

the examples A indicates the selection of *have* auxiliary and E the selection of *be* auxiliary). This classical person split is oblivious to verbal class, as shown in (11), as well as to *si*.¹

(11) *S.Benedetto del Tronto* (Marche)

sə	vənu:tə/ vistə	E
ʃi		E
a		A
ʃɛmə		E
ʃɛtə		E
a		A

'I have come/seen' etc.

Note that there is no intrinsic association of *be* with 1st and 2nd person and of *have* with 3rd person. Thus, varieties are found in which it is the 1st and 2nd person that are associated with *have*, while the 3rd person is associated with *be*, as in (12). This parametric choice is less robustly attested, so that in *Morcone* in (12) it only characterizes the singular, while the plural has *have* in all persons. However, the limitation of the person split to the singular is an independent parameter, since it can also be seen in a variety like (13) which in the singular has *be* in the 1st and 2nd person and *have* in the 3rd. Incidentally, the morphophonology of *Morcone* (with non-neutralized final vowels) allows us to see that the participle agreement once again follows exactly the same lines as standard Italian – namely, agreement with unaccusatives ('come') and lack of agreement with unergatives ('slept').

(12) *Morcone* (Campania)

addʒo	menuto/ durmuto	A
a		A
ɛ		E
emo	menuti/durmuto	A
ete		A
ao		A

'I have come/slept' etc.

(13) *Bisceglie* (Apulia)

sə	drəmmi:tə/ vəni:tə	E
si		E
a		A
ɛmm		A
avə:tə		A
onnə		A

'I have slept/come' etc.

The varieties in (11)–(13) prompt a few general remarks. First, we have seen that although the pattern in (11) may be more robustly attested, the reverse pattern in (12) is equally possible. However, not all parametric choices are reversible. Thus, we are aware of no language in which auxiliary selection is the reverse of, say, *Soazza*, so that *be* is associated with transitive and *have* with unaccusatives. Also, we do not know of any language which patterns in the opposite way to Albanian, selecting *have* with middle-passives and *be* with actives. This lack of reversibility will have to be accounted for as part of the overall parametric picture.

Second, the picture of auxiliary selection according to person provided in (11)–(13) is greatly simplified with respect to the actually observed variation. A fuller picture will be presented in [section 6.2](#). Importantly, it is not only auxiliary selection according to person that is subject to this fine variation, but also transitivity and voice alternations, as discussed in [section 6.4](#).

6.1.1 *Theoretical background*

Our study of parametrization in auxiliary selection presupposes a number of assumptions concerning the structure and the interpretation of perfects. Perhaps the single most important assumption is that perfects are not monoclausal, consisting of a verb associated with an auxiliary functional projection – as in the conception of English auxiliaries of Chomsky (1957, 1981, 1995). Rather, the embedded participle and the matrix auxiliary each define a separate sentential unit (Kayne 1993). The importance of this point cannot be overstated. A decade after Kayne's (1993) discussion, Bentley and Eythórsson (2003: 460) maintain that

perfective auxiliaries are morphological exponents of tense/aspect features on a par with past tense markers in English ... On the basis of the above analysis, the selection of perfective auxiliaries in Italian, Dutch and other languages ('auxiliary selection') can be considered to be an instance of allomorphy. Accordingly, 'have' and 'be' are allomorphs of a tense/aspect morpheme which in combination with the past participle forms the analytic perfect. This type of selection might be taken to be comparable to the formation of the past with weak and strong verbs in English. This would imply that 'have' is added by a rule and that the smaller class of verbs selecting 'be' would have to be memorized ... we propose, in the first instance, that auxiliary selection in languages like Italian is due to a morphological rule which is sensitive to the lexical semantics of verbs.

Their evidence includes the fact that 'agreement markers (qua clitics) attach to the tense/aspect markers (qua auxiliaries)'. They argue that on a 'clitic climbing/argument composition' – i.e. restructuring – analysis, the 'obligatoriness' of the positioning of clitics must be stipulated.

Now, in some Romance languages, enclisis on the participle is actually observed. Belletti (1990) notices that standard Italian has ‘absolute’ (i.e. adjunct) participle constructions, in which the participle is associated with sentence-level inflectional properties such as the ability to support an enclitic. If we adopt Kayne’s (1991) theory of enclisis, in which enclisis depends on the high position of the verb in the sentence, we conclude that the participial clause has a C layer as well, hosting the participle itself in enclitic contexts.

What is more, the Piedmontese varieties reviewed in chapter 3 show enclisis on the participle in the perfect as well, as in (14). We take this to provide evidence that the participle is a full clause, with the verb in C. In particular, *Forno* in (14) displays not only enclisis on the participle, but also proclisis on the auxiliary, as in (14a’–b’). This optionality of clitic positioning in *Forno* parallels that of clitic climbing in Italian ‘restructuring’ constructions, in the sense of Rizzi (1982) – suggesting that they admit of the same explanation.²

(14) *Forno Valle Strona* (Piedmont)

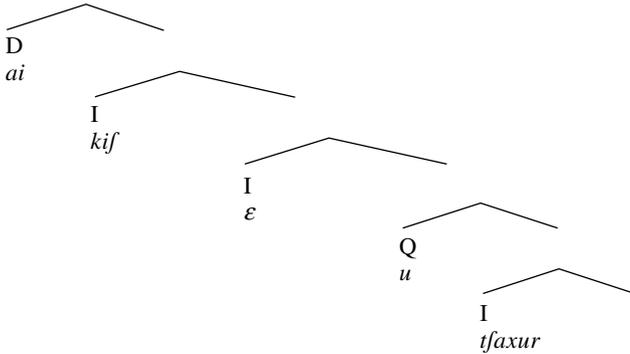
- a. l a viftu -n
 he has seen us
 ‘He has seen us’
- a’. a n a vift
 he us has seen
 ‘He has seen us’
- b. l ε la’va -s
 he is washed -MP
 ‘He has washed himself’
- b’. a s ε la’va
 he MP is washed
 ‘He has washed himself’

Albanian varieties provide even stronger evidence that the embedded participle syntactically represents an independent sentence (Savoia and Manzini 2007). Thus, in the Arbëresh variety of *Portocannone* the participle can be introduced by the sentential connective *ε* ‘and’, and pronominal clitics are associated with the participial clause rather than with the matrix clause, as illustrated for the active in (15a) and for the middle-passive in (15b). Note that, while in Romance varieties like (14) a clitic associated with the participle appears in enclisis (showing that the participle is in a relatively high position, i.e. C), in Albanian the clitic precedes the participle, as with any other finite verb. This leads us to conclude that participles and finite verbs occupy exactly the same position in the sentence, i.e. I.

(15) *Portocannone*

- a. ai kif ε ε tʃa- it- ur
 he had and it break- prf- prt
 ‘He had broken it’
- b. ai kif ε u tʃa- x- ur
 it had and MP break- MP- Prt
 ‘It had broken’

We can associate with the active in (15b) a structure of the type in (16). Both the *kam* auxiliary and the participle head their own sentential projection, each of which is associated with a full argument structure (witness the clitics in the participial clause). We assimilate the coordinating particle to a subordinating one, as suggested by Kayne (1994, and references quoted there). In accordance with the theory of complementizers in chapters 1–2, we then construe ε as an autonomous nominal head, which is selected by the matrix predicate and takes the participial clause as its complement.

(16) *Portocannone*

Besides the conclusion that perfect participles are bi-sentential structures, we share with Kayne (1993) the conclusion that the *have* and *be* auxiliaries are exactly the same verbs that appear in possessive or copular constructions respectively, descriptively as main verbs. The main argument in favour of this conclusion is that the coincidence of the different contexts in which the same lexical forms appear is systematic – and cannot therefore be imputed to simple homophony. Bentley and Eythórsson’s (2003) approach is incapable of capturing this obvious and important fact.

On the other hand, Kayne (1993) also argues that *have* and *be* are transformationally related. His idea, which is based on the possessive construction, is that *have* is essentially an applicative of *be*, derived through the incorporation

of a (dative) preposition; in other words, possessive *have* is *be-to*, as proposed by Benveniste (1966). Similarly, auxiliary *have* is derived from auxiliary *be* through the incorporation of a prepositional complementizer. The problem is that, as far as we can see, there is no Romance variety, of the many examined, that provides any morphophonological clue in favour of the proposed derivation (nor any other language that we know of).³ Therefore we simply assume that *have* and *be* are two independent lexical entries. In other words, *have* and *be* are just what they appear to be – namely the independently known possession and copular verbs, eventually embedding a participial clause.

There is one major piece missing in the structural sketch of participles provided above concerning the EPP argument of the participle. As in all non-finite clauses (including, notably, infinitivals) the EPP position of the participial clause is not overtly realized. According to the theory of empty categories in Chomsky (1981) maintained by Chomsky (1995), the EPP position of non-finite sentences corresponds either to a trace – i.e. a copy – in raising constructions or to a base-generated empty category, conventionally PRO, in control constructions (whether obligatory or arbitrary control). On the other hand, some authors have sought a unified characterization of these environments in terms of the minimalist notion of trace, i.e. copy. Thus, for Hornstein (1999), (obligatory) control as well as raising is derived through movement; raising and control are simply the names for different interpretations of the same syntactic object, i.e. a chain. Because this theory seeks to unify only the bound readings of the embedded subject of non-finite sentences, so-called arbitrary control is excluded from it – being represented presumably by an empty category again (say *pro*).

Another possibility that has been explored in the literature is that in fact there is no embedded EPP position in non-finite sentences. This stance is explicitly taken by Epstein and Seely (2006), but is also implicit in Manzini and Roussou (2000). It is interesting, therefore, that both Roussou (2009) and Manzini (2009) reject this possibility on the basis of control and raising from finite complements in Greek and Albanian respectively. Since finite complements involve a nominative position, it is evident that control and raising interpretations cannot be linked to the absence of an EPP position.

We therefore adopt the standard assumption that all sentences have an EPP argument. At this point, it also becomes relevant that we adopt a representational model of grammar, as defined by Brody (2003), in which chains are an interpretive construct at the LF interface – and do not depend on a computationally driven process of movement. At the LF interface, the reading of a trace (i.e. a copy) is that of a variable (bound by its antecedent, i.e. the *wh*-operator

in *wh*-chains and so on). Similarly, the base-generated empty category (i.e. PRO/pro) is generically closed in the arbitrary reading, so is once again a variable (Lebeaux 1984). Therefore we simply assume that in non-finite clauses, in which the EPP argument is not provided by the morphosyntactic (agreement) structure, it enters the LF interface computation in the form of a variable. In raising and obligatory control, the EPP variable has an antecedent-bound reading; in arbitrary control, it is interpreted by generic closure (in the absence of an antecedent).

Finally, we need to say a few words on the notions of voice and transitivity. Descriptively, in standard Albanian *have* forms the perfect in the active voice, as in (7), and *be* forms the perfect in the middle-passive voice, as in (8); in present terms, this means that *have* selects for an active embedded sentence and *be* for a middle-passive one. Similarly, in Italian (1)–(2) the middle-passive voice, as instantiated by *si*, is associated with *be* independently of the transitivity of the verb, while in the active *have* and *be* alternate according to transitivity. The latter is the only alternation present in *Soazza* in (5)–(6) independently of voice. Evidently, explaining these patterns requires a preliminary account of what exactly is meant by the descriptive labels of active and middle-passive or transitive and non-transitive. Furthermore, the two splits, according to voice and transitivity, cannot be unified, since Albanian or Romance varieties like *Soazza* are sensitive to one but not the other.

What appears to be the more complex and therefore problematic of the two notions, i.e. voice, has been studied in chapter 5 in relation to Albanian. Our conclusion regarding the Albanian clitic *u* and its Italian counterpart *si* was that what ultimately gives rise to all of the different readings of the middle-passive voice is the property of *si/u* being a variable. As a result of the presence of this variable, one of the argumental positions of the predicate remains unassociated (in anticausatives/reflexives) or is interpreted only by quantificational closure (passives, impersonal) or is finally associated with an argument which is external to the core predicate (the *by*-phrase). Therefore middle-passive voice is defined by the lack of closure (or the generic closure) of the argument structure of the verb.

By contrast, the theoretical characterization for the notion of transitivity would appear to be a settled question on the basis of Burzio (1986) and the relational grammar work on which it is based. According to Burzio (1986), transitive verbs have both an internal and an external argument – linked to the sister of V position and to the sister of I (EPP) position respectively. Unergatives only have an external argument, which is linked to the EPP position. Finally, unaccusatives have only an internal argument, which is promoted to the EPP

position. Regarding the latter, it should not be forgotten that the movement derivation of unaccusative verbs is meant to unify them with middle-passives for the purposes of *be*-selection. Yet we have just seen that what is classically taken to be the strongest argument in favour of a uniform movement structure for middle-passives and unaccusatives in reality works against it. For in languages like Albanian, it is only middle-passives that combine with *be*, to the exclusion of unaccusatives – and the reverse is true in *Soazza*.

We have now adopted a characterization of middle-passives as predicates with an open variable in their argument structure, either not interpreted or interpreted through quantificational closure. But the standard construal of unaccusatives as predicates with a single argument slot, saturated by the EPP argument, leaves no room for non-interpreted or quantificationally closed argument slots. Therefore this simple characterization is sufficient to distinguish unaccusatives from middle-passives for present purposes – as already suggested in [chapter 5](#) in relation to Albanian. The same characterization is also sufficient to distinguish them from transitives and unergatives – for transitives have two arguments, and, following Hale and Keyser (1993) and Chomsky (1995), unergatives can be treated essentially as concealed transitives in which the internal argument has incorporated into the verb.

6.2 Auxiliary selection independent of transitivity/voice

Consider *Pescolanciano* in which the auxiliary of the perfect is *be*, as in (10). From the present perspective, *Pescolanciano* can simply be described as a language in which *be* embeds any participial clause without any restrictions. By contrast, in *Verbicaro*, the perfect is systematically formed with the auxiliary *have*, as in (9). However, we cannot simply say that *have* in *Verbicaro* embeds just any participial clause, with no restrictions, since passives in this language, as in standard Italian or English, are formed by the participle embedded under *be*.

Recall that in the middle-passive perfect of Albanian varieties, *jam* ‘be’ is followed by an invariable (non-agreeing) participle, as in (7)–(8). By contrast, in the passive it is followed by a participle featuring both an agreement inflection and a preposed article, as discussed in [chapter 5](#); a relevant example is reproduced in (17).

- (17) *Gjirokastër*
 jan tə vɛʃur/ 'vɛʃur-a
 they.are Art dressed/dressed-f.
 ‘They are dressed’

We take this contrast to imply that the present perfect in (7)–(8) and the passive in (17) involve two different embedding structures. While the evidence reviewed in section 6.1 leads to the conclusion that the embedding in (7)–(8) is sentential, a nominal embedding is involved in (17), as discussed more in detail in chapters 5 and 7. We tentatively propose that the same distinction between sentential and nominal embedding of the participle holds (in some form or other) in Romance as well. Indeed, a contrast between lack of agreement in the perfect and agreement in the copular (passive) construction can be found in some Romance varieties. Thus, in (18), the free alternation between *have* and *be* in the perfect does not have any effect on the participle, which maintains its invariable, non-agreeing format. As shown in (18b–b’), on the other hand, in the same languages *be* requires an agreeing adjective in the copular construction.

(18) *Montebello Ionico/ Saline Ioniche* (Calabria)

- | | | |
|-----|---|-----------------|
| a. | era/ eri/ era/ 'erumu/ 'eruvu/ 'erunu | durmutu/ vinutu |
| | I.was etc. | slept/ come |
| a’. | aiva/ aivi/ aiva/ a'ivumu/ aiuvu/ a'ivunu | durmutu/ vinutu |
| | I.had etc. | slept/come |
| | 'I had come/ slept' etc. | |
| b. | era stan̄ku | |
| | I.was tired | |
| b’. | 'erumu stan̄ki | |
| | we.were tired(pl) | |

We thus factor out passive as involving a different structure of participial embedding with respect to perfects. If so, the comparison between *Pescolanciano* in (10) and *Verbicaro* in (9) yields a simple parameter whereby participial clauses are selected by either *have* or *be* to the exclusion of the other.

6.2.1 Auxiliary selection according to person

The patterns of auxiliary selection according to person in (11)–(13) can be obtained at this point by letting the parameter just formulated – i.e. the selection of participial clauses by *have* or *be* – interact with the person split between 1st/2nd person and 3rd person. The latter is independently motivated in the typological literature. Thus, DeLancey (1981) argues that languages with so-called ergativity splits, i.e. alternations between the ergative (/absolutive) case system and the nominative (/accusative) system, most commonly oppose 1st and 2nd person to 3rd. Person splits are also found in Romance languages. Restricting ourselves to clitics, 1st and 2nd person object clitics differ

from 3rd person ones with respect to their distribution, their morphological make-up (gender and Case distinctions), their agreement properties, and more (for instance, the drop phenomenon studied by Savoia and Manzini (2010)). According to Manzini and Savoia (2007), the person split, in its various manifestations, depends on the fact that the speaker and the hearer (and the sets including them) are anchored directly in the universe of discourse, independently of their role within the event; on the other hand, non-participants in the discourse depend directly for their characterization on the position assigned to them within the structure of the event.⁴

The same split can be defined in more traditional frameworks by a feature [\pm discourse participant] (e.g. Legendre (2010) has [\pm local]). The reason we do not adopt such a characterization is that in our morphosyntax, there are only positively specified properties. In other words, the 3rd person cannot simply be characterized in negative terms, as excluding speaker and hearer reference (Benveniste 1966). Rather, 3rd person reference is characterized in positive terms, by its necessary anchoring in the event. In this sense, we also differ from Harley and Ritter (2002), who assume monovalent (privative) features, but at the same time adopt the default view of 3rd person, as characterized by the absence of the Participant feature node.

Let us now cross the *have* vs. *be* parameter defined with respect to *Pescolanciano* and *Verbicaro* with the person split – so that *have* and *be* can be sensitive to the reference of the EPP argument. The crossing should in principle yield two systems. In one system, *be* is associated with a 1st and 2nd person EPP argument while the 3rd person requires *have* – while in the mirror-image system, it is the 1st and 2nd person that require *have* while the 3rd person is associated with *be*. In other words, the crossing of the two parameters yields the systems observed, at least in the singular, in *S.Benedetto* in (11) and *Morcone* in (12) respectively.

It is important to stress that we take the person split to interact with the selectional properties of auxiliaries at the core syntactic level. By contrast, for Bentley and Eythórsson (2001: 71), ‘alternation according to person is part of a grammatical person marking system on verbs’. Similarly Loporcaro (2007: 186) argues that ‘where precisely (in which verb persons) the morphemes ‘have’ and ‘be’ occur ... is however a matter of morphology, not syntax’. What seems crucially to motivate their conclusions is the fact that there exist many more possible distributions than the 1st/2nd vs. 3rd exemplified so far. Thus, for Bentley and Eythórsson (2001: 71), ‘the mixed paradigm does not appear to be attributable to syntactic or semantic principles associating each auxiliary with a particular grammatical person. This possibility is ruled

out by the variety of existing patterns ... Thus we would not subscribe to the view that there is a rule of auxiliary selection according to person'. Similarly, for Loporcaro (2007: 186), 'what is inconceivable ... is for this empirical variability to be directly encoded into structural categories in a one-to-one correspondence'. Here we will argue that, on the contrary, a syntactic account of this considerable variation is exactly what is needed.

Quite intricate patterns can be gleaned from the tables in Manzini and Savoia (2007) and Legendre (2010). The number of languages described by Manzini and Savoia (2005, 2007) is obscured by the fact that several varieties display one or more alternations, both free and not free (such as alternations according to transitivity/voice and according to whether the following verb starts with a consonant or a vowel). In order to make the possible patterns emerge more clearly, in Table 6.1 we have reformatted the data in Manzini and Savoia (2007, Appendix to chapter 6). Wherever an alternation was present, we have written down two separate paradigms. Free alternations have been treated so as to minimize the resulting pattern – i.e. where several of them were present, we chose *be* or *have* throughout.

Even a cursory look at Table 6.1 reveals that the singular and the plural do not necessarily pattern alike – in fact they most often display separate patterns. This has already been illustrated above by the contrast between *S.Benedetto* in (11) and *Bisceglie* in (13) – where the same person split occurs throughout the paradigm in *S.Benedetto* and only in the singular in *Bisceglie*. Let us now consider the singular. The richest possible grammar is one in which not only the 1st/2nd vs. 3rd person split is allowed, but also 1st person vs. 2nd/3rd and 2nd person vs. 1st/3rd. Once these three possibilities are crossed with the two auxiliaries, six patterns emerge. All of these are attested in Table 6.1.

Now the splitting of 1st from 2nd person – i.e. of the two members of the discourse-anchored set – is also a long-standing issue in the typological and formal literature. In typological approaches, where the discourse- vs. non-discourse-anchored split is taken to be a cut along an animacy/agenthood hierarchy (Dixon 1994), the 1st singular is taken to precede the 2nd singular in the hierarchy in that 'the speaker is for him- or herself, the quintessential agent' (Dixon 1994: 90). Here, of course, we have discounted the idea that animacy and/or agenthood enter into the determination of person-split phenomena, since our system does not contemplate the possibility of hierarchies, but only of discrete splits. Similarly, the formal feature hierarchy of Harley and Ritter (2002) yields 'speaker' as the unmarked member of the 'discourse participant' set. As mentioned above, we cannot have recourse to feature geometries which, even if they only make use of privative features, crucially imply a notion of underspecification (thus 3rd person is lack of specification for 'discourse participant'). At

Table 6.1 *Distribution of be (E) and have (A) according to person in the present perfect (in Central and Southern Italian varieties)*

		1sg	2sg	3sg	1pl	2pl	3pl
(ii)	<i>Roccasicura</i>	A	E	E	E	E	E
(vi)	<i>Vastogirardi</i>	A	E	A	E	E	E
(xi)	<i>Secinaro</i> cf. (x)	E	E	A	E	E	E
(i)	<i>Poggio Imp.</i>	E	E	E	E	E	A
(iv)	<i>Gallo Matese</i>	A	E	E	E	E	A
(v)	<i>Monteroduni</i> = (i), (iv)						
(vii)	<i>Colledimacine</i>	E	E	A	E	E	A
(viii)	<i>S. Benedetto T.</i> =(vii)						
(ix)	<i>Viticuso</i> cf. (vii)	A	E	A	E	E	A
(iii)	<i>Capracotta</i>	A	E	E	A	A	E
(xii)	<i>Agnone</i> = (xiv)	E	E	A	A	A	E
(x)	<i>Sassinoro</i>	A	E	A	A	A	A
(xiii)	<i>Bisceglie</i>	E	E	A	A	A	A
(xiv)	<i>Ruvo</i> cf. (x), (xiii), (xv)	A	E	E	A	A	A
(xv)	<i>Popoli</i> cf. (xiii)	E	E	E	A	A	A
(xvi)	<i>Padula</i> = (x), (xiii), (xiv), (xv)						
(xvii)	<i>Molfetta</i> = (xiii)						
(D)	<i>Gravina</i>	A	A	E	A	A	A
		E	A	E	A	A	A
		E	A	A	A	A	A

the same time, the data reviewed here show that these approaches are problematic, in so far as the pattern isolating the 2nd person from the 1st person and the 3rd is also possible.

Manzini and Savoia (2007) state that ‘the property that sets apart the 1st singular is one of pragmatic salience’. This universal, in itself obvious, yields one of two logically possible results. Either 1st singular is isolated while 2nd and 3rd are treated alike, or its pragmatic salience allows for it to be treated together with event-anchored 3rd person, allowing 2nd person to be isolated. In other words, if a schematic representation is desired, our system amounts to (19). (19a) and (19b) generate the split between discourse-anchored and event-anchored referents as well as the internal splitting of the discourse-anchored referents that the auxiliary selection data require.

- (19) a. split between discourse-anchored referents and event-anchored referents
 b. pragmatic salience of speaker reference

Let us now consider the plural. The plural can pattern independently of the singular, but it appears to be more severely restricted than the singular. In our data, the plural of person split varieties only has two options, namely no split or the canonical split opposing 1st/ 2nd person to 3rd person. It is true that the varieties tabulated by Legendre (2010) on the basis of the existing literature show the possibility of other person split patterns in the plural as well. Interestingly, however, in these cases the plural is consistent with the singular. Therefore we may tentatively add to our picture the general possibility of the plural being consistent with the singular, although we will mostly disregard this aspect of the problem.

In Manzini and Savoia (2007), we concentrate on non-split plurals of person-split varieties. In order to explain the lack of person split in the plural, ‘considerations concerning the actual denotation of the so-called 1st and 2nd person plural’ are invoked. ‘Thus the 1st person plural does not necessarily denote a plurality of speakers (though it may), or the speaker and hearer only (though again it may); rather its denotation routinely involves one speaker and a certain number of other individuals that are being referred to together with the speaker. The same is true for the 2nd person singular, which does not necessarily (or normally) denote a plurality of hearers but simply refers to the hearer taken together with a certain number of other individuals’. In more traditional terms (cf. Bobaljik 2008), ‘we’ is 1st (+ 2nd) (+ 3rd) while ‘you’ is 2nd (+ 3rd). Because of this referential structure of the so-called 1st and 2nd plural, it is reasonable to propose that even varieties that activate the person split (19a) in the singular may not do so in the plural.

Let us now consider those varieties in which the plural displays a split pattern and the latter is not simply consistent with the singular. If the generalization suggested by Table 6.1 is correct, namely that plural splits are restricted to the canonical discourse- vs. event-anchored sets, this can again be derived on the basis of (19). What we have just suggested is that the referential structure of the plural may block the expression of (19a). If the same reasoning is applied to (19b), we obtain the result that distributions isolating the 1st person from the 2nd are blocked. In other words, (20) yields the asymmetry between singular and plural person splits.

(20) (19a), (19b) are not defined in the plural

There is one further question left, namely how the singular and plural patterns generated so far can or cannot combine. A glance at Table 6.1 shows that when the plural is associated with *have*, all eight logically possible combinations for the singular are attested, including the seven in Table 6.1 and those

that show *have* throughout the paradigm. Matters change when we consider *be* or split patterns in the plural. In this case, the patterns found in the singular are severely cut down to about half of those which are possible in principle. The best predictor of the actually observed distribution, at least in Italian varieties, is the 2nd person singular. If this is associated with *be*, then the plural can have *be*; if the 2nd person singular is associated with *have*, then no combination with *be* in the plural is possible.

