

## SOME REMARKS ON THE LATIN CASE SYSTEM AND ITS DEVELOPMENT IN ROMANCE<sup>1</sup>

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### 0. *Introduction*

One of the most striking aspects of the development of Romance from Latin is the major reduction in the Case system. The first goal of this paper is to account for this reduction. As we will see, different Case systems are found at the different stages of the history of Romance, in particular we have the two Case systems of Gallo-Romance and Rumanian. The second goal of this paper is to account for these Case systems. The final goal is to explain why the plural morphemes in languages such as French, Spanish and Portuguese seem to be etymologically based on the Latin accusative, whereas the plural morphemes of a language like Italian seem to be etymologically based on the Latin nominative, as shown in (1):

(1) <u>Italian (and Rumanian)</u>	<u>Latin</u>	<u>Western Romance</u>	
case	←	N. case	casas
		A. casas	↗
campi	←	N. campi	campos
		A. campos	↗
			‘house’
			‘field’

My analysis in this paper will be based on two main ideas:

1) First, I will hypothesize that the elements of a Case paradigm are part of an abstract system of contrasts similar to those characterizing phonological inventories. Thus along the lines of Jakobson (1936) and Hjelmslev (1935) we

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can say that Cases are bundles of distinctive features. The feature system I propose is discussed in Section 2.1.

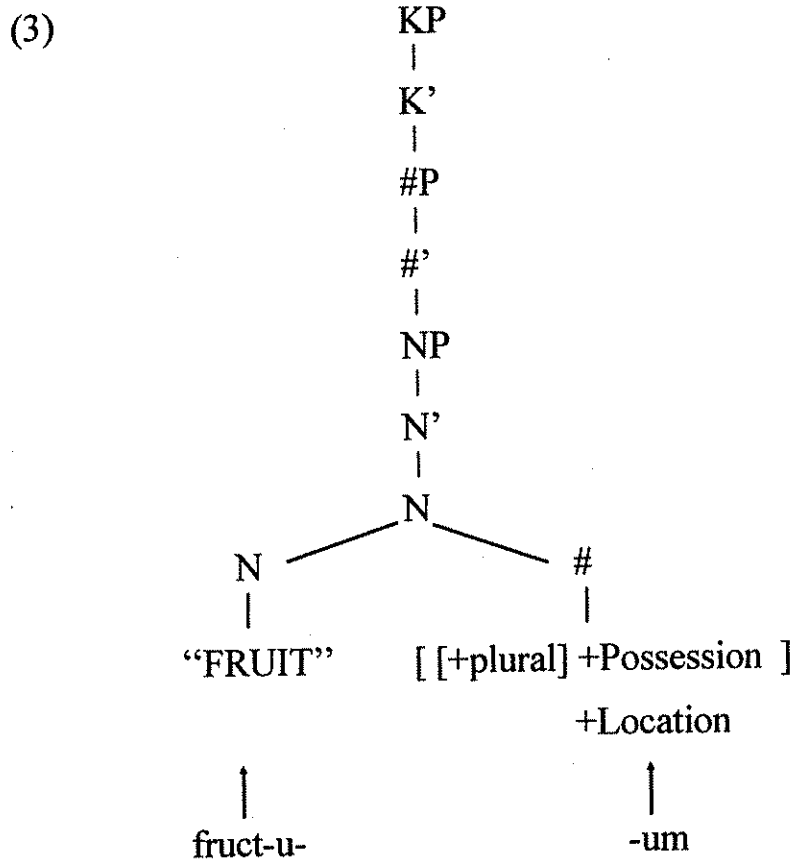
Along the lines of my 1995 analysis of phonological inventories, I propose that the combinations of features that can appear as Case forms in the morphology of a language are governed by constraints, which I call Case restrictions here. These Case restrictions are part of the morphological component of the grammar. An active Case restriction disallows combination of features from appearing in the terminal nodes provided by the syntax. Thus, as we will see below, the Case restriction in (2) disallows the appearance of the instrumental in Latin:

(2) \* [+source, +association]

Each Case is characteristically identified by a Case restriction. These Case restrictions may be active or inactive in a language. If a Case restriction is active in a language, the relevant Case is not present overtly. If it is inactive, the relevant Case is present. The set of Case restrictions in (27) will account for the structure of the different Case systems.

A change in a Case system is implemented by the activation of a Case restriction. This Case restriction will eliminate the relevant Case by adjusting the Case feature bundles in the terminal nodes provided by the syntax. As shown in diagram (32), this occurs in the morphosyntactic component which manipulates the Case configurations provided by the syntax—where all types of Case distinctions are present—and produces the surface Case distinctions characterizing the given languages.

2) Secondly, I will propose that the morphological structure for a Latin Case marked NP is that in (3) which represents the fact that the Case suffix is not only the exponent of Case distinctions, but also of number ones. The structure in (3) will be obtained by assuming that there is an autonomous morphological component where the KP provided by the syntax is manipulated by the operations of merger and fusion:

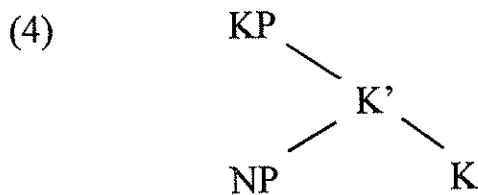


My paper is organized as follows. In Section 1 I will account for how Case is realized as a morphological suffix in Latin. That is, I will deal with the issue of how the morphological component manipulates the syntactic structures provided by the syntax and produces (3). Section 2 deals with other theoretical issues: in Section 2.1, a system of Case features is introduced and the notion of Case syncretism is discussed. Section 2.2 addresses the issue of what features are assigned to lexical items. Section 3 deals with the Latin Case system. In Section 4, I describe the development of this system in the Romance languages. Finally in Section 5, this development is accounted for by using the theoretical machinery introduced in the earlier sections.

### 1. *Case as a morphological suffix*

Following Bittner and Hale (1996), I assume that Case is a functional head. Thus a Case-marked nominal is a Kase Phrase, as shown in (4) where the Head of KP consists of a bundle of features. For reasons of simplicity throughout the paper I will simplify the syntactic representations by not including the Deter-

minor Phrase projection. No major theoretical consequence hinges upon this choice:



If Case is a syntactic head, then it is expected that it will exhibit canonical headlike behavior. This behavior is transparent when Case is realized as an adposition. Thus, in a head-final language such as Miskitu, overt K, a particle, is final in a Case-marked nominal, as expected (Example from Bittner and Hale (1996)):

MISKITU (Misumalpan: Nicaragua)

- (5) Waitna ba sula ba ra kaik-an  
 [man the] [deer the ACC] see-PST.3

And also according to expectation, the same particle is initial in Case-marked nominals in a head initial language such as Khasi (Example from Bittner and Hale (1996)):

KHASI (Mon-Khmer: Assam. India)

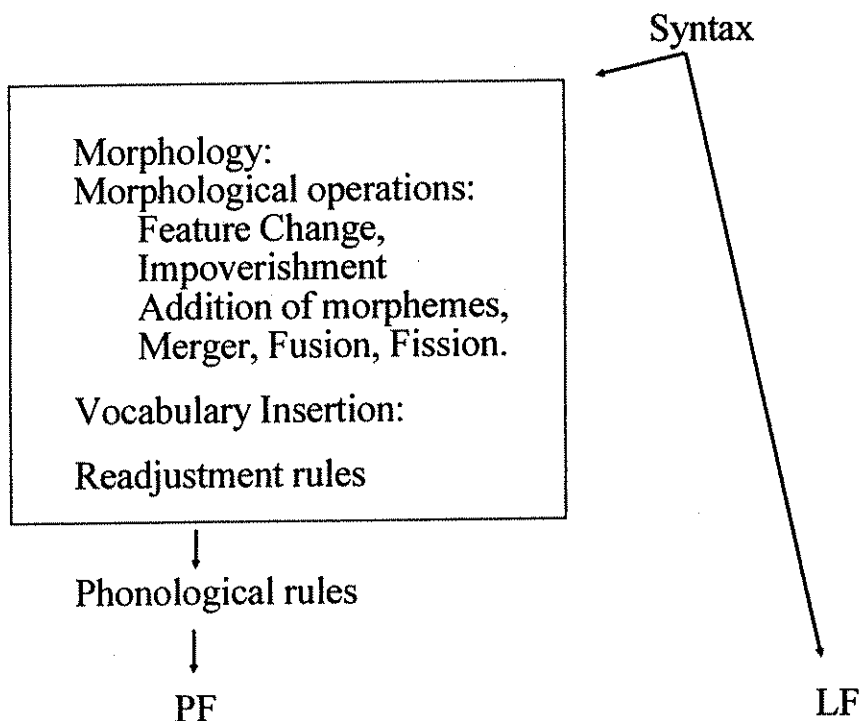
- (6) ka la yo''ii ya 'u khlaa  
 she PST see [ACC the tiger]

Let us consider the morphological realization of Case in Latin. What is peculiar about what we traditionally call Case in opposition to what we call a postposition is that it is morphologically realized as a suffix of the adjacent NP. Insofar as it is a morphological suffix, a Case will display a number of variants determined by the nature of the word or the stem to which it is attached. Another correlated property of Case that needs to be explained is that a Case suffix is not restricted to the phrase final position as the postpositions in (5) but is also found on the head noun and on all of its dependents. If we assume Distributed Morphology, we can account for these properties of Case.

Distributed Morphology (Halle (1993, 1994), Halle and Marantz (1993, 1994), Harris (1994), Noyer (1995)) assumes that there is an autonomous mor-

phological component shown in (7) where the structures provided by the syntax can be modified by the set of well motivated operations listed in (8) and formally represented in (9) (see Halle (1996, Halle and Marantz (1993) for more on these operations).

(7)



- (8) a. Feature Change is an innovation with respect to the other operations proposed by Halle and Marantz (1993).  
By Feature Change, a feature in a feature bundle associated with a terminal node is replaced by its opposite value. Thus the lexical item characterized by the disallowed configuration can no longer be inserted. Instead, the lexical item characterized by the configuration which is the output of delinking is inserted.
- b. Impoverishment, which deletes a feature in a feature bundle associated with a terminal node (see note 15 for more discussion of this operation.)
- c. Addition of morphological constituents that are not directly motivated by the syntax.
- d. Merger, which is a special case of head-to-head movement and has the effect of rebracketing adjacent constituents in the terminal string.
- e. Fusion of two adjacent terminal nodes dominated by given higher node into a single terminal node.

f. Fission, splitting of a given terminal node into a sequence of two separate terminal nodes.

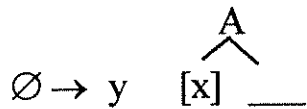
(9) a. Feature Change

$$bF \rightarrow -bF / [\_\_, aG]$$

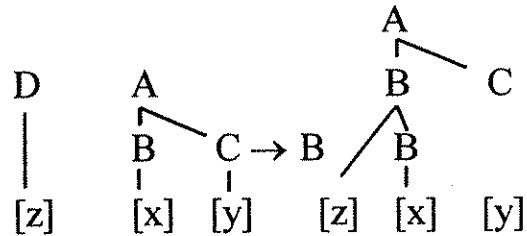
b. Impoverishment

$$bF \rightarrow \emptyset / [\_\_, aG]$$

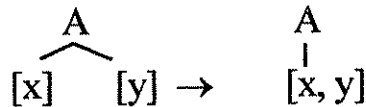
c. Morpheme Addition



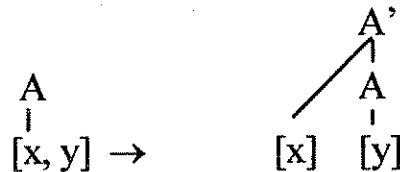
d. Adjunction/Merger (an instance of head-to head movement):



e. Fusion



f. Fission



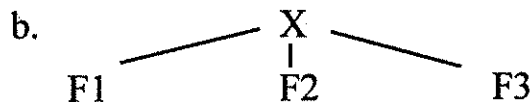
These operations account for the mismatches between the organization of the morphological pieces and the structures provided by the syntax. After the application of the morphological operations in (9) vocabulary insertion, which is governed by the Subset principle defined in (10), fills in the terminal nodes of the modified syntactic structures.

(10) The Subset Principle (Halle and Marantz (1994):

If two vocabulary items of category X in (a) compete for insertion at a node of category X in (b), the competition is won by Vocabulary Item A because it contains a larger subset of the features in the node X than does Vocabulary Item B.

a. Category X

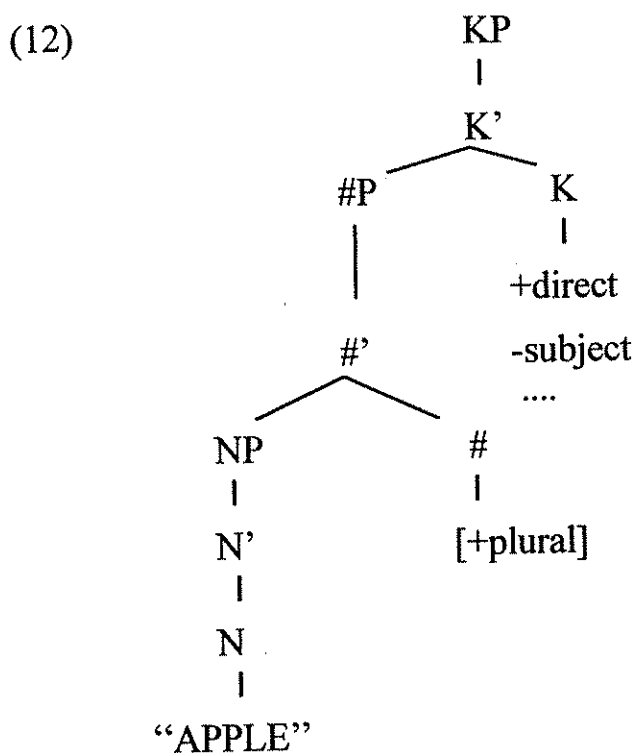
Vocabulary Item A:  $[F1, F2] \rightarrow P_A$   
 Vocabulary Item B:  $[F1] \rightarrow P_B$



Before considering the morphological realization of Case in Latin, let us consider a language like Turkish where Case is realized as a suffix which follows the number suffix, as shown in (11):

- (11) elma -lar -i            'the apples-ACC'  
        'apple-PL-ACC'

