-t
Acc	-i-n	-ε-n	"	"
Gen/Dat	-i-t	-ε-s	-a-vε	-ε-vε
Abl	"	-ε-t	"	"

Table 1

	Masc	‘girl’	‘teacher’	Pl	Pl ‘teacher’
Nom/Acc	∅	∅	-ε	-a	-ε
Gen/Dat	-i		-ε	-a-vε	-ε-vε
Abl	"		"	-a-f	-ε-f

Table 2

There are two major descriptive problems with nominal inflection systems like the one in Tables 1-2. One problem has always been recognized – namely how to represent syncretisms. For instance, an ending like *-t* covers a wide variety of slots, both oblique and non-oblique, both singular and plural. There are two classical solutions to this. One is to treat all of the different occurrences of *-t* as homophonous: there is a *-t* oblique singular, a *-t* accusative plural, etc. A more abstract solution characterizes the Halle tradition in generative linguistics (e.g. Halle and Marantz 1993), namely that the same *-t* may be involved; however unification in this morphological tradition is achieved at the expense of under-specification. The idea is that the inflectional entry lies at the intersection of its properties; if the cases it lexicalizes are conflicting (oblique and non-oblique, like *-t*), then it cannot have any case. Therefore the Halle solution to the paradigm problem is such only if we accept that ‘exponents’ (phonological terminals) have an opaque relation to the syntax they embody. We reject this approach – because it ultimately leads to Late Insertion, hence to denying the Chomskyan approach to syntax as projected from the lexicon. From this point of view we aim at showing that an empirically adequate account of the nominal inflection of Albanian is possible if lexical entries have only positive specifications – i.e. they cannot cover certain properties (abstractly present in syntactic structure) in virtue of their lack of specifications.

The other descriptive problem with inflectional Tables 1 and 2 is both more fundamental and more subtle and can in fact be best seen only through the magnifying lens of generative critique. Take even a dedicated ‘case’ ending like Albanian *-n*. By all that precedes its content should be relational, i.e. ‘insert in context X’. This makes it unlike other inflections we know of like English *-ed* (past) or nominal *-s* (plural), whose contents are inherent properties. For, case has a relational content. Again this observation leads to two possible approaches. One is taken by Chomsky (2001), Pesetsky and Torrego (2007) and it is to reduce case to a reflex of relations involving inherent properties (phi-features for Chomsky and ‘Tense’ features for Pesetsky and Torrego). We refer the reader to Manzini and Savoia (2007, 2010b, 2011a, 2011b), Baker and Vinokurova (2010), Baker (to appear), Manzini (to appear b) for empirical criticisms.

The other possibility is to bite the bullet and to accept that the lexical entry of a case inflection is indeed relational – which means that it is more like the entry for a predicate or an operator. This possibility is implicit in the classical generative treatment of case by Fillmore (1968), which establishes the formal (not merely functional) equivalence between case and prepositional embedders. For Fillmore, the K category could encompass both, prefiguring a treatment of case (at least oblique case) analogous to that routinely given to transitive predicates (i.e. relations). Similarly, the treatment of accusative by Marantz (2000) revived by Baker and Vinokurova (2010), Baker (to appear) is frankly relational.

We have no a priori position on this issue – in fact, one of the two possibilities does not exclude the other, unless one insists that ‘case’ should be reconstructed as a unitary notion, which given its theoretically problematic status is far from a foregone conclusion. Once again what we are interested in here is maintaining the (minimalist) position that the lexicon is the basis for the projection of syntactic structures. Therefore we aim at showing essentially that case endings are bona fide lexical entries – endowed of an intrinsic interpretive content.