As ever, our problem is not stating the restriction, which emerges fairly clearly from our data, but rather understanding why it would hold. Two sets of considerations appear to be relevant. First, as discussed above in connection with (20), the referential structure of the plural is more complex than that of the singular; in particular, the elementary discourse-anchored ‘speaker’ reference is simpler than the plural referents. Second, though we are concentrating here on the embedding of nominal predicates (participles) under *have* and *be* in perfects, we have mentioned in section 6.1 that the languages at hand also have copular embeddings (including passives) which involve *be*. Therefore a language in which *have* embeds nominal predicates (participles) in the perfect has a categorial split with *be* when nominal embeddings as a whole are considered.

We surmise that if the 2nd singular is associated with the relatively complex grammar characterized by *have* in the perfect and *be* in copular embeddings, then the more complex plural referents must also be associated with *have* in the perfect (vs. *be* as the copula), along the lines of (21).⁵ Since the 2nd singular is crucial in defining this implication, we must conclude that the ‘hearer’ is singled out by the lack of any referential property, including pragmatic salience, beyond mere anchoring in the discourse.

- (21) Categorial splits (e.g. copula *be* vs. auxiliary *have*), if supported by simple referents, are supported by complex referents as well.

In purely extensional terms, once we take into account the simpler structure of the plural with respect to the singular in (20) and the predictor role of the 2nd singular in (21), we are left with only two predicted and unattested languages, namely *AEA AAE and *EEE AAE. If we allow for all plural splits identical to those in the singular, two further languages are predicted and not attested, namely *AEE AEE and *EAE EAE. By comparison, Legendre’s system allows for too much variation in the plural; if we exclude plurals which do not split along the canonical discourse- vs. event-anchored axis, we cut down the overgeneration from thirteen to three. Second, the system undergenerates, by incorrectly excluding the possibility of *be* in the plural combining with

person splits in the singular. Counterexamples noted by Legendre (2010: 198) include the patterns exemplified by *Vastogirardi* in Table 6.1 (vi) and *Secinaro* in Table 6.1 (xi), but there is also *Poggio Imperiale* in Table 6.1 (i) (cf. Manzini and Savoia 2007, Appendix to chapter 6). She also undergenerates three other languages, namely *Sassinoro* (Table 6.1, x) (associated with Arielli by Legendre (2010: 198)), as well as *Gallo Matese* (Table 6.1, iv) and *Agnone* (Table 6.1, xii). As far as we can tell, the present grammar does not undergenerate.

But this is not the main aspect of the problem that we are concerned with. For us the issue is not simply devising a system that describes the observed facts – but rather devising a sufficiently restrictive system. A crucial role in our attempt at restricting the variation space is played by the person split in (19a). Now, Loporcaro (2001, 2007) criticizes our previous work (Manzini and Savoia 1998) for proposing that what he calls ‘mixed auxiliation systems’ are driven by a person split. He objects to this proposal on both empirical and theoretical grounds. His empirical objection is that ‘the distribution of aux E/H in mixed systems is not predictable, overall, on the basis of an alleged person ergativity split’ (Loporcaro 2007: 196). The point of much of the previous discussion is precisely that the fundamental person split, i.e. (19a), underlies the observed variation, although it is masked by other parameters (in particular (19b)).

Loporcaro’s second objection is more theoretical in nature, namely that ‘since ... we are dealing with closely related varieties, the null assumption is that they should not diverge on such an essential property as dominant alignment’ (2007: 196). The relevant notion of dominant alignment is defined by Nichols (1992: 92) as ‘the pattern found in the majority of parts of speech ... or the nominal rather than pronominal pattern, or ... the most semantic of the patterns’. In such terms, an ergative alignment found in some persons in the present perfect would simply not misalign Romance varieties from what is presumably considered to be their dominant accusative pattern, making Loporcaro’s point irrelevant.

Even so, Loporcaro is correct in perceiving a fundamental contrast between his position, reducing person split to a ‘morphological’ property (as discussed above), and the present construal of this split as no less a core syntactic phenomenon than ergativity splits. Even deeper than this, the contrast is between externalist views of parametrization, correlating the structural depth of parameters with the genetic/typological distance between the languages involved, and the present internalist view, under which no correlation is expected between structural depth and genetic/typological divergence. Our position, as discussed in more detail in the introductory chapter, is that macrophenomena can be

decomposed into the same elementary conceptual components that determine local lexical variation – and in fact the latter is the true matrix of perceived macroparameters.

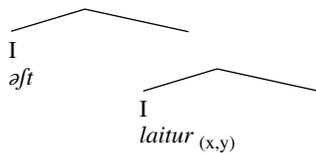
6.3 Splits according to transitivity/voice

6.3.1 Auxiliary selection according to voice

Let us turn to Albanian. Going back to our discussion in [section 6.1](#), we should be able to derive the auxiliary selection patterns from the simple statement that in Albanian, *be* selects the properties that characterize middle-passive voice in the embedded participle, i.e. in present terms the non-closure (or generic closure) of the argument structure of the verb. *Have* selects the complementary properties.

We begin with the passive interpretation of a sentence like (22), cf. (8a). The internal argument slot of the participial predicate is associated with the embedded EPP variable (cf. [section 6.1](#)) ultimately controlled by the matrix EPP argument. The external argument slot is interpreted through binding by a generic operator (i.e. as an implicit agent). What *jam* ‘be’ selects for is this latter property, i.e. the generic closure of the argument structure of the participial predicate. To be more precise, in passives the external argument can also be assigned to the object of a *by*-phrase. The latter, however, is an adjunct – so that we may consider the external argument to remain unbound as far as the core embedded predicate/event is concerned.

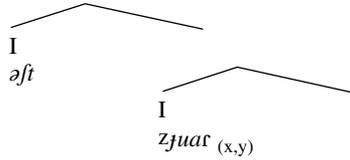
(22) *Gjrokastër*



Consider next the reflexive and anticausative readings. The relevant structures are entirely parallel to that of the passive, as sketched in (23) for (8b), which has a salient anticausative reading. The internal argument slot of the participle is once again associated with the embedded EPP variable, which in turn is controlled by the EPP argument of the matrix clause (represented in (23) by the verb inflection). The same is true in the reflexive reading, which is harder to obtain in (23) merely for pragmatic reasons (cf. the English ‘I woke myself up’). The difference between the anticausative and the reflexive

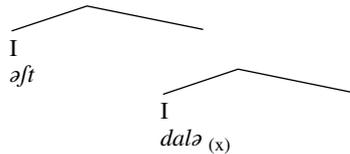
reading is interpretive, having to do with the degree of intentionality (agency, etc.) attributed to the single participant in the event. Under both readings, the external argument of the embedded predicate is an open variable in the LF structure, neither being associated with any argument nor being quantificationally closed. Thus *jam* ‘be’ selects for reflexives and anticausatives in that their external argument remains unassigned/open.

(23) *Gjirokastër*



Finally, the impersonal construal of *jam*–participle structures, exemplified in (8d), corresponds to structures like (24). In (24), the unaccusative predicate *dal* ‘I go out’ is associated with a single argument slot, assigned to the EPP variable of the participial clause. The latter, in accordance with section 6.1.1, can be generically bound (and determine the generic closure of the matrix EPP argument as well). This means that again *jam* ‘be’ selects for an embedded structure containing a generically closed variable – not assigned to argumental material.

(24) *Gjirokastër*



Consider, by contrast, the selectional properties of *kam* ‘have’. In (25a), corresponding to the transitive active sentence in (7a), both argument slots of *la-* ‘wash’ are filled by argumental material: the internal slot by the accusative clitic *ε* ‘him/her’, and the external slot by the variable EPP argument of the participle, ultimately linked to the matrix EPP argument of *kam*. Similarly, in (25b) the single argument slot of *dal-* is satisfied by argumental material, ultimately corresponding to the matrix EPP position. Therefore *kam* selects predicates with a closed argument structure, in the sense that no free or generically closed

variables are instantiated within it. This restriction on *kam*, or equivalently the restriction on *jam* ‘be’, define the meaning of descriptive terms such as active and middle-passive as applied to Albanian auxiliary structures.

(25) *Gjrokastër*

- a. [_Nε [_I ka [_I laitur_(x,y)]
 b. [_I ka [_I dalə_(x)]

As discussed in more detail in [chapter 5](#), in Albanian the *jam*-participle construction⁶ alternates with other lexicalizations of the middle-passive voice, namely through a specialized *-(h)ε* inflection and through the *u* clitic. Nevertheless, although the morphosyntax involved in *u*–*hε* structures and in *jam*-participle structures differs, they yield interpretively equivalent results. In a theory upholding Interface Uniformity in the sense of Culicover and Jackendoff (2005), one would be led to assume that their fixed meaning corresponds to a fixed underlying structure, embedded by the varying surface realizations. For instance, the underlying structure could involve movement from the object to the EPP position. The objection that we raised in [chapter 5](#) is that such an approach does not capture important properties of the structures involved, for instance the fact that *u* is a bona fide object clitic. Thus, under the present approach, different surface realizations can correspond to different underlying structures – whose interpretive equivalence is established directly at the interface.

6.3.2 *Auxiliary selection according to transitivity*

Let us now turn to the *Soazza* pattern. If the discussion in [section 6.1.1](#) is correct, this can be accounted for simply by saying that *be* selects mono-argumental predicates – which is the construal suggested here (and in [chapter 5](#)) for the notion of intransitivity. This notion excludes transitives/unergatives, both in the active and middle-passive voices, which will instead combine with *have*. Recall that in [section 6.1.1](#), we construed unergatives as two-place predicates (i.e. transitives) with an incorporated internal argument.

As an illustration, (26a–b) provide structures for the active of an unergative verb (5b) and for its impersonal (6c); (26c) provides the structure for the reflexive of a transitive (6a). The transitive/ergative properties of the verbs embedded in (26) are sufficient to determine selection of *have* in the *Soazza* language, though in other respects their structures differ. Thus, in the active (26a), the external argument slot is ultimately saturated by the finite verb inflection. In the impersonal in (26b), the external argument is quantificationally closed, and in the reflexive (26c) it remains unassigned – while the finite verb inflection binds the internal argument slot.

(26) *Soazza*

- a. [I o [I dormit_(x,y)
 b. [D el [Q ts [I a [I lavo_(x,y)
 c. [Q s [I a [I dormit_(x,y)

The structures in (27a–b) concern the active (5a) and the impersonal (6d) of an unaccusative, i.e. by hypothesis, a verb with a single argument slot. Again, this property determines the selection of *be* independently of the other properties of the structure. Thus, in the active (27a) the single argument slot is closed by the verb inflection, while in the middle-passive (27b) it is closed only by generic quantification (yielding the impersonal reading).

(27) *Soazza*

- a. [I som [I rivo_(x)
 b. [Q s [I e [I rivo_(x)

At this point, on the basis of the discussion of *Soazza* and *Gjirokastër*, we can also define auxiliary selection in Italian. Simply put, in Italian the set of contexts that involve *be* with the perfect participle results from the union of the Albanian contexts (middle-passives) with the *Soazza* ones (unaccusatives). In (28) we provide logical forms for the active transitive (1a) and for its reflexive and passive counterparts (2a) and (2c). The two argument slots of the transitive predicate in (28a) are satisfied by *le camicie* and the 1st person singular verb inflection. By contrast, in the middle-passives (28b–c) the internal argument slot of the verb is ultimately assigned to the EPP argument *Gianni* or the finite verb inflection. The result is that the external argument is not assigned in (28b), yielding the reflexive reading, and is only generically closed (i.e. interpreted as an implicit agent) in the passive in (28c). Therefore, as in Albanian, the auxiliary will be *have* in (28a), but *be* in (28b–c).

- (28) a. [I ho [I lavato_(x,y) le camicie
 b. [D Gianni [Q si [I è [I lavato_(x,y)
 c. [D le camicie [Q si [I sono [I lavate_(x,y)

In (29a–b), on the other hand, we provide the structures for an unaccusative (monoargumental) predicate, both in the active (1b) and in the impersonal (2d'). In this case, the auxiliary is *be*, as in *Soazza*, independently of how the unique argument slot is satisfied, namely by an argument (i.e. the verb inflection), as in the active (29a), or by generic closure of the *si* variable, as in the impersonal (29b).

- (29) a. [I sono [I arrivato_(x)
 b. [Q si [I è [I arrivati_(x)

Now, the fact that the contexts that involve *be* in Italian are the union of those that involve *be* in Soazza and Albanian could mean that a disjunctive statement is present in the lexicon of Italian – or that unaccusatives and middle-passives form a natural (super)class. The latter is of course the line pursued by classical generative theorizing, which construes movement as the common characteristics of the two subgroups. Here we propose a distinction between ‘defective’ argument structures, including those with an unbound or generically bound variable (middle-passive), or those with one argument only (unaccusatives) and ‘non-defective’ argument structures (defined as the complement of the above). From this perspective, Albanian is sensitive to voice, *Soazza* is sensitive to transitivity, and Italian is sensitive to ‘defectiveness’ in defining the selection frames for auxiliaries.

Going back now to more descriptive matters, we note that Albanian, as shown in (22)–(25), differs from Romance languages like *Soazza*, as in (26)–(27), or Italian, as in (28)–(29), not only with respect to auxiliary selection, but also because in Albanian the *be* auxiliary does not co-occur with other middle-passive morphology – such as the *si* clitic that co-occurs with *be* in Italian. Moreover, there is no necessary connection between these two facts. Thus, consider the Romansh variety of *Trun* in (30). *Trun* has the same auxiliary selection pattern as Italian, since *be* combines with unaccusatives in (30c) and with middle-passives (reflexives) in (30b), and *have* with transitive/uner-gative actives in (30d). As in Italian, furthermore, the reflexive is formed with the *se* clitic in the simple tenses in (30a). Yet in the perfect, the reflexive can be formed without the *se* clitic, so the contrast between the middle-passive (30b) and the active (30d) rests solely on the fact that the active has the auxiliary *have*, while the middle-passive has the auxiliary *be* – reproducing in this respect the pattern of Albanian.

(30) *Trun* (Grisons)

- a. elts se lavan
they MP wash
‘They wash themselves’
- b. elts ain (se) lavai
they are MP washed.pl
‘They have washed themselves’
- c. jau sun vejniða
I am come-f.
‘I have come’
- d. jau ai durmiu
I have slept
‘I have slept’

One parameter that we have disregarded in the preceding discussion concerns whether the middle-passive morphology can be associated with a dative argument slot or not; for instance, it can in Italian, as in (31), but not in Albanian, as in (32).

(31) Gianni *si* è lavato i piedi
 G MP is washed the feet
 'John washed his feet'

(32) *Gjirokastër*
 a'i lan fitirën
 he washes face-the
 'He washes (his) face'

Whatever the explanation turns out to be,⁷ what interests us here is that in a language like Italian, dative *si* is treated like the other instances of *si* considered so far for the purposes of auxiliary selection, so that in (31) the auxiliary is *be*. In other languages which otherwise follow the auxiliary selection pattern of Italian, however, dative *si* co-occurs with auxiliary *have*, as illustrated in (33a) for *Làconi*; (33b) provides a comparison with *si* sentences with *be*.

(33) *Làconi* (Sardinia)
 a. s a ssamunau i m¹manuzu
 MP has washed the hands
 'S/he washed his/her hands'
 b. s εs samuna-u/ða
 MP is washed-m./f.
 'S/he washed him/herself'

Since we theorized that in Italian-type languages, *be* selects a 'defective' argument structure in the embedded participle (i.e. with an open or generically closed variable), we must conclude that in Italian itself, dative *si* structures count as defective in the relevant sense; however, in languages like *Làconi* they do not. Therefore, for Italian (31) we maintain an analysis parallel to that of other *si* sentences, where the argument slot filled by the *si* variable is ultimately assigned to the EPP argument. In contrast, we must conclude that in *Làconi*, the same structures are treated as active, with the dative argument slot assigned to *si* and the external argument slot assigned to the EPP argument. This parameter in turn seems to belong to a family of parameters having to do with how the dative is computed for the purposes of argument structure, i.e. roughly as a second internal argument, or rather as an oblique/adjunct of sorts. The latter construal still leaves open the possibility of having a bound reading of *si* – but without triggering the properties of middle-passive voice, including *be*-selection.

6.3.3 Irreversibility

One major fact not yet accounted for is that auxiliary selection according to voice and/or transitivity is non-reversible, in the sense of [section 6.1](#). In other words, we know of no language in which the middle-passive is selected by *have* and the active by *be* (i.e. the reverse of Albanian) or in which unaccusatives are selected by *have* and transitives by *be* (i.e. the reverse of *Soazza*).

Loporcaro (2007: 189–92) addresses a similar issue in rather different terms. For him, ‘E/H selection varies stepwise, across Romance, along [a] scale’, roughly unaccusative – reflexive – transitive/unergative. Crucially ‘varieties do not seem to occur that show any one of the scattered distributions of the two auxiliaries’, i.e. *have* in unaccusatives, *be* in reflexives and *have* in transitives/unergatives. On the basis of the evidence discussed here, this approach is descriptively inadequate, since Albanian is a language which has *have* with unaccusatives and transitives while *be* is associated with ‘reflexives’ – in fact middle-passive voice. From a theoretical point of view, the available evidence supports the conclusion that there are no parametric scales, but, rather, fine parametrization results from the crossing of discrete properties associated with lexical items (see also the discussion in [section 6.4](#)).

Returning to the question of (ir)reversibility, a relevant observation is that in all Romance and Albanian varieties, the *be* auxiliary of the perfect is also the copula (cf. [section 1](#)).⁸ Consider, then, a simple Italian copular sentence like (34). This has a single argument slot, that of the embedded predicate ‘happy’, which becomes associated with the matrix EPP argument (represented by the finite inflection of the copula). This raising analysis (Moro 1997) implies, of course, that *be* is ‘defective’ in the sense defined at the end of the last section, since at the very least it lacks an external argument.

- (34) Sono contento
 I.am happy
 ‘I am happy’

As for *have*, in both Romance and Albanian varieties it is independently attested as a possession verb and as a necessity modal, as in Italian (35). *Have* as a possession verb in (35a) is fairly uncontroversially a transitive (i.e. two-place) predicate. In turn, the modal reading of *have*⁹ in (35b) can be construed by analogy with that of the necessity modals in other Romance languages, e.g. *dovere* ‘must’ in Italian. Independently of the present theory of auxiliaries as main verbs, the relevant modals in Italian are widely assumed to be main verbs subject to ‘restructuring’ (Rizzi 1982, *pace* Cinque 2006). In particular, the deontic reading is taken to depend on the fact that the necessity modal

behaves as a control verb. In other words it selects a sentential complement and an external argument, the latter controlling the EPP argument of the embedded sentence. Thus, on both readings, *have* can be characterized as a ‘non-defective’ predicate.

- (35) a. Ho tre figli
 I.have three children
 ‘I have three children’
 b. Ho da fare questo
 I.have to do this
 ‘I have to do it’

Given this background, the non-reversibility of the auxiliary selection patterns according to transitivity and/or voice can be described by saying that the ‘defective’ *be* is restricted to selecting ‘defective’ – i.e. intransitive and/or middle-passive – predicates; conversely, the transitive active *have* is restricted to selecting transitive and/or active predicates. In other words, the non-reversibility of the selection pattern corresponds to a fairly obvious uniformity requirement on the argumental structures of the auxiliary and the embedded predicate.

6.4 Finer parametrization

The observed parametrization in auxiliary selection is even more fine-grained than we have illustrated so far. In particular, in [section 6.4.1](#) we shall consider varieties in which auxiliary selection according to transitivity/voice and according to person interact in various ways.

Before we do so, however, we should briefly mention the literature concerning variation in *have/be* alternations according to transitivity. Sorace (2000, 2004) argues that only a core class of unaccusative verbs takes auxiliary *be* in languages sensitive to transitivity, notably change-of-location verbs like *come*. With these verbs, furthermore, the choice of auxiliary *be* is stable within each given language. With other verbs, auxiliary selection varies across languages and correspondingly there is a greater or lesser amount of variation within each given language. For instance, Hoekstra and Mulder (1990) argue that in Dutch, the telic construal of manner-of-motion verbs results in *be*-selection, while atelic construals result in *have*-selection. Yet Sorace (2000) points out that Italian follows this pattern much less systematically than Dutch, and that in French the auxiliary is *have* independently of telicity. Sorace (2000, 2004) concludes that intransitive verbs are organized along an auxiliary selection hierarchy (ASH)

defined primarily by the degree of telicity of the verb and secondarily by its degree of agentivity ranging from verbs of ‘telic dynamic change’ that categorically select BE to verbs of atelic ‘non-motional activity’ that categorically select HAVE in languages with auxiliary selection. Between the two extremes are verbs that display variable behaviour. (Cennamo and Sorace 2007: 67)

The ASH is an ‘empirical generalization’ and ‘needs to be accounted for within a formal model of the syntax-lexicon interface’ (2007: 67–8).¹⁰

As discussed in section 6.3.3 in connection with Loporcaro’s (2001, 2007) work, we have reason to reject the idea that parametrization is organized along scales. More specifically, consider Cennamo’s (2001) evidence from Campanian varieties. These data are somewhat at variance with the ASH – since they seem to indicate that definite change-of-state verbs (‘to be born’, ‘to die’) are core unaccusative verbs. Verbs denoting inherently telic change of location (‘to come’, ‘to go’) seem to occupy a peripheral place in the unaccusativity hierarchy. For, in some varieties they are syntactically encoded as unergatives (Cennamo 2001: 433).

Since, in terms of the ASH, change of location > change of state, Cennamo’s evidence could be taken to show that the *be/have* parameter does not cut a point on a scale, further undermining the idea that the variation space could be generally organized through scales.¹¹

Therefore, for the purposes of the present discussion, we simply maintain that where the same predicate takes *have* or *be* depending on the language, it is construed as monadic (unaccusative) with *be* and as dyadic (i.e. a concealed transitive) with *have*, although admittedly we have no insight to offer on this matter.¹²

6.4.1 *Interactions between auxiliary selection according to transitivity/voice and according to person*

In what follows, we consider the fine variation associated with interactions between auxiliary selection according to person and according to transitivity and voice. The data have attracted some attention in the literature, though not necessarily for the reasons deemed relevant here. For instance, Cennamo (2001, 2008) notices that in Sorrento, *be* occurs in the 3rd person singular with (change of) state verbs; in all other cases the auxiliary is *have*. However, for Cennamo, ‘what is interesting about the contemporary Campanian data on auxiliary selection is the fact that the variation appears to follow the Unaccusativity gradient’ (2008: 135), since she dismisses the person split as ‘part of a system for marking persons on the verb’ (2001: 447, our translation). Thus, what we

take to be complex variation involving the crossing of two parameters (transitivity and person split) is considered in Cennamo's work only for its interest with respect to one of these.

Let us begin by illustrating the languages in (36)–(37), in which some persons in the paradigm are associated with a single auxiliary, while the others alternate between *have* and *be* essentially according to the pattern of standard Italian. Specifically, in *Colledimacine*, as shown in (36), the 3rd person is sensitive to transitivity and voice, as shown in (the relevant forms of) (36a) and (36c), while the 1st and 2nd persons are associated with auxiliary *be*, as in (36a–b). In *Aliano*, as shown in (37), the 3rd person singular alternates between *have* and *be* according to transitivity/voice, as in (37b) and (37c), while the other persons take *have*, as in (37a).

(36) *Colledimacine* (Abruzzi)

- a. so/ ʃi/ e/ semmə/ se:tə/ e mənʉ:tə
 I.am/you.are/he.is/ we.are/you.are/ they.are come
 'I have come' etc.
- b. ʎə so/ ʃi/ semmə/ se:tə cama:tə
 him I.am/you.are/ we.are/ you.are called
 'I/you/we have called him'
- c. ʎ a cama:tə
 him he.has/they.have called
 'He has/ they have called him'

(37) *Aliano* (Lucania)

- a. ɛddʒə/ (ɣ)ei/ ɛmmə/ avesə/ ɛnə vənʉtə/durmutə
 I.have/you.have/we.have/you.have/they.have come/slept
 'I have come/slept' etc.
- b. ɛ vʉnʉtə
 he.is come
 'He has come'
- c. a durmutə
 he.has slept
 'He has slept'

In both of the examples in (36)–(37), it is the 3rd person (singular) that displays auxiliary selection according to transitivity and voice – while the 1st and 2nd persons do not display such sensitivity and are associated with a single auxiliary; incidentally, this latter auxiliary varies between *have* in *Aliano* and *be* in *Colledimacine*. Loporcaro (1988, 2007) and La Fauci and Loporcaro (1989: 167) discuss similar data from Altamura, in which the 1st and 2nd persons freely alternate between *have* and *be*, while 3rd person shows a residual sensitivity to verbal class; thus, 3rd singular has only *be* with unaccusatives, while 3rd plural has only *have* with transitives.

There are also varieties in which auxiliary selection according to transitivity and voice is observed in other persons in addition to the 3rd. For instance, the split paradigm of *Vastogirardi* in Table 6.1 (vi) holds for transitives/unergatives, while unaccusatives involve *be* throughout the paradigm. This means that both the 3rd and 1st singular alternate between *have* in transitives and *be* in unaccusatives, as illustrated in (38a–b), while the other persons do not alternate, as in (38a–b’).

(38) *Vastogirardi* (Molise)

- a. 'siŋgə/ si/ ε/ semə/ setə/ so mə'nutə
 I. am etc. come
 'I have come' etc.
- b. r ajə/ a ca'matə
 him I.have/he.has called
 'I have/hehas called him'
- b'. rə si/ semə/ setə/ so ca'matə
 him you.are/we.are/you.are/they.are called
 'You/we/they have called him'

These can be described as person split languages where *have/be* alternate according to transitivity/voice in some persons, typically the 3rd person, while the other persons have a single auxiliary, namely *have* in *Colledimacine* and *Vastogirardi* and *be* in *Aliano*. An equivalent way of stating this is what to Loporcaro (2007: 198) 'makes little sense', namely that 'the distribution of auxiliary E/H ... suggests a person ergativity split'.

