(Definite) denotation and case in Romance. History and variation.

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(Definite) denotation and case in Romance

History and variation*

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Recent minimalist approaches have reduced case to independent primitives (agreement, Tense) – but without any connection to its morphological expression. To solve this dichotomy, we consider the Latin *-s* case ending. Rejecting default treatments, we conclude that *-s* is associated with denotational, operator properties. These can be read as the set forming operator i.e. plural; as the inclusion operator, i.e. partitive, possessor, etc. (in a word 'oblique'); or as the quantificational closure of EPP contexts ('nominative'). These properties are preserved in the two-case declension of medieval Gallo-Romance, and in its residues in Romansh varieties. Thus so-called case is a denotational, 'determiner-like' element, with consequences for the classical historical correlation between loss of Latin case and development of the Romance determiner system.

1. Introduction

In historical accounts of the transition from Latin to Romance languages, 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. Given the shift from head final 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 on the right of N, but must be reordered and move in initial position.[1] Under this analysis, the article is a lexical support for the case affix since 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 nominal suffix.

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1. Fillmore (1968) already argued in favour of the equivalence of NP-k structures with P-NP ones, yielding in both instances a KP phrase.

This account is not without problems. For instance, it predicts that we should find some Romance language (or language stage) where 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 (Manzini & Savoia 2011). What is more, indefinite nouns of the feminine class also have an 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 F 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. In 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 (or Kase) is a primitive category of grammar. 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 (Kase) to a formal equivalence. In essence, therefore what survives is only case (Kase), and its expression either by morphological case or by the determiner.

In the first part of this article (Section 2) we argue on very general grounds that if case and definiteness are but two names for the same fundamental categorial specifications, the characterization of this category is Q/ D rather than K – in other words Giusti's stance is reversed. In the second part (Section 3) we address a question that neither Renzi nor Giusti consider – namely whether the relation (or equivalence) between case and determiners, besides emerging from the historical evidence, can be independently motivated on the basis of synchronic data. This question will be considered here in relation to two sets of data concerning the apparent survival of nominative singular *-s* on predicative adjectives in Romansh Sursilvan varieties and the presence of *-l* adjectival inflections in varieties of the Montefeltro (Marche, Italy).

2. Case inflections as denotational elements

In the minimalist approach of Chomsky (1995) properties such as gender (nominal class), number and person, that 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. In 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 to 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 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 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, uninterpretable but valued.

We agree with Chomsky, Pesetsky and Torrego that case cannot be a primitive feature 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 like Pesetsky and Torrego (2007) do, that (nominative) case is but 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 of 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 inflections of Potawatomi. In this language, for instance, the form /-mun/ denotes the 1st person plural both 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 (1).

(1) [ACC] → ∅ / ____ [+preterite]
[+1]

Therefore, syncretism corresponds to the lack of isomorphism between interpretive categories, e.g. in (1) the cluster [accusative, 1, PL], and morphological categories, e.g. /-mun/, which is just [1 PL]. In Distributed Morphology, this lack of isomorphism is accounted for 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. In turn this assumption is made possible by a Late Insertion model, where lexical insertion applies after morphological rules, such as Impoverishment in (1), have operated on the abstract terminal nodes.

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 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, possibly definiteness, etc.

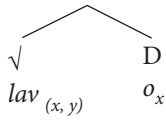
We agree with Distributed Morphology on the content of actual case terminals – i.e. the fact that their intrinsic properties may be just nominal class etc. However we differ from it in that we assume a unified morphosyntactic component, where Late Insertion is replaced by projection of syntactic structure from lexical terminals (Manzini & Savoia 2005, 2007, 2008). We take this to be the theoretical position implied by the minimalist program 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 so, case may not be a property of syntactic representations at all, and we will have to show that syntactic and semantic composition can be successfully effected despite of this.

2.1 The present model

We assume that the same structures and categories underlie both syntax and morphology. At the syntactic level, predicative elements such as verbs and nouns, project a number of argumental positions. Similarly, at the morphological level, a lexical base, expressing predicative content, combines with inflectional elements, fixing the denotation of its arguments. In particular, the inflection of the verb can be construed as the verb-internal realization of the EPP argument of the sentence (Manzini & Savoia 2005, 2007, 2008), as illustrated in (2) with a simple Italian verb, *lavo* 'I wash'.