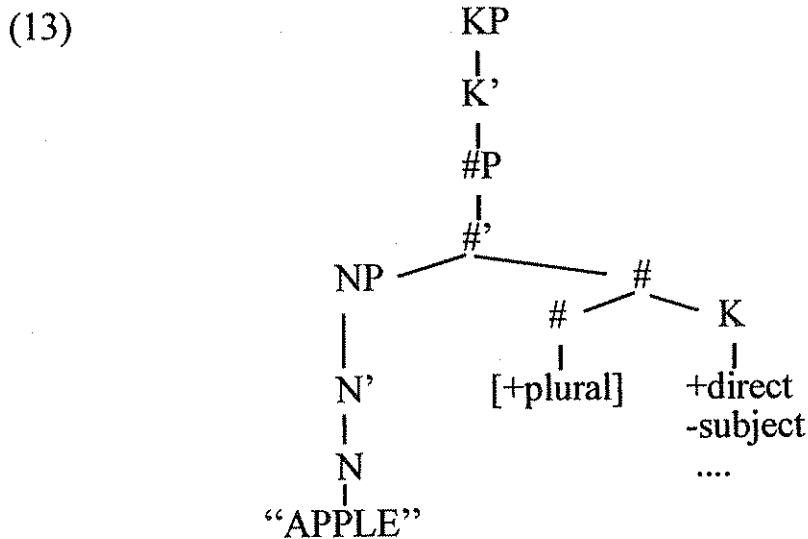
The Case suffix in (11) is integral part of the nominal head from the morphological and phonological point of view, as the fact that it undergoes vowel harmony shows. The Case suffix is part of the word containing the nominal head. Assuming the existence of a Number Phrase (#P), I propose that in the syntax the extended projection of the NP in (11) will look like (12):



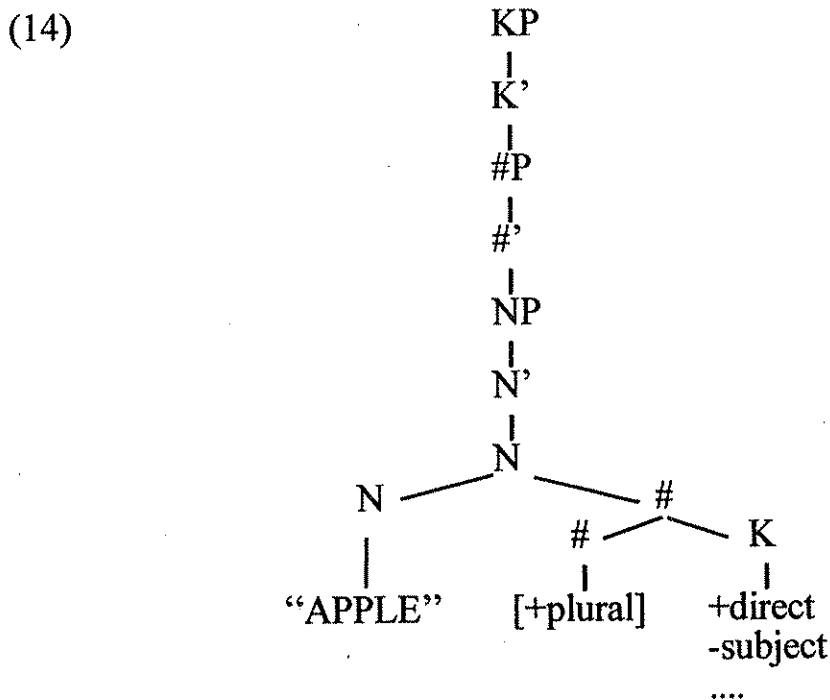
According to the structure in (12) the Case head should be realized as an independent postpositional particle. We have to account for why it is a suffix and thus an integral part of the word including the NP head.

In Distributed Morphology, the operation by which a syntactic head is realized as an affix to another head is merger. Merger is formally represented in (9d). Merger joins terminal nodes under a category node of a head but maintains two terminal nodes under this head. Thus Vocabulary Insertion places two separate lexical items under the derived head, one for each of the merged terminal nodes. Therefore Merger forms a new word from the heads of inde-

pendent phrases; but these heads remain separate morphemes within the newly derived word. The morphological properties of Case in Turkish can then be accounted for by recursive application of merger between the head of KP, the Number Phrase head and the head noun. First the merger between the head of KP and the adjacent head of #P will create the morphological structure in (13). In (13) merger joins the head of KP with the head of #P under a #P head node. If we stopped at this point, Kase would be realized as a suffix of the head of #P:



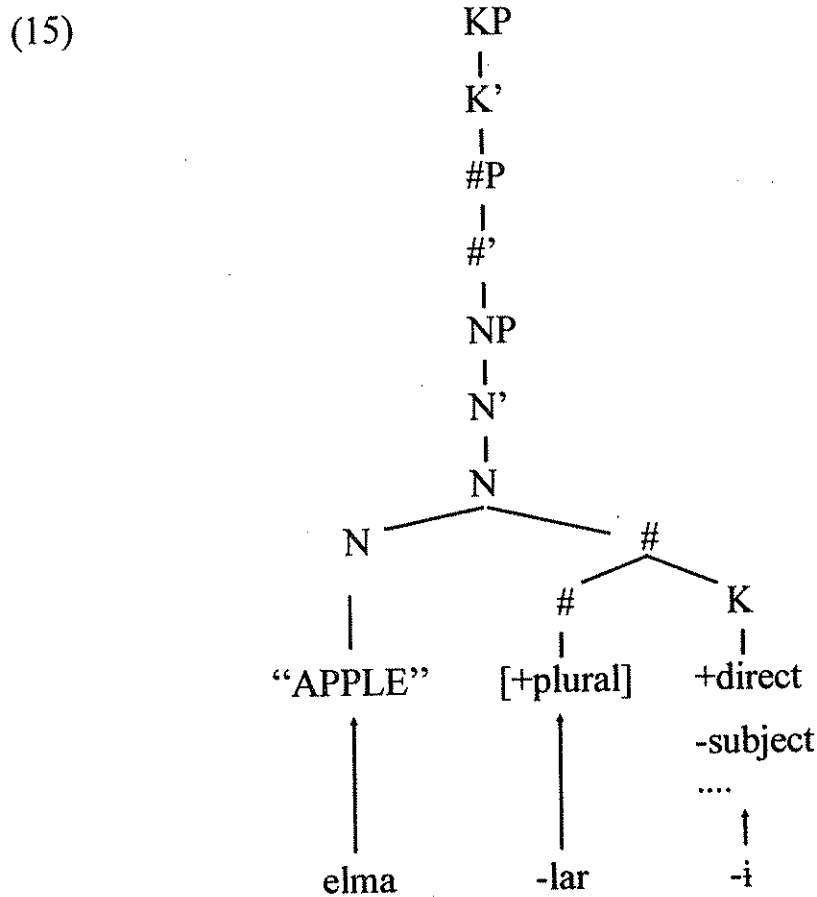
The subsequent application of merger between the merged Kase Phrase-Number Phrase heads and the NP head will produce (14):





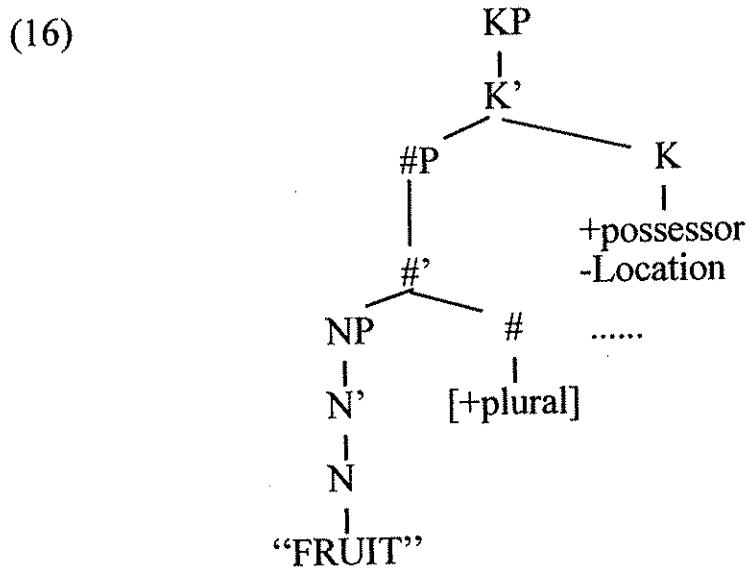
In (14) Merger joins the newly formed #P head node with the NP head. Thus the head of #P and the head of KP are realized as suffixes of the NP head. Therefore they are part of the word containing this head.

After Vocabulary Insertion we have (15), and thus we account for Case marking in Turkish:<sup>2</sup>

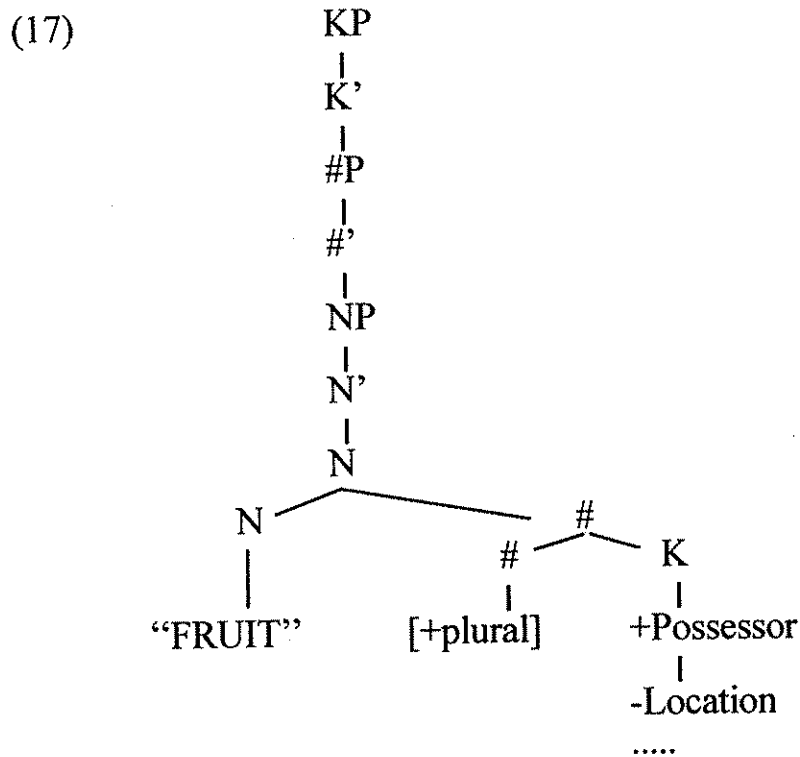


We can turn to Latin now. In Latin, number and Case features are morphologically realized with a single suffix. We can account for this by assuming that in addition to merger, fusion between the head of the Number Phrase and the head of KP also occurs. Thus the syntax provides the structure in (16) in the case of the genitive plural form “fructuum” ‘of the fruits’:

<sup>2</sup> It is interesting to observe that Case merging seems to occur only when the KP is head final. Blake (1994) reports of only one language, Nungali, with clear case prefixes. He argues that these prefixes are better treated as independent prepositions. Thus there seems to be a total absence of case prefixes (see also Cutler, Hawkins, Gilligan (1985)). Limits of space prevent me from discussing this very interesting fact further.



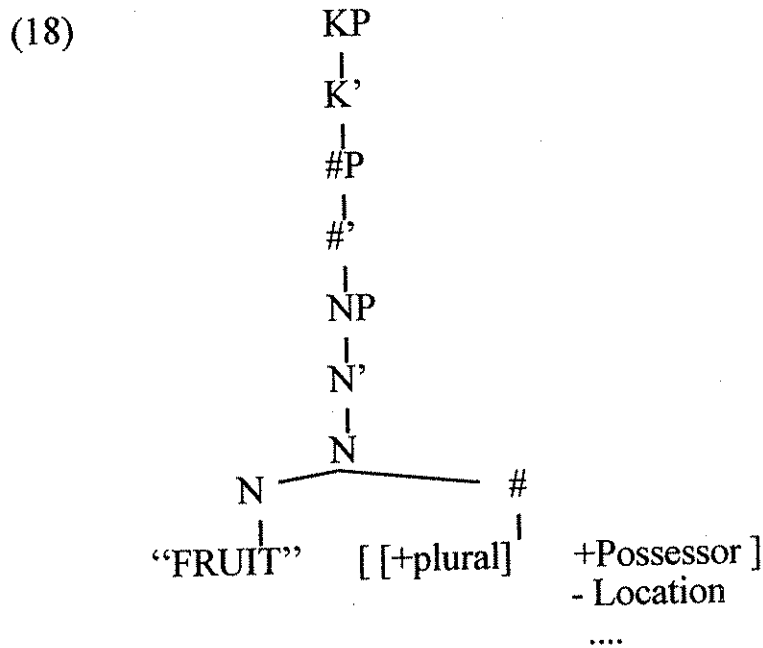
Recursive merger as in Turkish will produce (17):



Fusion will create (18). Fusion takes two terminal nodes that are sisters under a single category node and fuses them into a single category node.<sup>3</sup> Only one lexical item may now be inserted, an item that must have a subset of the mor-

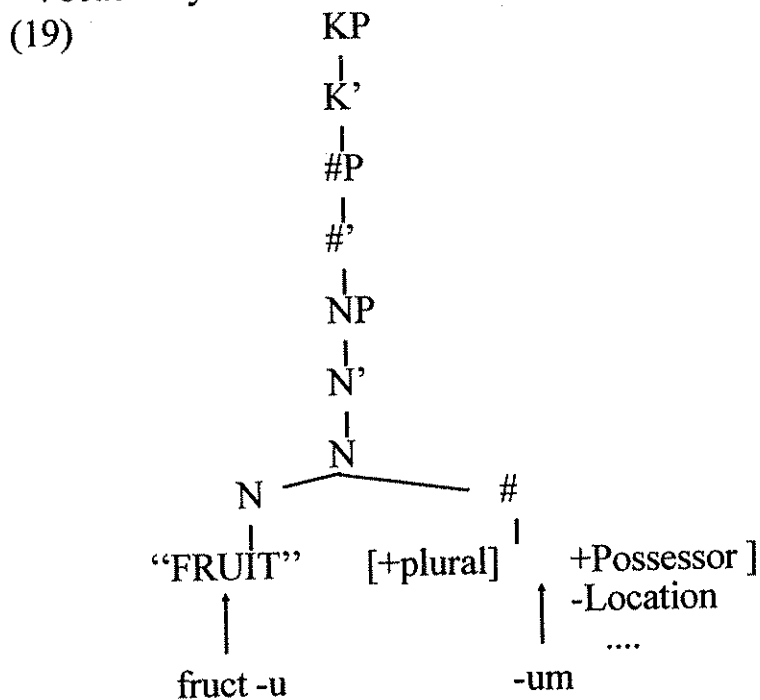
<sup>3</sup> Observe that the presence of merger, as in the case under discussion, is not a formal prerequisite for fusion, structural adjacency is enough (see Halle and Marantz (1993)).

phosyntactic features of the fused node, including the features from both input terminal nodes. Unlike merger, fusion reduces the number of independent morphemes (stem and affixes) in a tree:



In (18) fusion takes the head of KP and the head of #P which are sisters under the head of #P node and fuses them into a single terminal node. Only one suffix will be inserted now, a suffix that must have Kase and number features.