The languages in (39)–(40) illustrate another interaction of the person split with auxiliary selection according to transitivity/voice. In *Molina di Ledro*, the reflexive in (39a) has *be* in the 1st and 2nd persons and *have* in the 3rd person. However, unaccusatives are associated with *be* throughout the paradigm, as shown for the 3rd person in (39b), and transitives/unergatives are associated with *have*, as shown for the 1st person in (39c).

(39) *Molina di Ledro* (Trentino)

- a. me so la'va E
 te te se E
 el/ la s a A
 ne sume la've E
 ve se E
 i/ le s a A
 CIS MP Aux washed
 'I have washed myself' etc.
- b. l/ i ε vi'ŋu
 CIS Aux come-m./f.
 'I have come' etc

- c. o miya dur'mi
 I.have not slept
 'I have not slept'

Example (39) is an instance of what Loporcaro (2007) calls 'triple auxiliat-ion'. Since there are two auxiliaries, it is evident that 'triple auxiliat-ion' will involve the alternation of *be* with *have* and with the *have/be* split according to person, as in *Molina*'s unaccusatives (*be*) vs. reflexives (*have/be* according to person) vs. transitives (*have*). In terms of the parametrization picture laid out in this chapter, therefore, *Molina di Ledro* can be described as a language in which the 3rd person displays a *have/be* alternation according to transitivity only (as in *Soazza*), while the 1st and 2nd persons involve auxiliary selection according to transitivity and voice (as in Italian). The result is that the 1st and 2nd persons of the middle (reflexive) are associated with *be* (as in Italian), and the 3rd person is associated with *have* (as in *Soazza*).

As expected on the basis of the general reversibility of person split patterns, the reflexive in *Buonabitacolo*, as shown in (40a), has the reverse split from *Molina* – namely, *be* with the 3rd person singular and *have* with the other persons (the 1st and 2nd singular and the plural). Like *Molina*, this language systematically associates *be* with unaccusatives as in (40b), and *have* with transitives/unergatives, as exemplified in (40c) with the 3rd person. In the present terms, *Buonabitacolo*, therefore, is a language in which auxiliary selection in the 3rd person singular is sensitive to transitivity and voice (like standard Italian); hence we find *be* in the reflexive (40a) and in the unaccusative (40b). By contrast, the 1st and 2nd persons (and all persons in the plural) are sensitive only to transitivity; hence *be* combines with unaccusatives, as in (40b), but otherwise we find *have*.

(40) *Buonabitacolo* (Campania)

- a. m addʒa lavato A
 t a A
 s ε E
 ɲtʃ amma lavati A
 v aita A
 s anna A
 MP Aux washed
 'I have washed myself' etc.
- b. so/ si/ ε/ simmo/ siti/ so vʋənuto/ vənuti
 Aux come/ come-pl
 'I have come' etc.
- c. iddu a camatu/ a'patitu
 he has called to your father
 'He called your father'

In a nutshell, the data in this section illustrate the important point, concerning parameters in general, that complex surface patterns are obtained through freely crossing more elementary patterns, attested in isolation in other systems.¹³ Specifically, no scales are necessary (or even sufficient) to account for the observed variation.

6.4.2 *The third auxiliary*

Finally, we examine a number of Romance varieties which alternate between *be*, *have* and what can be described as syncretic or neutralized forms of *have* and *be*. Consider, for instance, the perfect of *Briga* in (41). This displays a transitivity split between *be* with unaccusatives, as (41a–a') and *have* with transitives/unergatives, as in (41b). In the 2nd singular, however, both classes of verbs combine with the same auxiliary form, namely *ε*. The latter also occurs in copular contexts as in (42a) and in possession contexts, as in (42b).

(41) *Briga Novarese* (Piedmont)

- a. sum/ l ε ny
I.am/ he is come
'I have/ he has come'
- a'. suməŋ/ si/ iŋ nyi
we.are/ you.are/ they.are come
'We/ you/ they have come'
- b. ɔ/ l a/ umə/ i/ (i) aŋ dru'metʃ
I.have/ he has/ we.have/ you.have/ they have slept
'I/ he/we/you/ they have slept'
- c. t ε ny/dru'metʃ
you Aux come/ slept
'You have come/ slept'

- (42) a. t ε kun'te:nt
you are happy
'You are happy'
- b. ti g ε fa:m
you Loc have hunger
'You are hungry'

In the reflexive – i.e. what in the present terms is an instance of middle-passive voice – *Briga* alternates between *be* in the 1st person and in the 2nd plural, as in (43a), and *have* in the 3rd, as in (43b), reproducing a pattern similar to *Molina*, as in (39). Interestingly, although *have* in (43b) combines with *si*, *be* in (43a) appears without *si*. In other words, the reflexive with *be* lacks any clitic middle-passive morphology, just like *Trun*, as in (30), or in fact Albanian. The *ε* form of the 2nd singular appears without *si*, as in (43c).

(43) *Briga*

- a. sum la'va
I.am washed
'I have washed'
- a'. sumən/ si lavai
we.are/ you.are washed.pl
'We/ you have washed'
- b. s a la'va
MP he.has washed
'He has washed'
- b'. s aŋ lavai
MP they.have washed.pl
'He has washed / they have washed'
- c. t ε la'va
you Aux washed
'You have washed'

The data in (41)–(42) may suggest that a language like *Briga* has the two ordinary auxiliaries *have* and *be* – while the rule in the morphological component takes care of the fact that there is a single lexical exponent for both of them in the 2nd person singular. The relevant lexical item ε could be associated just with [2nd singular, Aux] specifications, and in a Late Insertion framework like Distributed Morphology this could simply be inserted under richer syntactic specifications in the absence of better (more highly specified) candidates. The absence of a *se* form in the reflexive in (43c) suggests that the neutralized form of the auxiliary can be functionally equivalent to *be*.

In the pluperfect, we also find unique auxiliary forms, as illustrated for *Briga* once again in (44). In the 2nd person and in the 1st person plural, *be* is lexicalized in combination with the unaccusative in (44a–a') and *have* with the unergative in (43b). In the 3rd person and the 1st person singular, there is a generalized form of the auxiliary, as in (44c–c'). The data in (45) show that this unique form for *have/be* also occurs in main verb contexts, i.e. in possessive contexts in (45a) and in copular contexts in (45b).

(44) *Briga*

- a. sevi ŋy
I.was come
'I had come'
- a'. sevəŋ/ sevi ŋyi
we.were/ you.were come
'We/ you had come'
- b. evi/ evəŋ/ evi dru'metʃ
I.had/ we.had/ you.had slept
'I/ we/ you had slept'

- c. t evi/ l eva jny/ dru'metʃ
 you Aux/he Aux come/ slept
 'You/ he had come'
- c'. evəŋ jnyi/ dru'metʃ
 they.Aux come.pl/ slept
 'They had come/ slept'

(45) *Briga*

- a. ti g evi/ əl g evə/ i g evəŋ fa:m
 you Loc had/ he Loc had/ they Loc had hunger
 'You were/ he was/ they were hungry'
- b. t evi/ l evə/ (i) evəŋ kun'te:nt
 you were/ he was/ they were happy
 'You were/ he was/ they were happy'

This type of pattern in the pluperfect is not infrequent in Italian varieties. Table 6.2 presents a summary of the relevant Northern Italian varieties exemplified by Manzini and Savoia (2005); the * symbol refers to the descriptively neutralized auxiliary, A-E refers to *have/be* alternations according to transitivity and/or voice, while a parenthesized (A) indicates the optionality of *have* with transitives/unergatives. It can be seen that the distribution of unique auxiliary forms gives rise to a person split of sorts. For instance, the more robustly attested pattern, that of *Grumello* and other varieties, has *have/be* alternations in the 1st and 2nd persons, both singular and plural, and the unique form of the auxiliary in the 3rd person – which is the classical discourse-anchored vs. event-anchored split discussed in section 6.2. Comparable data are found in Southern Italian varieties (Manzini and Savoia 2005; Cennamo 2010).

Just as we have done for the unique auxiliary of the 2nd person singular, one may envisage a morphological-level solution for the unique auxiliary of the pluperfect. In these terms, the syntax would have distinct categorizations for *have* and *be* throughout the pluperfect paradigm – while underspecified elements would be inserted under some of the terminal nodes, depending on morphological rules. However, this approach to syncretism, requiring Late Insertion, Impoverishment and default lexical entries, is rejected here for theoretical (as well as empirical) reasons (cf. in particular chapters 7 and 8).

The discussion of the person category in section 6.2 is directly relevant in this connection. The three traditional persons are not captured in present terms by simply letting the 3rd be unspecified (or negatively specified) for the hearer and speaker features. Similarly, the three-way split found in (44) between differentiated *be*, differentiated *have* and the unique *eva* forms cannot be described by simply letting *eva* be underspecified for the *have* and *be* properties. Rather, a categorization system must be devised so that each of the three auxiliaries in (44) – or in (42) above – is positively specified.

Table 6.2 *Distribution of be, have and syncretic forms in the present perfect in Piedmontese and Lombard varieties*

<i>Trecale</i>	*	*	*	*	*	*
<i>Briga,</i> <i>Montebruno</i>	A-E	*	*	A-E	A-E	*
<i>Cerano</i>	(A)-E	*	*	(A)-E	(A)-E	*
<i>Masserano</i>	A	*	*	A	A	*
<i>Grumello,</i> <i>Passirano,</i> <i>Civate,</i> <i>Casorezzo,</i> <i>Inveruno,</i> <i>Arconate,</i> <i>S.Fedele,</i> <i>S.Bartolomeo C.</i>	A-E	A-E	*	A-E	A-E	*
<i>Olgiate</i>	A-E	A-E	*	A-E	A-E	A-E
<i>Quarna Sotto</i>	A-E	A-E	A-E	A-E	A-E	*

This takes us back to a question that we only partially dealt with in [section 6.3.3](#), namely the lexical content of *have* and *be*. Let us begin with *be*, which in [section 6.3.3](#) we simply characterized as a verb lacking an external argument. In copular contexts, we can take the lexical content of *be* to be the logical relation of set membership. In other words, the logical form of *John is intelligent* is roughly ‘ $\text{John} \in \{\text{intelligent}\}$ ’ or ‘John is a member of the set of intelligent individuals’. Following Moro (1997), we conclude that there is no separate identificational reading of *be*.

Let us now consider *have*, which we can take to be fundamentally the verb denoting possession. In [section 6.1.1](#) we rejected Kayne’s (1993) analysis of *have* as derived from *be* through the incorporation of a prepositional complementizer, mostly because this applicative derivation doesn’t seem to be reflected in the morphologies which are actually observed.¹⁴ At the same time, it is evident that *have*, i.e. possession, is closely connected to *be*, i.e. set membership. We propose that this connection should be captured directly at the interpretive level, in the sense that *have* can be lexically characterized as the reverse relation to *be*. Thus, *have* fundamentally denotes set inclusion. In fact, in certain cases *have* is equivalent to ‘include’ as in *Italian has two auxiliaries* (or more abstractly *This set has two members*). The inclusion relation also yields inalienable possession in a particularly natural way (*John has nice legs*) – and we can take all possession to fall under a reasonable extension of the same relation. Of course, the ‘include’ relation is transitive, whence the transitive properties of *have* discussed in [section 6.3.3](#).

This proposal is close to that advanced by Belvin and den Dikken (1997:170), according to whom

the ‘meaning’ of have ... denotes a special kind of inclusion relation ... dubbed ‘zonal inclusion’ ... Entities have various zones associated with them, such that an object or eventuality may be included in a zone associated with an entity without being physically contained in that entity ... The type of zones which may be associated with an entity will vary with the entity.

In short, *be* and *have* are not only characterized by a transitivity opposition, but more to the point they express relations which are in some sense the mirror image of each other. Against this background, we propose that the unique *eva* auxiliary in (44) denotes a generalized ‘set relation’, which according to context can be read as ‘member-of’ or as ‘includes’. If this is on the right track, we expect other lexicalizations of this interpretive category to be independently attested in natural languages. We surmise that the Romance preposition *di* ‘of’ is a good candidate for this role. Thus, *di* quite obviously corresponds to the inclusion relation in partitive contexts, as for instance in *tre di queste mele* ‘three of these apples’ (roughly ‘three individuals included in the set of apples here’) – and we extend the same construal to inalienable possession, as in *i capelli di Gianni* ‘lit: the hair of John’), and possession in general. At the same time, *di* is compatible with a reversal of the inclusion reading in such expressions as *quell’idiota di Gianni* ‘that idiot of John’ (cf. Kayne 1994; den Dikken 1998), where John is attributed the property of being idiot, i.e. ‘John \in {idiot}’.

The analysis just proposed extricates us from the more traditional way of approaching the descriptive problem posed by (42)–(43) or (44)–(45), namely whether the unique auxiliary forms should be identified with *have* or with *be*. Cennamo (2010), in a historical perspective, suggests that *eva* is derived from *have*, criticizing the analysis in Manzini and Savoia (2005), whereby *eva* is taken to instantiate *be*, on the basis of the fact that it appears as the copula. Despite the obvious difference between the present proposal and our previous analysis, the same underlying intuition remains, namely that the *eva* type represents a particularly elementary semantics.

Systems like *Briga* could be seen as a true instance of the ‘triple auxiliation’ of Loporcaro (2007). Thus, in *Briga* and similar varieties *have* and *be* alternate with what we may call the ‘third’ auxiliary (*eva*). In the *Briga* perfect, in particular, *have* and *be* split according to transitivity/voice, while the ‘third’ auxiliary alternates with both of them on the basis of the person split. In other varieties, such as *Trecate*, as shown in (46), *have*, *be* and the ‘third’

auxiliary can be seen to lexicalize the 1st, 3rd and 2nd persons respectively, as in (46a).

(46) *Treccate* (Piedmont)

- a. $\text{ɔ/ t } \epsilon/ \text{ l } \epsilon \text{ ny/ dru'my/ tʃa'ma-r}$
 I.have/ you Aux/ he is come/slept/ called-him
 'I have/ you have/ he has come/ slept/ called him'
- b. $\text{suk/ t } \epsilon/ \text{ l } \epsilon \text{ kun'te:nt}$
 I.am/ you Aux/ he is happy
 'I am/ you are/ he is happy'
- c. $\text{i } \text{ɔ/ t } \epsilon/ \text{ l a tri fi'ø}$
 Loc I.have/ you Aux/ he has three children
 'I have/ you have/ he has three children'

At the same time, we do not find what Loporcaro (2007) or other supporters of transitivity scales predict to exist – i.e. a language in which, for instance, *be* lexicalizes one extreme in the scale, *have* lexicalizes the other extreme and there is a middle zone associated with the 'third' auxiliary. To us this is further evidence that while the whole approach based on hierarchies may have descriptive value, it certainly has no theoretical substance.

6.5 Some conclusions

The review of auxiliary selection phenomena in what precedes is consistent with the conclusion that there is a limited range of descriptive categories that are involved in the definition of superficially very articulated parametric systems. This includes the split between event-anchored and discourse-anchored referents, the split between active and middle-passive voice and the split between transitive and unaccusative predicates. The interaction of these primitives results in fine parametrization. As for the transitivity split, we proposed that what is involved is simply the n-adicity of the predicate – the basic split being between monadic and polyadic. As for voice, we concluded that the unification of reflexives and passives with impersonals requires reference to a notion of open/generic variable in the argument structure.

The person split has been characterized in terms of event- vs. discourse-anchoring. The kinds of facts that we are thinking of when we use labels like these are precisely person splits of the type presented here. What is at stake is not so much the referential properties of 1st/2nd person vs. 3rd person per se as the way in which the anaphoric properties of the 3rd person (which can function as a variable) vs. the purely deictic properties of the 1st and 2nd person interact with their anchoring in argument structure. For instance, if we think of

the argument slots associated with a given predicate as variables (Adger and Ramchand 2005), we may suggest that 3rd person referents provide (quantificational) binders for these variables – while the mechanism for linking 1st and 2nd persons to the argument structure must necessarily follow some other route.

Here and in [chapter 5](#) we have illustrated the reasons why we conclude that transitivity and voice alternations cannot be characterized in terms of movement from object to subject position – either separately or together. Faced with a set of empirical issues, such as those encountered in applying the classical movement analysis to the middle-passive voice of Italian or Albanian, one way out is simply to add provisos to the theory, so as to fit the new evidence. However, in the case of middle-passive voice, it seems to us that the extensive literature on this topic has shown that no simple manipulation of the movement theory suffices to capture the facts. Therefore there are reasons why the alternative we are offering should be least be considered. Importantly, the primitives that we employ, namely the notions of selection, LF variable, generic binding, predicate–argument structure and so on, all independently enter into minimalist theories, so no questions of explanatory adequacy should arise in this respect.

We also went into some detail on the empirical evidence in order to draw general conclusions from it about the nature of parametrization. A core pursuit of linguistic theory is to define the categorial distinctions of universal grammar (UG). Languages vary as to whether these categories are or are not instantiated (and how) in their lexicon. These categorial distinctions are the true ‘atoms’ of language (Baker 2001); on the one hand they are part of the universal competence, and on the other they enter into the differentiation of the various language-particular grammars. If what precedes is correct, what appear to be complex syntactic patterns of auxiliary selection reduce to the lexical, selectional properties of *have* and *be*. For the sublexicon consisting of *have* and *be*, the relevant categories are ‘defectiveness’ for standard Italian, transitivity for *Soazza*, voice for Albanian and the person split for the varieties in [Table 6.1](#); both ‘defectiveness’ and the person split are relevant for the varieties in [section 6.4](#).

The distinction between microparametric and macroparametric approaches to variation has been so often discussed that the contours of the debate have become somewhat blurred. It is evident that, to the extent that the primitives manipulated by variation are macrocategories like transitivity or voice, we could describe our approach as macroparametric – though the fact that the unit of variation can be as small as a single lexical item qualifies it as

microparametric. What is clear is that the empirical evidence at our disposal appears to be incompatible with macroparameters in the sense of Baker (2001) – i.e. structural parameters.

None of our findings implies that the distinction between lexical and functional categories has any import for variation. Thus, all syntactic structures can be projected from lexical terminals, and there is neither a specialized morphological component nor specialized lexicalization principles applying to abstract functional nodes. The mechanisms that determine variation in so-called functional categories (such as those relevant for the selection of perfect participles by *have* and *be*) are the same ones responsible for variation in the substantive lexicon (including natural kinds, spatial relations, and similar universals connected with general cognition). The argument developed here in favour of this hypothesis is essentially based on economy; since the lexical/functional divide is not necessary, it can be dispensed with.

7 *The noun (phrase): agreement, case and definiteness in an Albanian variety*

This chapter considers nominal inflections in Albanian, a language with case morphology. We argue that the deepest layer of inflection in Albanian nouns (including the predicative lexical base and the nominal class vowel) is more or less comparable to the inflection of Romance nouns. Above this layer, Albanian nouns add what is descriptively a case ending; we analyse it as an inflection specialized for the satisfaction of properties of the superordinate structure (nominative for the EPP argument, accusative for the internal argument etc.), as discussed in [section 7.2](#).

In the minimalist work of Chomsky (1995) and in its morphological implementation in Distributed Morphology (Halle and Marantz 1993), case and phi-features are functional properties, interpretable at best on a subset of lexical heads, and as such triggering feature-checking operations – as well as undergoing morphological rules and providing some of the key arguments in favour of Late Insertion. Here, on the contrary, we reduce case and phi-inflections to elements legible at the LF interface, and more precisely to arguments. Agreement between such inflections means that the arguments they represent form chains. Our crucial motivation is that abandoning schematic ideas about the division of labour between syntax and morphology and between functional and lexical categories (features) makes it easier to account for the finer articulation of the data and their variation.

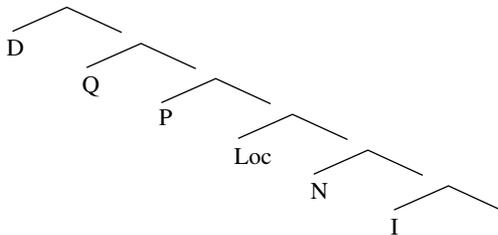
A particular point of interest as regards Albanian is that nominal inflections display not only agreement and case properties, but also definiteness properties. In Balkan linguistics (cf. also the discussion of Romanian in [chapter 8](#)), definite inflections are often (though not always) treated as postposed articles. In present terms, however, there is no advantage (descriptive or theoretical) to adopting a similar treatment; note that not even complementary distribution with the preposed article holds, since in Albanian definite inflections can combine with prenominal definite determiners, at least with kinship terms. Preposed articles also combine with adjectives ([section 7.3](#)). The pre-adjectival article, in turn, is not restricted to NP-internal positions, but is

also found in predicative contexts (copular and others). This property, which sets Albanian apart from other Balkan languages, indicates that the article is part of the adjective phrase – not of the noun phrase that may or may not embed it.

7.1 Theoretical and empirical background

Under present assumptions, predicative elements such as the verb in the sentence and the noun in the noun phrase project a set of referential contents (D, Q, P, Loc, N) which build a structure of the type in (1). In this, I(nflection) corresponds to the core position of the lexical item (the verb or the noun) and D, Q, P, Loc, N form its (projection) domain. D corresponds to the (in)definiteness properties which characterize the EPP argument of the sentence and its equivalent within the noun phrase; that is, the determiner. P(erson) – i.e. 1st and 2nd person – Q(uantifier) and Loc(ative) lexicalize referential properties of deixis (P, Loc) and quantification (Q), satisfying (or participating in the satisfaction of) the argument slots of the predicate. In particular, N(oun) is the dedicated category for the internal argument of the predicate. We can think of the hierarchical order in (1) as a way of representing the relative scope of these elements. There are other positions available to the lexical head in the sentence/noun phrase other than the I position mentioned in (1). These correspond to different interpretive domains associated with predicative content (\surd , i.e. root, replacing N, V etc.), quantification over events, quantifications over situations, hence in particular modality (C), etc. Each of these positions projects the entire nominal string.

(1)



We extend the categories in (1), and hence the scope relations that order them, to what is conventionally thought of as morphological structure. Thus, the so-called agreement inflection of the verb is but an exponent of the D (EPP)

argument within the verb structure. Similarly, consider the Italian noun phrase in (2a). The noun *macchina* ‘car’ can be analysed as a structure in which the lexical base, indicated as $\sqrt{\quad}$, expressing predicative content, combines with a nominal class (gender) inflection *-a*. As illustrated in (2b), this inflection is identified with the N category, associated with the internal argument of the predicative base (also avoiding the need for a functional *n* category à la Marantz (1997)). The article in turn lexicalizes the D category at the phrasal level, as illustrated again in (2b).

(2)

a. la macchina
 the car

b.

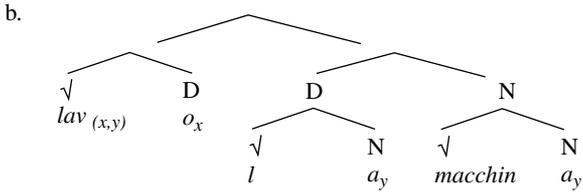
```

      /  \
     D    N
    la   /  \
         √   a
        macchina
  
```

Current generative approaches conceive of agreement between, say, the different elements within the noun phrase as the result of the checking of features (of gender, number, etc). In contrast, we construe agreement between, say, the article, D, and the inflection, N, in (2) as the sharing of referentially relevant properties, which are interpreted by reference to the same individual, and jointly satisfy the internal, and only argument of the noun. In other words, since N and D jointly satisfy the same argument slot – i.e. they form a chain – their referential properties must be compatible, which is what agreement means in present terms.

To say that *macchin-* is just a predicative base, as in (2), is to say that it cannot satisfy any argument slot. Rather, the argument in (2) is *-a*, whose referential properties are further specified by the Determiner with which it agrees – i.e. in present terms, the Determiner it forms a chain with. Therefore it is *-a*, or the (*la*, *-a*) chain, that satisfies, say, the internal argument of the matrix predicate when (2) is further embedded, as in (3). Note that the inflection of the verb is construed as the verb-internal realization of the EPP argument of the sentence (Manzini and Savoia 2005, 2007, 2008b), notated as D, in keeping with Chomsky’s (1995) suggestion. The D/EPP argument saturates one of the arguments of the predicative base, i.e. here its external argument.

- (3) a. Lavo la macchina
 I. wash the car
 'I am washing the car'



At this point a difficulty seems to arise, in that $-a$ in (3) appears to satisfy two argument slots (theta-roles) at once, namely that of the noun and that of the verb. Now, there are independent proposals in the minimalist literature, beginning with Hornstein (1999) and Manzini and Roussou (2000), that such configurations are independently found in the syntax. (Obligatory) control is precisely such a configuration: one in which the same argument satisfies an argument slot of a matrix and an embedded predicate. In the same way, we can say that the argument $-a$ (equivalently its chain) in (3) satisfies the internal theta-role of the predicate base *macchin-* and controls the internal argument slot of the verb. Incidentally, while control configurations in languages like Italian or English have the controller higher than the controlled position, reverse configurations are possible, as in so-called backward control (Polinsky and Potsdam 2006). For a discussion of control along the lines assumed here, the reader is referred to Manzini (2009).

Now, since Albanian nominal inflections register properties such as case and definiteness, it is evident that an extension of the model in (2)–(3) to Albanian requires further discussion of case categories in particular. In section 7.1.1 we will present the basic data, and in section 7.1.2 an overview of the theoretical literature on case.