In this we are departing from another important tenet not only of Distributed Morphology, but also of much current syntactic theorizing (for instance the approach to syntactic variation in terms of ‘silent’ categories by Kayne (2010)) – namely that there is a fundamental distinction between the substantive lexicon (lexical categories proper) and the functional lexicon (functional categories). Thus, within the Distributed Morphology framework, Embick (2000:187) assumes a “distinction between the *functional* and *lexical* vocabularies of a language”; properly speaking it is functional categories that “merely instantiate sets of abstract syntacticosemantic features” and are therefore subject to Late Lexicalization by ‘exponents’. On the contrary in Manzini and Savoia (2005, 2007, 2008, 2011a) we pursue a unitary model of the lexicon – of the type traditionally associated with the substantive lexicon: there is a conceptual and grammatical

space to be lexicalized and variation results from the distinct partitioning of that space. So-called functional space is just like all other conceptual space; the distinction between functional (i.e. grammatical) contents and other concepts, to the extent that it can be defined, is an external one.

2. The case lexicon of Albanian

On the basis of the discussion that precedes we take the case problem to be the following: how to pair each component of the nominal inflection system (here of Albanian) with (a) a bona fide lexical entry, characterized by an intrinsic interpretive content and (b) an entry which is positively specified in its entirety, i.e. does not simply register the absence of properties (the problem *contra* 'underspecification'). In principle we may expect that denying ourselves some of the most powerful mechanisms in linguistic description (e.g. default lexical items) could lead to intractability problems. On the contrary we argue that we can do away with this richness without having to compensate for it somewhere else. In fact, there could even be empirical advantages in proceeding our way.

For each morphological unit and its possible combinations we will first introduce the generalization(s) we have arrived at in our previous work and then show how this corresponds to the data. We begin with *-t*, characterized as in (9).

(9) *-t*: Q(\subseteq), definite

The Q(\subseteq) property is particularly abstract, but easily explained. The so-called genitive and the so-called dative, i.e. the traditional oblique are essentially 'possessors'. This is the traditional characterization of genitives – but it is equally natural (cf. Kayne 1984) to construe ditransitive verbs as events causing a possession to hold ('I give the book to John' as 'I cause the book to be in John's possession). Following Belvin and den Dikken (1997) on 'have' and our own work on Romance clitics we take the relevant characterization of possession to be an 'inclusion' one, here notated as Q(\subseteq). Under this proposal, the schematic LF for the genitive (10a) is as in (10b); for the dative in (11a) it is as in (11b).

(10) a. libri i burri-t
'the book of the man'

b. book Q(\subseteq) the man, i.e. 'the book' 'included by/ possessed by' 'the man'

(11) a. ja ða:ʃ burri-t
'I gave it to the man'

b. I gave [it Q(\subseteq) the man], i.e. 'it' 'included by/ possessed by' 'the man'

Q(\subseteq) inflections are therefore responsible for the oblique case (genitive-dative) – construed as a dyadic operator yielding a ‘zonal inclusion’ (possession) relation between the element to which it attaches and the internal argument of the verb (dative, cf. (11b)) or between the element to which it attaches and the head of a noun phrase (genitive, cf. (10b)). Thus we take the so-called dative reading to depend on Q(\subseteq) taking scope roughly over the predicate VP (excluding the external argument). In the genitive reading, on the other hand, the Q(\subseteq) specifications take in their scope the head noun of the phrase.

What about *-t* as a so-called ablative? The conceptual closeness of the notions of possessor (genitive/ dative, here inclusion) and of location is well-known. For instance, cross-linguistically possessive constructions can involve not only a descriptive genitive or a descriptive dative but also a descriptive locative (Freeze 1992). In present terms, this conceptual closeness, and the corresponding syncretic realizations, can be taken to correspond precisely to inclusion, which yields the locative, when it is inclusion in a location, as in (12). Recall that 1st and 2nd person singular also display the specialized locative ending. In present terms this amounts to saying that they are treated as locations. The conceptual closeness of speaker and hearer to location is established among others by the existence of demonstrative systems using speaker and hearer reference to denote location.