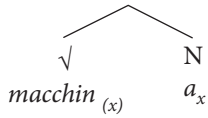
The verb-internal EPP argument is notated as D, in keeping with Chomsky (1995); the predicative base is labelled with √ (root) as in Distributed Morphology. The D/EPP argument saturates one of the arguments of the predicative base, here its external argument.

(2)



In turn, as illustrated in (3) for *macchina* 'car' of standard Italian, the *-a* nominal class inflection assigned to an N position (Manzini & Savoia 2005 ff.) corresponds to the internal argument of the noun. An immediate effect of structures like (3) is that the nominal character of *macchina* is not the result of intrinsically nominal properties of the root, nor a consequence of the Merge of this root with a dedicated functional projection *n* (Marantz 1997). Rather the nominal reading of the constituent in (3) depends on the presence of the N inflectional head.

(3)

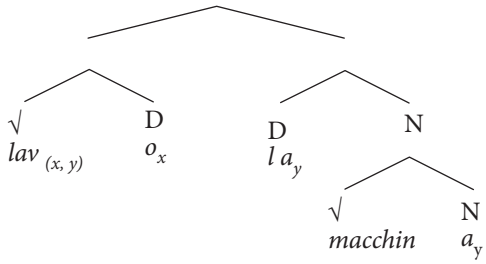


Under this analysis in the simple structure in (3) the real nominal constituent is the inflection, which provides an elementary lexicalization of the internal (and sole) argument of the predicative base. In Romance this elementary lexicalization does not suffice (at least not in the singular of count nouns), and must be supported by syntactic level operators, such as the determiner associated with the D position of the noun phrase (Higginbotham 1985), which introduces definiteness properties.

In terms of this model, in a sentence like (4a) with structure (4b), the internal argument of the transitive verb *lavo* 'I wash' is saturated by the pair (D, N inflection). As already illustrated in (1), the *-o* inflection of the verb saturates the other argument of the predicative base *lav-* 'wash', i.e. its external argument.

(4) a. *Lavo* *la macchina*
I.wash the car

b.



Since in (1) and (4) the finite verb inflection is construed not as an interpretable bundle of features, but rather as the verb internal counterpart of a subject pronoun, agreement cannot be construed as feature checking in the sense of Chomsky (1995). We do not see this as a great loss, given not only general restrictiveness considerations attaching to uninterpretability, but also empirical considerations. For instance which bundle of features should count as uninterpretable between the head noun and the determiner in the noun phrase in (4)? Even remaining within the framework of Chomsky (1995) there are good reasons to want to say that nominal class and number features are interpretable both on the head noun (which determines nominal class) and on the determiner (which is interpretable as a pronoun in the absence of a head noun).

Here we reconstruct agreement as a process of referential identification between different arguments in the structure, based on the fact that they all share the same argumental slot. We can refer to the relevant relation as a chain, if we take the basic definition of chain to be independent of movement (Brody 2003) and to coincide with the notion of argumental occurrences connected to the same argumental slot.

Let us now consider the nominal inflection system of an (overtly) case marked language like Latin. In (5a) the form *canis* '(the) dog' has an inflectional layer *can-i-* comparable to that of Italian *macchin-a* in (3), where the lexical base *can-* is closed by an N (nominal class) specification *-i*, satisfying the internal argument of the predicate *can-*. However *can-i-s* has a second inflectional layer, namely *-s*, conventionally corresponding to the nominative singular ending of the (non-neuter) III class. Just to limit ourselves to this class, *-s* also occurs in the genitive singular, as in (5b) and in the plural, both nominative and accusative, as in (5c). In this latter occurrence there appears to be a change of nominal class vowel, since *-s* attaches to *can-e*.