7.1.1 Nominal inflections in Albanian

In Albanian varieties, including the standard (Solano 1972; Camaj 1984; Giusti and Turano 2007) nouns have an indefinite and a definite declension. The definite inflection characterizes nouns typically occurring without determiners, to which it confers definite reference. The indefinite declension characterizes

nouns that occur together with indefinite determiners. The indefinite paradigm is characterized by poorer case inflections, in particular in the sense that nominative and accusative are differentiated in the definite but not in the indefinite. These general properties are illustrated here for the Arbëresh (Italo-Albanian) variety of *Vena*, whose conditions are quite close to those of the standard, though not identical. For instance, demonstratives in *Vena* combine with the indefinite declension on nouns, while in the standard they combine with definites.¹

In (4) we illustrate the definite singular paradigm, in (5) the indefinite singular paradigm and in (6)–(7) the definite and indefinite plural paradigms. In (4)–(7), the examples in (a) illustrate the nominative (for instance the subject of a finite verb, i.e. its EPP argument), the examples in (b) the accusative (for instance the internal argument of a transitive active verb) and the examples in (c) the dative (i.e. the second internal argument of a ditransitive like ‘give’). The latter is syncretic with the genitive, to be examined in detail in [section 7.3](#); because of this syncretism we shall refer to the case in (c) simply as oblique. The other major case recognized in traditional paradigms is the ablative, which is, however, not preserved in *Vena*, allowing us to simplify the presentation somewhat.²

Consider first the definite paradigm in (4). The nominative is lexicalized by the *-i/-u* inflections for the masculine and by *-a* for the feminine, as in (4a); *-u* is selected by a lexical base ending in a velar or a vowel. The accusative in (4b) is lexicalized by the *-n(ə)* inflection preceded by *-i/u* for the masculine and *-ə/ε* for the feminine. It is natural to assume that *-i/u* and *-ə/ε* are nominal class endings, while only *-nə* marks accusative case. In turn, the oblique displays *-i/u-t(ə)* in the masculine and *-ə/ε-sə* in the feminine, which we analyse again as complex inflections formed by the nominal class morphology and the case morphology proper; here, therefore, case endings select for nominal classes (*-tə* in the masculine and *-sə* in the feminine):

- | | | | | |
|--------|---------------|---------------|----------------|--------------|
| (4) a. | kria'tur-i/ | ɲɛ'ri-u/ | vazd-a/ | matʃ-a |
| | 'the boy'/ | 'the man'/ | 'the girl'/ | 'the cat' |
| b. | kria'tur-i-n/ | ɲɛ'ri-u-nə/ | vazd-ə-nə/ | matʃ-ε-nə |
| | 'the boy'/ | 'the man'/ | 'the girl'/ | 'the cat' |
| c. | kria'tur-i-t/ | ɲɛ'ri-u-tə/ | vazd-ə-sə/ | matʃ-ε-sə |
| | 'to the boy'/ | 'to the man'/ | 'to the girl'/ | 'to the cat' |

In the indefinite paradigm in (5), the masculine nominative and accusative coincide with the uninflected nominal base; in the feminine, an *-ε* nominal inflection crops up with a subset of lexical bases, as in *matʃ-ε*. The oblique has *-i/u-çə* in the masculine and *-ε-jε* in the feminine, again formed by the nominal class morphology followed by the oblique morphology. As for determiners,

the indefinite article *ɲə* in the nominative/accusative alternates with *ɲiçə* in the oblique. The paradigm of the demonstrative is *ai*, *atə* *atiçə* for the masculine vs. *ajə*, *atə* *asaçə* for the feminine. Note that in the oblique feminine it combines with the noun inflected simply by nominal class.

(5)	a.	<i>ɲə</i> <i>kria'tur/</i> 'a boy'/	<i>ɲə</i> <i>ɲe'ri/</i> 'a man'/	<i>ɲə</i> <i>vazdə/</i> 'a girl'/	<i>ɲə</i> <i>matʃ-ε</i> 'a cat'
	a'.	<i>ai</i> <i>kria'tur/</i> 'that boy'/	<i>ai</i> <i>ɲe'ri/</i> 'that man'/	<i>ajə</i> <i>vazdə/</i> 'that girl'/	<i>ajə</i> <i>matʃ-ε</i> 'that cat'
	b.	<i>ɲə</i> <i>kria'tur/</i> 'a boy'/	<i>ɲə</i> <i>ɲe'ri/</i> 'a man'/	<i>ɲə</i> <i>vazdə/</i> 'a girl'/	<i>ɲə</i> <i>matʃ-ε</i> 'a cat'
	b'.	<i>at</i> <i>kria'tur/</i> 'that boy'/	<i>atə</i> <i>ɲe'ri/</i> 'that man'/	<i>at</i> <i>vazdə/</i> 'that girl'/	<i>at</i> <i>matʃ-ε</i> 'that cat'
	c.	<i>ɲiçə</i> <i>kriatur-i-çə/</i> 'to a boy'/	<i>ɲiçə</i> <i>ɲe'ri-u-çə/</i> 'to a man'/	<i>ɲiçə</i> <i>vazdə-ε-jε/</i> 'to a girl'/	<i>ɲiçə</i> <i>matʃ-ε-jε</i> 'to a cat'
	c'.	<i>atiçə</i> <i>kriatur-i-çə/</i> 'to that boy'/	<i>atiçə</i> <i>ɲe'ri-u-çə/</i> 'to that man' /	<i>asaçə</i> <i>vazdə/</i> 'to that girl'/	<i>asaçə</i> <i>matʃ-ε</i> 'to that cat'

The plural is illustrated in (6) for the definite conjugation and in (7) for the indefinite. In the indefinite in (7), a specialized plural *-a* inflection emerges in several nominal classes in the nominative and accusative, as for instance in *vazdə-a*. Other nominal classes show the same nominal class inflection as in the singular, notably *matʃε* or have allomorphs specialized for the plural, as in *ɲerəsə* 'men' vs. *ɲeri* 'man'. In the definite conjugation in (6), nominative and accusative are lexicalized by the same formative *-tə* added once again to the nominal base inclusive of the plural/nominal class vocalic inflection *-a/ε*. The oblique, both in the definite and in the indefinite, is lexicalized by the specialized (case) inflection *-vε*, added to the nominal base inclusive of the nominal class vowel. As for the determiner system, the demonstrative has a generalized form *atə* for nominative and accusative, masculine and feminine, while in the oblique it takes the form *atiçε*; the indefinite quantifier *tʃədə* is inflected as *tʃədə-vε* in the oblique, itself following the indefinite declension.

(6)	a.	<i>kriatur-a-tə /</i> 'the boys'/	<i>ɲerəsə-tə/</i> 'the men'/	<i>vazdə-a-tə/</i> 'the girls'/	<i>matʃε-tə</i> 'the cats'
	b.	<i>kriatur-a-tə /</i> 'the boys'/	<i>ɲerəsə-tə/</i> 'the men'/	<i>vazdə-a-tə/</i> 'the girls'/	<i>matʃε-tə</i> 'the cats'
	c.	<i>kriatur-a-vε/</i> 'to the boys'/	<i>ɲerəsə-vε/</i> 'to the men'/	<i>vazdə-a-vε/</i> 'to the girls'/	<i>matʃε-vε</i> 'to the cats'
(7)	a.	<i>tʃədə</i> <i>kriatur-a/</i> 'some boys'/	<i>tʃədə</i> <i>ɲerəsə/</i> 'some men'/	<i>tʃədə</i> <i>vazdə-a/</i> 'some girls/	<i>di</i> <i>matʃε</i> 'two cats'
	a'.	<i>atə</i> <i>kriatur-a/</i> 'those boys'/	<i>atə</i> <i>ɲerəsə/</i> 'those men'/	<i>a'tə</i> <i>vazdə-a /</i> 'those girls'/	<i>a'tə</i> <i>matʃε</i> 'those cats'

- b. tʃədɔ kriatur-a/ tʃədɔ ʃnerəsə/ tʃədɔ vazd-a/ di matʃe
 'some boys'/ 'some men'/ 'some girls'/ 'two cats'
- b'. atɔ kriatur-a/ atɔ ʃnerəsə/ a'tɔ vazd-a/ a'tɔ matʃe
 'those boys'/ 'those men'/ 'those girls'/ 'those cats'
- c. tʃədɔ-vɛ kriatur-a(-vɛ)/ tʃədɔ-vɛʃnerəsə(-vɛ)/ tʃədɔ-vɛ vazd-a(-vɛ)/ dive
 matʃ-ɛ(-vɛ)
 'to some boys'/ 'to some men'/ 'to some girls'/ 'to two cats'
- c' atire kriatur-a(-vɛ)/ atire ʃnerəsə(-vɛ)/ atire vazd-a(-vɛ)/ atire matʃ-ɛ(-vɛ)
 'to those boys'/ 'to those men'/ 'to those girls'/ 'to those cats'

Kinship terms (as often happens in natural languages) show special morphosyntactic behaviours, beginning with the fact that they combine the definite inflection of the noun with a preposed article. That the kinship terms in (8) have the definite inflection in the nominative (a), accusative (b) and dative (c) can be seen by comparing them with the forms in (4). As for the preposed article, in nominative contexts it corresponds to the nominal class morphology *i* for the masculine and *ɛ* for the feminine. In the accusative and oblique the preposed article is *tə*.

- (8) a. ɛrθ i kuʃirir-i/ ɛ kuʃirir-a
 came the cousin.m/ the cousin.f
 'The/his/her/their cousin came'
- b. pɛ tə kuʃirir-i-nə/ tə kuʃirir-ə-nə
 I.saw the cousin.m/ the cousin.f
 'I saw the/his/her/their cousin'
- c. j-a ðɛ tə kuʃirir-i-tə/ tə kuʃirir-ə-sə
 her-it I.gave to.the cousin.m / to.the cousin.f
 'I gave it to the/his/her/their cousin'

In (9) we illustrate contexts in which kinship terms are preceded by an indefinite quantifier or a demonstrative; correspondingly they bear an indefinite inflection, reproducing the conditions already detailed in (5).

- (9) a. ɛrθ ɲə kuʃi'ri/ ɲə kuʃirirɛ
 came a cousin.m/ a cousin.f
 'There came a cousin (of his/ hers/ theirs)'
- b. pɛ ɲə kuʃi'ri/ ɲə kuʃirirɛ
 I.saw a cousin.m/ a cousin.f
 'I saw a cousin (of his/ hers/ theirs)'
- c. j-a ðɛ ɲiçə kuʃir-ɛ-jɛ / asaçə kuʃirirɛ
 her-it I.gave to.a cousin.f/ to.that cousin.f
 'I gave it to a/that cousin'

Finally, in (10) we illustrate the definite paradigm of plural kinship terms, from which it can be seen that the prenominal article is *tə* for the three cases

we are considering; (10a') also provides an example of the indefinite paradigm, which (as already shown for the singular) simply reproduces the conditions observed with non-kinship terms.

- (10) a. *erðə tə kuʃiriçə-tə*
 came the cousins.nom
 'The/his/her/ their cousins came'
- a'. *erðə tʃədə kuʃiriçə*
 came some cousins
 'Some cousins (of his/hers/ theirs) came'
- b. *pɛ tə kuʃiriçə-tə*
 I.saw the cousins.acc
 'I saw the/his/her/ their cousins'
- c. *ja ðɛ tə kuʃiriçə-ve*
 them-it I.gave to.the cousins.dat
 'I gave it to the/his/her/ their cousins'

The data in (4)–(7) illustrate the existence in *Vena* of several inflectional endings which are associated with two or more interpretations, yielding instances of so-called syncretism. In our examples we find two types of syncretism: (i) some inflections correspond to two (or more) cases; (ii) some inflections correspond to both a case interpretation and a nominal class interpretation (the traditional gender and number). For instance, the *-a* inflection lexicalizes the nominative definite (for the feminine singular class) in (4a) and the nominative/accusative indefinite (for the plural class) in (7a) and (7b). Thus, *vazd-a* is ambiguous between 'the girl(Nom)' and 'girls (Nom/Acc)'. At the same time, the *-a* morphology also appears as a thematic vowel in plural formations involving specialized consonantal/syllabic case endings, for instance in the oblique (definite and indefinite) in (6c), (7c) and in the nominative/accusative definite in (6a), (6b). Similarly, the *-i* inflection, corresponding to the thematic vowel for the masculine singular, lexicalizes the nominative definite in (4a). In turn, the *-t(ə)* inflection is associated with the oblique (singular masculine) in (4c) and with the nominative/accusative (plural) in (6a) and (6b). The *-ve* inflection is uniquely associated with the oblique plural, yet it includes both the definite and the indefinite reading, as in (6c) and (7c).

In Table 7.1 we list the morphological endings associated with case in the *Vena* nominal system in (4)–(7). For each of the forms we indicate the traditional case, definiteness, and number features they are associated with. The fact that most entries are associated with more than one row of values implies that they are syncretic. We abstract away from the thematic vowels, i.e. the vocalic formatives that appear between the nominal root and consonantal/

Table 7.1 *Distribution of nominal inflections in Albanian Vena*

	Nom	Acc	Obl	Def	Indef	Sg	Pl
a	*			*		*	
	*				*		*
		*			*		*
i, u	*			*		*	
ε	*				*	*	
	*				*		*
		*			*	*	
ə	*				*	*	
		*			*	*	
t(ə)	*			*			*
		*		*			*
			*	*		*	
vε			*	*			*
			*		*		*
n(ə)		*		*		*	
sə			*	*		*	
jε			*		*	*	
çə			*		*	*	

syllabic endings like $-t(\partial)$, $-v\varepsilon$ etc; rather, we have tabulated the vocalic formatives only as they occur word finally. We have also left out the traditional gender (nominal class) from the properties being tabulated.

7.1.2 *Generative approaches to case*

In the minimalist approach of Chomsky (1995), properties such as gender (nominal class), number and person, which are intrinsically associated with nominal constituents, are bona fide lexical features. However, relations, such as theta-roles, are not features at all, but correspond to syntactic configurations. From this perspective, it is potentially problematic to find that case is a feature. The fact that case is the only feature in Chomsky (1995) which is radically uninterpretable (i.e. which does not have an interpretable counterpart) is a reflex of the deeper difficulty of reconciling its relational core with its feature status. The solution at which Chomsky (2008) arrives is effectively to deny that case has a primitive relational content. In technical terms (and contra Chomsky 1995), case does not enter into any feature checking. Rather, the real underlying relation between case assigner and case assignee is an agreement relation, involving phi-features; case is but a reflex of this relation which appears on nominal constituents.

Similarly, Pesetsky and Torrego (2007) treat case as a temporal property. The presence of interpretable but unvalued features $T[x]$ on the functional head T acts as a probe for the subject DP associated with the same $T[x]$ feature, both uninterpretable and unvalued, yielding agreement between these two elements. The value of the feature is assigned through a further agreement operation with the corresponding T feature associated with the verb, which is uninterpretable, but valued.

We agree with Chomsky, Pesetsky and Torrego that case cannot be a primitive of grammar. However, it seems to us that Chomsky (2008) falls short of implementing the reduction of case to agreement. For, simply put, if case is reduced to other primitives, why do we need to keep the case label at all? In other words: what is the difference between a language which has just agreement (say, Italian) and a language like Latin which has the ‘case’ reflex of agreement? Similarly, saying, as Pesetsky and Torrego (2007) do, that (nominative) case is merely the name that Tense takes when lexicalized on a noun leaves us without a clue as to why we still need to refer to this Tense on nouns as case. Otherwise stated: where is the evidence, either morphological or interpretive, that independently connects the Tense of verbs and the supposed ‘Tense’ of nouns?

The works reviewed so far consider so-called ‘abstract’ case, i.e. a case property independent of morphological realization, and as such found (by hypothesis) in all languages. In turn, case inflections have been the target of considerable morphological discussion. Within Distributed Morphology, Halle and Marantz (1993) propose a treatment for the case inflection of Potawatomi. In this language, the form */-mun/* denotes the 1st person plural as a subject and, in the context preceding the preterite affix, as an object. Halle and Marantz (1993: 157) conclude that */-mun/* is specified in the lexicon just for the features $[+1]$, $[+pl]$, and that it is inserted as, say, an accusative because of a rule that deletes $[ACC]$ in front of the preterite, as in (11).

- (11) $[ACC] \rightarrow \phi / \begin{array}{c} \text{_____} \\ [+1] \end{array} [+preterite]$

To generalize, syncretism corresponds to the lack of isomorphism between interpretive categories – e.g. in (11) the cluster $[accusative, 1\ pl]$ – and morphological categories, e. g. */-mun/*, which is just $[1\ pl]$. In Distributed Morphology, this lack of isomorphism is circumvented by assuming that at the syntactic level, all semantic properties relevant for interpretation are abstractly represented – while some categories to which syntactic computation applies do not have any morphological expression. This result is achieved through a model crucially involving the assumption that lexical insertion applies after

morphological rules, such as Impoverishment in (11), have operated on the abstract terminal nodes (Late Insertion).

What interests us here directly is that under the Distributed Morphology approach, a morpheme traditionally associated with case, e.g. accusative, turns out not to have any such property, but only a 1st person plural ('we') denotation. In general, in case-inflected languages, the presence of morphological entries associated with several case contexts (i.e. syncretic in traditional terms) leads to the conclusion that these case morphologies have a purely denotational content, devoid of case properties, and associated only with nominal class, number, and possibly definiteness, etc.

We agree with Halle and Marantz on the content of actual case terminals – i.e. the fact that their intrinsic properties may be just nominal class and the like. However, we differ from them in that we assume a unified morphosyntactic component, where Late Insertion is replaced by projection of syntactic structure from lexical terminals (Manzini and Savoia 2005, 2007, 2008a). We take this to be the theoretical position implied by the minimalist programme of Chomsky (1995). In such a framework, syncretism cannot be the result of the fact that morphological rules allow for radically underspecified lexical items to be inserted under richly detailed syntactic nodes. On the contrary, the denotational content that even conventional morphological models impute to terminals is all that is projected to the syntax and handled by the computational component. If, therefore, case is not a property of syntactic representations at all, we will have to show that syntactic and semantic composition can be successfully effected on the basis of this more restrictive approach.

7.2 Analysis of Albanian nominal inflections

Kinship terms provide a useful starting point in the analysis of the Albanian noun (phrase) because they present a more complex structure, where determiner and nominal inflection combine. This co-occurrence seems to result in a doubling of sorts, since, for instance, in the nominative singular definite, the nominal inflection and the preposed article converge on the nominal class morphology *i* for the masculine. The article that appears elsewhere in the paradigm, i.e. *tə*, is also identical to the definite inflection for the nominative/accusative plural, as well as for the definite oblique masculine singular.

These parallelisms may invite a treatment of at least the definite inflections of Albanian as postnominal articles, i.e. as a prenominal D element to which the N head is left-adjoined through movement. This analysis is proposed, among others, by Dobrovie-Sorin (1987) for Romanian, Taraldsen (1990) for

Norwegian and Turano (2003) for Albanian. The N-to-D analysis is also proposed by Longobardi (1996, 2001) for a different type of structure, in which N is in complementary distribution with the article, as in Italian kinship terms or the *casa* 'home' type.

Nevertheless, the N-to-D analysis of postnominal definiteness morphology has been questioned more than once in the literature. Thus, Longobardi (2000) points out that in Scandinavian languages, the postnominal definiteness morphology co-occurs with prenominal adjectives as in Icelandic *frabæra bokinn hans* 'beautiful book-def his', which Longobardi (2000) interprets as conclusive evidence in favour of a relatively low position of N and against movement of N to the highest D position. Similarly, for Romanian, Dimitrova-Vulchanova and Giusti (1998) argue that the so-called postnominal article is in fact generated directly on the noun; movement of N is involved in the derivation of definite noun phrases, but it is to a Focus position where the N-D head controls the scopal D position.

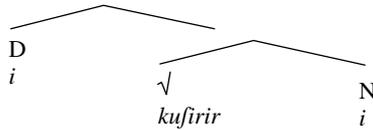
In presenting the data, we have already referred to the postnominal definiteness morphology as an inflection. In fact, the presence of both a postnominal definiteness element and a preposed article in kinship terms undermines the main empirical basis for the postposed article analysis – namely, that such an analysis predicts complementary distribution between postnominal definiteness and definite articles. This complementary distribution is simply not observed in Albanian. Besides this, and the other empirical problems noted in the literature cited, the apparent simplicity of the movement analysis conceals a certain amount of stipulation. In particular, from a minimalist perspective, it is not made clear why a noun would move to D – or for that matter to Focus, as proposed by Dimitrova-Vulchanova and Giusti (1998).

We started from the observation that in examples like (8a) and (10a–b), the *i* and *t* articles coincide with the $-i$ and $-t(\partial)$ inflections. Despite this coincidence, and their shared definiteness properties, the lack of complementary distribution between articles and inflections leaves little room to analyses deriving one from the other. We assume that in sentences like (8a) and (10a–b), the preposed article *i*, *t* lexicalizes the D position within the noun phrase, cf. Italian (2b). The postnominal inflections $-i$, $-t(\partial)$ cannot be the syntactic-level determiners at any stage of the derivations for the simple reason that the syntactic-level D position is already filled by the article.

Let us focus on the simpler vocalic inflection, e.g. $-i$. This element combines with $-n(\partial)$ for the accusative singular definite, $-t(\partial)$ for the oblique singular definite and $-ç\partial$ for the oblique singular indefinite. Such a distribution suggests that the lexical entry for $-i$ is associated with what in traditional terms is

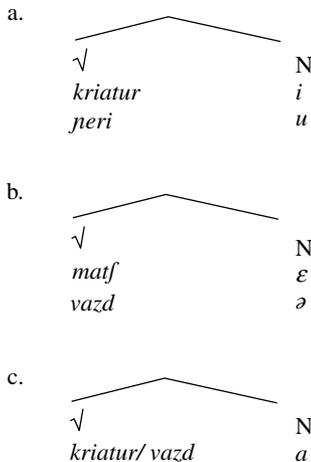
an agreement property, namely nominal class, like the vocalic endings of languages like Italian, as in (2). In keeping with the discussion in section 7.1, we then assign to *-i* an N categorization. The combination of a nominal root with an N morphology and a D determiner gives rise to structures like (12) – entirely parallel to those of Romance, cf. (2).

(12)



The same treatment can be extended to the vocalic inflections *-a*, *-ε*, *-ə* and *-u*. In the plural, the *-a* and *-ε* forms (depending on nominal class) combine with *-t(ə)* in the definite non-oblique and with *-vε* in the oblique. In turn, *-ε* combines with *-n(ə)* in the definite singular accusative, *-sə* in the definite singular oblique and *-jε* in the indefinite singular oblique. This distribution leads us to conclude that the lexical entries for *-a* and *-ε* are again associated with nominal class N properties. As for *-u*, it fairly obviously has the same distribution as *-i*, though with different lexical bases. The combination of nominal roots with an N morphology therefore gives rise to structures like (13). Nominal class morphologies are restricted to subclasses of roots; this can be expressed as a selectional relation whereby *-a*, *-ε*, *-i* etc. select the relevant lexical bases.

(13)

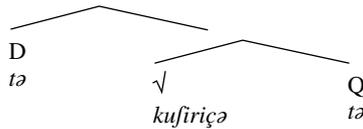


Still, a couple of essential pieces are missing from the analysis of Albanian vocalic inflections. One is an account of how shift in nominal class can have a number interpretation; the other is an account of case. As already mentioned, *-a* combined with *vazd-* or *matf-* (conventionally the feminine) corresponds in traditional terms to the definite nominative singular; combined with *vazd-* again or with *kriatur-*, as in (13c), it corresponds to the indefinite nominative/accusative plural. Similarly, *-e* in (13b) combined with *matf-* yields the nominative/accusative indefinite singular and plural. In turn, the masculine singular *-i/-u* in (13a) is the nominative (definite).

We will return to vocalic inflections in section 7.2.2. Before addressing these various questions, however, we consider consonantal inflections, beginning with *-t(ə)*, which we have seen to coincide with the pronominal article in examples like (10a–b). In traditional terms, *-t(ə)* forms the plural definite nominative/accusative and the definite singular oblique, depending on nominal class in the oblique. It is evident even from this list that every occurrence of *-t(ə)* in the nominal paradigm contributes definiteness properties to the base to which it attaches. This suggests that *-t(ə)* is (or includes) a definiteness operator taking in its scope structures like (13a) or (13c).

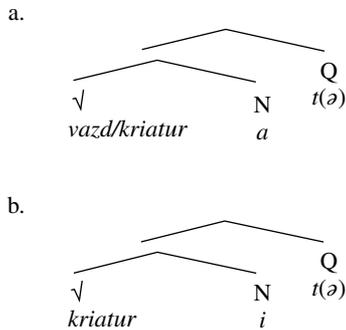
Correspondingly, we may assign the categorial signature Q to the position projected by *-t(ə)* as a nominal inflection – at least if we reserve the D projection for the pronominal article, where present. This yields structures of the type in (14) for the kinship terms in (10a–b).

(14)



The same analysis of *-tə* applies to plurals of non-kinship terms, as in (15a); and we can provisionally take it to hold for the oblique singular (masculine), as in (15b).

(15)



Once more, what is missing from the account in (14)–(15) is a match with the traditional notion of case. Using the traditional case terminology, the $-t(\partial)$ morphology in the singular (15b) is restricted to the oblique, while in the plural (15a) it is restricted to the non-oblique. Avoiding the case terminology altogether, the problem is how to limit the $-t(\partial)$ morphology to certain syntactically defined environments, whatever their exact definition turns out to involve. A similar problem arises for vocalic inflections. Thus, why is the definite reading of $-a$ and $-i$ morphologies in isolation restricted to what is conventionally known as the nominative context? At this point it is unclear whether these restrictions can even be stated if case is not an available primitive. We examine this question item by item, beginning with $-t(\partial)$ in the next section.

7.2.1 Consonantal inflections

Let us consider the masculine singular oblique in (15b). The question is: how do the quantificational properties of $-t(\partial)$ relate to the context of appearance? Abstracting away from case terminology such as ‘oblique’, which is what we are trying to explain, the contexts in which $-t(\partial)$ masculine singular appears correspond to the second argument of ditransitives (the so-called dative) and to the genitive, which we will examine in more detail in [section 7.3.1](#).

The dative–genitive syncretism is widely attested, characterizing, for instance, Modern Greek, Romanian, and the pronominal clitic system of some Romance varieties in which genitive and dative are syncretically lexicalized by *ne*. Manzini and Savoia (2005, 2007, 2008a) conclude that *ne* denotes a superset in relation to which some other argument is interpreted. This superset-of denotation is fairly obvious in partitives (e.g. *three of the boys*), where *the boys* specifies a larger set to which the *three* singled out belong; inalienable

possession and attribution of mental states are equally clear instances, since in *John's nose* or *John's fears*, the nose or fears are part of the collection of properties that we call 'John'. Similarly, in [chapter 6](#) we argue that the predicate *have* fundamentally denotes set inclusion (or 'zonal inclusion' in the sense of Belvin and den Dikken (1997)). In fact, *have* is sometimes equivalent to 'include', as in *Italian has two auxiliaries* (or more abstractly *This set has two members*); the same relation can be expressed by 'genitives', e.g. *the two auxiliaries of Italian* or *the two members of this set*. Although the inclusion relation yields inalienable and psych-state possession in a particularly natural way – we can take all possession to fall under a reasonable extension of the same relation.³

Possession, hence in present terms inclusion, is a natural characterization for the dative as well. In particular, the second internal argument of ditransitives has been argued to be connected to possessives at least since Kayne (1984). English *He gave a fright/a book to everybody* corresponds to the attribution of a mental state or a material possession to the 'dative' argument – and Romance languages also have inherent possession datives, as in *Ho lavato i capelli a Maria* lit: 'I have washed the hair to Mary', i.e. 'I washed Mary's hair'. In terms of the preceding discussion, the dative–genitive syncretism seen in the Albanian oblique points to a superset-of characterization for the relevant morphology, including $-t(\partial)$ in (15b). This, in turn, appears to be compatible with the Q quantificational characterization that we have assumed for $-t(\partial)$, given the set-theoretic calculus involved. From this perspective, we propose that there is no oblique case involved in (15b). All there is is a quantificational element $-t(\partial)$ capable of satisfying the superset-of (roughly possessive) specification required for the satisfaction of the second arguments of ditransitives (so-called dative) and more (i.e. the genitive to be considered in [section 7.3.1](#)).