- (12) a. ε kam vu: para $\text{ʃpi}\varepsilon$ -t
 ‘I put it in front of the house’
- b. I put [it in front Q(\subseteq) the house]
 i.e. ‘it’ ‘included by location (in front of)’ ‘the house’

Finally the oblique/ locative (singular) that we have dealt with so far is ‘syncretic’ with the direct cases, i.e. nominative and accusative, in the plural. Halle and Vaux (1997) dealing with the same syncretism with Latin *-i*, end up with two homophonous items, one for oblique singular (e.g. *lup-i* ‘of the wolf’) and one for nominative plural (e.g. *lup-i* ‘the wolves’). But the entry in (9) allows us to capture the syncretism, without any recourse to underspecification/ default. Indeed we propose that Q(\subseteq) can be construed as plural morphology as well. If so, its scope is restricted to the noun it attaches to. It contributes plurality to it roughly as sketched in (13) – namely by isolating a subset of the set (or set of sets) of all things that are ‘man’ – the latter taken to be the denotation of the predicate ‘man’. Therefore plural and oblique again depend on two different scopes of the Q(\subseteq) operator; for the oblique we will henceforth refer to ‘phrasal scope’ (i.e. over the predicate VP or the Noun Phrase), while for the plural, we will refer to ‘word scope’.

- (13) a. burra-t
 ‘the men’

- b. the x $[x Q(\subseteq) \{\text{man}\}]$
 i.e. ‘the x such that x is a subset of the set of things with the property ‘man’

Summing up so far, (9) provides a lexical entry for $-t$ which is neither contextually defined nor underspecified. From this lexical entry, crucially involving the category $Q(\subseteq)$, we derive the exact distribution of $-t$, as in (14); bold-face properties are those associated with the lexical entry, other properties follow from the interactions of the lexical specifications with the computational component. In particular, the mutual exclusion between locative/ oblique and plural is due to the fact that the $Q(\subseteq)$ operator has incompatible scopes in (10)-(12) and in (13). As far as we can tell, it is the one proposal extant in the literature as to why Indo-European (cf. Latin, the Romance languages, Russian) should have a pervasive oblique singular-non oblique plural common lexicalization.

- (14) **oblique definite** singular
locative definite singular
 direct **definite plural**

Given our treatment of $-t$, the entries for $-s$ and $-v\epsilon$ are straightforward, as in (15a)-(16a), corresponding in traditional terms to (15b)-(16b) respectively. It will be noted that in the entries in (15)-(16) we use the conventional label ‘plural’. This is not to imply that there are two different operators of plurality involved in the language; we keep to the idea that $Q(\subseteq)$ with word scope is the plural operator (in Albanian), and we use ‘plural’ as a shorthand. Singular in turn is construed as an independent notion, denoting an atomic set, or singleton.

- (15) a. $-s$: $Q(\subseteq)$ (phrasal scope), definite, singular
 b. **oblique definite singular**
- (16) a. $-v\epsilon$: $Q(\subseteq)$ (phrasal scope), (definite), plural
 b. **oblique (definite) plural**

We are then left with just two consonantal morphemes, namely $-n$ and $-f$. The former presents a complex descriptive problem, namely the distinction between the two direct cases, nominative and accusative – and we will leave it last. As for $-f$, we identify it with a $Q(\text{Generic})$ operator, providing an overt lexicalization for the generic closure that corresponds to the interpretation of the so-called indefinite plural. Given the generic interpretation that cross-linguistically attaches in particular to the 1st plural (e.g. English *We are on earth but briefly* as synonym of *Humans/ creatures are on earth but briefly*), but also to the 2nd plural (e.g. *You*

cannot remain indifferent close to *A human being cannot remain indifferent*), we can expect that the *-f* ending should attach to 1st and 2nd person plural pronouns, as in (7b'). The resulting lexical entry is as in (17a), corresponding in more traditional terms to (17b).