(5) a. *Canis* *currit*
dog.SG.NOM runs
'The dog runs'

b. *canis* *cauda*
dog.SG.GEN tail
'the dog's tail'

c. *Canes* *currunt/* *video*
dogs.PL.NOM/ACC run/ I.see
'The dogs run'/ 'I see the dogs'

An account of the Latin case systems is provided by Halle and Vaux (1997) within the Distributed Morphology framework. For the highly syncretic *-s* ending, they have recourse to the key mechanisms of underspecification and Impoverishment. In particular they take *-s* to be the default case morphology of Latin. This means that *-s* can automatically be inserted in any of the contexts in (5), since its features (or lack thereof) are compatible with all abstract terminal nodes. But the lexicalization of

syntactic positions also obeys an *Elsewhere* criterion, under which insertion of a more richly specified lexical item takes precedence over that of a less specified one.

Consider then the nominative singular, which is characterized as [–oblique, +superior, +structural, –plural] because it is an argument of the verb ('non-oblique'), it is non-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 II class. By Elsewhere *-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 bundle, yielding a node which is only compatible with the *-s* default terminal. An extension of this rule is further envisaged to allow for the insertion of *-s* in the genitive singular.

A few points need to be stressed, even within the limits of this brief presentation. First, the Impoverishment processes which justify the insertion of underspecified lexical items are ad hoc. Furthermore, somewhat paradoxically, a default item like *-s* can fill a multiplicity of case slots, not in virtue of rich case properties, but in virtue of their absence.[2] What is more, the account by Halle and Vaux (1997) is founded on relational features, such as [±superior] (i.e. governed), [±oblique] (i.e. argument-of) which should not enter in the definition of lexical entries at all under minimalist postulates.

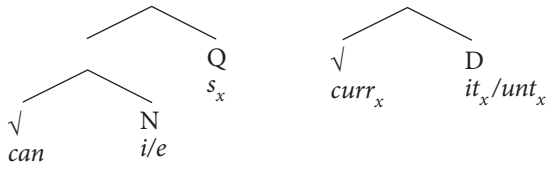
With a view to addressing these various problems, let us continue with an analysis of (5) along present lines. The N layer of inflections has already been taken to be entirely parallel to that of Italian. Now, the crucial fact about case, and the source of its relational characterization is the fact that case inflections vary according to the nature of the embedding of the DP. For instance, *-s* in (5a), the conventional nominative, would alternate with *-m* in contexts of embedding as the internal argument of a predicate (i.e. the conventional accusative) and so on. The analysis of Italian in (4) suggests a rephrasing of this traditional description; in a case marking language like Latin, while the N inflection, *-i/ -e* in (5), is sufficient to satisfy the internal argument of the nominal base, the case layer is specialized for the satisfaction of argument roles (or other syntactic environments) defined by the superordinate predicate.

If so, we expect that the lexical entry for case endings cannot differ substantially from that of other elements in the sentence that concur to the satisfaction of superordinate predicate in languages without case, i.e. the functional categories Q, D etc. of the noun phrase. In particular, *-s* has a content which we tentatively identify with Q,

2. A response to this particular problem is provided by the model of Caha (2009), in which lexical insertion is governed by a Superset principle (i.e. the lexical item must contain all specifications of the node it lexicalizes). Caha (2009) and Distributed Morphology agree on Late Insertion, which is rejected here.

as in (6). We base this hypothesis on the fact that *-s* shows up quite systematically as a plural, and plurality can be construed as a quantificational property.

(6)



The Q characterization of *-s* appears to be contradicted by its occurrences as a singular. To account for this pattern, we invoke the notion that Q elements in morphology, exactly as in syntax, have scope properties – a notion that ultimately goes back to Pesetsky (1985). In this perspective, we take the plural reading of a Q element like *-s* to correspond roughly to a noun internal scope of the quantification. In other words, the reading of *-s* in (6), with scope over *can-i*, is 'the set of individuals having the property 'dog", i.e. the descriptive plural. The singular readings of the same morphology correspond to a different scope of the same element, wider than the noun.