The other major context in which $-t(\partial)$ is found to occur is the nominative/accusative plural. The syncretism of oblique (i.e. dative) singular with nominative/accusative plural is again independently attested in the Romance clitic system. Thus, the standard Italian dative singular *gli* is an allomorph of *li* for accusative plural; other varieties display exactly the same $(l)i$ form. In Manzini and Savoia (2005, 2007, 2008a), we explain this syncretism by proposing that the $-i$ morphology of Italian varieties has a quantificational content. This has two instantiations: superset-of (i.e. dative) and plurality. We take it that in the plural interpretation, the Q specifications of $-i$ take only the lexical base to which they apply in their scope. In turn, the superset-of reading depends on the quantificational specifications of $-i$ taking sentential scope.

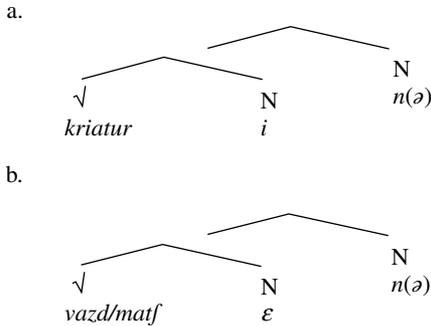
We apply this analysis to the fact that Albanian has $-t(\partial)$ for both oblique singular and non-oblique plural readings. Thus, when $-t(\partial)$ is read as plural, as in (15a), it takes in its scope the nominal class $-a$ (or $-\varepsilon$) specifications. When it is read as superset-of, its scope is sentential. Interestingly, it follows that the two readings are in complementary distribution: $-t(\partial)$ can be oblique, but it will not be plural; or it can be plural, but it will not be oblique. Similar syncretisms are found in other languages. As discussed in [chapter 8](#), Romanian $-i$ is the oblique (dative/genitive) singular and the (masculine) nominative/accusative plural. Latin $-i$ in turn shows up as genitive and/or dative singular and nominative plural in both the I and II classes; Latin $-s$ is (among other things) genitive singular and nominative/accusative plural in the III, IV and V classes.

What we characterized as the sentential scope of Q must be construed more precisely as scope over the internal arguments of the verb. Indeed, the $-i$ dative of Romance or the $-t(\partial)$ oblique of Albanian are dyadic operators establishing a superset-of relation between the argument to which they attach (the descriptive dative) and the internal argument of the verb, excluding the external argument. The simplest way of achieving the correct scope within the present framework is to assume that the Q operator, which we will henceforth also notate as $Q(\subseteq)$, has scope over the elementary event (the verb plus its internal argument(s)) (on Q elements within the predicative domain, see also the discussion of adverbs of quantification in [chapter 3](#)). We will occasionally use ‘sentential’ scope as a shorthand.

Let us now consider the so-called accusative singular definite, which is associated with the dedicated morphology $-n(\partial)$. Observe that for the plural we already have structural schemas for the so-called accusative definite, as in (15a). In particular, we have argued that in (15a) the Q specification added to the nominal class morphology has a number interpretation. Thus, it would appear that it is N morphology that satisfies the so-called accusative context. Now, the syntactic properties of N that we have discussed so far relate it to the internal structure of the noun (phrase). We have proposed that the N nominal class morphology lexicalizes the internal argument of the predicative base of the noun. Therefore we are not surprised to find that the same morphology can satisfy the internal argument of the verb.

Applying this reasoning to the $-n(\partial)$ morphology of the singular definite forms, we can conclude that the $-n(\partial)$ ending simply has N properties. In other words, it is nothing but an N inflection, further specialized for definiteness, as illustrated in (16). In these terms, $-n(\partial)$ therefore introduces reference to a specialized nominal class – specialized both in that it is definite and in that it is contextually restricted to the internal argument-of relation.

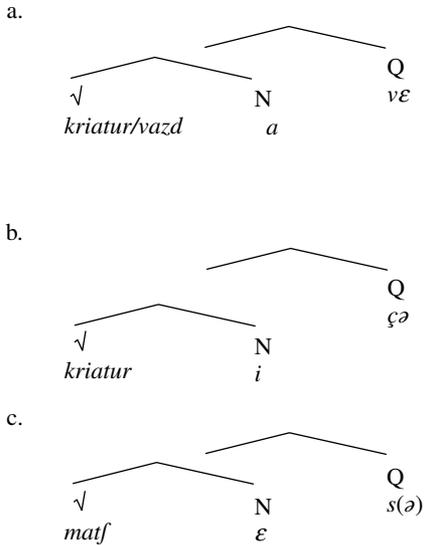
(16)



In short, we argue that accusative is nothing but the name given to the satisfaction of an internal argument slot by nominal N morphology⁴. A potential problem for our proposal arises in connection with the fact that accusative is standardly taken not to be linked to any particular theta-configuration, and so is a structural case in the sense of Chomsky (1986). The classical motivation for this in English is so-called Exceptional Case Marking (ECM), whereby the EPP argument of some infinitival complements turns up in the accusative (as can be overtly seen with pronouns). Needless to say, an EPP argument can correspond to an internal argument slot (as in unaccusatives) but also to an external argument (as in transitives). Interestingly, there is a tradition in the generative literature (Chomsky 1975 [1955]) which treats English ECM as an instance of restructuring of the propositional attitude verb with the embedded verb, making the embedded subject into the thematic object of this complex predicate. An independent tradition proposes, furthermore, that the position of the accusative is not that of an embedded subject but that of a matrix object (Postal 1974; Johnson 1991).

Assuming the (basic) validity of our results concerning $-t(\partial)$ and $-n(\partial)$ inflections, the entire set of consonantal inflections in Table 7.1 more or less falls into place. Thus $-t(\partial)$ has the oblique definite singular reading only in the masculine. In the feminine, the oblique definite singular is lexicalized by $-s\partial$. In the plural, all nominal classes and both definites and indefinites are associated with $-v\epsilon$. In the indefinite singular, again $-\zeta\partial$ and $-j\epsilon$ represent specialized inflections for the masculine and feminine respectively. It stands to reason that if $-t(\partial)$ is able to lexicalize the second argument of ditransitives etc. in virtue of its superset-of denotation, then $-s\partial$, $-v\epsilon$ and $-\zeta\partial$ are characterized by essentially the same denotation, projecting the Q category as well, as in (17). We come back to the somewhat special properties of $-j\epsilon$ in section 7.2.2.

(17)



While, as discussed in the previous section, $-t(\partial)$ has either sentential scope (oblique) or scope over the noun (plural), $-\zeta\partial$, $-s(\partial)$ and $-v\epsilon$ will have only the sentential scope that in our terms corresponds to the oblique. Since $-s\partial$ only appears in the definite feminine, we will say that its Q properties include definiteness besides the superset-of denotation, and it also has a selectional property, namely for some particular nominal class(es). The same selectional property characterizes $-\zeta\partial$ which lacks definiteness properties. In turn, $-v\epsilon$ only appears in the oblique plural. If we take it that its Q(\subseteq) properties lead to the oblique interpretation because of their sentential scope, then by the present reasoning they should not be sufficient to determine plurality as well. In other words, plurality should be a property of the bases selected by $-v\epsilon$. Indeed, the oblique plural can always be obtained by adding $-v\epsilon$ to the indefinite plural (*kriatura-vε*, *matfε-vε*, etc). This takes us back to a problem left open so far and to which we return directly below in [section 7.2.2](#), namely how nominal class inflections can determine number interpretation – and of course case.

Summarizing so far, the traditional idea that there is a relation of case assignment between, say, a verb and an embedded complement – and that this relation is lexicalized through case morphemes – translates here into an altogether different picture. This is that the intrinsic denotational properties of nominal inflections enable them to satisfy the argument slots of predicates; nominal inflections that are sensitive to the particular argument slot they satisfy yield

what are conventionally called case inflections. In our model of case, there is no case checking or evaluation, for there truly is no case. Rather, case is a descriptive label for relations that are much more primitive (essentially satisfaction of predicate–argument frames), as are the categories that enter into them (nominal class, quantification).⁵

7.2.2 *Vocalic case inflections and lack of inflections*

We will now consider the structures in (12)–(13), where the inflection consists only of a nominal class morpheme. Let us begin with *-i/-u* and *-a* as the singular definite nominative endings in the masculine and feminine respectively, as in (13a) and (13c). Following Chomsky (2001) or Pesetsky and Torrego (2007), nominative case is the reflex on a noun of a feature-checking relation it bears to a finite inflection. In present terms, however, agreement is not defined in terms of feature checking, for the finite inflection of a verb, as for instance in Italian (3), does not represent a bunch of non-interpretible features, but is a verb-internal EPP argument associated with the categorial signature D. As argued at the outset, different argumental constituents which jointly fill the same argument slot enter into a chain relation, which presupposes the compatibility of their denotational properties and hence the surface effect of agreement. Within this framework, saying that inflections such as *-a*, *-i* and *-u* agree with the finite verb means saying that they combine with the finite verb inflection in fixing the reference of the EPP argument of the sentence. Saying that they are nominative translates into saying that they provide a link in this chain. In short, there is no nominative case. There is on the one hand nominal class morphology, and on the other hand the chain it forms with the D verb inflection.

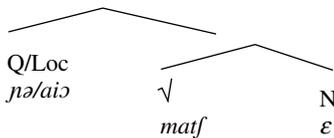
Nominal class morphology is sufficient to satisfy this context in the singular. Masculine *-i/-u* appears as the nominal class vowel throughout the singular declension, including the nominative definite. In the so-called feminine, however, while *-a* is the definite nominative, the nominal class vowel appearing elsewhere (eventually followed by consonantal endings) is *-ε/-ə*. This asymmetry is not due to the incompatibility of the *-ε/-ə* nominal classes with the nominative environment (i.e. agreement, or chain formation, with the D inflection of the verb), for *-ε/-ə* show up in the nominative context at least in the indefinite of the *matf-* and *vazd-* classes respectively. Rather, we conclude that while *-a* is compatible with definiteness, *-ε/-ə* are inherently indefinite. This is confirmed by the fact that, when appearing alone, *-ε/-ə* only have an indefinite interpretation (in the nominative/accusative of the *matf-* class and in the nominative/accusative singular of the *vazd-* class). We propose that in the relevant configuration, nominal class inflections can be read as definite precisely

because they are in the scope of the D finite inflection. Masculine singular *-i/-u* requires such D closure when lexicalizing the inflection alone, since it does not appear in the indefinite.

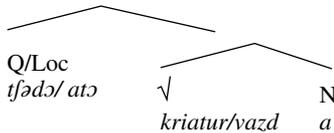
Consider now non-definite inflections, including *-ε/-ə* in the feminine and *-a* in the plural, appearing as the nominative/accusative. These nominal class inflections are either in the scope of quantifiers, for instance the indefinite article, with which they agree in indefiniteness, or of deictic specifiers (demonstratives) which have definiteness properties of their own. Both of these elements close (quantificationally or deictically) the reference of the N inflection.⁶ Within the structure of the noun phrase, a Q position can be assigned to the indefinite article/quantifier – and a Loc position to the demonstrative element, essentially a deictic element, as in (18).

(18)

a.

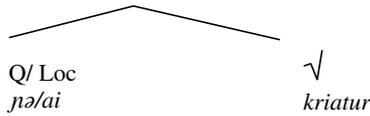


b.



In this connection, we should also consider another fact, namely that in the singular indefinite, at least the masculine bases *kriatur* and *ɲeri* can satisfy the nominative/accusative environment in the absence of any inflectional specifications – and this is true of the accusative as well. In the present framework, zero morphology is excluded – fundamentally for reasons of restrictiveness. Therefore, what appear to be inflectionless terminals really are treated as such within the present analysis. We should then ensure that their inflectionless status does not create problems. Recall that we formalize theta-roles/argument slots as variables introduced by a predicative base and bound in all instances considered so far by referential material (nominal class specifications or quantificational/definiteness specifications). Lack of inflectional specifications does not yield ungrammaticality (characterizing, for instance, a language like English) as long as the variable is closed by syntactic-level material. In particular, in examples like (5a–b), it is closed by the indefinite article or by the demonstrative (a deictic referent) again, as in (19).

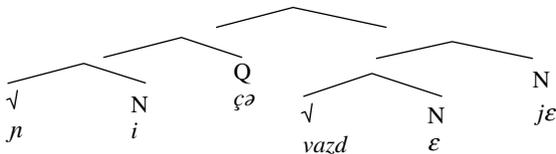
(19)



Interestingly, in the variety we are considering here, *Vena*, the oblique demonstrative is followed in the feminine singular by a form of the noun identical to the nominative/accusative, hence inflected only for nominal class. By contrast, the masculine singular is regularly inflected for the oblique, by the $-\zeta\partial$ morphology. In present terms, $-\zeta\partial$ projects a Q category, which satisfies the dative argument slot of a selecting verb, as already schematized in (17b). Feminine $-j\epsilon$, i.e. its counterpart for feminine bases, seems to have different intrinsic properties, since it appears to include the feminine nominal class morphology.

In fact, we can take $-j\epsilon$ to be an allomorph of $-\epsilon$ specialized for phonological contexts where it is preceded by vowels. Therefore $-j\epsilon$ also projects an N position, as schematized in (20). If so, the indefinite oblique feminine singular, the $-j\epsilon$ ending in the scope of indefinite determiners and the $-\epsilon$ ending in the scope of demonstratives are essentially the same element, i.e. the N nominal class morphology. In the scope of indefinite determiners this morphology is doubled, while it is not in the scope of demonstratives. This latter distribution can be treated by assuming that the demonstrative, because of its deictic reference, does not require the lexicalization of the $-j\epsilon$ inflection doubling, i.e. it subsumes it in terms of the theory of mutual exclusions discussed in chapters 3–4 in connection with negative doubling.

(20)



In the indefinite plural oblique, the $-v\epsilon$ inflection is optional in the scope of both indefinites and demonstratives – though it obligatorily occurs in the definite paradigm. We can express this distribution in terms similar to those suggested for the distribution of the feminine singular $-j\epsilon$, i.e. as a by-product of the fact that the indefinite quantifier or the demonstrative can subsume the lexicalization of the oblique properties by the noun. Incidentally, the structure in (20) shows that the same morphological analysis that we have so far applied to nouns can be extended to determiners. Thus, the indefinite in (20)

can be analysed as consisting of a lexical *n*- base to which properties of indefinite (existential) quantification can be imputed, followed by the nominal class inflection *-i* and by the oblique inflection $-\zeta\partial$. Interestingly, demonstratives also follow the indefinite declension. This is compatible with our characterization of their referential properties not in terms of definiteness but rather of deixis (here Loc).

When we consider the overall distribution of nominal class inflections, an interesting pattern seems to emerge. We note that they can appear as definite, but this will exclude plural and oblique, as in the nominative singular *-a*, *-i*, *-u*; or they can appear as oblique, but this will exclude definiteness and plurality, as in the oblique indefinite singular $-(j)\varepsilon$; or they can appear as plural, but this will exclude definiteness and oblique interpretations, as in the indefinite non-oblique plural *-a*, *-\varepsilon*. In short, definiteness, oblique case and plurality appear to be compatible with (all or some) nominal case inflections, but only as long as no two of them co-occur.

This complementary distribution is reminiscent of the facts reviewed in section 7.2.1 for the definite morphology $-t(\partial)$, which can either have superset-properties (oblique) or plural properties, but not both (i.e. cannot be both oblique and plural). For $-t(\partial)$ we proposed that both so-called oblique and plural correspond to quantificational properties, inherently associated with $-t(\partial)$. But since plurality depended on $-t(\partial)$ taking noun phrase scope and so-called oblique on sentential scope, the two readings were predicted to be in complementary distribution. Definiteness, by hypothesis, is inherently associated with $-t(\partial)$.

There is an obvious difficulty in extending this treatment to nominal class inflections, namely that no quantificational properties have been imputed to them – nor can they be, since we find such elements in contexts that do not warrant a quantificational treatment (e.g. singular, indefinite, non-oblique, as in *matf-\varepsilon*). This difficulty can, however, be circumvented if we assume that the definite, plural and oblique properties accruing to nominal class inflections depend on their closure by quantificational operators. Let us begin with definiteness, which is associated with vocalic inflections in the so-called nominative singular. On the basis of the discussion at the beginning of this section, in the so-called nominative configuration the nominal class inflection satisfies the EPP argument of the verb, forming a chain with the finite inflection of the verb, i.e. in present terms a D specification. In this configuration we propose that it can be read as definite – because it is in the scope of D.

No such independent closure is available for the oblique interpretation of nominal class inflections, in the indefinite singular, e.g. (20). We speculate, therefore, that it derives from a quantificational closure at the sentential level,

licensing the superset-of (possessor) interpretation. In other words, the $Q(\subseteq)$ quantificational property that we associate with terminals such as $-t(\partial)$, $-s\partial$ and $-v\epsilon$ is also available in the form of an abstract closure at the LF interface. It is the presence of this abstract quantifier, with sentential scope, that licenses the oblique (superset-of) interpretation in (20). In relation to $-t(\partial)$, we have further proposed that the same $Q(\subseteq)$ quantificational properties can be read as plurality when they take the nominal base in their scope. If $Q(\subseteq)$ is available as a closure at the LF interface, then we also predict that nominal bases inflected only with a nominal class vowel could have a plural interpretation. In Albanian in particular, it is $-\epsilon$ and $-a$ that allow for this closure.

At this point, the objection may be raised that, although we do not allow abstract morphosyntactic material into our grammar (in the form of impoverished features, zero morphemes, silent categories à la Kayne, the string lexicalization of nanosyntax, or uninterpretable/unvalued properties), we do allow for abstract quantificational closures, which may do part of the work (for instance, the indefinite plural interpretation). It seems to us that this cannot represent an objection to our analysis. This is because at least existential closure for indefinites, and generic closure for PROs, are independently needed and generally postulated. In other words, even if we abstracted away entirely from syncretisms, we would need quantificational closures in natural languages. But as far as we can tell, the existence of impoverished or non-lexicalized features is entirely motivated by the syncretism phenomena they are devised to explain.

7.2.3 Prepositional contexts

Prepositions in Albanian assign all the cases that are independently found in sentential contexts. Thus, they can select accusative, as in (21), and oblique, as in (22); finally, as shown in (23), nominative can also be embedded under prepositional elements.

- (21) *Preposition – Accusative*
 ϵ bəri pə/ mɛ jəri-u-n
 it he.made for/ with man-Acc.def
 ‘He made it for/with the man’
- (22) *Preposition – Oblique*
 ϵ vura pərpara jəri-u-tə
 it I.put before man-ms-Obl.def/
 ‘I put it in front of the man’
- (23) *Preposition – Nominative*
 a. ai ɛrθ tɛ gruaj-a/ jəri-u
 he goes to girl-Nom man-Nom
 ‘He went (close) to the woman/ the man’

- b. *kijō kiλε ε ban ŋga ŋeri-u*
 this were Art made by man-Nom
 'This has been made by the man'

The fact that prepositional phrases license all cases that sentences do, would appear to be incompatible with the idea that prepositions assign a specialized oblique case in the sense of Chomsky (1995). One could object that the incompatibility of data such as (21)–(23) with the oblique case proposal of Chomsky (1995) disappears if the morphological component is taken into account. In the framework of Distributed Morphology, it could be assumed, for instance, that the insertion of at least some of the cases that prepositions select is due to impoverishment rules. Thus, we could assume that an impoverishment rule deletes oblique case from the prepositional contexts. However, prepositions in Albanian can select not one, but two different non-oblique cases, i.e. not just accusative, but also nominative. Therefore, the system has two different non-oblique entries (i.e. the nominative and the accusative) whose distribution in prepositional contexts cannot be described simply in terms of the underspecification of oblique – but rather requires some positive characterization. Incidentally, the fact that the nominative is selected by prepositions is equally problematic for Chomsky's (2001, 2008) construal of nominative as a reflex of agreement with the finite verb.

As for Pesetsky and Torrego (2007), they identify prepositions with an aspectual type category: 'a species of T merged below D and above NP'. They suggest that the selection of specific cases by certain subsets of prepositions must be connected with particular features associated with the varying properties of the event. However, when it comes to prepositions selecting the nominative, it is far from clear that T_{prep} can instantiate properties parallel to those of sentential T, precisely because sentential T is related to time reference while T_{prep} is related to the event.

Let us now consider what can be said about cases selected by prepositions within the present approach. Prepositions are two-place predicates whose internal argument is independently lexicalized, while the external argument is controlled by some argument of the matrix predicate. For instance, in (22), the external argument of 'in front of' is controlled by the matrix accusative clitic 'it'. Indeed, what 'before' denotes is a spatial relation between 'it' and 'the man'. Consider now prepositional contexts like (21) which require the so-called accusative. In present terms, the prepositions that determine these contexts behave like transitive verbs in that their internal argument is satisfied, if definite, by the specialized nominal class morphology $-n(\partial)$ in the singular and by the nominal class + quantificational inflection $-(V)t(\partial)$ in the plural. In

the indefinite, it is sufficient to have nominal class morphology or a bare nominal base, quantificationally closed.

As for prepositional contexts selecting the oblique, as in (22), in present terms they require the satisfaction of their internal argument by argument morphology with Q specifications. These Q specifications correspond to a superset-of interpretation when taking a scope wider than the word; superset-of will then be the property selected by the preposition.

Consider finally prepositional contexts requiring the so-called nominative. The gist of the present proposal is that there is no case, but only denotational properties capable of fixing argument reference in certain syntactic contexts. In particular, so-called nominative inflections are associated with contexts where they are in the scope of the D argument of the sentence (the finite verb inflection). Prepositions like *te/nga* in (23) then select inflections with the denotational properties found in the scope of D; these are the properties relevant for fixing the reference of their internal argument.

7.2.4 Summary

The starting point of the present discussion was the data in [Table 7.1](#), which laid out the nominal inflection system of *Vena*, classified in terms of the traditional case, definiteness and number categories. The aim was to show that case categories could be abandoned in favour of denotational primitives. Our perspective rests on a strict adherence to the (minimalist) postulates of projection of the syntax from actual terminals (no impoverishment, etc.) and of the ‘perfection’ of the computational module (no uninterpretability etc.). The overall picture that emerges from Albanian nominal inflections can be summarized in a fairly compact table ([Table 7.2](#)) which can now be substituted for [Table 7.1](#). What we are perhaps most interested in is the fact that [Table 7.2](#) is a genuinely different way of cutting the data, so that we expect direct empirical evidence to be able to discriminate between [Table 7.1](#) (or its rendering by conventional morphosyntactic theories) and [Table 7.2](#).

Roughly speaking, there are three types of properties relevant for the nominal inflections of *Vena*: N(ominal class), Q(quantification), D(efiniteness). Vocalic N elements can have definite, or plural, or superset-of (oblique) interpretation, but we do not seem to see two or more of these combining. If the discussion at the end of [section 7.2.2](#) is correct, this is due to the fact that such properties are not intrinsic to vocalic inflections, but contributed by the context of insertion in the shape of quantificational closures – whence the parentheses in [Table 7.2](#). It will be noted that in some instances the properties of two inflections overlap, such as those in the first line of the *-a* and *-i* entries

Table 7.2 *Denotational properties of Albanian (Vena) nominal inflections*

	N	Q=pl	Q=obl	Def
-a	+			(+)
	+	(+)		
-i, -u	+			(+)
-(j)ε	+		(+)	
	+	(+)		
-ə	+			
-t(ə)			+	+
		+		+
-vε			+	
-n(ə)	+			+
-çə			+	
-sə			+	+

respectively; this, of course, corresponds to the fact that entries with the same content select for different sets of nominal bases. Among the other consonantal/syllabic endings, $-t(\partial)$ and $-s\partial$ are definiteness elements, while $-ç\partial$, $-v\epsilon$ are not; all are quantificational and will be plural ($-t\partial$) and/or oblique ($-s\partial$, $-t(\partial)$, $-v\epsilon$, $-ç\partial$).

7.3 The Albanian noun phrase

7.3.1 *The genitive*

In presenting the major case configurations in (4)–(10), we omitted the genitive on purpose. The reason is twofold. On the one hand, genitive morphology overlaps with the morphology we have exemplified for dative. In other words, there is a single oblique case, which covers both dative environments and genitive ones. On the other hand, genitive contexts are distinguished from other oblique contexts in that the genitive is introduced by an article agreeing in number, gender and case with the noun that it is a complement of.

These properties are illustrated by the data in (24)–(25), where the genitive is the complement of a definite noun, specifically a nominative in (24). In all the examples, the genitive can be seen to bear the same inflection as the dative; thus the definite genitive has $-s\partial$ in the feminine singular, $-v\epsilon$ in the plural, $-t\partial$ in the masculine singular; the indefinite genitive (introduced by an indefinite article or by a demonstrative) has $-ç\partial$ in the masculine singular, $-j\epsilon$ in the feminine singular and again $-v\epsilon$ in the plural. The article that introduces

the genitive agrees with the head noun. With a nominative head noun, *i* can be the pre-genitival article when the head noun is masculine singular, as in (24a), while *ε* can correspond to a feminine singular head noun, as in (24b). At the same time a certain degree of free variation is observed, whereby the *tə* form, which lexicalizes the plural, can alternate with nominal class ones in the singular.