- (17) a. *-f*: Generic, Q($\underline{\quad}$) (phrasal scope, locative restriction)
 b. **locative indefinite plural**

Note that the entry for the locative in (17a) is slight different from the way we have construed the same 'case' in (12b). Indeed despite the common conventional 'ablative' label it is clear that the distribution of the *-t* feminine inflection and the *-f* inflection is not exactly identical. According to the data in our possession, the former attaches only to locative nouns while the latter attaches to non locatives (including *grat* in (7b)). What they share is prepositional contexts of embedding, hence the locative restriction on the 'inclusion' relation explicitly mentioned in (17a). We will return to the further restriction on *-t* in considering how inflections select for nominal classes.

Consider next vocalic endings. There are essentially three relevant vowels, namely *-a*, *-i*, and *-e*. For the time being we will ignore the fact that they can combine with consonantal endings (in the role of so-called thematic vowels) and concentrate on their occurrences alone. The fact that they cooccur with consonantal endings is nevertheless of great importance when it comes to define their lexical entry. Since they can more or less combine with any of the case/ plurality operators defined so far, it is not reasonable to associate them with any intrinsic property except the most elementary one, namely N (nominal class) capable of satisfying an argumental relation.

Consider then *-i*. When taken alone, one of its possible readings is as oblique singular indefinite. Now, the model we are working with allows for the possibility that operators are overtly instantiated (by determiners, adverbs, etc.) but also provided as abstract closures. If Q($\underline{\quad}$) is available as abstract closure of the *-i* morphology, the oblique reading can immediately be derived. This leaves us with the second reading of *-i*, as nominative definite. Since definiteness again is an operator property, it is natural to assume that the definiteness of *-i*, which is not intrinsically associated with it represents some sort of D closure. Now, Chomsky (1995) suggests that the EPP property is essentially a D property. Indeed that the finite verb inflection is essentially a pronoun (hence a definite element) is a standard conclusion at least for null subject languages. We therefore take it that the D closure allowing for the definite reading of *-i* can be provided by the D argument of the finite verb (the inflection). This means that *-i* as definite will occur in the EPP environment, which is the canonical distribution for so-called nominative.

In short, *-i* intrinsically reduces to a nominal class vowel, while quantificational closures supply its two fundamental values, namely oblique (indefinite and singular) and nominative definite (singular), as in (18)-(19). Note that very much as for *-t*, we may surmise that the two closures in (18) are mutually exclusive, so that the oblique is of necessity indefinite. The plural closure is excluded, since *-i* only occurs in the singular.

(18) *-i*: N
 closed by D, Q(\subseteq) (phrasal scope)

(19) **oblique** indefinite singular
nominative definite singular

A note is in order about prepositions selecting 'nominative' as in (4). Theories like Chomsky's (2001) tying nominative to the agreement with I (AgrS) will of course have difficulties with (4), since there is no evidence that the relevant prepositions have the AgrS property. Theories treating nominative as the non-dependent structural case will also have problems, since there is no evidence for any structural (as opposed to lexical) difference between nominative and accusative prepositional contexts. In present terms, on the other hand, prepositions selecting nominative simply select a D closure when taking a definite complement – leading to the lexicalizations of inflections, such as *-i* in (18), compatible with such a closure.

Finally, it is implicit in the list of possible values for (18) given in (19) that only one abstract closure applies to any given instance of *-i*. We may formulate the relevant economy principle essentially as in Chomsky (1995), i.e. operations in grammar are possible only if necessary. Note that there is no evidence that Economy has to be learned a part of the grammar of Albanian or even that it is part of what Hauser, Chomsky and Fitch (2002) call the Faculty of Language in the narrow sense (FLN). It may very well be an economy principle operating on cognitive systems in general.