It is worth beginning with the genitive singular (5b). Our idea is that the traditional genitive corresponds roughly to a (quantificational) inclusion relation. This is particularly obvious in the so-called partitive like *tre dei ragazzi* 'three of the boys' where 'the boys' specifies a lager set to which the 'three' singled out belong; inalienable possession and attribution of mental states are equally clear instances since in *il naso di Gianni* 'John's nose' or *la follia di Gianni* 'John's folly', the nose or fear are part of the collection of properties that we call 'John'. It is worth noting that the same category of '(zonal) inclusion' is independently arrived at by Belvin and den Dikken (1997) as the interpretive content of the verb 'have', cf. 'the set has three members', 'John has a strange nose', 'John has a peculiar anxiety' etc. On this basis, we take it that the scope of *-s* as a so-called genitive specification is the entire noun phrase; thus the genitive argument is interpreted as 'including' the referent of the head noun.

In the singular nominative configuration in (5a), in turn, we interpret the scope of *-s* as sentential. Despite reservations on the generalization of agreement (Chomsky) or T checking (Pesetsky and Torrego) to cover all case relations, it is certainly true that agreement with the finite verb inflection characterizes to so-called nominative context. We propose that quantificational specifications are required to satisfy this syntactic context, involving the EPP argument. The latter is conceived of as a D closure of the sentence; *-s* as Q morphology is specialized for the satisfaction of the syntactic EPP (=D) environment.

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.

3. Romance historical and dialectal evidence

With this much background, we can return to the history of the *-s* inflection in the passage from Latin to Romance languages. The medieval Gallo-Romance languages preserve a reduced case system in the masculine, based on the distinction of nominative and objective case. In the singular the nominative is characterized by an *-s* form, taken to derive from the masculine nominative singular of Latin, while a form without *-s*, taken to continue an original accusative/oblique form, appears in non-nominative contexts. In the plural, the alternant with *-s*, corresponding to the plural accusative of Latin, characterizes objective contexts, while the alternant without *-s,* which continues non-sigmatic plurals, appears in nominative contexts. Relevant examples from Old French (Brunot & Bruneau 1969: 133 ff.) are provided in (7).

(7) a. *Dur sunt li colp e li caples est grefs*
hard are the blows and the scuffle is hard
'The blows are hard and the scuffle is heavy'
(Chanson de Roland, 1678)

b. *Guardez le champ … e le-s munz (munt-s)*
watch the field … and the mountains
'Watch over the field and the mountains' (Chanson de Roland, 2434)

This development from Latin to medieval Romance is treated by Calabrese (1998, 2008) 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 ordered in a markedness hierarchy, which disallow certain feature combinations. 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; repair rules then apply to reduce disallowed feature combinations into allowed ones.

What interests us here directly is the account that Calabrese (1998, 2008) proposes for the change from Latin to Old French. In his terms, the reduction of case oppositions in Old French is due to the activation of feature constraints inactive in Latin,

with repair rules responsible for the subsequent 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 [–location, +possessor] form, i.e. the genitive. This yielded the Proto-Romance three case system (nominative-accusative-genitive) reconstructed by the historical literature (De Dardel & Gaeng 1992). From this system Old French was derived according to Calabrese through the activation of a *[+possessor, –location] constraint, 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.

Our take on the change from Latin (5) to Old French (7) is quite different. Recall that in the discussion surrounding (6) we associated a quantificational content with *-s*, with three different possibilities for scope taking, namely over the word (plural), the noun phrase (genitive) and the sentence (nominative). We can describe Old French as preserving the same basic quantificational content for the *-s* morphology, while simplifying its distribution. Either *-s* takes scope over the word, hence we have the plural reading in (8b), or it takes sentential scope, hence we have the nominative reading in (8a).

(8) a. [[√ *caple*] [$_{Q}$ *s*]]
b. [[√ *munt*] [$_{Q}$ *s*]]

In the account of Calabrese (1998, 2008), placed within the framework of Distributed Morphology, what happens on the way from Latin to Old French is a restructuring of the case system of the language, involving the activation of several constraints and the application of the corresponding repair rules. The paradoxical result is that a language with few case contrasts like Old French has a grammar as rich in case specifications as a language much richer in case contrasts like Latin; conversely, the richer language has fewer restrictions and fewer readjustments.