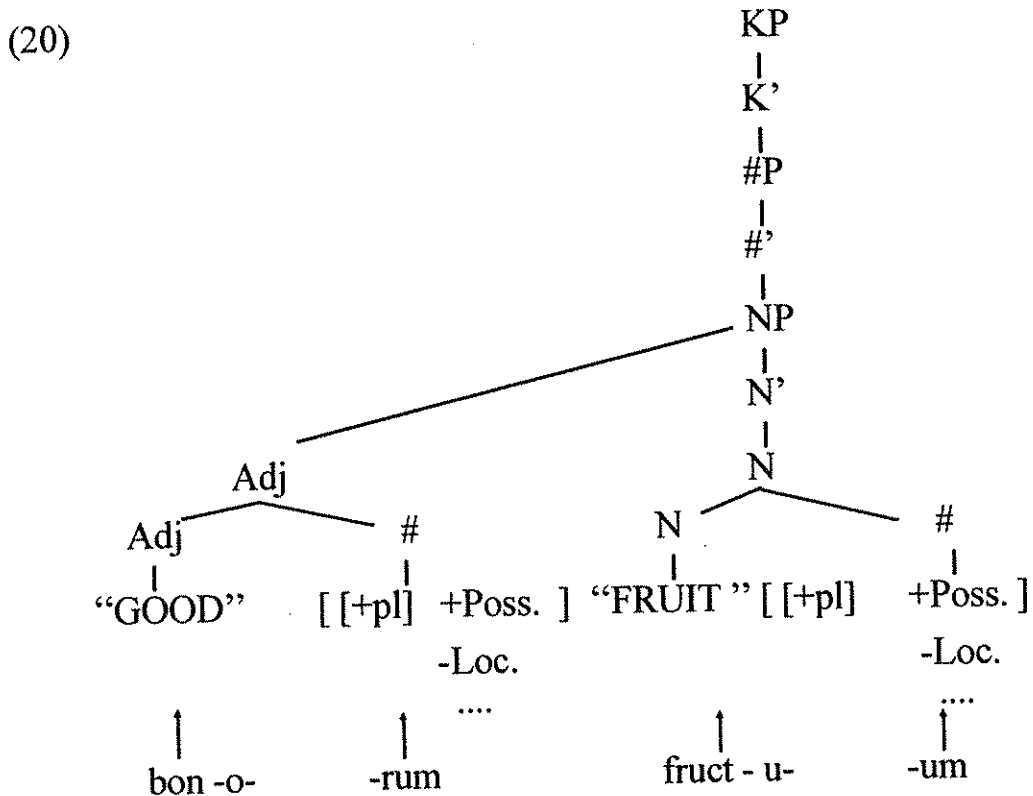
Vocabulary Insertion will then give us (19):



er  
ie  
r-  
ite

We thus have an account for why Case in Latin is realized with a suffix which also represents number distinctions.

We now have to explain why Case features are found on all the dependents of the head noun in a language like Latin. Latin is characterized by concord. Concord inside NP requires that all of the dependents of the head noun are assigned the number features of the head (I will not deal with the issue of gender concord which has some peculiarities of its own.<sup>4</sup> I will also omit discussion of concord in predicative constructions). Observe that the presence of concord in a language is independent of the presence of Case, as is shown by the fact that it is required in Case-less languages like Italian or Spanish. I hypothesize that concord is implemented by copying. In particular, concord targets the Number Phrase head merged with the Nominal head and copies its features onto all of the dependents of the head noun. In Latin, the fused number phrase head also contains Case features, as we see in (19). Thus, if we copy the features of the fused Number Phrase head in (19) we also assign Case features to all the dependents of the noun, as shown in (20):



<sup>4</sup> Gender features are idiosyncratic features of the stem. Therefore, in order to be copied by concord, lexical insertion of the stem must occur before concord. This raises several technical problems that I cannot discuss here.

We thus have a straightforward account of why Case marking in a language like Latin is found on the head noun and all of its dependents. It is because of concord.

### 2.1 *Case features and syncretism*

In this section we will deal with the notions of Case system, Case features and Case syncretism. Since the last of these notions is of fundamental importance to understand the other two, we begin by discussing it. If one studies the syncretisms that are observed in Case systems, one can observe that they are neither accidental, nor random, but rather follow precise generalizations.<sup>5</sup> I would like to account for these generalizations.

Along the lines of Jakobson (1936), one can hypothesize that the elements of a Case paradigm are to be analyzed as belonging to an abstract system of contrasts analogous to that found in phonological inventories. Following Jakobson (1936), I assume that the first step in understanding syncretic changes is that of conceiving of Cases as bundles of feature specifications. I hypothesize that if the use of an exponent of a certain Case is extended so that it becomes the exponent of another Case, the two Cases share the same general meaning, i.e., a “gesamtbedeutung” in Jakobsonian terms, which is formally expressed as a distinctive feature.

I propose the feature system in (21) for the seven Cases that are most commonly found crosslinguistically—I do not include the features needed to account for the different locational Cases and other special Cases. Also I will not discuss Ergative Case systems. The features used in (21) are defined in (22). With the features in (21) I try to account for syncretism on a syntactico-semantic basis. Needless to say, the features in (21) are tentative and open to revision.<sup>6</sup>

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<sup>5</sup> I refer only to syncretic phenomena which are not due to phonological changes—or other adjustments of the surface shape of morphemes such as paradigmatic levelling—but which are arguably due to morpho-syntactic reasons. Limits of space prevent me from elaborating on this important point further (see Ringe (1995) for more discussion of it.)

<sup>6</sup> The correct set of features will be established by developing a general theory of Case features through a cross-linguistic study of Case systems. The development of such a theory is not a viable endeavor to undertake in this paper.

(21)		Nom.	Acc.	Gen.	Dat.	Loc.	Abl.	Inst.
	Subject	+	-	-	-	-	-	-
	Direct	+	+	-	-	-	-	-
	Possessor	-	-	+	+	-	-	-
	Location	-	-	-	+	+	+	+
	Source	-	-	+	-	-	+	+
	Association	-	-	-	-	-	-	+

## (22) Structural features:

- [Subject] = This feature is assigned to the subject of the Predication
- [Direct] = This feature is assigned to a KP governed by a [-N] head (Verb or Preposition).

Concrete Features (cf. Kurylowicz (1964)) (They are selected by a governing head):

- [Possessor] = This feature is associated with grammatical functions expressing a relation of belonging.
- [Location] = This feature is associated with grammatical functions expressing spatial reference.
- [Source] = This feature is associated with grammatical functions expressing point of origin.
- [Association] = This feature is associated with grammatical functions expressing the means associated with an action.

If we hypothesize that when there is syncretism between two Cases, they share a feature value, the system in (21) accounts for the syncretism cases commonly found in the Indo-European languages and listed in (23) (cf. Luraghi (1987), Meillet and Vendryes (1966)).

(23) SyncretismAccusative - Genitive:

Common feature: [-Location]

Dative - Genitive:

Common feature: [+Possessor]

Genitive - Ablative:

Common feature: [+Source]

Languages in which it is found:

Russian animate plurals of all declensions and singulars of \*o-declension. Romanian. Armenian. Italian dialects pronominal clitics. Ancient Greek. Romance pronominal clitics.

<u>Ablative - Locative:</u>		Latin Common nouns.
<u>Common feature:</u>	[+Location]	
<u>Dative - Ablative</u>		Ancient Greek. Old Germanic.
<u>Common feature:</u>	[+Location]	
<u>Dative - Locative</u>		Ancient Greek. Italian dialects
<u>Common feature:</u>	[+Location]	pronominal clitics. Hittite.
<u>Ablative - Instrumental</u>		Latin.
<u>Common feature:</u>	[+Location]	
<u>Nominative - Accusative</u>		Latin Neuters.
<u>Common feature:</u>	[+Direct]	Russian inanimate plurals of all declensions and singulars of *o- declension. Armenian.
<u>Accusative - All other Cases</u>		Proto-Romance
<u>Common feature:</u>	[-Subject]	(seen in Old French).

Given the number of features proposed in (21) there will be some overgeneration, and some unattested Cases will be created. I hypothesize that they are ruled out by unviolable constraints disallowing certain combinations of features such as those sampled in (24). As we will see the constraints in (24) govern the wellformedness of the Case feature bundles in morphological derivations:

- (24) a. \* [+direct, +location]  
 b. \* [+direct, +possessor]  
 c. \* [+direct, +source]  
 d. \* [-location, -source]/[+possessor, \_\_\_\_\_]  
 e. \* [-direct, -possessor]/[-location, \_\_\_\_\_]

Not all Cases have the same status. Some Cases are less frequent than others. For example, the ablative is less frequently found than the genitive. Also, as observed by Blake (1994), there are clear implicational relationships between the different Cases with nominative, accusative, genitive present in all systems allowing three or more Cases. Thus, Case systems seem to be structured in a totally regular manner following the implicational hierarchy in (25) (See Blake (1994)):

- (25) NOM < ACC < GEN < DAT < LOC/ABL/INST < OTHERS

The list of Case systems in (26) is evidence for the hierarchy in (25):

- (26) Case systems (The lowest Case in the system usually has the functions of the other Cases appearing in the hierarchy. When this occurs we say that it is Obl (=Oblique):
- a. Two Cases:  
NOM - ACC(Obl) (e.g. in Chemehuevi, Kabardian)
  - b. Three Cases  
NOM - ACC - GEN (e.g. in Classical Arabic, Modern Greek)
  - c. Four Cases  
NOM - ACC - GEN - DAT(obl) (e.g. in Ancient Greek, Nuer)
  - d. Five Cases  
NOM - ACC - GEN - DAT - ABL(Obl) (e.g. in Latin)  
NOM - ACC - GEN - DAT - INST(Obl) (e.g. in Old High German)
  - e. Six Cases  
NOM - ACC - GEN - DAT - LOC - ABL (e.g. in Turkish)  
NOM - ACC - GEN - DAT - LOC - INST (e.g. in Slavic lgs)
  - f. Seven Cases  
NOM - ACC - GEN - DAT - LOC - ABL - INST  
(e.g. in C. Armenian)
  - g. Systems with more Cases may include differentiations in the local Cases (allative/perlative, etc.), the comitative, the purposive, the comparative, and some other special Cases:  
e.g. Tamil: NOM - ACC - GEN - DAT - LOC - ABL - INST - COM  
Toda: NOM - ACC - GEN - DAT - LOC - ABL - INST - COM - PURP

As we have seen, what is peculiar about what we traditionally call Case in opposition to what we call a postposition is that it is morphologically realized as a suffix on the adjacent NP head. Given (25), we can say that the realization of certain Cases as suffixes is disliked. Languages seem to prefer affixal Case-marking for grammatical relations such as subject and object but not for grammatical relations expressing location or instrument. For the latter, other morphosyntactic means are usually employed such as prepositions or postpositions. In terms of the theory of markedness, we can say that the affixal realization of Cases such as the ablative or the instrumental is complex from a morphological point of view.

Following Calabrese's (1995) analysis of markedness in phonological systems (see also the important work of Noyer (1993) on the use of constraints in morphological systems), we can account for the structure of the Case systems in (26) and for the implicational relationships in (25) as follows. Each Case is characteristically identified by a Case restriction, i.e., marking condition that constrains a Case feature. These Case restrictions represent Case feature com-



binations whose morphological expression is marked. Case restrictions may be active or inactive in a language. If a Case restriction is active in a language the relevant Case is not present in the language. If it is inactive, the relevant Case is present. The Case restrictions are organized hierarchically. The lower a restriction in the hierarchy, the more probable is that it is active across languages. Thus the restriction characterizing the instrumental is in a low position in the hierarchy. This expresses the fact that the instrumental is more rarely found across languages. I assume that a Case restriction can be deactivated only if the Case restrictions in higher positions in the hierarchy are also deactivated. This accounts for the implicational relationships observed above. The hierarchy of Case restrictions is given in (27):<sup>7,8,9</sup>

- |      |                            |                   |
|------|----------------------------|-------------------|
| (27) | a. [+Subject,+Direct]      | (Nominative)      |
|      | b. [-Subject,+Direct]      | (Accusative Case) |
|      | c. [+Possessor, -Location] | (Genitive Case)   |
|      | d. [+Possessor, +Location] | (Dative Case)     |

<sup>7</sup> Each Case restriction is constructed in such a way not only to identify the relevant Case uniquely, but also to characterize its idiosyncratic behavior. For example the Case restriction governing the dative contains the feature [+Location, +Possessor] to account for the fact that the dative tends to be replaced by Cases such as the genitive or the locative, as we will see later. The correct formulation of the Case restrictions is an empirical issue open to disconfirmation.

<sup>8</sup> The constraints in (27) are violable. Observe that the constraints in (24) are instead unviolable. Calabrese (1995a) proposes that the same distinction between violable and unviolable constraints is found among constraints governing the combination of phonological features. The violable constraints —called marking statements in that work— identify phonologically complex configurations which although found in some phonological inventories, are not found in others. The unviolable constraints —called prohibitions— identify configurations which are never possible because of articulatory and acoustic reasons. An example of the former constraints is the marking statement \*[+low, -back] governing the appearance of low front vowels in phonological systems. An example of the latter is the prohibition \*[+high, +low] disallowing the simultaneous use of the features [+high] and [+low].

<sup>9</sup> As in other markedness theories, violations of the implicational relationships predicted by the hierarchy in (27) must be allowed (see note 9 for an example). However, these violations must be considered as exceptional or marginal. Further research must establish under what conditions these violations are possible.

Observe also that probably the best way to represent the hierarchy in (27) is not as the simple list given in the text, but as a tree, as proposed by Calabrese (1988, 1995) for phonological marking statements. The hierarchy in (27) could then be restated as in (i). In (i) there is an implicational relationship only between Case restrictions belonging to the same branch. Therefore the presence of the ablative does not involve the presence of the locative and vice versa. The same would be true for the instrumental:

- |   |                     |
|---|---------------------|
| e. [-Possessor, -Source]/[ ____, +Location] | (Locative Case)     |
| f. [+Location, +Source]                     | (Ablative Case)     |
| g. [+Source, +Association]                  | (Instrumental Case) |

Observe that given the analysis proposed here we have to say that the Case restrictions in (27) constrain Case feature bundles only when they are merged with other constituents, that is when they are morphologically realized as affixes or in any other morphologically bound form. Thus, the morphological realization of Case features in prepositions or postpositions is not governed by the restrictions in (27).