Consider then the *-a* vocalic inflection. This is similar to *-i* in that it only ever occurs with some quantificational closure. In particular it can be closed by Q(\subseteq), but only with word-level scope, i.e. with plural interpretation. Alternatively it can be closed by the D operator, yielding a definite nominative interpretation. As before, closures are mutually exclusive, so that in particular the nominative definite can only be read as a singular and the plural cannot be read as a definite or oblique. On the other hand it cannot occur in the scope of Q(\subseteq) with phrasal scope. This yields the lexical entry in (20) corresponding to the traditional feature clusters in (21).

- (20) *-a*: N,
closed by Q(\subseteq) (word scope), D

- (21) **non-oblique indefinite plural**
nominative definite singular

The Economy restriction helps in clarifying a point raised by the *-a* entry. Compare the *-a* inflections in (3b) and (3c), repeated in (22a) and (23a) below. By hypothesis in the nominative definite (22a) the closure of the N vowel is provided by the D pronoun represented by the verb inflection, as schematized in (22b). This leads us to wonder as to why the D inflection does not contribute definiteness to *-a* in (23a), i.e. in the plural indefinite non-oblique. By hypothesis, in the plural *-a* is closed by Q(\subseteq) with word-scope, which by Economy cannot combine with a D closure (independently of whether a quantifier such as ‘many’ in this case, is actually lexicalized). This means that in (23b) the only possible interpretation of the D inflection is a doubling pronoun. Note that any pro-drop language will both treat the D inflection as a definite pronoun (in the absence of a lexical subject) or a clitic double of a lexical subject, when the latter is lexicalized.

- (22) a. $\epsilon\delta\text{-}i$ $v\alpha jz\text{-}a$
came-D girl-N
‘The girl came’
- b. came [D [girl-N]]
- (23) a. $\epsilon\delta\alpha n$ $\int\text{um}$ $v\alpha jz\text{-}a$
came-D many girl-N
‘Many girls came’
- b. came-D [many [(Q(\subseteq)) [girl-N]]]

Finally *-ε* differs from *-a* and *-i* in that occurs alone only in the indefinite, where it lexicalizes either the oblique singular or the non-oblique singular and plural. Therefore the quantificational closures it is compatible with are Q(\subseteq) with phrasal scope, yielding the oblique (singular, indefinite), and Q(\subseteq) with word-scope yielding the plural (non-oblique, indefinite), as in (24)-(25). Glancing back at *-i* or *-a*, it is evident that they can occur without consonantal ending only to the extent that they are provided with some quantificational closure. The *-ε* inflection is different, since in the *msus*- (‘teacher’) class it inflects the non-oblique indefinite singular, which we construe as the absence of such closures. Vice versa, unlike *-i* and *-a* it does not occur in the scope of sentential D (EPP) with the import of a nominative definite singular. This is noted in its lexical entry in (24).

- (24) $-ε$: N
(closed by Q(\sqsubseteq))
- (25) direct indefinite singular
oblique indefinite singular
direct indefinite **plural**

We are now in a position to consider the $-n$ ending. So far, we have only distinguished oblique from direct (i.e. non-oblique) case. There are essentially two theories currently available. For Chomsky (2001) nominative is a reflex of agreement with the I category (in previous frameworks AgrS) and accusative with the v category (in previous frameworks AgrO). Another proposal, originally put forth by Marantz (2000) and recently picked up by Baker and Vinokurova (2010), Baker (to appear), treats accusative as a 'dependent case', namely as the case assigned when (in the same cycle, phase, etc.) there remains a higher DP also to be assigned case.

As pointed out by various authors, including dependent case theorists, Chomsky's theory is empirically inadequate. In turn for the dependent case theory, nominative is the 'Elsewhere' case. Though this is supported by the morphologically unmarked lexicalization of nominative (for instance, endowed with no specialized consonantal ending in Albanian), this analysis does not sit well with its syntactic distribution. Thus (judging from Romance languages, English, etc.) accusative turns up in all sorts of contexts in place of nominative (focus, ellipsis, etc.) – but not the other way round. Therefore here we stick with the analysis first proposed by Manzini and Savoia (2002, 2005 ff.) for Romance clitics, namely that accusative morphology, no matter how apparently specialized, simply lexicalizes an argument-of configuration; hence accusative clitics in Romance (and equally in Albanian) are characterized by the N morphology, which represents the most elementary way of satisfying such a configuration. Since we have attributed the N property to vocalic endings, we of course follow Manzini and Savoia in assuming that 'thematic vowels' satisfy the internal (and sole obligatory) argument of the nominal base.