In our model, morphosyntactic structures are projected from lexical terminals. In turn, nominal elements are associated only with the denotational properties (nominal class, quantification, definiteness) that characterize them independently of the position of insertion; case is but the name given to lexical terminals which in virtue of these properties specialize for the satisfaction of certain syntactic environments. In this model there are no constraints and rules mapping an abstract case system to the PF interface. Therefore the change from Latin to Old French cannot be a change in these constraints and rules. What changes is the lexicon of nominal inflections – which (leaving aside nominal class vowels) in Old French is reduced to *-s*, maintaining its core characterization as a quantificational element.

According to Calabrese (1998) the change from Latin to Old French cannot be accounted for by simply assuming that the default *-s* replaces other case endings. Indeed, this is not at all what we are proposing. We propose that a certain part of

the case inflections of Latin are dropped (for instance consonantal syllabic specialized endings such as *-bus* for oblique plural, *-m* for accusative and neuter nominative, etc.). What survives, i.e. *-s*, survives with the same basic quantificational properties it had in Latin. Finally, in Modern French *-s* is only the plural ending, in all syntactic environments. In Calabrese's (1998, 2008) terms, a language without (overt) case like Modern French corresponds to a grammar in which all case constraints are activated. In present terms the change from Old French to Modern French depends on the fact that the quantificational element *-s* is further restricted to take scope over nouns (adjectives, demonstratives, etc.), and is therefore interpreted only as a plural. All wider scope interpretations are absent – which means that it no longer is a case ending in traditional terms.

3.1 Romansh *-s*

Systems like Old French are not attested among the modern Romance languages; nevertheless, a more restricted distribution of what appears to be a nominative *-s* ending for the masculine singular survives in Sursilvan Romansh varieties (Schmid 1951/52, Haiman 1988). As illustrated here with the variety of *Vella* (Lumnezia Valley, Grisons), this nominative inflection characterizes masculine singular adjectives (9a-a′) and participles (9b-b′) in predicative contexts. Note that in (9c), the predication takes as its subject the accusative *el* 'him', so that even in traditional terms the characterization of *-s* as nominative does not appear to be adequate.

(9) a. *kwai om ai kwərt-s/ grɔnd-s* *Vella*
that man is short-M.SG/ tall-M.SG
'That man is short/tall'

a′. *kwai rakwənt ai ver-s*
that story is true-M.SG
'That story is true'

a′. *el ai meʎer-s ke jɛu*
he is better-M.SG than me
'He is better than me'

b. *iʎ afɔn ai ɲiu-s*
the boy is come-M.SG
'The boy has come'

b′. *ʃtruʃ arivau-s va el a durˈmi*
once arrived-M.SG goes he to sleep
'Once arrived, he goes to sleep'

c. *jɛu vai viu el kuntent-s/ grɔnd-s*
I have seen him happy-M.SG/ tall-M.SG
'I have seen him happy/ big(ger)'

The data in (10) illustrate adjectives and participles occurring in attributive contexts, inside the noun phrase, where the singular *-s* inflection is excluded.

(10) a. *in om kwərt* *Vella*
a man short
'a short man'

b. *il tʃɔp lavau*
the jacket washed
'the washed jacket'

Otherwise the *-s* inflection realizes the plural both of nouns and adjectives in the masculine, as (11a), (12a) and in the feminine, as (11b), (12b). The masculine participle however has an *-i* plural inflection, as in (11a′), (12a′).

(11) a. *kwe-s omən-s kwərt-s* *Vella*
Those-PL men-PL short-PL
'those short men'

a′. *il-s tʃɔp–s lava-i*
the-PL jacket-PL washed-M.PL
'the washed jackets'

b. *kwɛ:la-s dona-s kwərta-s*
those-PL woman-PL short-PL
'those short women'

(12) a. *kwe-s omən-s ain kwərt-s*
those-PL men-PL are short-PL
'Those men are short'

a′. *il-s tʃɔp-s ain lava-i*
the-PL jacket-PL are washed-M.PL
'The jackets are washed'

b. *ɛla-s ain grɔsa-s*
they(F.)-PL are big-PL
'They are big'

In the framework that we have been defining here, we can construe Sursilvan *-s* as a quantificational element attaching to adjectival bases, as in (13a), and nominal bases, as in (13b) – including feminine bases, i.e. those inclusive of the nominal class morphology *-a*, as in (13a′-b′). In all contexts, its scope can remain word-bound, resulting in the plural reading. This does not exclude that specialized subclasses may form the plural by different means, as with masculine perfect participles, which present *-i*.