We now consider how Case restrictions can account for syncretism. The pronominal system of the Italian dialects is characterized by various phenomena of syncretism (see Calabrese (1995b and c) for more discussion). The syncretism phenomena targeting the 3rd person dative clitic are among the most interesting ones. In some dialects, this clitic is replaced by the exponent of the locative clitic, and in others by the exponent of the genitive clitic as exemplified in (28).

- (28) a. In the Pugliese dialect of Bari, the clitic /ngə/, which is originally a locative (< Latin HINC), is now the exponent of the dative, as well as of the locative.  
 b. In the Salentino dialect of Otranto, the clitic /nde/ which was originally genitive (< Latin INDE), in addition to retaining its original function, has also become the exponent of the dative.

The changes in (28) can be expressed as in (29) where the system on the left of the arrow is proto-Romance:

- 
- |        |  |
|--------|--|
| (i) a. | [+Subject, +Direct]                      |
| b.     | [-Subject, +Direct]                      |
| c.     | [+Possessor, -Location]                  |
| d.     | [+Possessor, +Location]                  |
| e.     | [-Possessor, -Source]/[ ____, +Location] |
| f.     | [+Location, +Source]                     |
| g.     | [+Source, +Association]                  |

I adopt the simplified hierarchy in (27) only for expository reasons.

(29)

Gen.	Dat.	Loc.
*NDE	*LI	*CI/NCI

a.

Gen.	Dat.	Loc.
*NDE		*CI/NCI

In Barese, and other central and northern Italian dialects

b.

Gen.	Dat.	Loc.
*NDE		*CI/NCI

In southern Salentino, southern Calabrese

The following account of the changes in (29) can be proposed (see below, section 2.2, for discussion of other aspects of these changes). The syntactic feature bundles of the grammatical categories that are playing a role in the change in (31), those of 'dative', 'locative', and 'genitive', are given in (30)

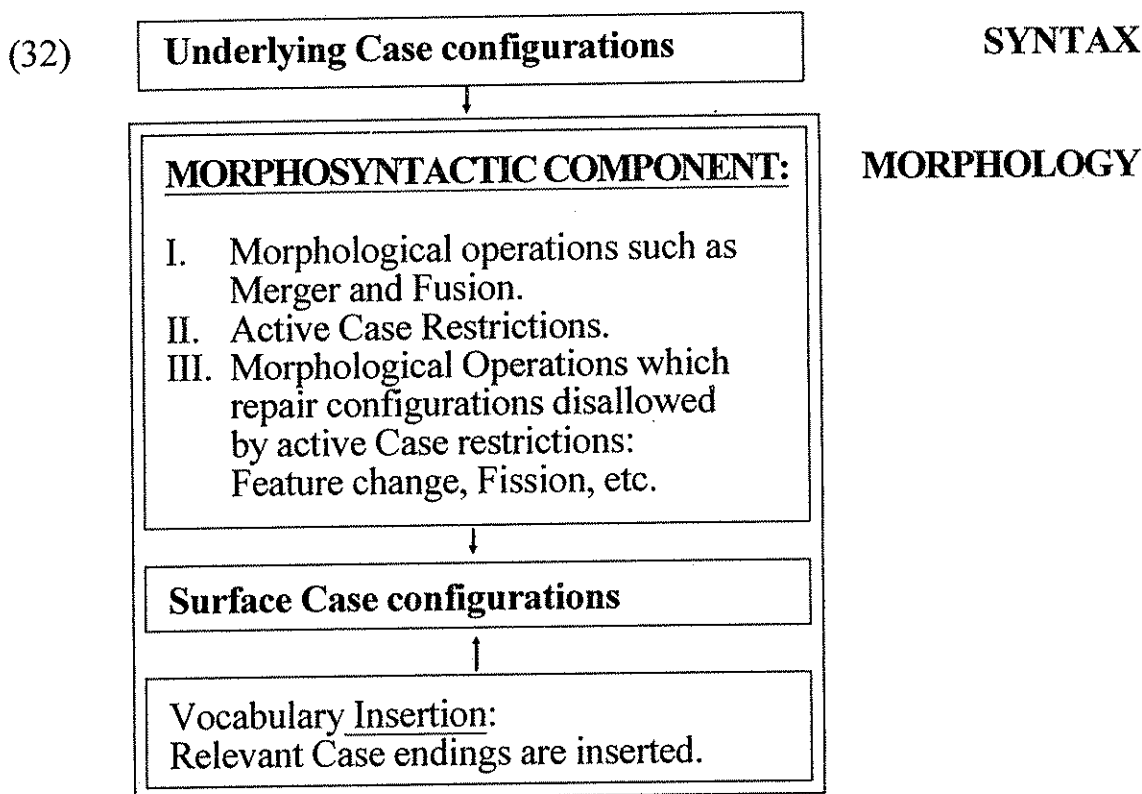
(30) a. 'Genitive'	b. 'Dative'	c. 'Locative'
-subject	-subject	-subject
-direct	-direct	-direct
-location	+location	+location
+possessor	+possessor	-possessor
+source	-source	-source

As discussed in the following section, the lexical items in (29) are to be represented as in (31):

(31) a. *NDE	↔	-location			b. *LI	↔	+Location
		+possessor					+possessor
		+location					
		-possessor					
		-source					

I propose that syncretisms are the result of the reactivation of Case restrictions. These newly activated Case restrictions trigger repair operations that adjust the disallowed feature configurations in terminal nodes. As a consequence, the lexical items characterized by the disallowed configurations can no longer be inserted. Instead, the lexical items characterized by the configurations of the modified terminal nodes are inserted. Thus the exponents iden-

tified by the disallowed feature configurations are eliminated and replaced by the exponents of allowed configurations. The relevant morphological contrasts are therefore eliminated. Syncretism can be diagrammatically represented as in (32). As shown in (32), I assume that active Case restrictions and morphological operations are included in a morphosyntactic component which changes the underlying Case configurations into surface ones through various morphological operations, some of which are triggered by active case restrictions. A fundamental assumption is that all types of Case distinctions are present in the syntax in underlying Case configurations. It is the duty of the morphosyntactic component to filter out the Case configurations which have morphological realization in a given language.



The changes affecting the dative pronominal clitic in Italian can now be accounted for in the following way. In the inventory of the proto-Romance clitics, two of the Case restrictions in (27) were active—in particular (27f) and (27g) disallowing the ablative and the instrumental—; but all of the others were inactive. In particular, the restriction in (27c) disallowing the dative (repeated here as (33)) was inactive. This system is preserved in many Romance varieties such as Sardinian and Standard Italian. Dialects like Pugliese and Salentino, however, are characterized by the activation of (27c—that is (33)).

The restriction in (33) will trigger the application of either the feature change in (34a) or the feature change in (34b).

(33) \* $[+location, +possessor]$

(34) a.  $[+possessor] \rightarrow [-possessor] / [+location, \underline{\quad}]$   
 b.  $[+location] \rightarrow [-location] / [+possessor, \underline{\quad}]$

The application of (34a) will change the feature complex of the dative in (30b) into that of the locative, whereas the application of (34b) will change it into that of the genitive. If we assume the lexical items in (31), the application of (34a) accounts for the case in which the locative takes over the function of the dative,<sup>10</sup> and the application of rule (34b) will account for the case in which the genitive takes over the function of the dative.

Observe that the application of the feature change in (34a) does not give immediately the feature bundle of the genitive. In order to obtain that feature bundle, the features  $[-source]$  characterizing the dative must be changed into  $[+source]$ . We can assume that this is an instance of the feature changes in (35) triggered by the unviolable filter in (24d). This is an automatic adjustment needed to obtain well-formed Case feature bundles:

(35)  $-source \rightarrow +source / [\underline{\quad}, +possessor, -location]$

This is shown in (36):

(36) a. 'Dative'					'Genitive'
-subject					-subject
-direct					-direct
+location	$\rightarrow(34a)\rightarrow$				-location
+possessor					+possessor
-source				$\rightarrow(35)\rightarrow$	+source
-association					-association

<sup>10</sup> Here as in other instances the hierarchy in (27) is violated. The Case restriction in (27d) becomes active, but not the Case restriction in (27f). In addition the feature bundle of the less marked dative is changed into that of the more marked locative. Faced with this type of facts, one could be tempted to give up the idea of an implicational hierarchy among Case restrictions. However I believe that this would be the wrong move. As shown by Blake (1994) Case systems seem to be organized according to clear patterns (see the implicational hierarchy in (25)). Following what proposed in note 8, however, we could say that (25) represents just a tendency and that limited exceptions are thus allowed. Thus a less marked Case restriction can become active even though a more marked one still remains inactive. Such a situation is possible, but to be considered exceptional.

## 2.2 *The feature assignments of lexical items*

Before going on to discuss the Latin Case system and its evolution into Romance, we need to address two important theoretical issues: 1) what features are assigned to the different lexical items, in particular Case endings, in synchronic Case systems? and 2) how do these assignments relate to synchronic patterns of syncretism?

Two different types of Case syncretism can be recognized from the synchronic point of view: absolute and contextual syncretism.<sup>11</sup> Absolute syncretism involves replacing a given Case exponent with another Case exponent across all nominal classes and nominal categories. The cases discussed in the preceding section were cases of absolute syncretism. Contextual syncretism, in contrast, involves replacement of a given Case exponent with another Case exponent only in certain nominal classes or in certain nominal categories. As will be discussed below, the former type of syncretism always implies synchronic activation of a restriction against the former Case, whereas the latter type doesn't.

To illustrate the different types of syncretism and to discuss their treatment, I consider the Latin fifth declension. In this declension we observe various cases of contextual syncretism, for example that between the genitive and the dative in the singular or between the dative and the ablative in the plural. We also observe a case of absolute syncretism: in fact, in this declension as in all other Latin declensions, the exponent of the ablative is also used to represent a variety of other grammatical function such as that of the instrumental and of the locative.<sup>12</sup>

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<sup>11</sup> See Meiser (1992), Ringe (1995) on this distinction. Meiser (1992) distinguishes between functional syncretism (my absolute syncretism), which he characterizes as the falling together of two morpho-syntactic categories into a single one across the morphology of a language, and formal syncretism (my contextual syncretism) which he characterizes as the use of the same form to express morpho-syntactic categories which are otherwise morphologically contrasting in a language.

<sup>12</sup> In this paper, I have omitted the marginal locative and vocative Cases from my analysis of Latin. Simplifying quite a bit for the sake of the exposition, I assume that the locative is always represented by the ablative, and the vocative by the nominative. See Joseph and Wallace (1984) for a brief discussion of the status of these two cases in Latin.

		Sg.	Pl
(37)	Nom.	di-ē-s	di-ē-s
	Gen.	di-ē-ī	di-ē-rum
	Dat.	di-ē-ī	di-ē-bus
	Acc.	di-ē-m	di-ē-s
	Abl.	di-ē-∅-	di-ē-bus

The issue is now that of establishing the feature assignments of the different Case suffixes in (37). We can account for the distribution of the Case suffixes in (37) by minimizing the number of features assigned to them. The principle in (38) could govern this feature minimization:

- (38) For each lexical item I, the minimal common set of features able to account for the maximal distribution of I must be chosen.

As we will see below, feature minimization must be used to account for contextual syncretism, but not to account for absolute syncretism.

The synchronic contextual syncretism observed in (37) could be accounted for by assuming the Case suffixes with the minimized feature assignments in (39) (I consider only the genitive, dative and ablative, and abstract away the thematic vowel from the desinence. See section 3 for a different and more complete discussion of the Latin declensions):

- |      |           |   |                                |
|------|-----------|---|--------------------------------|
| (39) | a. /-rum/ | ↔ | -location, +possessor, +plural |
|      | b. /-∅/   | ↔ | +location, +source, -plural    |
|      | c. /-ī/   | ↔ | +possessor                     |
|      | d. /-bus/ | ↔ | +location                      |

But the distribution of the Case suffixes is not the only property that needs to be accounted for in the case of a system like that in (37). We also have to decide which Case restrictions are deactivated in it and which thus determine the Case system that it has. In fact, in the model proposed here, for each language we have to decide which Cases, if any, are morphologically present in its Case system. I propose that the following principle governs the determination of the structure of Case systems:<sup>13</sup>

<sup>13</sup> The principle in (40) is still tentative and many issues related to it are still unclear to me. Further research will try to clarify them. What is needed is an in-depth study of the morphology of Case systems across languages. Notice that any type of morphological exponence can be evidence for the deactivation of Case restrictions. For example two cases having the same desinence could be distinguished by the shortening or lengthening of the thematic vowel. In DM, such shortening or

- (40) a. Given a language L, for each Case restriction R it must be determined if R is active or deactivated in L.
- b. A Case Restriction [ $\alpha$ F,  $\beta$ G] is deactivated in a language L
- i) directly iff there is a lexical item I in L identified by the features [ $\alpha$ F,  $\beta$ G]
- or
- ii) indirectly if there are lexical items S and T ( $S \neq T$ ) in L, where S is inserted in a terminal node containing [ $\alpha$ F,  $\beta$ G] and T is inserted in a terminal node containing either [ $\alpha$ F,  $-\beta$ G] or [ $-\alpha$ F,  $\beta$ G].

Principle (40) requires that feature minimization of Case suffixes is possible only in situations of contextual syncretism, i.e., when a suffix in a declension represents two or more Cases which are otherwise represented by different suffixes in other declensions.

Thus Principle (40) is satisfied in (38) directly for the Case restrictions in (27c) (genitive) and (27f) (ablative) given the Case suffixes in (39a) and (39b), and indirectly for the Case restriction in (27d) (dative), since there is the Case suffix /-i:/(=(39c)) inserted in the terminal node containing the features [+possessor, +location] and the Case suffix /-rum/(=(39a)) which is inserted in a terminal node containing the features [+possessor, -location]. Notice that it is the presence of the latter Case suffix that creates a morphological contrast between the dative and genitive in (37), although this contrast is present only in the plural. This is the function of (40bii): it establishes the conditions under which we obtain a morphological contrast between Cases in a Case system, i.e., the conditions under which two Cases are considered to be morphologically distinct in a Case system.

The problem is now to account for the fact that the ablative is also the exponent of the instrumental and the locative, as well as of the ablative. In this case we are dealing with a case of absolute syncretism.