The match between the 'argument-of' configuration and the traditional notion of accusative, depends on the way we construe the relation 'argument-of'. Following Manzini and Roussou (2011) we take argument slots to be variables (x, y) which are bound by λ -binding mechanism (Heim & Kratzer 1997, cf. Adger & Ramchand's (2005) Λ feature, etc.). Since $-n$ is added to a thematic vowel (on selection see section 3), satisfying the argument nominal base, we may assume that it introduces an argument in the syntactic domain. This, namely that $-n$ simply introduces a sentential λ -abstract, is stated in (26).

- (26) $-n$: λ (phrasal scope), definite, singular

The simplest way of excluding *-n* from the traditional oblique (or locative) and nominative environments is to assume that other phrasal/ sentential closures, i.e. the $Q(\subseteq)$ closure of oblique and the D closure of nominative introduce their own λ -abstraction. Thus (26) is constrained to the environments not closed by $Q(\subseteq)$ and D, effectively yielding (27).

(27) objective **definite singular**

3. Combining inflections

At this point of the discussion we can consider how the vocalic and consonantal inflections that we have examined in section 2 do (or do not) combine to provide the actual nominal inflections of Albanian.

When we combine the three vowels with the five consonantal endings, in principle we obtain 15 sequences. Let us begin with *-i*. Of five conceivable combinations, only two are possible. There are two sources for the unattested combinations. One is that *-i* is incompatible with plurality, hence with $Q(\subseteq)$ with word scope (plural) and with $Q(\text{Generic})$, as already implied by (19); in fact abstract closure by these same operators is also impossible. The other, as already mentioned, is the fact that *-s* selects for the feminine *-ε* class; this can be made part of its lexical entry as in (28).

(28) *-s*: $Q(\subseteq)$ (phrasal scope), definite, singular
selects *-ε*

In other words only intrinsic and selection properties of the combining morphologies need to be invoked, to predict the possible combination of *-i* with consonantal endings, as in (29).

(29)	<i>-i-n</i>	: N - λ , def, sg	objective definite singular
	<i>-i-t</i>	: N - $Q(\subseteq)$, def (phrasal scope) * (word scope)	oblique definite singular * plural closure
	* <i>-i-s</i>	: N - $Q(\subseteq)$, def	* <i>-s</i> selects <i>-i</i>
	* <i>-i-vε</i>	: N - $Q(\subseteq)$, (def), pl	* plural closure
	* <i>-i-f</i>	: N - $Q(\subseteq)$ (locative), Generic	* plural closure

Consider then the possible combinations of consonantal endings with the *-a* nominal class vowel. Again its possible combinations are restricted in that any further combination with inflectional material requires a plural closure. Again we can express this as an hoc restriction on the lexical entry for *-a*, as in (30).

(30) *-a*: selected by $Q(\subseteq)$ (word scope)

The restriction of the possible combinations with consonantal endings with *-a* to plurals, yields the correct list of complex inflections in (31).

(31)	*- <i>a-n</i>	: N - λ, def, sg	* - <i>a</i> selected by singular
	- <i>a-t</i>	: N - Q(\subseteq), def *(phrasal scope) (word scope)	* - <i>a</i> selected by singular direct definite plural
	*- <i>a-s</i>	: N - Q(\subseteq), def, sg	* - <i>a</i> selected by singular
	- <i>a-vε</i>	: N - Q(\subseteq), (def), pl	oblique (definite) plural
	- <i>a-f</i>	: N - Q(\subseteq) (locative), Generic	locative indefinite plural

Consider finally *-ε*. This nominal class vowel is compatible with all quantificational closures, and hence with all consonantal endings. The combinations between the *-ε* nominal class ending and consonantal endings in (32) are then derived.