(13) a. [√ *kwərt*] [$_{Q}$ *s*]
b. [√ *tʃɔp*] [$_{Q}$ *s*]

a′. [[√*grɔs*] [$_{N}$ *a*]] [$_{Q}$ *s*]
b′. [[√*don*] [$_{N}$ *a*]] [$_{Q}$ *s*]

With masculine bases like (13a), i.e. bases without *-a* nominal class morphology, *-s* need not have the plural reading. We can explain its distribution as an effect of *-s* taking sentential scope, so that it contributes a Q closure at the sentential level, rather than plurality. This non-plural *-s* occurs in predicative contexts, including copular sentences in (9a–b) and small clauses in (9c). We conclude that in predicative contexts adjectives (participles, etc.) require the lexicalization of a Q closure, provided by *-s*. Embedding in a noun phrase puts predicative bases in the scope of the D (definite) or Q (quantificational) closure provided by the determiners and quantifiers of the noun phrase. In predicative contexts, however, such a closure is not provided at the syntactic level; the *-s* therefore supplies it at the morphological level.

Further empirical evidence shows that the notion of predication may be necessary but is not sufficient to account for the distribution of *-s*, which interacts with complex notions of referential content and quantification. To begin with, even in copular sentences the *-s* inflection is not found on adjectival predicates in contexts like (14). However, the appropriate distinction between (14) and (9a) cannot be that between neuter and masculine, since there is no independent evidence in the language for a differentiation of the two genders. We propose that the relevant distinction is between the individual reference of the subject of predication in (9a) and the propositional reference of the subject in (14). We can exclude that animacy plays a role on the basis of examples like (9a′) above.

(14) *kwai ai ver* *Vella*
that is true
'That is true'

As may be expected on the basis of (14), the *-s* inflection is absent from expletive contexts with a sentential correlate, as in (15a). We can exclude that certain (types of) adjectives like *meʎer* 'better' simply do not take *-s* on the basis of a comparison with (9a'). More interestingly the *-s* inflection is also missing in expletive sentences with a nominal correlate, as in (15b); these are characterized by the well-known pattern of French or Northern Italian dialects whereby the verb does not agree with the postverbal subject but shows up in the 3rd singular masculine (cf. (15b′) for the agreeing form).

(15) a. *i(ʎ) ai meʎer da klaˈma tai* *Vella*
it is better to call you
'It is better to call you'

b. *i(ʎ) ai ɲiu afɔn-s*
it is come boy-PL
'There have come boys'

b′. *ils afɔns ain ɲi-i*
the boys are come-M.PL
'The boys have come'

We also note that the *-s* inflection, while possible, is not necessary with quantificational subjects, including wh-phrases in (16a), negative phrase in (16b) and existentials in (16c).

(16) a. *tʃi ai ɲiu(-s)* *Vella*
who is come-M.SG
'Who has come?'

b. *nidʒin ai ɲiu(-s)*
nobody is come-M.SG
'Nobody has come'

c. *tsi^{l}tʃi ai ɲiu(-s)*
someone is come-M.SG
'Someone has come'

The evidence in (14)–(16) fits in fairly easily with our conclusion that *-s* provides a quantificational closure for the adjective. More precisely, we should say that it provides such a closure for the argument slot that the adjectival base is associated with. It is natural to propose that this closure is not only unnecessary but also impossible when the argument slot corresponds not to an individual variable but to a propositional variable – thus explaining the contrast between (9) and (14). Similarly, we may assume that the optionality of the *-s* morphology in (16) corresponds to whether the negative, *wh-* or existential quantifier receives a specific reading or an indefinite reading. Under the latter reading it is incompatible with the *-s* closure, assuming that *-s* has definiteness/ specificity properties.