Should we account for absolute syncretism by minimizing the feature assignments of the Case suffixes or not? If we do, we should then try to find the minimal common set of features among the ablative, the locative and the instrumental. The suffix /-Ø/ should then be represented as in (39b')—[+loca-

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lengthening would be expressed by a readjustment rule. Therefore also the presence of a readjustment rule may trigger the deactivation of a Case restriction. Both (40bi- ii.) should be modified accordingly. I will not do it here for expository reasons.



tion] being the minimal common feature shared by the ablative, locative and instrumental:

(39)b.' /-Ø/ ↔ +location, -plural

This suffix would then essentially have the same features as the suffix /-bus/ in (39d). Is this the correct move? I propose that it is not.

The reason is the following. Remember that given (40) the presence of the lexical item in (39b) indicates that the Case restriction (27f) is deactivated, so that we can say that we have the ablative in the system. In contrast (27e) and (27g) are not deactivated since there are no lexical items characterized by the features included in these case restrictions. If we decide to account for absolute syncretism by encoding it in the lexical items, and thus we replace (39b) with (39b'), we obtain the result that principle (40) can no longer be satisfied. In fact, given the algorithm in (40b) we would fail to determine which Case restriction among (27e,f-g) is deactivated: specifically, the lexical item in (39b) does not trigger the deactivation of any of these Case restrictions—either directly or indirectly. Thus we would be unable to establish what Case system characterizes the declension in (37). Hence a system replacing (39b) with (39b') to account for absolute syncretism is rejected by (40a).

The question is now whether or not principle (40) is needed. Synchronic evidence is difficult to construct. Here I will consider some historical evidence (see also section 5 for more historical evidence from the evolution of Latin into Romance.) Take into consideration the change exemplified in (29a) again. An aspect of this change that was not discussed earlier involves the fact that the pronominal \*NDE in Proto-Romance, in addition to being the exponent of the genitive, was also the exponent of the ablative, whose terminal node is given in (41). Thus, in this case there was an absolute syncretism between the ablative and the genitive:

- (41) “Ablative”  
 -subject  
 -direct  
 -possessor  
 +location  
 +source  
 +association

Suppose that principle (40) does not hold. Lexical minimization could, and obviously should, then be used to account for this case of absolute neutraliza-

tion. Therefore the lexical item \*NDE of Proto-Romance should be characterized as having the feature [+source], the minimal feature shared by the genitive and ablative, as shown in (42):

$$(42) \quad \text{nde} \quad \longleftrightarrow \quad [+source]$$

But now we would have a problem in trying to account for the change we observe in (29). We have to account for why the lexical item \*NDE characterized as in (42) took over the function of the dative. We can repeat the feature bundle of the dative as in (43a). In order to insert (42) in that terminal node, we would then have to change the feature [-source] of the dative into [+source] as shown in (43b):

(43)	a. 'Dative'		b.
	-subject		-subject
	-direct		-direct
	+location		+location
	+possessor		+possessor
	-source	→	+source
	-association		-association

But the feature change in (43) is totally unmotivated and arbitrary. There is no reason for hypothesizing the feature change in (43). By using lexical minimization to account for absolute syncretism, we would then be forced to arbitrary moves in our explanation of the change in (29a).

Also any other approach to the change in (29a) trying to account for why the minimized lexical item in (42) takes over the function of the dative is doomed to be unmotivated and arbitrary, as the reader can check.<sup>14</sup> This is not true, however, if we assume an analysis based on the principle in (40). In this case, in fact, we would not have any problem in accounting for the evolution of \*NDE in a motivated and simple way.

The following analysis could be proposed. Before the change in (29a), Proto-Romance \*NDE is the exponent of both the genitive and ablative. Given principles (40), it must be determined if it is the exponent of one or the other, i.e., it must be determined which Case restriction between (27c) and (27f) is

<sup>14</sup> The same is true for an analysis assuming that the lexical item \*NDE is totally unspecified, i.e. the elsewhere case of the system. See Calabrese (1995b) for a detailed criticism of such an approach.

deactivated. Let us suppose that it is the less marked one to be deactivated, i.e., that of the genitive. Therefore \*NDE is assigned the features of the Case restriction in (27c), i.e. the features in (44). The Case restriction in (27f) repeated here in (45) is instead assumed to be active. The feature bundle in (41) is then repaired by the feature change in (46) which, followed by the other automatic adjustment shown in (47), transforms the terminal node of the ablative into that of the genitive. The clitic \*NDE is then inserted in this terminal node, and thus we account for why \*NDE is the exponent of both the genitive and the ablative.

(44) a	*NDE	↔	-location +possessor	
(45)	*[+Location, +Source]			
(46)	[+location]	→	[-Location]/ [ _____, +source]	
(47)	'Ablative'			'Genitive'
	-subject		-subject	-subject
	-direct		-direct	-direct
	+location	→(44)→	-location	-location
	-possessor		-possessor	→(by(24e))→ +possessor
	+source		+source	+source
	-association		-association	-association

Given the feature assignments in (44) for \*NDE, which are identical to those in (31a), we can then account for the replacement of the dative as done in section 2.1. Thus principle (40) leads to a straightforward analysis of the evolution we see in (29a). Crucially this evolution involves an instance of absolute neutralization. In contrast, in a case with contextual syncretism such as that exemplified in (39), principle (40) allows an analysis characterized by the minimization of the lexical items feature assignments such as that shown in (39). The difference is that in this case principle (40) is satisfied. Therefore we can conclude that contextual syncretism can be accounted for by minimizing the number of features assigned to lexical items, but absolute syncretism cannot.<sup>15</sup>

<sup>15</sup> Contextual syncretism is usually the consequence of phonological changes and other adjustments in the surface shape of morphemes (see Meiser (1992), Ringe (1995)). However, I would like to suggest that in some cases it might be due to the 'local' activation of Case restrictions. Thus, for example, in the case of the syncretic patterns we observe in (37), the syncretism between the

### 3. *The latin case system*

After the long theoretical exposition of the preceding section, we can start addressing the main topic of this paper: the evolution of the Latin Case system into Romance. I begin by discussing Latin. Latin is characterized, by five Cases and five declensions. The desinences of the Latin cases are listed in (48):

(48)	I	II	III	IV	V
			C-stems and Mixed	i-stem	
SG. NOM	a	us/	e:s/s/	us	e:s
GEN	ae	i:	is	is	e:i:
DAT	ae	o:	i:	i:	ui:
ACC	am	um	em	im	um
ABL	a:	o:	e	i:	u:
PL NOM	ae	i:	e:s	u:s	e:s
GEN	a:rum	o:rum	um	ium	uum
ACC	a:s	o:s	e:s	u:s	e:bus
DAT	i:s	i:s	ibus	ibus	e:s
ABL	i:s	i:s	ibus	ibus	e:bus

The Latin nominal system is characterized by widespread contextual syncretism. Given the analysis proposed in the preceding section and relying on Halle (1996), the following account based on feature minimization of the lexical items can be proposed for the Latin nominal system. First we have to segment the sound strings composing the desinences. We know that each word class is characterized by a common vocalic element which is traditionally called the thematic vowel. The thematic vowels of Latin are given in (49):

(49)	TV	→	a	in the env. [I]
	TV	→	o	in the env. [II]
	TV	→	i	in the env. [III]
	TV	→	u	in the env. [IV]
	TV	→	e:	in the env. [V]

genitive and the dative in the singular could have been the outcome of the activation of the Case restriction (27d) but restricted to the singular and the syncretism between the dative and ablative could have been the outcome of the activation of the Case restriction (27f) but restricted to the plurals (see Sommer (1914: 327-8), Leumann (1977: 417-420) for alternative views). I propose, however, that although this could be historically correct, the synchronic syncretic patterns created by these local activations of Case restrictions—in the same way as those created by sound changes—are better represented by simplifying the lexical items as in (39). (see section 5 for other cases of contextual syncretism developed through the local activation of Case restrictions).

There are various processes of lengthening, lowering, raising and deletion affecting the thematic vowel. These processes are the outcome of different readjustment rules (see Halle and Marantz (1993) and Halle (1996) on readjustment rules). Limits of space, however, prevent me from discussing these readjustment rules. I will only mention, as an example, the readjustment rule lengthening the thematic vowel in the ablative and dative of the II declension stated in (50):

$$(50) \quad \begin{array}{c} X \\ | \\ V \end{array} \rightarrow \begin{array}{c} X \quad X \\ \diagdown \quad / \\ V \end{array} / \text{ \_\_\_\_\_\_ } [V = \text{Thematic vowel, II, +Location}]$$

Once we subtract the thematic vowel from the desinences, we can recognize two different types of elements: the augments and the endings. By recognizing the presence of an augment in some desinences, a simpler analysis of the endings can be proposed. The augments are given in (51) and the endings in (52). According to this proposal, the desinence of the ablative/dative plural of the III declension is analyzed as /-bu-s/, that of the ablative/dative of the I-II declension as /-i:-s/, that of the genitive plural of the I-II and III declension as /-r-um/, where /-bu-, -i:-, -r-/ are the augments and /-s, -um/ the endings.

The featural assignments of the different lexical items in (51)-(52) follow from the principle (38) stating that, for each lexical item, the minimal common set of features able to account for the maximal distribution of the lexical item is chosen. The principle (40) is satisfied by a combined action between endings, augments and readjustments rules. Lack of space prevents me from discussing how this is implemented;

$$(51) \quad \text{Aug} \leftrightarrow /-r-/ \text{ in env. \_\_\_\_\_\_ } + [+plur., +possessor, -location] \\ \text{if dominated by a stem of I, II, V class.}$$

$$\text{Aug} \leftrightarrow /-bu-/ \text{ in env. \_\_\_\_\_\_ } + [+plur., +location] \\ \text{if dominated by a stem of III, IV, V class.}$$

$$\text{Aug} \leftrightarrow /-i:-/ \text{ in env. \_\_\_\_\_\_ } + [+plur., +location] \\ \text{if dominated by a stem of I, II class.}$$

$$\text{Aug} \leftrightarrow /-\emptyset-/ \text{ elsewhere}$$

(52)	/-um/	↔	[+possessor, -location, +plural]	<PLGEN>
	/-i:/	↔	[+subject, +plural]	<PL, NOM>
			in the environment dominated by a stem of I, II class.	
	/-i:/	↔	[+possessor, -plural]	<SgGEN/DAT>
	/-a/	↔	[+direct, +plural, neuter]	<PI.NT>
	/-m/	↔	[+direct, -plural]	<Sg.ACC>
	/-∅/	↔	[-pl]	<Sg default>
	/-s/	↔	Elsewhere11W1C1	

The correct insertion of these lexical items will be governed by the assumption, fundamental in DM, that in a competition among different lexical items, the most highly specified one whose identifying (syntactic/semantic) features are a subset of the features of the terminal node wins the competition and is inserted (see the Subset principle in (10)). The ending /-s/ is not assigned a set of features and is inserted wherever other lexical items fail to be inserted. It is called the elsewhere case (see Halle (1996), Harris (1995) for discussion of the status and function of elsewhere cases).

Once we decide that /s/ is the elsewhere case, we need to account for the shape of the nominative and genitive singular. According to the list in (52), in these cases we should expect the null morpheme which is the default ending of the singular. Following Halle's analysis, we can say that this is obtained by having the operation of impoverishment which deletes certain relevant features. Under these conditions the next relevant lexical item will be inserted. The two operations of impoverishment needed to account for the shape of nominative and genitive singular are given in (53):<sup>16</sup>

<sup>16</sup> The function of Impoverishment is to block the insertion of more specified lexical items which are replaced by less specified ones. In this sense, impoverishment doesn't need to involve deletion and could be replaced by a statement disallowing the use of certain features in lexical insertion.

Limits of space prevent me from discussing the issues related to impoverishment in detail in this paper. However, an important issue that needs to be considered even though briefly is that of the relationship between impoverishment and feature change. These two operations share the same result of preventing the insertion of a given lexical item. I would like to assume that they are both needed, although there is some overlap in their function that needs to be eliminated. The issue is then what is the correct division of labor between them. A possibility is that impoverishment plays a role in accounting for patterns of contextual syncretism in conjunction with the notion of elsewhere case. However, as argued in Calabrese (1995b) (see also 2.2 and 5 of this paper), impoverishment cannot be used to account for changes involving absolute syncretism, where instead feature change must be used.

From the diachronic perspective, impoverishment could account for the morphological extension of forms which are more general from the distributional point of view, in particular for the

- (53) a. The feature [-plural] is deleted in lexical insertion in the context of [+subject] in the II-IV declensions.  
 b. The feature [-plural] is deleted in lexical insertion in the context of [+possessor -location ] in the III-IV declensions.

Therefore the null morpheme  $\emptyset$  cannot be inserted in this cases, and the elsewhere case /-s/ is inserted.