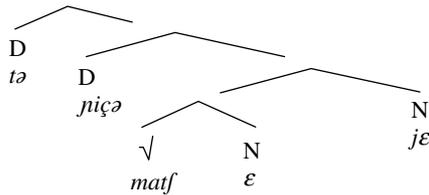
- (24) a. ku'tu v biʃt-i i/ tə matʃ-ε-sə
 here is tail.nom.m the cat.gen.f
 'Here there is the tail of the cat'
- a'. biʃt-i t asa-çə matʃ-ε
 tail.nom the of. that cat.f
 'the tail of that cat'
- a''. kjə vʃt tə ɲi-çə/ ati-çə ɲeri-u-çə
 this is the of.one/ of.that man
 'This is of a/ that man's'
- b. kjə v kəmb-a ε/ tə matʃ-ε-sə
 this is leg.nom.f the cat.gen.f
 'This is the leg of the cat'
- c. kə'tə jan biʃt-ət tə matʃε-vε
 these are tails.nom.pl the cats.gen.f
 'These are the tails of the cats'

When the head noun is accusative, as in (25), the genitive can be introduced by *ε*, which again appears to be in free variation with *tə*. The examples in (25b) and (25c) show that if a kinship term is the genitive complement of a head noun, it keeps its preposed article in addition to being embedded under the article agreeing with the head noun.

- (25) a. pε biʃt-i-n ε matʃ-ε-sə
 I.saw tail.m the cat.gen.f
 'I saw the tail of the cat'
- a'. pε biʃt-i-n ε/ tə asaçə matʃε
 I saw tail.m the of.that cat.f
 'I saw the tail of that cat'
- b. mərə dər-ə-nə ε tə mətɾ-ə-sə
 I.took hand.f the of.the sister.gen
 'I took the hand of the/his/her/their sister'
- b'. pε kəmb-ə-nə ε/ tə ɲi-çə matʃ-ε-jε
 I.saw leg.f the of.one cat.f
 'I saw the leg of a cat'
- c. mərə kuputs-ə-tə tə tə nip-i-tə
 I.took shoes.acc the of.the grandchild.gen-m
 'I took the shoes of the/his/her/their grandchild'

A similar structure will of course characterize indefinite genitives, preceded by an indefinite determiner or a demonstrative, and embedded under a determiner agreeing with the head noun, as in (28), corresponding to example (25b').

(28)



What first interests us here is what in traditional terms would be described as the syncretism of the genitive inflection with the dative. In section 7.2.1. we argued that this syncretism is based on the fact that the relevant Q morphology specifies a superset-of denotation. Thus, the second internal argument of ‘give’, i.e. the traditional dative, in present terms participates in fixing the reference of the first internal argument, i.e. the accusative, by denoting a superset including it. Similarly, the traditional genitive specifies a superset in terms of which the reference of the head noun is fixed. In Albanian, there is of course a formal difference between datives and genitives, namely that genitives are embedded under a determiner agreeing with the head noun; this is not true of datives. This difference correlates simply with the different points of merger of the genitive and the dative. Merger within a noun phrase requires the predicative layer provided by the determiner agreeing with the head noun (also found in copular structures); in dative environments, the oblique merges directly as complement of a verb.⁷

Let us consider the articles that appear in front of genitives. These belong to the same set that we have independently seen for kinship terms, including *i*, *ε* and *tə*. We have already characterized *tə* as a pure definiteness morpheme capable of carrying definite denotation independently of nominal class, number and case specifications. This is precisely what it does when introducing genitive complements of indefinite head nouns, and optionally of definite head nouns as well. Recall that if the head noun is indefinite, the pre-genital article is *tə* in both the nominative and in the accusative, irrespective of gender and nominal class. What the data suggest is that with indefinite head nouns, the predicative structure introducing the genitive must overtly lexicalize definiteness.

If the head noun is definite, we find *i* in the nominative masculine singular, exactly as for kinship terms. On the other hand, *ε* can be found not only in the

nominative singular (feminine, as with kinship terms), but also in the accusative singular (irrespective of nominal class). We have characterized the *i* and *ε* morphemes as nominal class elements: there is no reason why this characterization cannot be maintained for their occurrence as articles. Thus, there is a single lexical entry for all of the occurrences of *i* and *ε*, though their points of merger vary. In particular, the article is lexicalized by *ε* in all accusative contexts; this is consistent with the conclusion that accusative is satisfied by nominal class properties N. In the nominative, article *ε* again occurs with plural and feminine head nouns, but the masculine requires *i*, in other words the morphology specialized for the masculine nominal class. Evidently, the fact that the article ultimately participates in lexicalizing the EPP (D) argument of the sentence requires the emergence of specialized lexical class morphology (*i* for the masculine, and *ε* for the feminine). The oblique and the plural have *tə* throughout.

7.3.2 *The adjective*

The normally attested adjectival construction in Albanian, including Arbëresh varieties, has the inflected adjective preceded by the article. Within the noun phrase, the adjective appears postnominally. Although in the standard variety a subclass of adjectives can appear prenominally, this possibility appears to be missing in *Vëna*. In turn, the article–adjective sequence is not restricted to noun-phrase-internal contexts, but appears in predicative contexts as well, including the copular construction. This observation leads us to conclude that the pre-adjectival article is part of the structure of the adjective phrase, and not of the noun phrase in which the adjective is eventually inserted.

Consider first the nominative, illustrated in (29) with the copular construction and in (30) with adjectives embedded in noun phrases. As shown in (29b), the plural bears the *-a* inflection, while in the singular the masculine is not inflected, having the same form as the bare adjectival base, and the feminine bears a vocalic *-ε* inflection in some subclasses, as in (29a'). Nominal class (gender) and number may equally be lexicalized by stem allomorphies, as for *vəkəçə* 'small.m' vs. *vəgələ* 'small.f'. In turn, pre-adjectival articles take the *i*, *ε*, *tə* form that we have already seen for kinship terms and pre-genital articles; *i* appears in the masculine singular, *ε* in the feminine singular and *tə* in the plural. The adjective agrees with the noun (phrase) it is predicated of; the pre-adjectival article agrees with both the noun and the adjective in turn.

- (29) a. $\text{v}\text{ʃ}\text{t}$ i $\text{tra}\text{ʃ}/$ ε $\text{tra}\text{ʃ}$
 s/he.is the.m fat/ the.f fat
 'S/he is fat'

- a'. ɸʃt i $\text{ma}\theta\text{ə}/$ ε $\text{ma}\delta\text{-}\varepsilon$
 s/he.is the.m big/ the.f big
 'S/he is big'
- b. jan tə $\text{tra}\text{ʃa}/$ tə $\text{mbi}\delta\text{e}\eta$
 they.are the fat/ the big
 'They are fat/ big'
- (30) a. $\text{e}\theta$ $\text{dia}\lambda\text{-}i$ i $\text{ma}\theta/$ $\text{v}\text{ə}\text{k}\text{ə}\zeta\text{ə}$
 came boy the big/ small
 'The big/ small boy came'
- a'. $\text{e}\theta$ $\eta\text{ə}$ $\text{dia}\zeta\text{ə}$ i $\text{v}\text{ə}\text{k}\text{ə}\zeta\text{ə}$
 came a boy the small
 'A small boy came'
- b. $\text{e}\theta$ $\text{vazd}\text{-}a$ ε $\text{ma}\delta\text{-}\varepsilon/$ $\text{v}\text{ə}\text{g}\text{ə}\lambda\text{ə}$
 came girl the big/ small
 'The big/ small girl came'
- b'. $\text{e}\theta$ $\eta\text{ə}$ $\text{vazd}\text{ə}$ ε $\text{v}\text{ə}\text{g}\text{ə}\lambda\text{ə}$
 came a girl the small
 'A small girl came'
- c'. $\text{e}\theta$ $\text{aj}\text{ə}$ $\text{vazd}\text{ə}$ ε $\text{v}\text{ə}\text{g}\text{ə}\lambda\text{ə}/$ $\text{ma}\delta\text{-}\varepsilon$
 came that girl the small/ big
 'That small/ big girl came'
- c. $\text{e}\rho\delta\text{ə}$ $\text{kriatura}\text{-}\text{t}\text{ə}$ tə $\text{mbi}\delta\text{e}\eta\text{-}a/$ $\text{v}\text{ə}\text{g}\lambda\text{a}$
 came boys the big/ small
 'The big/ small boys came'

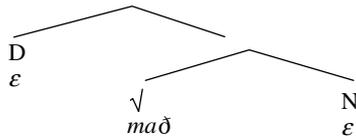
Vena displays no sensitivity to case in the adjectival embedding. Thus, in the accusative in (31) and in the dative in (32), both the adjectival ending and the preposed article have exactly the same form as in the nominative in (30) – displaying sensitivity only to nominal class and number.

- (31) a. $\text{p}\varepsilon$ $\text{dia}\lambda\text{-}i\text{-}n$ i $\text{v}\text{ə}\text{k}\text{ic}\text{ə}$
 I.saw boy-acc the small
 'I saw the small boy'
- a'. $\text{p}\varepsilon$ $\text{at}\text{ə}$ $\text{dia}\lambda$ i $\text{v}\text{ə}\text{k}\text{ic}\text{ə}/i$ $\text{ma}\theta\text{ə}$
 I.saw that boy the small/the big
 'I saw that small/ big boy'
- b. $\text{p}\varepsilon$ $\text{vazd}\text{-}\text{ə}\eta\text{ə}$ ε $\text{v}\text{ə}\text{g}\text{ic}\lambda\text{ə}$
 I.saw girl-acc the small
 'I saw the small girl'
- b'. $\text{m}\text{ə}\rho\text{a}$ $\eta\text{ə}$ mbisal ε $\text{ma}\delta\text{a}\rho\text{e}\lambda\text{-}\varepsilon$
 I. took a tablecloth the biggish
 'I took a biggish tablecloth'
- c. $\text{p}\varepsilon$ $\text{kriatur}\text{-}a\text{-}t$ tə $\text{v}\text{ə}\text{g}\text{ə}\lambda\text{a}$
 I.saw boys-acc the small
 'I saw the small boys'

- (32) a. ja ðε diaλ-i-t i vokiçə
 him-it I.gave boy-dat the small
 'I gave it to the small boy'
- b. ja ðε vazd-ə-s ε vogiλə
 her-it I.gave girl-dat the small
 'I gave it to the small girl'
- b'. ja ðε niçə vazd-ε-je ε vogiλə/asaçə vazdə ε maðe
 her-it I.gave to.a girl the small/ to.that girl the big
 'I gave it to a small girl/ to the big girl'
- c. ja ðε kriatur-a-vε tə vɔgəλ-a
 them-it I.gave boys-dat the small
 'I gave it to the small boys'

In short, the adjectives in (29)–(32) are formed like nouns by a predicative base followed by an inflection sensitive to nominal class and number, but not to case. We take it that these adjectival inflections are argumental elements capable of satisfying the obligatory (internal) argument of the predicative base. The presence of the article in front of the adjective can be imputed to a requirement that adjectival structures be closed by a D (EPP) element, very much as noun phrases are in Italian or English. This article picks up the same argument as the adjectival inflection with which it agrees, as shown for a feminine singular in (33).

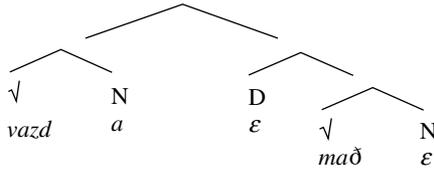
(33)



Consider the embedding of a structure like (33) in a copular context. Agreement between the adjective and the EPP argument of the copula corresponds to the fact that the latter forms a chain with the adjectival inflection and article. In virtue of this chain relation, the internal argument slot of the adjective is ultimately assigned to the EPP argument of the copula. Consider, then, the embedding of structures like (33) inside a noun phrase, as schematized in (34) for the nominative feminine singular. We know that both of the predicative bases present in (34), i.e. the adjectival and the nominal one, have (at least) one argumental slot, filled by the inflection – and for adjectives also by the article. In present terms, these two (sets of) arguments slots are satisfied by the same individual(s). On the one hand, this provides a basis for the

intersective interpretation typical of adjectival modification, whereby a ‘big girl’ is an individual which is both ‘a girl’ and ‘big (for a girl)’. On the other hand, it means that agreement holds of the noun, the pre-adjectival article and the adjective.

(34)



We have noted that in *Vena*, the adjective does not agree with the head noun in case (nor is it sensitive to its definiteness properties). In other words, the *Vena* variety has a fully developed case system in the nominal domain, but not in the adjectival domain. This is not simply a morphological property of adjectival bases, for when the same bases are the head of a noun phrase (rather than predicated of the head noun), they are inflected just like nouns are (section 7.3.3). In standard Albanian (as described by Solano 1972; Turano 2002), by contrast, the pre-adjectival article is sensitive to case (and to the definiteness of the head noun). In classical frameworks in which gender, number and case form a bundle of features of the noun, or in a framework like Chomsky’s (2008) in which case is merely a consequence of agreement rules applying to number and gender, the fact that case is lexicalized in certain contexts but not in others must be the result of morphological rules. In the present framework, no such rule suppressing the overt realization of an abstractly present case category is necessary – or possible. Rather, syntactic contexts differ as to whether they are or are not associated with case.

In section 7.2, we have argued that case is merely the name of a specialized argument; if so, the question as to its absence becomes a question as to the absence of this specialized argument. It is natural to assume that the absence of the case argument on the adjective in (34) is connected to the fact that the argument slot of the matrix predicate is independently satisfied by the case argument of the noun. Therefore, the identification of the argument of the adjective with that of the noun does not require a case argument to be lexicalized on the adjective as well. Importantly, the basis for distinguishing the descriptive category ‘noun’ from the descriptive category ‘adjective’ is not that the predicative bases occurring in adjectival and nominal contexts are marked for one or the other category. Rather, it is only the contexts of occurrence that can be labelled in that way. In the variety under consideration, therefore, case

discriminates between adjectival embeddings (case-less) and nominal embeddings (case-marked) – not between nouns and adjectives.

Let us now turn to the pre-adjectival article. The literature concludes – much as we do here – that the article is part of the adjectival constituent (Dimitrova-Vulchanova and Giusti 1998; Turano 2002, 2003; Giusti and Turano 2007). However, according to Dimitrova-Vulchanova and Giusti (1998), the pre-adjectival article is just an agreement marker (and a ‘redundant’ one). For them, the order Noun–Adjective in (34) is generated by movement of the noun to a Focus position, licensing the D position of the noun phrase. We have already argued against this derivation in discussing the internal structure of kinship terms in section 7.2. In turn, Turano (2002, 2003), following Cinque (1995), argues that the adjective is generated in the Spec of a functional projection dominating the noun, so that the Noun–Adjective order in (34) is derived by movement of the Noun to D. If our discussion in section 7.2 is on the right track, kinship terms exclude such a derivation, since they show that postnominal definiteness inflections and pronominal articles can co-occur; therefore the former cannot be derivationally related to the latter.

At the same time, there are some differences between the distribution of pre-adjectival articles and that of articles in front of kinship terms. In particular, the data concerning kinship terms in (8) vs. (9) or in (10) show that demonstratives and indefinite quantifiers, including *tʃedɔ* ‘some’ in (10) and *ɲə* ‘a’ in (9), are in complementary distribution with the pronominal article. Elements quantifying over the adjective are not in complementary distribution with the pre-adjectival article, but rather precede it, as in (35).

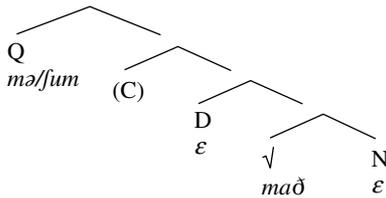
- (35) ɛʃt mə/ ʃum i $\text{ma}\theta\text{ə/}$ ɛ $\text{ma}\delta\text{ɛ}$
 s/he.is more/ very the.m big/ the.f big
 ‘S/he is bigger/ very big’

A minimal contrast with the quantifier *ʃum* in (35) is provided by the occurrence of the same element as a quantifier of the noun in (36a) – where it is in complementary distribution with the pronominal article. Furthermore, quantificational (and other) material can appear between the article and the kinship noun, as illustrated in (36b) with a numeral quantifier.

- (36) a. ʃum $\text{kʊʃiri}\check{\text{ç}}$
 many cousins
 ‘many cousins (of his/her/theirs)’
 b. tə katra $\text{kʊʃiri}\check{\text{ç}}\text{ətə}$
 the four cousins
 ‘the/his/her/their four cousins’

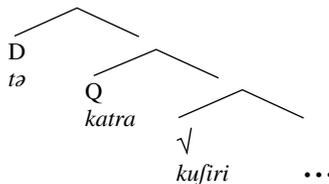
The contrast between (35) and (36b) suggests that the determiner is inserted in a lower position within the adjective phrase than it is within the noun phrases. The high position of the determiner within the noun phrase has led the literature (Szabolcsi 1994) to the conclusion that the determiner has a strict affinity with the C position of the sentence. By contrast, we can analyse the pre-adjectival determiner as an inflectional-level element, filling the D position of the I domain, as in (37), where it is preceded by the indefinite quantifier in Q of the C domain. In this way, we also capture Dimitrova-Vulchanova and Giusti's (1998) intuition that the pre-adjectival determiner is an agreement element of sorts.⁸

(37)



On the basis of the contrast between (36) and (35), we conclude that the prenominal article of kinship terms is a determiner of the English/Romance type, inserted in the D position of the C domain, as in (38), where it can be followed by quantificational material in the same domain or in the lower inflectional domain, such as the numeral. The complementary distribution between the definite determiner and the indefinite quantifier seen in (8) vs. (9), or in (35), is not necessarily due to competition for the same position, but rather to the fact that their interpretations are mutually exclusive.

(38)



It is also worth noting that possessives precede kinship nouns, and are in turn preceded by prenominal determiners, as in (39). This further confirms the availability of inflectional domains (for the positioning of the possessive clitic) between the determiner and the noun. The (1st person) possessive itself has an inflection sensitive to nominal class and number, alternating in particular

between the bare stem *im*, with a masculine singular head noun, and the *-ε* inflection with a feminine head noun. This agreement of possessives with the head noun is observed in Romance as well, and is analysed by Manzini and Savoia (2005) for those languages.⁹

- (39) a. pɛ t im kuʃi'ri/ t ime kuʃirire/ t imə kuʃiriçə
 I.saw the my cousin.m/ the my cousin.f/ the my cousins
 'I saw my cousin/ cousins'
- b. ja ðɛ t im kuʃirir-i-çə/ s ime kuʃirire/ t ime
 kuʃiriç-vɛ
 him-it I.gave the my cousin.dat.m/ the my cousin.dat.f/ the
 my cousins.dat
 'I gave it to my cousin/ cousins'

7.3.3 *Adjectives as heads of the noun phrase*

The insensitivity of Albanian adjectival inflections to case (and in *Vena* also to the definiteness of the head noun) is not a lexical property of the bases involved. Rather, the same bases that have been illustrated above as heads of adjective phrases embedded in a noun phrase can also occur as heads of noun phrases. If so, they display full nominal inflection, and like kinship terms they are also preceded by the definite determiner, as illustrated in (40).

- (40) a. ɛrθ i vɔgəl-i/ ε vɔgəl-a
 came the little.m/ the little.f
 'The little one came'
- a'. ɛrðə tə vɔgɫa-tə
 came the little-pl
 'The little ones came'
- a''. ɛrθ mə i mað-i
 came more the big.m
 'The bigger one came'
- b. pɛ tə vɔgɫ-i-nə/ tə vɔgɫ-ə-nə/ tə vɔgɫ-a-tə
 I.saw the small.m/ the small.f/ the small-pl
 'I saw the small one(s)'
- b''. pɛ mə tə mbiðɛç-ə-tə
 I.saw more the big.pl
 'I saw the bigger ones'
- c. ja ðɛ tə vɔgɫ-i-tə/ tə vɔgɫ-ə-sə/ tə vɔgɫ-a-vɛ
 him.it I.gave the small.m/ the small.f/ the small.pl
 'I gave it to the small one(s)'

These adjectival heads differ from kinship terms in some important respects, in which they parallel the structure of adjectival phrases. In particular, as can be seen in (40a''), the adjective and its article can be preceded by a quantifier,

such as the degree element *mə* 'more'. Similarly, unlike what happens in kinship terms, where the determiner excludes indefinite quantifiers and demonstratives, the latter can precede adjectival bases and their articles, as shown in (41). On the other hand, the demonstrative and the indefinite article combine with the indefinite inflection on the adjectival/nominal head. The latter is sensitive only to nominal class and number, except for the oblique plural, which optionally displays the case ending, as in (41c').

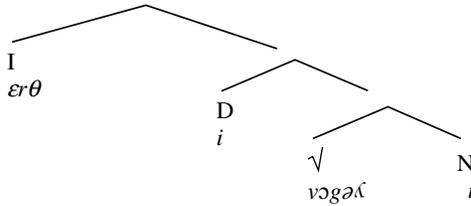
- (41) a. *erθ ai i vəkicə/ ajə ε vəgilə*
 came that the little.m/ that the little.f
 'That little one came'
- a'. *erθ jə i vəkicə/ ε vəgilə*
 came a the little.m/ the little.f
 'A little one came'
- b. *pε a'tə i vəkicə/ ε vəgilə/ a'tə tə vəgilə*
 I.saw that the little.m/ the little.f/ those the little.pl
 'I saw that little one/ those little ones'
- b'. *pε jə i vəkicə/ ε vəgilə*
 I.saw a the little.m/ the little.f
 'I saw a little one'
- c. *ja ðε aticə i vəkicə/ asaçə ε vəgilə*
 him.it I.gave to.that the little.m/ to.that the little.f
 'I gave it to that little one'
- c'. *ja ðε atirε/ atirəvε tə vəgilə(vε)*
 them.it I.gave to.those the little.pl
 'I gave it to those little ones'
- c''. *ja ðε jicə i vəkicə/ ε vəgilə*
 him.it I.gave to.a the little.m/ the little.f
 'I gave it to a little one'

The examples in (40)–(41) cannot be accounted for through ellipsis of the head noun. In (40), in particular, such an analysis would force us to say that in the context of a deleted definite noun, the adjective takes on the definite inflection. This in turn requires a framework which uses morphological spell-out of syntactic features – so that definiteness features can be passed from the deleted/silent head noun to the adjective before they are actually instantiated in the morphological component. By contrast, we are working with a unified morphosyntactic component.

Given present assumptions, a sentence like (40a) can take the structure in (42). The nominative inflection N and the D article satisfy the internal argument slot of the adjectival base *vəgəʎ* and at the same time the argument slot of the matrix predicate. So-called nominative case in (42) corresponds to

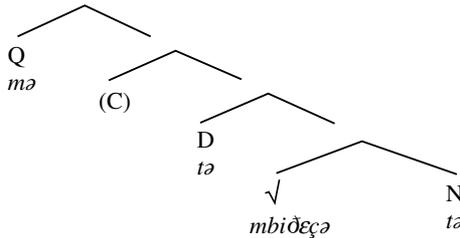
the D closure of the N inflection, as detailed in [section 7.2.2](#). As we have just seen, in a noun ellipsis treatment, the distinction between nouns and adjectives, built on the presence of empty structures, determines the surface distribution of cases via morphological manipulations. By contrast, in the present framework, the projection of a case category, as determined by the requirements of predicate–argument structure, effectively distinguishes what we call a noun from what we call an adjective.

(42)



The nominal constituent in (42) and the adjective phrase in (37) are alike in that the article can combine with higher quantifiers that precede it, specifically degree quantifiers, as illustrated in (43). In (43), the article is therefore in the inflectional D position, as we have assumed for the adjective phrase in (37), rather than in the high C-domain position that we have assumed for kinship nouns in (38).

(43)



On these grounds, we equally expect that, while the determiner of kinship nouns is in complementary distribution with demonstratives and indefinites, the article in front of adjectival bases combines with them, as shown in (44).

8 *(Definite) denotation and case in Romance: history and variation*

In historical accounts of the transition from Latin to the Romance languages, the loss of case morphology is related to the evolution of Latin demonstratives into articles and to the typological change from SOV word order to SVO word order.

Starting from the observation that change from Latin to Romance languages involved a shift from head-final order to head-initial order, Renzi (1987) proposes that in a string of the type $N-k$, the case suffix k , identified with a functional head, can no longer stay to the right of N , but must be reordered and move into first position.¹ In terms of this explanation, the article is the lexical support for the case affix; the resulting sequence $Art+k N$ realizes the desired head-initial order. In other words, the development of the Latin demonstrative into an article (cf. Vincent 1997) makes it possible for case to be lost as a nominal suffix.

This account is not without problems. For instance, it predicts that we should find some Romance language (or language stage) in which case is realized exclusively on the determiner – but in Old French both determiners and nouns have case (though the determiners may be argued to have a fuller set of case distinctions); and in Italian neither does. A potentially better argument for determiners bearing case to the exclusion of nouns is Romanian; in Romanian, however, the article is postnominal, and can be argued to be an inflection (section 8.2). More to the point, nouns of the feminine class have a residual inflection for dative/genitive as opposed to nominative/accusative.

Giusti (1995, 2001) develops Renzi's (1987) idea further. She separates the article from the other determiners of the noun and identifies it with a functional head also subsuming case; in her terms, F 'is a nominal functional category which subsumes D[eterminer] and K[ase]' (1995: 79). The article, therefore, is only 'a syntactic means of expressing case'. She notices that her approach is 'in contrast with current semantic theories which take the article as a kind of quantifier'. She questions, however, the ability of these theories to explain 'how languages with no article can implement the mechanisms of nominal

interpretation currently attributed to the article in English' (1995: 89). We shall return to this question in the concluding section. From a diachronic perspective, Giusti (2001: 168) suggests that in a language like Latin, 'the rich morphology on the noun makes the N-[to-D]chain visible ... even if N has not moved'; in Romance languages like Italian, 'although the case morphology is not strong enough to make the N-chain visible ... the presence of the newly formed article complies with the same function'.

For both Renzi (1987) and Giusti (2001), therefore, case is a primitive category of grammar, and the difference between Latin and Romance is that, whereas Latin realizes this category as a nominal inflection, Romance lexicalizes the same category as part of the determiner (Renzi) or as the determiner (Giusti). Giusti dissociates the determiner from definiteness and other denotational properties, strengthening the link between determiner and case to a formal equivalence. In essence, therefore, what survives is only case, and its expression either by morphological case or by the determiner.