(32)	- <i>ε-n</i>	: N - λ, def, sg	objective definite singular
	- <i>ε-t</i>	: N - Q(\subseteq), def (phrasal scope) (word scope)	locative definite singular direct definite plural
	- <i>ε-s</i>	: N - Q(\subseteq), def	oblique definite singular
	- <i>ε-vε</i>	: N - Q(\subseteq), (def), pl	oblique (definite) plural
	- <i>ε-f</i>	: N - Q(\subseteq) (locative), Generic	locative indefinite plural

The list of morphemes in (29), (31) and (32) together with the vocalic endings in (18), (20) and (24) cover all of the distinct entries in the traditional Tables 1 and 2. In order to prove the empirical adequacy of a morphology projected in the syntax from actual lexical entries we need to show that we can also describe the nominal class system whereby certain inflections select certain lexical bases (masculine vs. feminine, etc.) and/or vice versa.

The easiest nominal class morphology is *-i* which is found on all and only so-called masculine nouns. We can express this restriction as a selection restriction, i.e. *-i* selects a certain set of nouns which may very well be listed in the mental lexicon. This set is conventionally labelled masculine so that we may say that *-i* selects for the ‘masculine’ set, as in (33). The fact that *-i* cannot be plural (closed by a plural operator) means that it will only be found in the singular, a fact already reviewed above

(33)	- <i>i</i>	selects for the class {‘man’, etc.} (i.e. masculine)
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The *-ε* vowel attaches to the complementary set of lexical bases with respect to *-i*, the conventionally feminine ones. Again we may very well assume that

these are listed and that $-\varepsilon$ selects for the relevant set, call it ‘feminine’. There is however an additional problem, namely that a subset of the feminine class (the ‘teacher’ class) never appears without the $-\varepsilon$ inflection, while with the other subset (the ‘girl’ one) the $-\varepsilon$ inflection is present only in the singular, again with the exception of the nominative definite, where it is excluded by its lexical entry.

This distribution does not follow from any principled consideration that we can think of, so that selection by $-\varepsilon$ of the feminine class as a whole (including ‘girl’) will have to be restricted to the singular by stipulation. What is more with ‘girl’ $-\varepsilon$ does not appear in the direct cases of the indefinite – which can be blocked by imposing a closure requirement on the selection by $-\varepsilon$ of the feminine class. The restriction takes then the overall shape in (34).

- (34) $-\varepsilon$, singular, quantificationally closed: selects {‘girl’, ‘teacher’, etc.}
(i.e. feminine)

For the ‘teacher’ class it is much more convenient to state the selectional restriction on the class of lexical bases – which will require $-\varepsilon$ as an intrinsic lexical property, except that in the nominative definite the appearance of $-\varepsilon$ is preempted by the lexical constraints on this morpheme, as in (35).

- (35) {‘teacher’, etc.}(feminine subclass): selects $-\varepsilon$

In this connection it is also worth considering the fact that with the $-\varepsilon$ class, we find the restriction of $-t$ endings with phrasal scope to locatives. We construe this as a selectional restriction, namely $-t$ is restricted to lexical bases denoting location, when selecting $-\varepsilon$, as in (36).

- (36) $-t$, phrasal scope over $-\varepsilon$: selects locations

We then get to $-a$. In the plural it takes both masculine bases and feminine bases, at least those that do not take $-\varepsilon$. Therefore no selectional restriction needs to be imposed on the plural. In the singular $-a$ is on the other hand restricted to the feminine class, which will again have to be stipulated, as in (37).