To account for the shape of the dative of the second declension where instead of the expected /-i:/ we have  $-\emptyset$ , we can assume the impoverishment in (54):

- (54) The feature [+possessor] is deleted in lexical insertion in the context of [+location] in the II declension

After having provided an account of the Latin endings, we can consider the grammatical functions of the Latin nouns and their relationship to Cases. The grammatical function of Latin nouns was expressed in two different ways, as we can see in (55)-(56):

- (55) Only with the Case ending:

*amicum salutare* 'greet a friend'  
*plenus vino (or vini)* 'full of wine'  
*gladio occidere* 'kill with a sword'

- (56) With the Case ending and a preposition:

*ad pugnandum aptus* 'fit to fight'  
*in vino veritas*  
*de amico fabulam narrare*  
 'to tell a story about a friend'

Only the accusative and the ablative are used with prepositions. Dative and genitive do not admit prepositions. This is shown in (57):

- (57) a. *liber petri* 'the book of Peter'  
*do librum amico* 'I give a book to a friend'

---

extension of elsewhere cases. For example, impoverishment could be used to account for the diachronic spreading of the plural in /-s/ in English or the plural in /-i/ in Italian. To use feature change for cases like these is simply awkward. I will end this note by admitting that many aspects of this issue are still unclear to me. Future research will address them.

b. <i>ferire gladio</i>	'wound with a sword'
<i>epistulam scribo</i>	'I write a letter'
<i>maerore conficior</i>	'I am consumed by sorrow'
c. <i>eo in urbem</i>	'I go to the town'
<i>venio ex urbe</i>	'I come from the town'
<i>per fines contendit</i>	'he went through the territory'
<i>ambulare cum amico</i>	'walk with a friend'

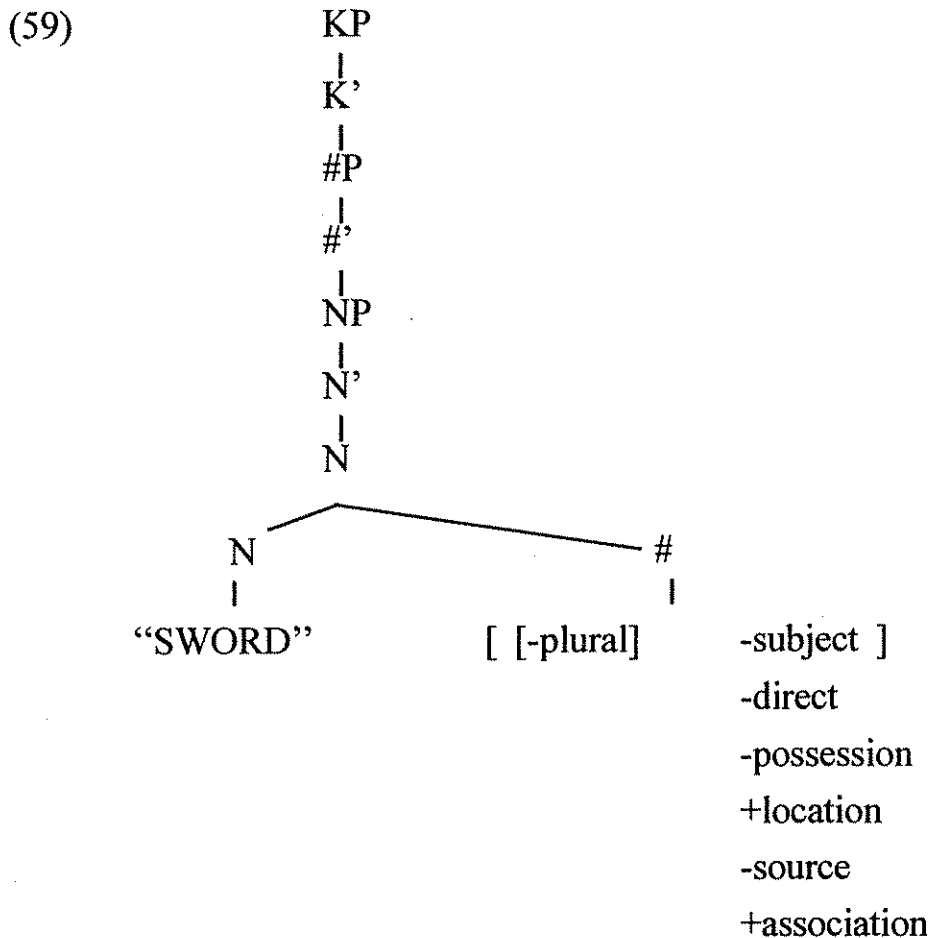
As already mentioned in section 2.2, a characteristic property of the ablative in Latin is that it is used to represent a variety of grammatical functions. In some instances, for example, when the ablative is used to represent spatial roles, it is accompanied by a preposition. Otherwise it appears without a preposition, for example when it is used to represent the instrumental role.

As discussed in section 2.2, in all of these cases, we are dealing with a situation of synchronic absolute syncretism where the exponent of the ablative, in addition to the proper "ablative" function, also represents across all declensions grammatical functions associated to other Cases such as the instrumental, the locative, etc. As we saw in section 2.2, this type of syncretism should be accounted for by assuming that the morphosyntactic component contains active Case restrictions blocking the Cases which do not have a morphological expression, together with morphological operations converting the feature bundles of the disallowed Cases into those of allowed ones. Let us see how this is done with the ablative. I begin to account for the use of the ablative with the grammatical function of the instrumental that we see in the Latin phrase in (58):

(58) *ferire gladio* 'wound with a sword'

In the case of (58) the syntax will provide a KP that has the features of the instrumental in its head —as proposed in section 2.1, all types of Cases are present in the syntax. After merger and fusion, this KP will have the structure in (59):



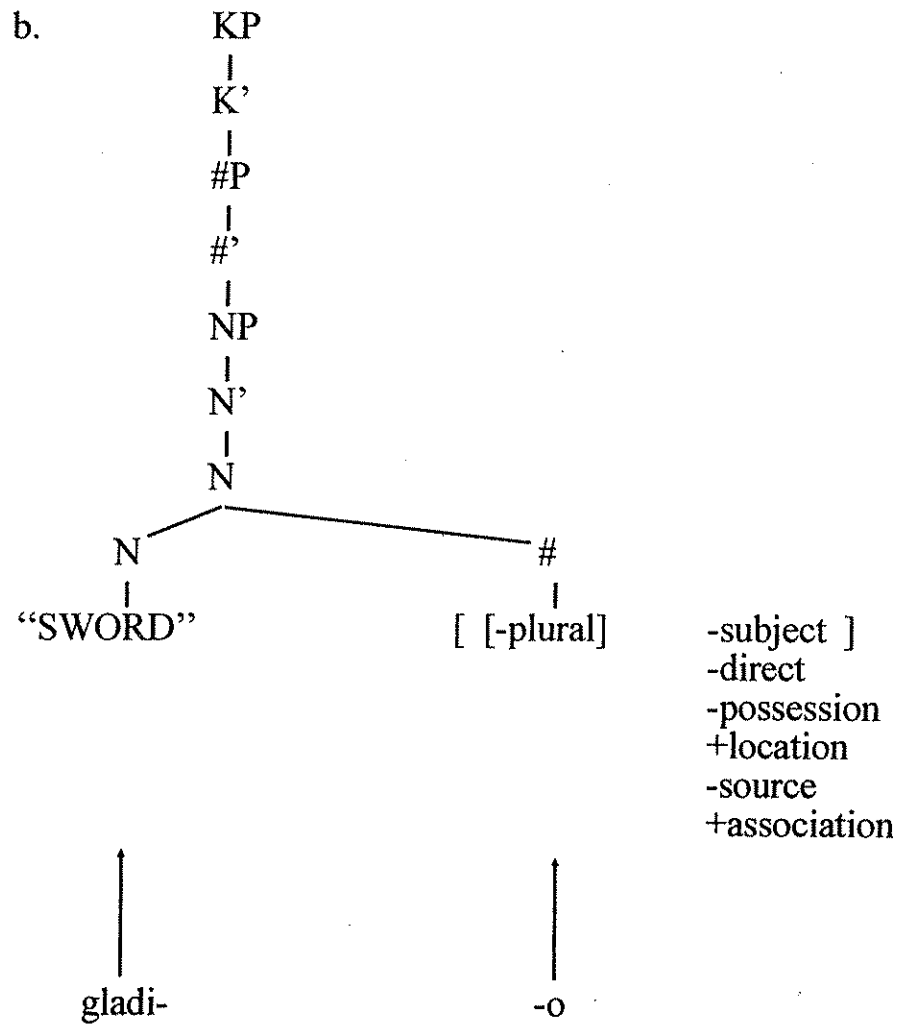


Latin disallows the morphological realization of the instrumental as an independent Case. This means that the Case restriction in (27g), repeated here as (60) is active in Latin:

(60) \*[-source, +association]

This active Case restriction disallows the feature bundle in (54). Let us hypothesize that feature change is used to repair the disallowed configuration in (54) in the morphological component. This feature bundle is therefore modified by changing the feature [+association] into [-association] as in (61):

(61) a. [+association] → [-association]/ [\_\_\_\_, -source]

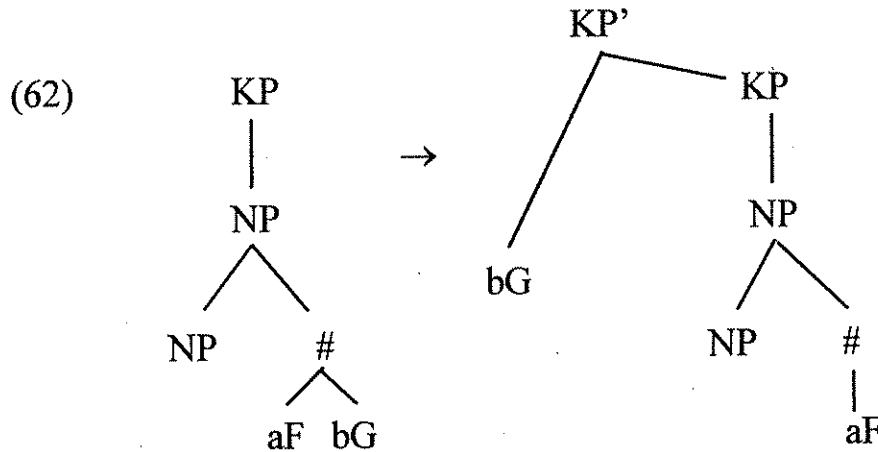


The Case feature bundle in (61b) is that of the ablative. Thus, by feature change, the instrumental provided by the syntax is replaced by the ablative in the morphological component.

At this point we have to address the status of the prepositions in Latin. Prepositions appear with Case-marked nominals in Latin. Now, Case-marking indicates that the KP is head-final. At the same time, the presence of prepositions indicates that the KP is head-initial. Latin is thus a problem since it apparently displays two contradictory properties.

Within DM, however, we have a simple solution for this problem. One of the operations that can repair a disallowed configuration is fission, which is formally represented in (9e). When fission applies to a disallowed Case configuration, it takes a feature from the disallowed bundle and adjoins it to the

KP. It thus creates a new position for lexical insertion in the morphology. This is shown in (62) (Using simplified tree structures):<sup>17</sup>



(where aF, bG are Case features)

This procedure accounts for the Latin Cases appearing with prepositions. Consider the example in (63):

(63) ex urbe “out of the town”

Let us assume that Latin disallows the configuration [+location, +relative]<sup>18</sup>. Thus the Case restriction in (64) is active in Latin:

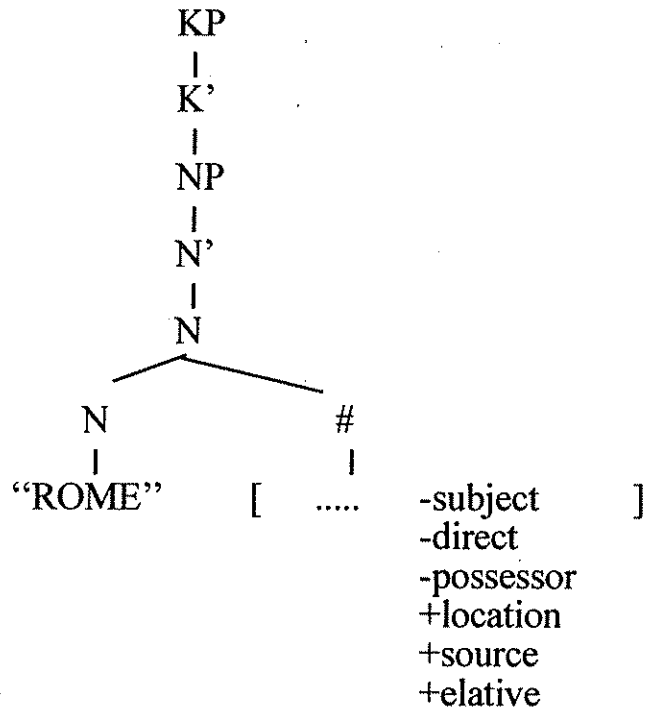
(64) \*[+location, +relative]

Let us suppose that fission is chosen to repair configurations disallowed by (64). Therefore, from the feature bundle in (65), we obtain the feature bundle in (66):

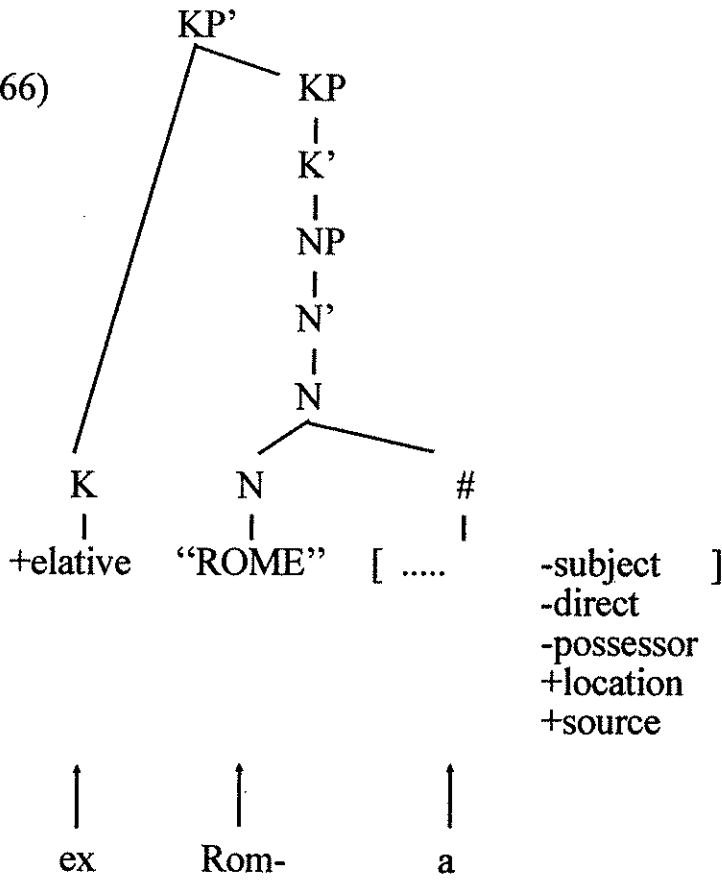
<sup>17</sup> As you can see in (62), the adjunction site of the fissioned element is at the side opposite to that of the fused Case head. I would like to suggest this follows from a general principle governing morphological fission. This principle should state that the landing site of morphemes fissioned from a head is always to the side opposite to the side of the head. Further research should determine if this principle is correct and whether or not this is the correct approach to the position of the fissioned element in (62).

<sup>18</sup> I am stipulating that the elative Case is characterized by the feature [+relative] just for the sake of the argument. The theory of Case features (which is still to develop) should determine the correct set of features that needs to be used to distinguish between local Cases, and therefore establish which feature is to be used in this case.

(65)



(66)



It appears that in Latin, fission is the preferred strategy for Cases which characterize different spatial relations such as the elative, allative, perlative, etc.), and for the other special Cases of (25)-(26), that is, the comitative, the purposive, the comparative and so on.<sup>19</sup>

Observe that by assuming fission we can analyze Latin as being a consistently head final language.