Now, the theory that emerges from our discussion of Albanian case in [chapter 7](#) is that, if case and definiteness/quantification are merely two names for the same fundamental categorial specifications, the characterization of this category is D/Q rather than K – in other words, Giusti's stance is reversed. In this chapter, we seek to confirm the conclusions arrived at in the previous chapter on the basis of an analysis of the Latin case system ([section 8.1](#)) and its developments in Romance, including in particular the case systems of Romanian ([section 8.2](#)) and Old French ([section 8.3](#)), as well as survivals of nominative *-s* in Romansh varieties ([section 8.4](#)).

8.1 The Latin case system

The gist of the present proposal regarding case, as laid out in [chapter 7](#), is that the nominal class inflection of, say, the modern Romance varieties is not substantially different from case systems such as that of Albanian, in the sense that 'case' inflections, like 'agreement' inflections, lexicalize denotational properties of nominal class (gender), quantification, definiteness, etc. In virtue of these denotational properties, they satisfy the argument specifications of the predicate base (the 'noun') to which they attach. 'Case' inflections differ from 'agreement' inflections in that they are restricted to certain syntactico-semantic configurations of embedding. In other words, they are specialized for attachment of the noun (phrase) as the complement of a superordinate verb ('accusative'), as an EPP argument ('nominative'), as a complement of a superordinate noun ('genitive') etc.

These conclusions, if correct, should easily extend from Albanian, considered in [chapter 7](#), to other case languages. From this perspective, we briefly consider the case system of Latin, with a view to studying its development in the Romance languages. A morphemic analysis of the Latin case system is provided by Halle and Vaux (1997). In (1), we match the case endings resulting from this analysis, as schematized in Halle and Vaux's Table (14), to the stems of the five standard conjugations, with classes II–IV also displaying separate forms for neuter. For Halle and Vaux (1997), these stems are formed by the root followed by the thematic vowels *-a* for the I class, *-o* for the II class, *-i* for the III class, *-u* for the IV class and *-e* for the V class. Phonological readjustment rules which delete, lengthen, shorten and change the quality of thematic vowels, as detailed in Halle and Vaux's (19), would be responsible for the rather more complex thematic vowel schema emerging from (1).

(1)		Singular		Plural		
	(I)					
	Nom.	ros	-a	ros	-a	-i:
	Gen.	ros	-a	-i:	ros	-a: -r-um
	Dat.	ros	-a	-i:	ros	-i: -s
	Acc.	ros	-a	-m	ros	-a: -s
	Abl.	ros	-a:		ros	-i: -s
	(II)					
	Nom.	lup	-u	-s	lup	-i:
	Gen.	lup		-i:	lup	-o: -r-um
	Dat.	lup	-o:		lup	-i: -s
	Acc.	lup	-u	-m	lup	-o: -s
	Abl.	lup	-o:		lup	-i: -s
	(II _n .)					
	Nom.	bell	-u	-m	bell	-a
	Gen.	bell		-i:	bell	-o: -r-um
	Dat.	bell	-o:		bell	-i: -s
	Acc.	bell	-u	-m	bell	-a
	Abl.	bell	-o:		bell	-i: -s
	(III)					
	Nom.	can	-i	-s	can	-e: -s
	Gen.	can	-i	-s	can	-um
	Dat.	can	-i:		can	-i -bu-s
	Acc.	can	-e	-m	can	-e: -s
	Abl.	can	-e		can	-i -bu-s
	(III _n .)					
	Nom.	corpus			corpor	-a
	Gen.	corpor	-i	-s	corpor	-um
	Dat.	corpor		-i:	corpor	-i -bu-s
	Acc.	corpus			corpor	-a

Abl.	corpor	-e		corpor	-i	-bu-s
(IV)						
Nom.	fruct	-u	-s	fruct	-u:	-s
Gen.	fruct	-u:	-s	fruct	-u	-um
Dat.	fruct	-u	-i:	fruct	-i	-bu-s
Acc.	fruct	-u	-m	fruct	-u:	-s
Abl.	fruct	-u:		fruct	-i	-bu-s
(IVn.)						
Nom.	corn	-u:		corn	-u	-a
Gen.	corn	-u:	-s	corn	-u	-um
Dat.	corn	-u:		corn	-i	-bu-s
Acc.	corn	-u:		corn	-u	-a
Abl.	corn	-u:		corn	-i	-bu-s
(V)						
Nom.	di	-e:	-s	di	-e:	-s
Gen.	di	-e:	-i:	di	-e:	-r-um
Dat.	di	-e:	-i:	di	-e:	-bu-s
Acc.	di	-e	-m	di	-e:	-s
Abl.	di	-e:		di	-e:	-bu-s

We adopt the inventory of case endings from Halle and Vaux (1997) (cf. also Calabrese 1998, 2008). We differ from them only in excluding zero endings; therefore, in instances where they would have a zero morpheme, we have just left a blank space in the relevant column of the paradigm in (1). As we have already done for Albanian, we assume that forms lacking a case ending are simply closed off by a thematic vowel (e.g. the I class abl. singular *ros-a*: ‘with the rose’) or correspond to bare roots (e.g. the III class neuter nom./acc. singular *corpus* ‘the body’).

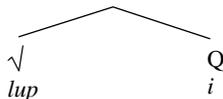
For Halle and Vaux (1997), the Latin case dictionary involves eight morphemes, including zero, for which they provide the lexical entries in (2). Cases are characterized by the features [\pm structural], referring to whether the case is structural or not in Chomsky’s (1986) sense, [\pm superior], referring to whether the case is assigned under government (-superior) or not, and [\pm oblique]. Halle and Vaux develop the view that the *-r-um* genitive plural of classes I, II and V depends on the combination of *-s* with *-um* morphology followed by rhotacism of *-s* (i.e. conversion to *-r* in intervocalic position). But even taking *-um* and *-rum* to be allomorphs which are not further analysable would not change the table of lexical entries in any essential respect. Similarly, for Halle and Vaux the *-bu-s* dative/ablative plural of classes II, IV and V is derived by combining *-bu* with *-s*; again, assigning a lexical entry to *-bus* rather than to *-bu* would not change the picture in (2) in any crucial way. We will therefore disregard this internal analysis in the discussion to follow.

(2)	um	[+obl	+struct	-sup	+pl]	
	bu	[+obl		+sup	+pl]	/ [III, IV, V]+
	i:	[+obl	+struct		-pl]	
	i:	[-obl		+sup	+pl]	/ [-neut, I, II]+
	a	[-obl			+pl]	/ [+neut] +
	m	[-obl			-pl]	
	∅	[-pl]	
	s	[]	

Various general assumptions underlying the lexicon in (2) have been rejected as part of the discussion in [chapter 7](#) – notably that the grammar includes relational features such as [\pm superior] (i.e. [\pm governed]), etc. and that lexical items may be specified for negative properties or radically underspecified. There are less general aspects of the Latin case lexicon in (2) that interest us here. For instance, the different occurrences of *-i* cannot be unified, but require two separate homophonous entries, one for the nominative plural occurrences, and one for the genitive/dative occurrences.

Interestingly, the distribution of *-i* is very close to that of Albanian *-t*. In [chapter 7](#), we saw that *-t* occurs in the nominative/accusative plural and in the oblique singular; thus, it can be plural or it can be oblique, but it cannot be plural and oblique. Analogously, Latin *-i* occurs as the dative and/or genitive singular (either genitive, or dative, or both according to inflectional class) and as the nominative plural; but it does not occur as the oblique plural. The analysis of Albanian *-t* in [chapter 7](#) allows us to provide a unified entry for Latin *-i*. As for Albanian *-t*, we propose that Latin *-i* has quantificational properties. When they take scope over the word, they yield the plural reading (classes I and II, non-neuter). When they are construed as having wider (phrasal/ sentential) scope, they are read roughly as superset-of specifications – i.e. as genitive/dative (in classes I and V), as genitive (noun phrase scope, in class II), or as dative (sentential scope in classes III and IV).² Thus, a class II form like *lup-i* in (3) is ambiguous between the reading ‘the wolves’ (plural) and the reading ‘of the wolf’ (genitive singular). There is only one real difference between Albanian *-t* and Latin *-i*, namely that *-t* characterizes all non-oblique contexts of insertion in the plural. By contrast, Latin *-i* in the plural is restricted to the so-called nominative context, which in terms of the discussion of [chapter 7](#) is characterized by agreement (i.e. chain formation) with the D inflection of the finite verb.

(3)



It is evident that the present approach is not a notational variant of the more traditional approach represented by such works as Halle and Vaux (1997), since their respective dictionaries are clearly different. In particular, under the present approach, we are able to unify what for Halle and Vaux are two separate *-i* morphemes into a single lexical entry. What is more, under the present approach the underlying distribution of *-i* is seen to be the same as that of Albanian *-t*. The fact that the same pattern can be found with genetically unrelated inflections strengthens the argument against it corresponding simply to accidental homophonies or to default mechanisms. Johnston (1997: 102–7) shows that the same syncretism between genitive singular and nominative plural is also found in Russian. His discussion is interesting because he recognizes the systematicity of the pattern, though the ‘homonymies’ cannot be modelled within the ‘geometrical’ model he advocates, ‘because the elements involved have no element in common along any inflectional dimension’ (102). In fact he even predicts the possibility of a ‘geometric constraint that the relevant paradigm cells *not* be continuous’. This is precisely what our model (unlike Distributed Morphology) can provide.

Another major syncretic morphology is *-s*, which is treated as the general default of the system by Halle and Vaux. The notion of default is extraneous to our grammar – where lexical terminals project syntactic structure on the basis of their positively specified properties. In fact, by and large the distribution of *-s* does not differ substantially from that of *-i*. Consider, for instance, class III, where *-s* occurs as the conventional nominative singular in (4a), the genitive singular in (4b) and the plural, both nominative and accusative, in (4c). Nominative singular is also attested for class II, genitive singular for classes II, IV and V, nominative/accusative plural for classes IV and V and accusative plural for all classes. In classes I and II, *-s* also occurs as the dative/ablative plural, which we will treat last.

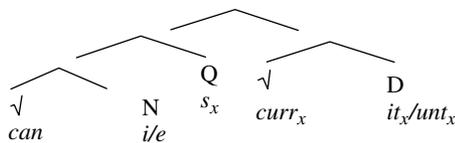
- (4) a. Canis currit
 dog.sg.nom runs
 ‘The dog is running’
 b. canis cauda
 dog’s tail
 ‘the dog’s tail’
 c. Canes currunt/ video
 dogs run/ I.see
 ‘(The) dogs are running’/ ‘I see (the) dogs’

The lack of any feature characterization for *-s* in the lexicon of Halle and Vaux (1997) means that *-s* can automatically be inserted in any of the contexts in (4). However, the Subset Principle that crucially governs Lexical Insertion

requires that ‘the most highly specified Vocabulary Item whose features are a subset of the features of the terminal node is inserted’. Consider, then, the nominative singular, which is characterized as [-oblique, +superior, +structural, -plural] because it is an argument of the verb ([-oblique]), it is not governed ([-superior]) and [+structural]. For independent reasons one must assume that there is a lexical entry in Latin which is specialized for [-oblique, -plural], namely *-m*, which occurs in the accusative singular of all nominal classes, as well as in the nominative of the neuter 2nd class. Therefore, *-m* should take precedence over *-s* in the nominative singular. In order to avoid this unwelcome result, an Impoverishment rule is postulated deleting the feature [-plural] in the nominative singular, yielding a node which is compatible only with the *-s* default terminal. An extension of this rule is further envisaged to allow for the insertion of *-s* in the genitive singular. However, Impoverishment processes such as the one just described are evidently ad hoc. In turn, paradoxically, a default item like *-s*, whose insertion is permitted by such processes, finds itself filling a multiplicity of case slots not in virtue of its rich case properties, but in virtue of their total absence.

What we propose is that *-s*, far from being an empty element as in Halle and Vaux (1997), has a denotational content, which we identify again with Q, as in (5), corresponding to the structure for nominative singular and plural. The plural interpretation depends on the quantificational specifications of *-s* taking scope over the noun, as already discussed for *-i* in (3). To account for its occurrences in the singular, we assume, exactly as for *-i* in (3), that Q elements in morphology have scope properties – a notion that ultimately goes back to Pesetsky (1985). The singular readings of the *-s* morphology, in turn, correspond to Q taking a scope wider than the noun (phrasal or sentential). Specifically, in the singular nominative configuration, we interpret the scope of *-s* as sentential. We assume that the EPP argument provides a D closure of the sentence, and correspondingly requires quantificational Q properties, supplied by *-s*, to satisfy the syntactic context of insertion that it defines.

(5)



In the so-called genitive, we can take the scope of *-s* to be the entire noun phrase; the genitive argument is then interpreted as ‘including’ the head

referent. The genitive reading of *s* naturally leads us to the other oblique reading, as the syncretic dative/ablative plural. Ablative has not been discussed so far; since in the variety of Albanian considered here there is no systematic attestation of ablative. The range of readings associated with ablative in Latin is roughly comparable to that of Romance clitics like Italian *ci*, French *y* etc. – i.e. basically locative and instrumental. Similarly, the syncretism of the ablative with the dative in the plural (in all classes), as well as in the singular of class II, is strongly reminiscent of Romance clitic systems in which 3rd person dative is lexicalized by the *ci*-type (locative) form (Manzini and Savoia 2005, 2007, 2008a; Kayne 2008a). Now, we have already seen that in Latin dative is also syncretic with genitive (cf. the *-i* inflection), giving rise to a three-way connection between dative, genitive and ablative. This same connection is independently known from possessive constructions (Freeze 1992) in which the possessor can be a descriptive genitive (*the book is mine*), a descriptive dative (Latin *liber mihi est* ‘lit: the book is to me’), or a descriptive locative (Russian *u menja est kniga* ‘lit: the book is at me’). In present terms, this conceptual closeness underlying the observed syncretisms can be captured by the notion of superset-of or ‘zonal inclusion’ in the sense of Belvin and den Dikken (1997), as discussed in chapters 6–7. The latter can be construed as the possessive proper (genitive), or it can be defined spatially, resulting in the locative. The dative can correspond to either of these. On the basis of these various observations, we tentatively construe the so-called ablative as a quantificational Q element in turn.³

Coming back to the syncretic dative/ablative plural in *-s*, it is especially interesting in the present context in that it seems to attest a combination of plural and oblique values that is excluded both for Albanian *-t* and for Latin *-i*. This exclusion led us to theorize that the ‘crossed’ syncretism (either plural, or oblique, but no oblique plural) was due to the fact that Q specification of Albanian *-t* and Latin *-i* could take scope over the word (plural) or over sentential constituents (oblique), but not both. Interestingly, the oblique (dative/ablative) construal of Latin *-s* appears to allow for this possibility.

In reality, we think another analysis more likely. Note that in the dative/ablative plural, the vowel preceding *-s* is always *-i*. The discussion of Halle and Vaux (1997) seems to imply that this is one of the many phonological readjustments involving thematic vowels in the Latin case declension. However, it seems unlikely that there is a phonological process leading from *-a*, *-o* thematic vowels in I, II class to *-i*. Therefore we assume that the *-i-s* ending of classes I and II oblique (dative/ablative) is really made up of the two quantificational elements *-i* and *-s*. The first plausibly takes the same word scope that

yields the plural reading in the (3) and in its class I counterpart; *-s* can then introduce the oblique (sentential scope) reading.

In short, there are intrinsic lexical properties of *-s* and there are syntactic environments that it can satisfy. One traditionally labels these environments as case configurations and the terminals such as *-s* as case terminals. Yet case has no reality, for the real properties of argumental terminals are denotational, such as Q, and the real nature of the configurations they enter into is that of argument–predicate (thematic) structures, agreement structures, etc. The same holds for *-i*, reviewed above, and for environments where the nominal base is simply closed by the nominal class vowel.

Regarding the latter, note first that Halle and Vaux (1997) have two separate entries for the same vocalic morpheme *-a*, which is both the thematic vowel for class I and the nominative/accusative case ending for all neuter classes (II–IV). In the present approach, the same nominal class morphology N (specifically *-a*) can either be followed by other nominal inflections (e.g. the specialized case inflections *-m*, *-rum*, etc. in class I) or follow them (e.g. the thematic vowels *-i-* of class III, *-u-* of class IV in the neuter plural). This means that *-a* can be given a unified lexical entry.

In general, the distribution of nominal class morphology in the case paradigm of Latin is highly reminiscent of that found in the case paradigm of Albanian in chapter 7. In the Albanian indefinite conjugation, we found it as the nominative/accusative singular or plural as well as the oblique, but only in the singular; similarly, we found it as the nominative singular, but not the plural, in the definite conjugation. We interpreted this distribution as a reflex of the need for nominal class morphology to be in the scope of quantificational closures. The latter have the same range of interpretations as overt Q/D morphology. Thus, nominal class morphology in the range of such a closure can be interpreted as plural or oblique, but not as plural oblique; it can also be interpreted as definite, but only in the nominative, i.e. in the context defined by the presence of the D inflection of the finite verb. As we commented in chapter 7, closures by abstract operators are not a notational variant of abstract (zero) morphology, given that Q/D closures are restricted in ways in which zero morphologies are not.

Going back to Latin, nominal class morphology appears as the sole inflection in the dative singular (class II), in the nominative singular (class I) and in the nominative/accusative neuter, both singular (class IV) and plural (all neuter classes). In all classes, the ablative singular corresponds to the bare thematic vowel. In the plural reading, we take the nominal class morphology to be closed by a Q specification with word-internal scope, yielding set formation, i.e. plural; in the oblique (dative), the same Q specifications take sentential

scope, yielding the superset-of (possessor) reading. The nominative singular depends on the nominal class inflection being in the scope of the D (EPP) inflection of the finite verb. On the basis of the discussion of ablative *-s* (or at least of its locative value, cf. fn. 2) we take it that the dative/ablative syncretism of class II corresponds to the Q closure of the thematic vowel *-o* at the sentential level. The ablative (locative) reading of the thematic vowel in all classes will correspond to the same structure.

We also follow the treatment provided for Albanian bare lexical bases in chapter 7 in dealing with Latin bare lexical bases such as the class III neuter *corpus* ‘the body’. We take it that in the absence of nominal class vowels and/or of specialized ‘case’ inflections, the internal argument of the predicative base corresponds to a variable, interpreted in the scope either of some overt operator (for instance an indefinite quantifier within the noun phrase) or in the scope of the usual Q closure. Finally, in (1) we have chosen to illustrate what traditional grammars describe as class III bases in *-e*. According to traditional grammars, there are class II bases in *-i*, and Halle and Vaux (1997) consider *-i* to be the thematic vowel for class III in general, on the basis in particular of plurals such as *animal-i-a* ‘the animals’ or *animal-i-um* ‘of the animals’. If, therefore, *-i* is also a nominal class vowel, we must assume that the Q properties that we have intrinsically associated with it in the discussion and in Table 8.1 are the result of quantificational closures – no less than for the other nominal class vowels.

On the basis of the preceding discussion, we are able to produce (a first version of) a case lexicon of Latin, on the model of that discussed in considerably more detail for Albanian in chapter 7. The lexicon in (1) appears to have more entries than that in (2) – but this is only because Halle and Vaux (1997) list the five thematic vowels separately. Therefore they have thirteen entries, to which our nine entries in Table 8.1 compare favourably. In Table 8.1, we have followed the same notational conventions as in Table 7.2, parenthesizing those properties that do not appear to be intrinsic to the single morpheme, but are rather to be provided by quantificational closure available at the interpretive interface. For nominal class vowels, the tabulated values correspond to the instances in which they are not followed by other inflections. Three inflections (or inflection sets) have not been discussed, namely *-m*, *-bu-s* and *-r-um*. However, their specialized nature means that they can be slotted in fairly uncontroversially. The descriptive labels in the rightmost column are merely given to facilitate comparison with the data in (2).

Let us summarize so far. One of our purposes in analysing the so-called case system of Latin (at least of the particular variety of Latin described by grammarians) was to verify whether the pattern uncovered by our study of Albanian

Table 8.1 *Denotational properties of Latin nominal inflections*

	N	Q.pl	Q.obl	D	
-a	+	-	-	(+)	nom sg
	+	(+)	-	-	nom/acc pl
	+	-	(+)	-	abl sg
-o	+	-	(+)	-	dat/abl sg
-e	+	-	(+)	-	abl sg
-u	+	-	-	(+)	nom sg
	+	-	-	-	acc sg
	+	-	(+)	-	dat/abl sg
-i	+	(+)	-	(+)	nom pl
	+	-	(+)	-	gen/dat sg.
-s	-	-	+	-	gen/dat/abl
	-	+	-	-	nom/acc pl
	-	-	-	+	nom sg
-bu-s	-	+	+	-	dat/abl pl
-m	+	-	-	-	acc sg
	-	-	-	+	nom sg
(-r)-um	-	+	+	-	gen pl

could account for other systems of roughly equal complexity. We found that the same basic set of N, Q and D specifications, together with scopal and selectional mechanisms, could adequately describe both systems. Importantly, although Albanian and Latin are genetically related languages, their case lexicons only marginally overlap (for instance in the *-m/-n* of the accusative singular) – so that what we have uncovered is not a historical relation.

Our other purpose in studying Latin was to set the stage for the analysis of the relation connecting it to the modern Romance languages, which mostly lack case, but are endowed with a richer determiner system, including the definite article. In what follows, we will argue that the account of the Latin system summarized in Table 8.1 provides for a natural account of the development of Romance case systems, including Romanian and Old French – as well as for the relation between loss of case and introduction of determiners. We argue that the view of case that emerges from Halle and Vaux (1997) provides for a rather more opaque account of the historical development (cf. Calabrese 1998, 2008).

8.2 Romance case systems: Romanian

Modern Romance languages generally preserve a case system in the pronominal domain; however, nouns (and adjectives) display no case inflections. The clitic systems of Romance varieties are analysed by Manzini and Savoia (2005,

2007, 2008a), in terms of the same syntactic and interpretive categorizations of Table 8.1 (cf. section 8.5). Here we concentrate on nominal inflections – beginning with the only modern Romance language which does have so-called case, namely Romanian.

Romanian, like Albanian, is described as a language with postnominal articles (Dobrovie-Sorin 1987). On the model of Albanian, however, we will assume that the postnominal article is generated as a nominal inflection within the noun – and in this sense we will simply refer to it as the definite declension of Romanian nouns. Romanian has an indefinite declension in the feminine, since the singular direct case (nominative/accusative) is *-ă* while the oblique (dative/genitive) is *-e*. There are clearer case distinctions in the definite declension and on quantifiers preceding indefinite nouns. In (6) we exemplify the nominative/accusative singular, in (7) the oblique singular and in (8)–(9) their plural counterparts. The (a) examples involve indefinites and the (b) example definites. Note that the dative can also be expressed through the preposition *la*; we exemplify this in the indefinite plural in (9a).

(6) *Nominative/ accusative singular*

- a. a venit/ am văzut un băiat/ o fat-ă
has come/ I.have seen a boy/ a girl-fsg
'There came/ I saw a boy/ girl'
- b. a venit/ am văzut băiat-ul/ fat-a
has come/ I.have seen boy-def.msg/ girl-def.fsg
'There came/ I saw the boy/ girl'

(7) *Dative singular*

- a. (i)-l am dat un-u-i băiat/ un-e-i fet-e
him.it I.have given a-msg-obl boy/ a-fsg-obl girl-fsg.obl
'I gave it to a boy/ girl'
- b. (i)-l am dat băiat-ul-u-i/ fet-e-i
him.it I.have given boy-def-msg-obl/ girl-fsg-obl
'I gave it to the boy/ girl'

(8) *Nominative/ accusative plural*

- a. au venit /am văzut doi băieți-i/ două fet-e
have come/ I.have seen two boy-mpl/ two girl-fpl
'There came/ I saw two boys/ girls'
- b. au venit/ am văzut băieții-i/ fet-e-l-e
have come/ I.have seen boy-mpl-mpl/ girls-fpl-def-fpl
'There came/ I saw the boys/ girls'

(9) *Dative plural*

- a. (i)-l am dat la doi băieți-i / două fet-e
him.it I.have given to two boy-mpl/ two girl-fpl
'I gave it to two boys/ girls'

- b. (i)-l am dat băieṭ-i-l-or / fet-e-l-or
 him.it I.have given boy-mpl-def-obl/ girl-fpl-def-obl
 ‘I gave it to two boys/ girls’

A close point of contact between Albanian and Romanian is represented by genitive structures. So-called genitive and dative inflections are identical; however, genitives, i.e. obliques depending on a noun, are introduced by a (prenominal) determiner agreeing with the head noun, *al* (m.sg.), *a* (f.sg.), *ai* (m.pl.) or *ale* (f.pl.). The pre-genitival article can also take an invariant form *a* (which has the same form as the feminine singular) instead of the agreeing form. We exemplify this in predicative structures in (10). We progressively simplify morphological segmentation and glosses in the interest of readability.

(10) *Genitive*

- a. *ăsta e al/a om-ul-ui/ oamini-l-or/ un-ei fet-e*
 this.m is the.msg/the man-the-obl/ men-the-obl/ a-obl girl
 ‘This is (that) of the man/ the men/ a girl’
- b. *asta e a băiat-ul-ui/ un-ui om*
 this.f is the(fsg) boy-the-obl/ a-obl man
 ‘This is (that) of the boy/ a man’
- c. *ăștia sînt ai/a copil-ul-ui/ fet-ei/ fete-l-or*
 these.m are the.mpl/the child-the-obl/ girl-obl/ girls-the-obl
 ‘These are (those) of the child/ the girl/ the girls’
- d. *astea sînt ale/a băiat-ul-ui/ un-ui băiat*
 these.f are the.fpl/the boy-the-obl/ a-obl boy
 ‘These belong to the/a boy’

When it comes to embedding inside a noun phrase, a pre-genitival article agreeing with the head noun is necessary if the head noun is indefinite, as in (11), although a definite head noun licenses the straight embedding of a genitive, as in (12).