- (37) $-a$, singular: selects feminine class

One final passage is needed in order to reconstruct the traditional case Tables 1 and 2, namely an account of what appear in the tables as zero inflections. These correspond to the direct indefinite singular cases, except of course for the ‘teacher’ class that has $-\varepsilon$ under (35). The issue has several aspects; the one we are more directly concerned with is fairly banal. The crossing of the various requirements on vocalic and consonantal endings insures that none of them can occupy the relevant slots. Needless to say, $-i$ is impossible because it requires a

definiteness or an oblique closure; it is of course possible in the nominative, but this immediately takes on the definite interpretation. Very much can be repeated for *-a*, which can be nominative but only definite or plural. As for *-ε*, we have just stipulated in (35) that it will appear with the whole feminine class only in the singular and only when quantificationally closed, hence not in the direct indefinite singular cases.

The issue is more interesting in other respects. First, though this was not part of our initial program, we have effectively done away with zero endings. No morphosyntactic system can express natural languages without a certain amount of interpreted and not pronounced material. The treatment that we have provided here for case inflections amounts to the proposal that the free use of zero inflections in morphology (cf. for instance Pesetsky 2010 on Russian case) is unnecessary, as is its syntactic counterpart, namely 'silent' functional categories in the sense of Kayne (2010). The abstractness in the theory is all concentrated on variables and quantificational closures at the LF interface – a much more clearly restricted domain.

In the specific examples at hand, we can easily uniform inflectionless nouns to the syntax of N inflected nouns by assuming that an abstract variable is inserted at LF. Under Economy, this will of course only be possible in those instances where it is needed, in other words where overt lexicalizations do not already supply N. The effect is the 'zero' lexicalization of Table 2.

3.1 Conclusion

The discussion in sections 2-3 treats inflectional entries (and by extension all 'functional' entries) as substantive entries, endowed with LF as well as PF properties. Furthermore it provides only positive specifications for those entries, insuring that morphosyntactic structure can be projected from them under standard minimalist postulates of Inclusiveness, etc. This implies of course that models such as Distributed Morphology, which are much richer in splitting abstract properties from possibly underspecified exponents (or allowing for string lexicalization etc.) are unnecessary. Our argument in this respect is simply that, given empirical equivalence of the two models, ours is simpler, fully complying with a minimalist architecture of grammar (or a representational version of it).

The reason why conventional morphological analyses are typically irreducible to something like the present architecture is simply that they employ a certain set of categories, generally lifted from traditional and descriptive grammar. It is these categories that ultimately create the theoretical problems characterizing the notion of case in minimalist syntax, as outlined at the beginning. In other words, the conclusion that the PF branch has an opaque relation to the LF branch, impelling the separation of abstract LF terminals from PF 'exponents' does not

have much deductive depth, but seems to simply depend on the chosen categorization. Once morphosyntactic categories are properly understood, the opacity disappears, making it possible to maintain a unified morphosyntactic component projected from the (positively specified) lexicon along minimalist lines.

Note that the categories that we have introduced in the present discussion can be translated into features of a conventional morphological system. It is perfectly possible to translate our $Q(\subseteq)$ operator with phrasal scope into a $\pm Q(\subseteq)$.poss feature (Poss for ‘possessor’) and the same operator with word scope into a $\pm Q(\subseteq)$.pl feature. Syncretism between oblique and plural would then be a syncretism on the $\pm Q(\subseteq)$ feature. We could further assume that it is just clusters of abstract properties that are lexicalized in the syntax and that the lexicon we have defined is made up of ‘exponents’. Assuming that all of this is possible, the interesting result is that just changing the categories slightly (to $Q(\subseteq)$ etc.) makes all of this (ie. features, ‘exponents’, etc.) unnecessary. We thus return to our initial point, namely that by Occam’s razor a minimalist architecture of the type proposed here is to be preferred, and further complications (Late Insertion, Impoverishment, default, zero exponents, etc.) are to be excluded.

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