We turn next to the expletive contexts in (15). We assume (as in Manzini & Savoia 2005, 2007, 2008) that in non agreeing expletive sentences, the expletive introduces an existentially closed variable whose value is fixed by the correlate through predicational identification, yielding for (15b) the LF 'for some x, x has come and x=boys'. This structure corresponds to the focus reading that characterizes postverbal subject sentences in Romance. Under these assumptions the lack of *-s* inflection in (15) is expected on the same grounds as it is in (16). Quite simply (independently of the definiteness properties of the correlate) the presence of an existential/ focus structure is incompatible with the definiteness/ specificity closure provided by the *-s* inflection.

It is hard to see how the various, more traditional construals of singular *-s* mentioned in passing (nominative, predicative, non-neuter) could account for the complex of our data. For instance in a framework such as Calabrese's (1998, 2008), the continuity of Romansh with Old French could be captured by assuming that *-s* represents a nominative/ direct case inflection; but still its exclusion from noun phrase embeddings in (10) would be stipulated, as would the subtler contrasts in (14)–(16). Furthermore,

it is hard to see how the basic connection between case *-s* and plural *-s* could be captured at all.

The strengths of the present account are that it makes possible a unified lexical entry for *-s* and at the same time it correctly captures its complementary distribution with syntactic determiners/ quantifiers (cf. (10)). This it does through the very same means by which it accounts for Latin and Old French *-s*, i.e. conventionally two pure case inflections.

3.2 Urbino's *-le* and conclusions

A prediction of the analysis proposed here for Romansh *-s* is that an analogous distribution could be observed with historically unrelated morphology, as long as this had Q/ D properties. Arguably, this is what happens in Romance varieties of the Montefeltro (Marche, Italy), where adjectives and participles in predicative contexts have a feminine plural inflection *-le*. This includes the Romance definiteness morpheme *l* and coincides in fact with the definite determiner, as illustrated in (17a), as well as with the object clitic. Crucially, the *-le* adjectival inflection occurs in predicative contexts like (17b), but not in attributive DP-internal contexts like (17a′), recalling the distribution investigated for *-s* in *Vella*. In predicative contexts it also appears on the participle, as in (17c).

(17) a. *le dɔn* *Urbino*
the women
'the women'

a′. *kle brɛv dɔn*
those good women
'those good women'

b. *en brɛv-le*
they.are good-F.PL
'they are good'

c. *En dvɛntɛt-le alt-le*
they.are become-F.PL tall-F.PL
'they have become tall'

We can apply the same analysis proposed for *Vella* to the *Urbino* data. When adjectival bases occur inside noun phrases as in (17a′), they find themselves within the scope of the quantificational/ definite closures of the DP. However in predicative contexts, where such a closure is lacking at the syntactic level, it is supplied at the morphological level (at least in the feminine plural), by the *-le* element, yielding structures like (18).

(18) [√ *brɛv* [$_{Q}$ *le*]]

The *Urbino* data are interesting in that they show that the *Vella* pattern can be found independently of any continuity with the case system of Latin and of medieval Gallo-Romance; it need not involve a continuator of Latin case endings like *-s*, but it can

involve a new Romance formation like *le*. The account that we have traced for *-s* from Latin through Old French to Romansh explains why a definiteness *l* form should be involved in the *Urbino* data. It seems to us that all of this remains coincidental in more conventional approaches.

Finally, the analysis sketched here also provides new insights into the problem we started with, namely the relation between loss of case and development of the determiner system in Romance languages. Recall that for Renzi (1987), once the determiner is introduced it can host case; for Giusti (1995, 2001) the connection is stronger, since case and the determiner are exponents of the same category, essentially case (Kase). In the present account Giusti's idea that a case category subsumes determiners is turned on its head. For us case is not a primitive of syntax but only a lexicalization of denotational properties specialized for certain contexts of embedding. These include the D/Q properties also lexicalized by determiners. Therefore since case inflections are largely defined by definiteness/ quantificational properties that the determiner independently lexicalizes, once the determiner develops in Romance, the case system of Latin is reduced and eventually lost.[3]

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3. It is obvious that the development of determiners simply implies the possibility for case to be lost; nothing prevents determiners and case to coexist as, say, in Greek.

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