(11) *Genitive*

- a. *un pahar al/a băiat-ul-ui/ un-ui băiat*
 a glass the boy-the-obl/ a-obl boy
 ‘a glass of the/ a boy’
- b. *o carte a un-ui băiat/ băiat-ul-ui / un-ei fet-e*
 a book the a-obl boy/ boy-the-obl/ a-obl girl-obl
 ‘a book of the boy/of a woman’
- c. *doi pantof-i ai/a băiat-ul-ui / fet-ei/ fete-l-or*
 two shoes-mpl the boy-the-obl/ girl-obl/ girls-the-obl
 ‘two shoes of the boy/ girl/ girls’
- d. *două cămăș-i ale băiat-ul-ui / un-ui băiat*
 two shirts-fpl the boy-the-obl/ a-obl boy
 ‘two shirts of the/ a boy’

- (12) a. pahar-ul băiat-ul-ui / fete-i / une-i fet-e
 glass-the boy-the-obl/ girl-obl/ a-obl girl-obl
 ‘the glass of the boy/ the girl/ a girl’
- b. carte-a om-ul-ui
 book-fsg man-the-obl
 ‘the man’s book’
- c. pantofi-i băiat-ul-ui/ fete-i/ fete-lor
 shoes-mpl boy-the-obl/ girl-obl/ girls-the-obl
 ‘the boy’s/ girl’s/ girls’ shoes’
- d. cămăși-le băiat-ul-ui / fete-i / une-i fet-e
 shirts-the.fpl boy-the-obl/ girl-obl/ girls-the-obl
 ‘the boy’s/ girl’s/ girls’ shoes’

It is a crucial property of the present framework that lexical terminals have the properties necessary and sufficient to project morphosyntactic structures. In such a framework, the variation between lexicons is expected to (exhaustively) define the variation between grammars – providing a straightforward implementation of Chomsky’s (1995) minimalist programme in this respect. What holds for variation holds for change, from one grammar to another; from this perspective, the change from the Latin ‘case’ system in Table 8.1 to the Romanian one should be definable in terms of their respective lexicons.

Three of the case endings of Table 8.1 survive in Romanian, namely *-a* of the nominative singular, *-(o)r* of the oblique plural and *-i* of both the oblique singular and the nominative plural (masculine). In present terms, the distribution of *-i* preserves that of Latin *-i* in fundamental respects. Suppose, then, we assume that Romanian *-i* is to be characterized essentially like Latin *-i*, as a Q element. As such, we predict that it will have the plural reading when taking scope over the words – or the possessive (dative/genitive) reading when taking sentential scope. This is precisely what we find, leading us to conclude that Latin *-i* has essentially been preserved in the lexicon of Romanian. Recall further that Latin *-r-um* in turn represented specialized oblique plural morphology – whose value is again preserved in Romanian *-(o)r*.

The *-i* and *-or* endings exhaust the case morphology of the masculine nominal class; in the nominative/accusative singular, the *-l* morphology, to which we return immediately below, is either bare, as in *băiat-ul* ‘the boy’, or followed by a nominal class inflection *-e*, as in *câine-le* ‘the dog’. The masculine and feminine in turn are alike in the oblique. In the nominative/accusative, both singular and plural, they again display the pure nominal class endings *-a* and *-e*. We have already commented in chapter 7 (cf. here section 8.1 concerning

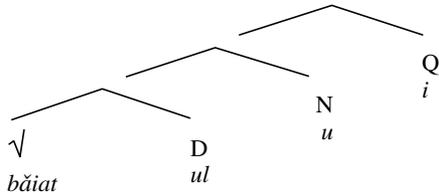
in particular the *-a* neuter plural of Latin) on the fact that plurality can simply correspond to a change in nominal class.

Next we take the *-l* morphology into account. In connection with this, we come back to the classical issue in Romance historical linguistics that introduced our discussion – i.e. the relation between the partial or complete loss of case in Romance languages and the development of a determiner system. In Romanian, the question is set in slightly different terms, since this language has developed a set of specialized definite inflections with *-l* morphology. In discussing Latin, we effectively assumed that so-called case inflections are sufficient to provide quantificational closures for the noun; when nouns are closed by thematic vowels, abstract closure at the interpretive interface is available. This means, among other things, that Latin does not need a system of determiners, which provide a quantificational/definite closure in syntax. By contrast, in Romanian, the introduction of *-l* morphology corresponds to the need for a specialized definiteness closure of the noun (phrase). In the singular, on the other hand, this morphology is present in the masculine, but not in the feminine; in the plural nominative/accusative, the relation between the two nominal classes is reversed in the sense that the *-e* feminine inflection is supported by *-l*, while *-i* suffices to determine a definiteness closure.

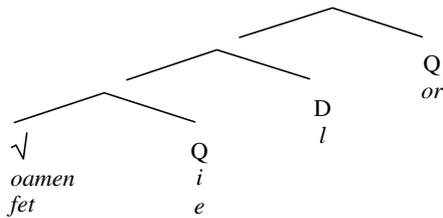
Let us illustrate the structural analysis of the definite nouns (noun phrases) of Romanian that results from the lexicon just reviewed. The most complex organization corresponds to the oblique singular (masculine) in (13a), the oblique plural in (13b) and the nominative/accusative feminine plural in (13c). These have three separate layers of inflection, including the quantificational specifications *-or* for the oblique plural in (13b) and *-i* for the oblique singular in (13a), as well as for the plural (masculine) in (13b). Note that when it represents the oblique, *-i* is attached above the *-l* definiteness ending, as in (13a), while when it represents the plural, it is attached below the *-l* definiteness morphology, as in (13b). The same *-i* entry is involved in both instances; only its position changes. Similarly, the same nominal class morphology *-e* is involved twice in (13c). The other type of inflection found in (13) is the nominal class vowel *-u* in (13a); this raises the question of whether *-ul* in (13a) should not be further decomposed. Here we chose to treat *-ul* as an allomorph of *-l* because there is no *-u* nominal class ending independently instantiated as the sister of a root.

(13)

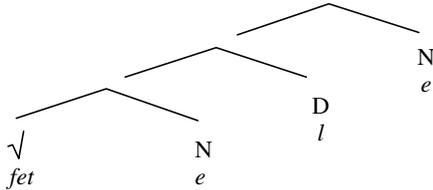
a.



b.



c.



The genitive structures of Romanian can in turn be accounted for along the lines of our treatment of Albanian in [chapter 7](#). The most notable structural property of genitives emerging from (10)–(11) is that they are introduced by a determiner agreeing with the noun of which they are a complement. Cornilescu (1995: 49) already concludes that ‘the Gen assigning functional head AL is not a preposition, but a functional nominal, a D° in the same family of Gen-assigning morphemes with English *-s*’. We also treat *al/a/ai/ale* as D elements – but not as genitive case assigners, but rather as heads of a predicative structure. Following the discussion of the parallel Albanian structures in [chapter 7](#), we associate phrases like (11a) with structures of the type in (14), where the head noun *pahar* selects a determiner which in turn takes the genitive noun (phrase) *băjatului* as its complement. The fact that the embedded determiner does not agree with the genitive noun shows that it cannot be the determiner

As for the syncretism of the genitive inflection with the dative, in [chapter 7](#) we argued that it is based on the fact that the relevant Q morphology has a superset-of/inclusion denotation. Thus, the second internal argument of ‘give’, i.e. the traditional dative, in present terms participates in fixing the reference of the first internal argument, i.e. the accusative, by denoting a superset including it. Similarly, the traditional genitive specifies a superset in terms of which the reference of the head noun is fixed. As we have just seen, in Romanian, as in Albanian, genitives are (typically) embedded under a determiner agreeing with the head noun – which is not true of datives. This difference straightforwardly correlates with the different points of merger of the genitive and dative. Merger within a noun phrase requires the predicative layer provided by the determiner agreeing with the head noun; in dative environments, the oblique merges directly as the complement of a verb.

In recent work, particularly Cuervo (2003) for Spanish, based on Pykkänen (2002) (cf. Torres Morais and Salles (to appear) on European vs. Brazilian Portuguese), the dative interpretation depends on the presence of an Applicative head; Diaconescu and Rivero (2007) embrace this model for Romanian. In their conception, an Applicative head is a functional category which takes the internal argument of the predicate as its complement, and expresses a ‘possession’ or other (source, goal) relation between this argument and the argument in its Spec, i.e. the descriptive dative. Under these analyses, the Romance dative clitic is a lexicalization of the Applicative head. In the present proposal, we capture the relevant empirical generalizations without having recourse to the postulation of an Applicative head. Thus, oblique morphology is itself characterized as a dyadic (superset-of/inclusion) operator with scope over the elementary event taking the descriptive dative and the internal argument of the verb as its arguments. To the extent that the sentential scope position of the $Q(\subseteq)$ operator is identified with that of the dative clitic, we also capture the connection between the latter and oblique case.

In short, Applicative heads are a primitive of the theory which assumes them, no less than ‘dative’ is in other theories, and in this sense it is just a restatement of the problem. Here we have proposed a genuine reduction of the notion ‘dative’ to more elementary primitives, i.e. the $Q(\subseteq)$ operator. Under the Applicative approach, datives and genitives are distinguished not only by their different structural attachment – to the sentence and to the noun phrase respectively – but also by the presence of the Applicative functional head for datives. So one may wonder why the genitive–dative syncretism could arise, except as an accident of the PF interface. Furthermore, under the Applicative approach, it is the dative that has (or can have) the more complex embedding

structure; the overt evidence tells us that the more complex embedding structure characterizes the genitive.

Summarizing so far, the general approach to nominal inflections, and specifically to case, elaborated in the discussions of Albanian (chapter 7) and Latin (section 8.1) easily accommodates the system of Romanian and the variation between Latin and Romanian – and hence the historical change between them. As in the minimalist programme of Chomsky (1995), the variation between two grammars is (exhaustively) determined by the variation between their two lexicons – and so is the change from one to another. As for the classical problem in Romance historical linguistics that we started with, namely the relation between (partial or complete) loss of case and the introduction of the *l* determiner/clitic/inflection system, what we proposed in the discussion surrounding (13) is that a nominal inflection system like the Latin one was sufficient to determine a (definite) closure of the noun phrase in the absence of syntactic-level quantificational specifications. This is no longer true in Romanian, which introduces *-l* morphology to produce such a closure.

Recall the comparison in chapter 7 between the nominal inflections of Albanian, a ‘case-marked’ language, and of Italian, a ‘case-less’ language. In both languages (as in Latin, Romanian, etc.), contentive terms correspond to properties, relations, etc. – i.e. to predicates. Thus, in Italian *macchin-* is the property of being a ‘machine/car’; in Albanian *kriatur-* is the property of being a ‘child’, etc. These properties cannot denote individuals and sets of individuals, i.e. elements that can provide arguments for other predicates, unless some semantic type-shifting occurs. In the classical semantic view (Higginbotham 1985; Chierchia 1998), this type-shifting is provided by the determiner system. Under the present conception, nominal morphology is sufficient to shift the predicative base to an argument (in our terms itself providing an argument capable of saturating both the nominal base and other superordinate predicates). The inflectional specifications of a language may in fact suffice for a referential closure. This is what happens in Albanian and Latin. In other languages, the argument closure of the predicative base (its shift from predicate to individual) requires the additional presence of determiners, specifically definite determiners. This is what happens in Italian – and it is also the core of the innovation introduced in Romanian by the *-l* morphology.

Within this model, the relation between (partial or complete) loss of the nominal inflections of Latin and the introduction of determiners (or determiner-like morphology) which characterizes the passage from Latin to Romance can simply be described as the change from a certain system of ‘type-shifter’ (an entirely morphological one) to another one (broken down in inflections and

determiners). Recall that Giusti (2001) proposed to capture the same relation by taking the ‘functional’ F properties of case to be primitives and attributing the definite determiners of Romance to this F category. It seems to us that Giusti’s (2001) proposal has the same problems as any theory that takes case (or a no better-defined functional specification including it) to be a primitive of grammar. If the present analysis is on the right track, the historical connection between Latin case and Romance determiners – and more generally between nominal inflection and determiner systems – can be captured, while at the same time eliminating the spurious category of ‘case’.

8.3 Other Romance case systems – and alternative accounts

The development of Latin into the medieval Gallo-Romance languages is characterized by a rather different set of changes from those observed in Romanian. Old French preserves a reduced case system in the masculine, based on the distinction of nominative and objective case. In the singular, *–s*, taken to be derived from the nominative singular of Latin, characterizes the nominative, while an alternant devoid of *–s* appears in non-nominative contexts, continuing an original accusative/oblique form. In the plural, the alternant with *–s*, corresponding to the plural accusative of Latin, characterizes objective contexts, while the alternant without *–s*, taken to continue non-sigmatic plurals, appears in the nominative (Brunot and Bruneau 1969: 133 ff.). Relevant examples from Old French are provided in (16).

- (16) a. Dur sunt li colp e li caples est grefs
 Hard are the blows and the scuffle is hard
 (Chanson de Roland, 1678)
- b. Gardez le champ ... e le-s munz (munt-s)
 Watch over the field ... and the mountains
 (Chanson de Roland, 2434)

Given the preceding discussion, our take on the change from Latin in Table 8.1 to Old French in (16) is fairly straightforward. Recall that in the discussion surrounding (4), we have associated Latin *–s* with a quantificational content, which takes on different interpretations according to different scope instantiations. Thus, its plural interpretation corresponds to scope over the word, its genitive interpretation to scope over the noun phrase and its dative interpretation to sentential scope. Consider Old French, then. The facts in (16) are consistent with it preserving both the *–s* morphology and a quantificational content for it. The only change that intervenes is that the distribution of Old French *–s* is slightly simplified with respect to that of Latin. Either *–s* takes scope over

the word, yielding the plural reading, as in (17b), or it takes sentential scope, yielding the nominative reading, as in (17a). Other case terminals of Latin (in particular, consonantal specialized endings such as *-bus* for oblique plural, *-m* for accusative and neuter nominative, etc.) are simply not continued in Old French.

- (17) a. [[√ *caple*] [_Q *s*]]
 b. [[√ *munt*] [_Q *s*]]

The other development observed in (16), besides the loss of nominal inflections other than *-s*, is the development of the definite determiner. This is explained along the same lines as the development of the *-l* inflectional morphology of Romanian in section 8.2, i.e. as a result of the fact that nominal inflections no longer suffice to provide a referential closure for the noun (phrase). This is then independently provided by the determiner system, along the lines discussed in section 8.2 in connection with the development of Romanian.

Leaving aside the determiner issue for now, an account of the development of Latin nominal inflections up to both Old French and Romanian is provided by Calabrese (1998) within the framework of Distributed Morphology. The gist of his argument is that one should distinguish contextual from absolute syncretism, where the latter corresponds to lack of attestation in a given language for a particular feature opposition. Contextual syncretism is treated by the mechanisms of underspecification and default described above in relation to Halle and Vaux's (1997) analysis of Latin *-s*. However, absolute syncretism requires the postulation of a set of universal constraints disallowing certain feature combinations, ordered in a markedness hierarchy. In a language which has all possible case oppositions, none of the case constraints applies; languages that disallow certain cases activate one or more restrictions, in the order defined by the hierarchy. The activation of these constraints means that the relevant feature combinations are removed from the terminal nodes generated by the syntax; to be more precise, repair rules apply to reduce disallowed feature combinations into allowed ones.

What interests us here directly is the account that Calabrese (1998) proposes for the change from Latin to Old French and Romanian in terms of his system. In both languages, the reduction in case oppositions is due to the activation of feature constraints that were inactive in Latin, with repair rules responsible for the consequent reduction of certain cases to others. In particular, according to Calabrese, the activation of constraints disallowing dative and ablative and the subsequent application of repair rules reduced the oblique to the [+possessor, -location] form, i.e. the genitive. This yielded the Proto-Romance

three-case nominative–accusative–genitive system reconstructed by the historical literature (De Dardel and Gaeng 1992; Zamboni 1990, 1998).

From this system, according to Calabrese, both Old French and Romanian were derived by the activation of further constraints. In Old French, the *[+possessor, –location] constraint is activated, disallowing genitive. This triggers the repair of the offending terminal nodes [–subject, –direct, +possessor, –location ...] into [–subject, +direct, –possessor, –location ...], so that genitive (the surviving oblique of the system) ends up coinciding with accusative. Romanian activates the *[–subject, +direct] constraint, disallowing accusative. This triggers the repair of the offending terminal nodes [–subject, +direct ...] into [+subject, +direct ...], so that nominative exponents take the place of accusative ones, giving a system of nominative (direct) vs. genitive (oblique).

Calabrese (1998: 111–12) explicitly rejects the idea that

changes are due to the simple loss of lexical items, in this instance case endings, with the concomitant extension of the use of other lexical items ... One could propose that more marked case endings are lost and replaced by less marked ones. Such an analysis would simply not work. For example ... the ending /–s/ has a special status being the Elsewhere case ... If we assume that syncretic changes are due to the loss of lexical items, we should expect ... the ending /–s/ to be extended to uses that it did not have before.

In short, for Calabrese:

the evolution of these case systems seems to operate only through operations on cases regardless of the lexical items composing the case systems. The best way of representing these changes is therefore by modifications in the morphosyntactic component, i.e. through the activation of case restrictions.

Let us consider first the problems that Calabrese envisages for lexically based accounts of historical development. His criticisms presuppose the system of Distributed Morphology, in which syntactic structure is projected from abstract feature bundles and actual terminals typically have a radically underspecified content, as in (2). In such a system, it is not possible to describe the change from Latin to Old French by saying that Old French simply keeps the –s entry of Latin. Since the –s entry of Latin is empty, its distribution in French is not predictable. However, Calabrese's objections do not apply to lexicons consisting of positively specified entries such as ours, as summarized in Table 8.1. In our lexicon, the –s morphology of Latin has Q properties; it is these, rather than an Elsewhere characterization, that determine its distribution. Therefore it becomes possible for us to assume that the lexicon, and hence the grammar, of Old French are characterized by the preservation of –s, whose distribution is predicted as discussed above.

It is true that other *-s* inflectional systems could equally be derived on the basis of the preservation of this morphology from Latin into Romance, for instance one in which *-s* covered the nominative/accusative plural. But this is a general property of lexical change. Thus, contentive items can shift in interpretation in constrained ways – it is not predictable which particular value in the permitted range any given language will pick. Essentially the same will be true of pieces of the functional, morphological lexicon. Conversely, not any system could be derived, for instance, not one where *-s* corresponded to the accusative singular – which is lexicalized in present terms by N elements and hence excludes a Q lexicalization.

By contrast, Calabrese's account of historical change maintains the same opaque relation between the underlying abstract morphosyntax and the terminal nodes forming the lexicon, which characterizes the analysis of single linguistic systems, such as Latin in (2). Thus, the development of the abstract morphosyntax, involving case constraints and readjustment rules, and the development of the lexical terminals run on parallel tracks. For instance, the preservation of *-s* in Old French as the default exponent runs on a parallel track with respect to the survival of the sole nominative–accusative (non-nominative) opposition. Therefore the fact that the two developments match up is just a matter of chance; other matches are equally possible, even assuming the same underlying development and the same dictionary with *-s* as default. In other words, there is no reason inherent to the system or the historical process why *-s* couldn't show up, say, in the objective singular.

Furthermore, since, on the account of Calabrese (1998, 2008), what happens on the way from Latin to Old French is the activation of several constraints and the application of the corresponding repair rules, a language with few case contrasts like Old French turns out to have a grammar as rich in case specifications as a language much richer in case contrasts like Latin. In terms of the classical discussion by Kiparsky (1982), the paradox is that the superficially simpler language, here Old French, is more opaque than a superficially more complex one, here Latin. For Kiparsky,

a rule $A \rightarrow B / C_D$ is opaque to the extent that there are surface representations of the form (i) A in environment C_D or (ii) B in environment other than C_D .

He goes on to speculate that opaque rules are a cognitive burden, and that historical development could or should operate in the direction of a simplification of such contexts. Yet in the development from the Latin to the Romance nominal inflectional systems, the progressively more pervasive syncretisms

hypothesized by Calabrese (1998, 2008) would take us to a progressively more opaque system, hence a progressively more complex one on the basis of what we indeed consider to be a reasonable definition of complexity. Thus, from the perspective of the child who is learning the language, an opaque rule (as defined above) is obviously difficult to learn from the available evidence, since there is no surface cue for it.

In the present model, morphosyntactic structures are projected from lexical terminals. In turn, lexical items are associated just with the denotational properties (nominal class, quantification, definiteness for arguments) that characterize them independently of the position of insertion; case is merely the name given to lexical items which in virtue of these properties are specialized for the satisfaction of certain syntactic contexts of embedding. In this model, there is no abstract case system and no constraints and rules mapping it to the PF interface. Therefore the change from Latin to Old French cannot be a change in these constraints and rules. All that is affected is the lexicon of so-called case inflections – which in Old French is reduced to *-s*, maintaining its core characterization as a quantificational element.

It should be noted at this point that we are not isolated in the current literature in taking issue with the Distributed Morphology model of the morpholexical interface. Others have noted that restrictiveness issues arise in connection with underspecified lexical items and the morphological rules (impoverishment etc.) justifying their insertion. Correspondingly, alternative models have been proposed. In particular, case systems, and specifically case syncretisms, are the core evidence considered by Caha (2009) within the Nanosyntax model (Starke 2009). There are points of contact between Caha's model and the present one, namely the idea that categories cannot be negatively specified or underspecified for certain properties, and correspondingly that there are no morphological rules (Impoverishment) manipulating abstract terminal nodes to allow for the insertion of underspecified lexical items. Despite the importance of this assumption (cf. Kayne (2006, 2008a)), Nanosyntax remains conceptually close to Distributed Morphology in other respects – representing, so to speak, its obverse.

In particular, both Nanosyntax and Distributed Morphology assume that syntax is projected from abstract categories which are lexicalized only at the PF interface. For Distributed Morphology, the abstract constituents of syntax are bundles of features, while for Nanosyntax they are structured trees; it is not terminal nodes that receive a lexical realization, but entire strings of terminals. Correspondingly, where Distributed Morphology has the Subset Principle to determine lexical insertion, Nanosyntax has a Superset Principle, according to

which ‘a phonological exponent is inserted in a node if its lexical entry has a sub-constituent that is identical to the node’. Where two or more lexical items satisfy either the Subset or the Superset Principle, the one that is more similar to the abstract terminal wins the competition by an Elsewhere Condition. Under the Subset Principle, it is the item with more specifications that wins; in the Superset model, it is the less rich item.

The underlying similarities between Distributed Morphology and Nanosyntax (as well as their differences) emerge fairly clearly from the comparison between Calabrese’s (1998, 2008) and Caha’s (2009) theories of case. Calabrese assumes a markedness hierarchy of case constraints $NOM < ACC < GEN < DAT < ABL$ such that the realization of any case along the hierarchy implies that of all cases to its left. Caha (2009) transfers the same hierarchical order into a functional tree [Instr [Dat [Gen [Acc [Nom N]. He obtains two results from this. First, he argues that the head Noun moving leftwards along the hierarchy determines the cut-off point between what will appear as a case suffix (i.e. the nodes below N) and what will be realized by prepositions (i.e. the nodes above N). He then argues that the functional sequence of cases, together with the Elsewhere Condition, yield a Law of Adjacency to the effect that ‘only adjacent cases show non-accidental syncretism’. For instance, dative and genitive, or genitive and accusative, can be syncretic, but not dative and accusative, skipping over the genitive. By definition, non-accidental syncretism must involve ‘various different exponents’ and ‘show up across paradigms’. Recall that lexical items cover terminal strings, and that among various competing items the smallest is chosen. A syncretism between, say, accusative and dative skipping the genitive would mean that the same lexical item lexicalizes both the Dat and the Acc node. But if there is a smaller lexical item for Gen, then this would always win the competition to realize the Acc node.

In other words, the Nanosyntax model, like ours, cuts away the intermediate morphological level, so that obscuring rules are abandoned and only syntactic structures and lexical entries have theoretical status. At the same time, Caha maintains some of the postulates of Distributed Morphology that we have argued against here – in particular, a Late Insertion model in which abstract syntactic structures are realized by lexical entries rather than being projected from them. Since, in the present model, projection of syntax from lexical terminals implies a non-trivial redefinition of syntactic categorization and structure, its empirical predictions quickly diverge from those of Nanosyntax no less than from those of Distributed Morphology. More specifically, our picture of syncretic phenomena does not distinguish between absolute/non-accidental

and other syncretisms, implying the abandonment of extrinsic criteria such as those that define non-accidental syncretisms for Caha.

Indeed, syncretisms like that of oblique singular with non-oblique plural (Albanian *-t*, Latin *-s*, Latin *-i*, Romanian *-I*, etc.) do not fall under Caha's Law of Adjacency. Thus, Latin *-i* as class I/II nominative plural and genitive singular is a syncretism which skips the accusative, contravening Caha's hierarchy. This pattern therefore constitutes a problem for the Nanosyntax model. Nor does the definition of non-accidental syncretism help in excluding the undesired pattern. The discussion in Johnston (1997) is especially useful in this respect, in so far as it provides a completely independent observation of the facts. Concerning the 'homonymy' of genitive singular and nominative plural in Latin, he notes that 'it occurs in the first, second and fourth declension', and that it 'involves at least two pairs of two homonymous affixes ... if a less abstract analysis is adopted there are three different pairs of affixes involved: *-ae*, *-i* and *-u:s* for I, II and IV class respectively'. In other words, the criteria for 'non-accidental' syncretism are satisfied.

More generally, we consider it unjustified to suspend all of the criteria that we normally employ to establish significant generalizations (notably the relatively regular cross-linguistic appearance of certain subpatterns of lexical identity) in favour of an extrinsic criterion such as the definition of non-accidental syncretism – which is ad hoc in so far as it applies uniquely to the domain of data that are targeted by the explanation. Furthermore, Caha (2009) does not tell us what happens with accidental syncretisms – for which some conventional morphological component is presumably presupposed. How does this system work, since there is no longer underspecification and a Subset Principle? Is homophony going to take the lion's share of the work to be done?

In short, syncretism brings into sharp relief the different predictions of the various models reviewed. For Distributed Morphology, a syncretic case entry is not specified for any of the syncretic categories, leading to underspecification. For us, it must be positively specified for some category able to project all of the syncretic environments. For Nanosyntax, the syncretic case entry must be specified for all cases that enter into the syncretism. From the perspective of the present work, the content of lexical entries that results from Nanosyntax is just as undesirable as that resulting from Distributed Morphology.

When it comes to historical variation, i.e. the process of change from one grammar to another and from one lexicon to another, a model, like the present one, in which the lexicon is the grammar (up to UG), as in the minimalist programme of Chomsky (1995), simplifies the terms of the problem – and gives us a better handle on it. Indeed, we are able to capture change in the so-called case