#### 4. *The evolution of the latin case system*

In this section the developments of the Case system that are attested in Late Latin are discussed. First of all, there is a widespread syncretism between accusative and ablative. In particular, we see the appearance of the accusative after prepositions that took the ablative in the classical language. This is illustrated in (67):

- (67) cum: *cum filios suos tres* (CIL, VIII, 3933) 'with his three children'  
 (instead of *filiis suis tribus*)  
 ab: *posita a fratres* (CIL, VIII, 20296) 'put by the brothers'  
 (instead of *fratribus*)  
 pro: *pro se et suos* ((CIL, XII, 1185) 'for himself and his...'  
 (instead of *se et suis*)

Furthermore, there is widespread syncretism between the genitive and the dative. Characteristically it is the genitive that replaces the dative, as we can see in the cases in (68):

- (68) *quod vinclum, quaeso, deest nostrae coniunctionis*  
 (instead of *nostrae coniunctionii*) (Cic. ad Fam. v, 15, 2)  
 'What bind, I ask, is absent from our relationship?'  
*ille tunc imber.. mortem intulit corporum* (instead of *corporibus*)  
 (Chrisost. Ho. 7, 7)  
 '...the rain brought death to their bodies'  
*qui eorum* (instead of *eis*) *auxiliare presumpserat* (Fredeg., sec. VI  
 or VIII, 3, 51)

<sup>19</sup> There are also cases in which prepositions take the accusative. To account for them I would like to suggest that in addition to fission, these cases are also characterized by an operation of feature change which replaces the feature [-direct] with the feature [+direct]. Limits of space prevent me from developing this idea further.

'he who had taken help to them'  
*viriliter eorum* (instead of *eis*) *resistens* (Chronicum Salernitanum,  
 747-974)  
 '...resisting courageously to them'

Eventually all prepositionless Case-marked NPs were replaced with prepositional constructions as shown in (69):

- |      |  |                    |                               |
|------|--|--------------------|-------------------------------|
| (69) | <i>ad carnificem dabo</i>  | <u>in place of</u> | <i>carnufici dabo</i>         |
|      | 'I will give ___ to the executioner'                             |                    |                               |
|      | <i>dixit Iesus ad discipulos</i>                                 |                    | <i>dixit Iesus discipulis</i> |
|      | 'J. said to the disciples'                                       |                    |                               |
|      | <i>ostentare ad digitum</i>                                      |                    | <i>ostentare digito</i>       |
|      | 'to indicate with the finger'                                    |                    |                               |
|      | <i>monasterium de castas</i> (Theodosius De situ terrae sanctae) |                    |                               |
|      | 'monastery of young girls'                                       |                    |                               |
|      | <i>in hoc tempore</i>  |                    | <i>hoc tempore</i>            |

Putting aside pronominal forms where a residual Case system was preserved, the majority of the Romance languages eliminated all expression of Case. There are two exceptions listed in (70):

- (70) a. Old Gallo-Romance has a two Case system with an opposition between the subject and the oblique Case.  
 b. Rumanian has a two Case system. But here we have an opposition between Nominative/Accusative vs Genitive/Dative.

In the two languages in (70), the Case contrasts are best represented by the definite article (see section 5 for discussion of the nominal systems of these languages.)

In old French, which I take as representative of Old Gallo-Romance, the definite article has the 3 forms shown in (71):

- (71) Old French definite articles:

	<u>Singular</u>	<u>plural</u>
Subj.	li <(IL)LI	li <(IL)LI
Obl.	le, lou <(IL)LU	les <(IL)LOS

In Rumanian where the definite article is enclitic, it has the 4 forms shown in (72) for the masculine and the feminine:

(72) Rumanian definite articles:

Masculine:	<u>Singular</u>	<u>plural</u>
Nom./Acc	lupul < LUPU (IL)LU	lupii < LUPI(IL)LI
Gen./Dat.	lupului < LUPU (IL)LUI	lupilor < LUPI (IL)LORUM
Feminine:	<u>Singular</u>	<u>plural</u>
Nom./Acc	casa < CASA (IL)LA	casele < CASAE (IL)LAE
Gen./Dat.	casei < CASAE (IL)LAEI	caselor < CASAE (IL)LORUM

In Old French, the subject Case is etymologically based on the Latin nominative, whereas the oblique is based on the Latin accusative. In Rumanian, the plurals seem to indicate that the etymological base for the nominative/accusative is the Latin nominative, whereas the basis for the genitive/dative is the genitive.<sup>20</sup>

### 5. *Account of the evolution of the latin case system*

A purely neo-grammarian type of explanation of the loss of the Case system in a language argues that it should be due to the phonological developments that this language underwent. In the case of Latin, the sound changes in (73) could have affected the Case system. By these changes, the Case distinctions in (74) were neutralized.

- (73) a. Loss of /m/ in word final position.  
 b. Merging of short /î, ū/ with /long /ē, ō/  
 c. Loss of quantity ( Romā (nom.) cannot be distinguished from Romā (abl.) any longer)

	NOM	ACC	ABL		
(74)	terra	terram	terrā	→	terra
	campus	campum	campō	→	campo
	panis	panem	pane	→	pane

<sup>20</sup> The evidence from the Rumanian singulars is more ambiguous. In particular, the Proto-Romance forms /\*(IL)LUI/\*(IL)LAEI/ from which the genitive/dative forms /-lui/-i/ derive are traditionally considered to be datives (cf. Lausberg (1977)). I would like to submit that they are actually genitives which replaced the classical form /ILLIUS/. Two morphological changes are relevant: i) the rule that deleted the thematic vowel before the genitive ending was lost; ii) the genitive ending /-i:/ of the nominal declension was extended to the pronominal declension. These two changes should give us forms such as \*(IL)L-O-I/\*(IL)L-A-I. Other minor phonological and morphological adjustments should produce the forms /\*(IL)LUI/\*(IL)LAEI/. Lack of space prevents me from developing the analysis of these forms in detail here.

However, a purely phonological explanation of the loss of the Case system in Latin does not work. First of all, observe that the system of inflectional endings in verbs was not lost, although these endings were affected by the changes in (73) in the same way as the nominal ones. Furthermore, given the changes in (73) in a language like Spanish where final vowels and final /s/ were preserved, all the Case distinctions in the plural should have been maintained, as we can see in (76). If they were lost, it must have been because of some non-phonological reason.

	<u>Plural</u>			
	<u>Nominative</u>	<u>Genitive</u>	<u>Dative/Ablative</u>	<u>Accusative</u>
(75)	terrae campi	terrarum camporum	terrīs campīs	terrās campōs
(76)	*terre *campi	*terraro *camporo	*terrīs *campīs	*terrās *campōs

The same is true for the genitives and datives characterized by a long /-ī/ in languages like Italian where final vowels were preserved.

In Old French, where low vowels were raised but not lost in word final position, in contrast with non low vowels that were lost, we should find an alternation between /e/ to realize a genitive/dative of the Rumanian type, as in (77):

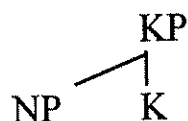
(77)	rose <	ROSA and ROSAM
	*ros <	ROSAE/ROSE

The absence of this Case contrast in Old French, as well as the other arguments mentioned above, demonstrates that a purely phonological account of the evolution of the Latin Case system is not satisfactory (see Renzi (1993) for more discussion of these points).

The traditional morphosyntactic account of the evolution of the Latin Case system relates the loss of Case-marking to the change in word order that occurred from Latin to Romance. Following Fillmore (1968), we can say that that Cases and prepositions are the morphological spell out of the same category Kase. We have prepositions when the KP is head-initial and Cases when the KP is head final, as shown in (78):



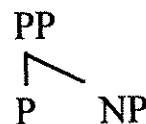
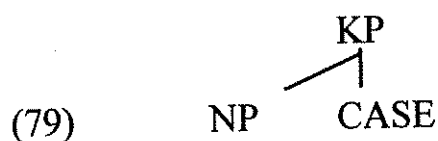
(78) a. Postposition/Case suffixes:



b. Prepositions:



One could then propose that when Latin word order changed from head-final to head-initial, Case suffixes disappeared and became prepositions:



This account, though correct in its general effect, is obviously too simplistic. In fact, according to this analysis, it is not clear how to explain the various stages of the development of the Latin Case system. The proposed analysis could explain the replacement of the ablative with a prepositional construction. But it cannot account for why there is still accusative Case marking in this instance. Furthermore it cannot account for why there is the syncretism between dative and genitive which eventually leads to the Rumanian Case system. In the same way, it cannot account for the development of the two Case system subject vs. oblique attested in Gallo-Romance.

The theory of Case systems presented earlier provides an answer to these questions. We can then assume that concomitant with the trend to switch head position from final to initial, there was also a process of simplification of the Case system obtained by the activation of Case restrictions. It is this process of activation of Case restrictions that more strikingly accounts for the evolution of the Case system we see in Romance.

Before discussing an analysis of the syncretic changes based on the activation of the case restrictions, we need to explore another possible analysis of these changes. One could hypothesize that syncretic changes are due to the simple loss of lexical items, in this instance Case endings, with concomitant extension of the use of other lexical items. Assuming the lexical minimization proposed earlier, 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, consider the analysis for the Latin nominal system proposed in (52). In such analysis, the ending /-s/ has a special status being the elsewhere case, the least marked lexical item. If we assume that syncretic changes are due

to the loss of lexical items, we should expect this ending to play a crucial role in the development of the system. We should then expect the ending /-s/ to be extended to uses that it did not have before. For example it should have become the exponent of the genitive of the second declension or of the dative, or of the genitive plural. No such change is attested, or can be reconstructed in the history of the Romance nominal system. Both Gallo-Romance and Rumanian preserve the exponents of Latin and their distribution intact. The changes that we observe in these Case system do not involve exponents, but the actual Cases. Thus for example, we have syncretic changes between ablative and accusative and between genitive and dative, regardless of the exponents that they have. The genitive plural /-ōrum/ replaces the dative plural /-īs/ in the second declension, regardless of the internal constituency and featural assignments of these exponents. The same is true for the replacement of the ablative /-īs/ by the accusative /-ōs/ where they both share the same ending /-s/ but differ in the quality of the thematic vowel —which is changed into /-i-/ in the ablative plural by a special rule (see Halle (1996)).

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

Two syncretic processes are observed in late Latin as shown in (67)-(69): the syncretism between ablative and accusative and the syncretism between genitive and dative.

I begin by considering the widespread syncretism between dative and genitive that characterized Late Latin. In the Case hierarchy in (27), the dative is more marked than the genitive. Let us suppose that the Case Restriction in (27d), repeated here as (80), is activated at a certain point in the history of Late Latin.

(80) \* [+possessor, +location]

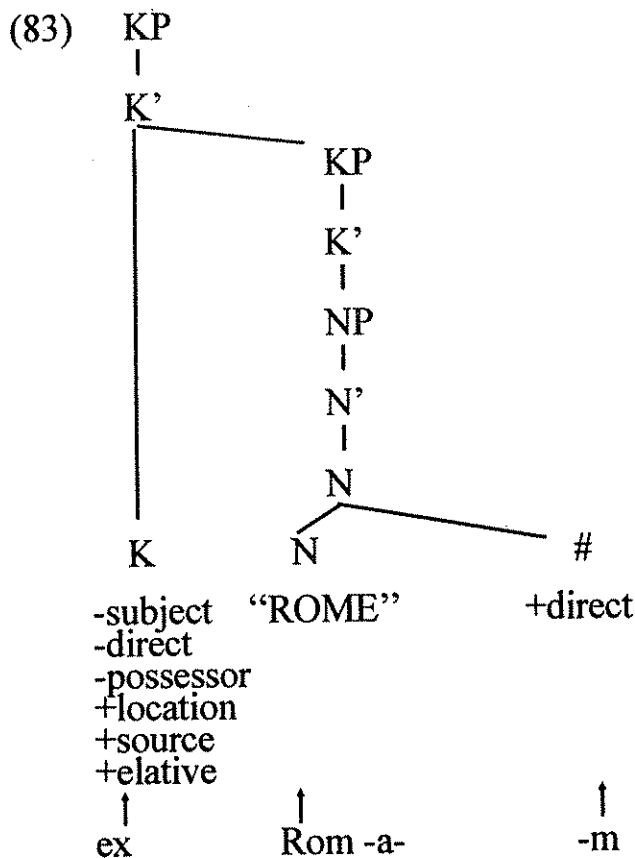
Therefore, a terminal node such as that in (81) must be repaired.



The exponent of the genitive will thus be inserted instead of the exponent of the dative. We have thus an account of the syncretism between genitive and dative. Notice that, at this point, the exponent of the genitive will also have the function of the dative, given that no preposition or other marker can distinguish the two.

Let us now consider the syncretism between ablative and accusative after prepositions. Observe that a further simplification of the Case system could be obtained if the leftmost K in (61) is reanalyzed as a head governing the embedded KP. As head of the higher KP, in fact, the leftmost K would be assigned all of the features that were previously assigned to the lower KP.

Now, as already discussed, Case restrictions only apply to merged Case feature bundles, i.e. Cases that are realized as affixal, but not to morphologically free feature complexes such as those found in adpositions. Therefore if the leftmost K is analyzed as a free head, it would not be restricted by Case restrictions. At the same time, if the leftmost K is reinterpreted as a Head, the feature [+direct] must be assigned to the lower KP since it would be governed by a [-N] head. The result of this is that the ablative is eliminated after prepositions. The structure resulting from this change is represented in (83):



I hypothesize further that the elimination of the ablative after prepositions led to the activation of the Case restriction in (27f). Thus, prepositionless ablatives were also eliminated. They were repaired by fission. The fissioned Case feature was reinterpreted as the head as discussed above. Therefore the ablative was replaced in all situations with a prepositional construction employing the accusative.

Thus I propose that in Late Latin the Case restrictions in (27f) disallowing the ablative and that in (27d) disallowing the dative were activated. The ablative was replaced with prepositional constructions with accusative and the dative with prepositionless constructions with the genitive. For Proto-Romance, we can thus assume a system with the Cases in (84):

(84)	<u>I Declension Class</u>		
	<u>Singular</u>	<u>plural</u>	
Nom.	*porta	*porte	‘door’
Acc.	*porta(m)	*portas	
Gen/Dat	*porte	*portaro(m)	
	<u>II Declension Class</u>		
	<u>Singular</u>	<u>plural</u>	
Nom.	*muros	*muri	‘wall’
Acc.	*muro(m)	*muros	
Gen/Dat	*muri	*muroro(m)	
	<u>III Declension Class</u>		
	<u>Singular</u>	<u>plural</u>	
Nom.	*canes	*canes	‘dog’
Acc.	*cane(m)	*canes	
Gen/Dat	*canis	*cano(m)? <sup>21</sup>	

The presence of a three Case system such as that in (84) for proto-Romance is predicted by the theory developed up to this point. Observe that the same system for proto-Romance has been independently argued by Burger (1943), de Dardel (1964), and Zamboni (1990).

<sup>21</sup> At this point of my research, I am unable to decide what form should be reconstructed for the genitive plural of the third declension. Instead of the form given in (84) we could also propose \*canoro with extension of the suffix of the II declension. Further research should solve this problem.

Given the three Cases we see in the system in (84), we must suppose that the only Case restrictions that were inactive in Proto-Romance were those in (85):

- (85) a. [+subject, +direct] (Nominative Case)  
 b. [-subject, +direct] (Accusative Case)  
 c. [+possessor, -location] (Genitive Case)

Now we can account for the difference in Case systems between Gallo-Romance and Rumanian. In the course of the development from Proto-Romance to Gallo-Romance, the Case restriction in (85c) became active, as shown in (86) and thus the genitive was removed from the system.

- (86) a. [+subject, +direct] (Nominative Case)  
 b. [-subject, +direct] (Accusative Case)  
 c. \* [+possessor, -location] (Genitive Case)

The feature [+possessor] was changed in the feature bundles of the genitive.<sup>22</sup> Thus, accusative exponents took the place of the genitive ones. We thus create a two Case system based on the contrast +/- subject, and obtain the system Subject vs. Oblique of Gallo-Romance, where the oblique forms are etymologically those of the accusative, and the subject ones those of the nominative. For Proto-Gallo-Romance we can then assume the system in (87):

(87)	I Declension Class		
	<u>Singular</u>	<u>plural</u>	
Subj.	*porta	*porte	'door'
Obl.	*porta	*portas	
	II Declension Class		
	<u>Singular</u>	<u>plural</u>	
Subj.	*muros	*muri	'wall'
Obl.	*muro	*muros	
	III Declension Class		
	<u>Singular</u>	<u>plural</u>	
Subj.	*canes	*canes	'dog'
Obl.	*cane	*canes	

<sup>22</sup> This change is followed by the automatic adjustment of the features [-direct], [+source] into [+direct], [-source] because of the constraints in (24).

The Old-French system in (88) is obtained from that in (87) by the regular sound changes occurring in this language such as deletion of final non low vowels and raising of low vowels.<sup>23</sup>

## (88) OLD FRENCH

I Declension Class			
	<u>Singular</u>	<u>plural</u>	
Subj.	porte	portes	'door'
Obl.	porte	portes	
II Declension Class			
	<u>Singular</u>	<u>plural</u>	
Subj.	murs	mur	'wall'
Obl.	mur	murs	
III Declension Class			
	<u>Singular</u>	<u>plural</u>	
Subj.	chiens	chiens	'dog'
Obl.	chien	chiens	

<sup>23</sup> Observe that the ending of the plural Subject Case of the Old French first declension is identical to that of that of the oblique. I suggest that this might be a case of contextual syncretism triggered by a local activation of the case restriction (86a) in the plural of the first declension. This is the restriction that is activated across all declensions in a later stage of the language, as discussed below.

The phonological changes mentioned in the text and the local activation of the Case restriction (86a) created the complex pattern of contextual syncretism we observe in (88). As discussed in section 2.2, this pattern of syncretism should be accounted for by minimizing the feature assignment of the lexical items. The following system could be proposed (from M. Halle (p.c.)):

Vocabulary:

- Thematic vowels:
- (i) TV → /-e-/ in envir. I declension  
 TV → ∅ /elsewhere
- Case endings
- (ii) /∅/ ↔ ∅[-plural]  
 /-s/ ↔ elsewhere

Morphological readjustments:

- Impoverishment:
- (iii) [-plural] → ∅ / [\_\_\_\_, +subject, II, III]
- Feature Change (ordered after (iii)):
- (iv) [+plural] → [-plural] / [\_\_\_\_, +subject, II]

The peculiarity of Rumanian is that (85b) instead of (85c) was activated. Thus the accusative was removed from the system:

- (89) a. [+subject, +direct] (Nominative Case)  
 b. \*[-subject, +direct] (Accusative Case)  
 c. [+possessor, -location] (Genitive Case)

We thus obtain the two Case system of Rumanian. Crucially the feature [-subject] was changed in the feature bundles of the accusative. Thus nominative exponents took the place of the accusative ones, giving a system nominative vs. genitive. This accounts straightforwardly for the forms that we find in the plurals of the definite article and of pronominals in Rumanian, as we can see in (90):

- (90) a. lupi-i <LUPI(IL)LI : lupi-lor <LUPI (IL)LORUM  
 case-le <CASAE (IL)LAE : case-lor <CASAE (IL)LORUM  
 b. ei <ILLI : lor <(IL)LORUM  
 acesti <ECCE+ISTI : acestor <ECCE+ISTORUM  
 acei <ECCE+ILLI : acelor <ECCE+ILLORUM

The situation in the nominal system is slightly more complicated. We can see the nominal system in (91)(Neuters are omitted)<sup>24</sup>

(91) RUMANIAN

I Declension Class (Feminine)			
	<u>Singular</u>	<u>plural</u>	
Nom./Acc	capra*	capre	'goat'
Gen./Dat.	capre	capre	

<sup>24</sup> I also omitt discussion of endings whose form is different because of phonological changes. There are two classes of neuters. In the singular they behave like masculine nouns. In the plural, one class takes the suffix /-uri/. The other class is characterized by a change of gender and declension class so that the feminine plural suffix /-e/ of the I declension is found in this case. The behavior of the second class of neuters can be accounted for by assuming the lexical item in (93), the Redundancy rule in (i) proposed by Harris (1992) for Spanish, but which holds for Rumanian as well, and the feature change in (ii):

- (i) [+feminine] → [I]  
 (ii) [-feminine] → [+feminine]/ [\_\_, -masculine, +plural]

(i) assigns feminine nouns to the I declension. It does not apply to nouns of the III declension because they are idiosyncratically marked for declension class, as in Harris (1992) analysis of Spanish nominal morphology. The historical reasons for the feature change in (ii), which Rumanian share with Italian, are complex and cannot be discussed here.



## II Declension Class (Masculine)

	<u>Singular</u>	<u>plural</u>	
Nom./Acc	codru	codri	'forest'
Gen/Dat.	codru	codri	

## III Declension Class (masculine)

	<u>Singular</u>	<u>plural</u>	
Nom./Acc	câne	câni	'dog'
Gen/Dat.	câne	câni	

## III Declension Class (feminine)

	<u>Singular</u>	<u>plural</u>	
Nom./Acc	vulpe	vulpi	'fox'
Gen/Dat.	vulpi	vulpi	

Observe first of all that in the nominal system, Rumanian displays contextual syncretism between nominative and genitive in the singular of the non-feminine declensions and in the plurals. In the feminine of all declensions, in contrast, the exponent of the genitive/dative is identical to that of the plural. Here I will sketch a possible analysis of the development of this pattern. The first change leading to this syncretic pattern could be the local activation of the case restriction (89c) in the plural. This is an expected change; it is well known that in many languages the plural is characterized by less Case distinctions than the singular. By this local activation all the genitive plural exponents were replaced by the nominative plural exponents and we thus obtain the syncretic pattern we observe in the plurals in (91).

A further local activation of this Case restriction also in the singular followed. I propose, however, that before this activation occurred, another change took place. In the first declension, the expected etymological ending of the genitive/dative singular(=/-e/) was homophonous to the ending of the plural (=/-e/) (at this point no case distinctions appeared in the plural). I propose that this homophony was eliminated by assuming that the same exponent appeared in both cases. This led to the stipulation of the feature change rule in (92), which in conjunction with the lexical item in (93), accounts for the distribution of the suffix /-e/ in the first declension in an optimal way (I = first declension):

(92) [-plural] → [+plural]/ [\_\_\_\_, +nominal, I, +possessor]

(93) /-e/ ↔ [+plural, I]

Subsequently, since the first declension contains only feminine nouns, the rule in (92) was extended as in (94) so that it applied to all feminine nouns, in particular to the feminine nouns of the third declension:

(94) [-plural] → [+plural]/ [\_\_\_\_, +nominal, +feminine, +possessor]

This explains the syncretic pattern we observe in the feminines of the third declension. The other lexical items that are needed to account for the Rumanian nominal system and its contextual syncretism are given in (95):<sup>25</sup>

(95) /-i/ ↔ [+plural]  
/∅/ ↔ elsewhere

We thus have an analysis of the synchronic situation of Rumanian. At this point we can consider the synchronic situation of the other Romance languages. In western Romance we have a further development. The two Case system subject/oblique is eliminated. I propose that it is eliminated by activating (86a). The nominative is therefore replaced by the accusative. We thus have an account of why the plural ending is /-s/ in western Romance. This is what we expect if the accusative is the base for the development of the plural morpheme as illustrated in (96):<sup>26</sup>

(96) <u>Plurals</u>	<u>Proto-Western Romance</u>	<u>Western Romance (attested in Old French)</u>
	*case	'house'
	*casas	casas
	*campi	'field'
	*campos	campos
	*dentes	'tooth'
	*dentes	dentes

<sup>25</sup> In addition, we need to assume that Rumanian nominal stems are characterized by the thematic vowels in (i) and that there is the readjustment rule in (ii) deleting the thematic vowel before another suffixal vowel:

- (i) TV → e/ in the envir.[III]  
TV → a/ in the envir. [I]  
TV → u /elsewhere
- (ii) V → ∅/ \_\_\_\_ V

<sup>26</sup> See Wetzels (1981) for an interesting alternative analysis of the same facts. Observe also that given the system discussed in note 15 where /-s/ is the elsewhere case in Old French, there is no simple way to account for why the elsewhere /-s/ becomes the marker of the plural in modern French.

Let us consider Italian. We know that Italian has the old nominative ending as the marker of the plural. This is clearly shown by the plurals of the second declension as in (97):

	<u>Sing.</u>	<u>Plur.</u>
(97)	amico	amici
	campo	campi

We can account for this fact in two ways: We could propose that Italian shared the same development in the Case system as Rumanian. Therefore we could assume a two Case system N/A : G/D. Italian would be further characterized by the activation of (89c). The configurations disallowed by (89c) would be repaired by changing the feature [+possessor]. The feature [+possessor] was changed in the feature bundles of the genitive, followed by the automatic change of the feature [-direct] because of the unviolable constraint (24e) and of the change of [-subject] because of the active Case restriction (89b). Therefore the exponent of the genitive/dative would be replaced with that of the nominative. This is shown in (98):<sup>27</sup>

(98)	<u>Plurals</u>		
	<u>Proto-Eastern Romance</u>	<u>Italian</u>	
	*case	case	‘house’
	*casaro		
	*campi	campi	‘field’
	*camporo		

Alternatively we could also propose that Italian shared the same development in the Case system as Western Romance. Therefore we could assume a two Case system Subject vs Oblique. However, instead of activating (86a), Italian would have activated (86b). Thus the configuration disallowed by (86b) would be repaired by changing the feature [-subject], and the exponent of the accusative would be replaced with that of the nominative. This is shown in (99):

<sup>27</sup> I do not consider the third declension where the nominative plural morpheme which we expect from Lat. /-es/ was replaced by the nominative plural morpheme of the II declension /-i:/. This happened in Italian and Rumanian. Therefore we have plural *cani* instead of *cane* (from Lat. *canes* with expected drop of final /-s/).

(99) PluralsProto-western RomanceItalian

\*case

case

'house'

\*casas

\*campi

campi

'field'

\*campos

Evidence that the first alternative is the correct one may be found in the pronominal system. If we compare Italian plural stressed pronouns to those of Gallo-Romance and of Rumanian, we observe that in Italian the exponent of the genitive has taken over the function of the nominative:

(100)		Plural			
	Nom.	Gen.	Dat.	Acc.	
Class. Latin	ILLI	ILLORUM	ILLIS	ILLOS	
Proto-Romance (cf (87))	ILLI	ILLORU	ILLORU	ILLOS	
Italian	loro	loro	loro	loro	
Rumanian	ei	lor	lor	ei	
O.French	il	eus	eus	eus	
O.Provencal <sup>28</sup>	il	lor	lor	els	
		els	els		

The Italian system could be easily accounted for if we assume the Rumanian system and hypothesize that instead of activating (89c) and thus replacing the genitive with the nominative, we activate (89a) and replace the nominative with the genitive.

Further research will help in deciding which is the best reconstruction for the Italian system. Under both hypotheses, however, the forms in (101-2) would be the expected Italian outcomes:

(101)	*homo - homine	→	uomo	'man'
	*mulier - muliere	→	moglie	'wife'
	*latro - latronis	→	ladro	'thief'
	*sartor - sartoris	→	sarto	'tailor'
(102)	*pietas - pietate	→	pieta	'piety'
	*mel - melle	→	miele	'honey'
	*cor - corde	→	cuore	'heart'
	*fel - felle	→	fiele	'bile'

<sup>28</sup> The Old Provencal pronominal system /il, lor, els/ preserves the three Case distinction of the Proto-Romance Case system as reconstructed in (84).

The forms in (103) that are usually reported as evidence of generalizations of the accusative Case in Italian can now be accounted for by assuming that the special allomorphy rules needed to account for the shape of the nominative forms of the so called "imparisillabi" were eliminated in Proto-Romance:

	<u>Late Latin</u>		<u>Italian</u>	
(103)	*mons - monte	→	monte	'mountain'
	*-ator - atore	→	-atore	'-suffixal element'
	*paries - pariete	→	parete	'wall'
	*pecten - pectine	→	pettine	'comb'
	*iudex - iudice	→	giudice	'judge'
	*pulex - pulice	→	pulce	'flea'
	*cardo - cardine	→	cardine	'pivot'

Evidence that this is correct is provided by Mayerthaler (1981) who demonstrates that the elimination of allomorphy in the case of the so-called imparisillabi is already attested in late Latin, as shown in (104):

(104)	nepotis	'grandson-NOM'	instead of Cl. nepos
	montis	'mountain-NOM'	instead of Cl. mons
	floris	'flower-NOM'	instead of Cl. flos
	mentis	'mind-NOM'	instead of Cl. mens

## 6. *Conclusions*

We thus have an account of the the loss of the Case system from Latin to Romance. My analysis is based on the idea that Case systems are structured in the same way as phonological systems. In particular, they are governed by Case restrictions that disallow the combinations of certain Case features.

Simplifications in the structure of Case systems involve the activation of Case restrictions. An active Case restriction disallows a given feature combination in the feature bundles of the terminal nodes provided by the syntax. Disallowed feature bundles can be repaired either by changing one of the disallowed features or by fissioning it. Both strategies were used in the historical development of the Latin Case system. Fission accounts for the appearance of prepositions at a stage when Latin Case phrases were consistently head final. Feature change accounts for simple Case syncretism. By the combined effect of these two strategies, I have shown how the five Case Latin system was reduced to a three Case system in proto-Romance by eliminating the ablative and

the dative. I have then shown how this three Case system evolved differently in western and eastern Romance, and why the plural morphemes in languages such as French, Spanish and Portuguese are etymologically based on the Latin accusative, whereas the plural morphemes of a language like Italian are etymologically based on the Latin nominative.

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