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# THE ROLE OF AGREEMENT IN ROMANCE NOMINAL PROJECTIONS

by

#### Maria Arancha Mateos

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19 APR 2002

To my husband,

Jonathan,

without whose love and support

this dissertation would

have never been completed.

#### **Abstract**

#### THE ROLE OF AGREEMENT IN ROMANCE NOMINAL PROJECTIONS

#### by Maria Arancha Mateos

This dissertation investigates the phenomenon of agreement in nominal constructions in three modern Romance languages. Special attention is paid to the structural configuration required for agreement as well as to the relationship between agreement and case.

Chapter one presents an overview of the data and main proposals. Chapter two reviews some of the most influential work on agreement, mainly within generative grammar but also within other frameworks, such as Head-Driven Phrase Structure Grammar. Some important generalisations regarding the nature of agreement are drawn from these studies.

The internal structure of DP is investigated in chapter three; drawing on work by Cinque (1991,1992) and others, I suggest that there exists noun movement in Romance and that APs are located in Spec(NP). I also present evidence for the functional projection NumP, intermediate between D and NP.

The structural mechanism at work in these nominal structures is also characterised in chapter three. I propose, following Chomsky's (1995) Minimalist Programme, that this internal agreement be analysed as feature matching in a Spec-Head configuration.

Finally, the last part of the dissertation explores the relationship between case and agreement and the role of agreement within Romance DPs. Basing my proposal on the study of a group of locative elements in Spanish, I argue that Romance nominal agreement is a manisfestation of case marking and that, it is only when this internal agreement is not possible that a case assignment mechanism (de/di insertion) comes into play as a less economical means of case marking.

Chapter five is a summary of the main findings of the dissertation.

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## Chapter 1

#### Introduction

#### 1.1. Aims.

This dissertation investigates the phenomenon of agreement within nominal constructions in modern Romance languages. The aims of this study are threefold: 1) to review some of the most influential recent work on agreement and to draw attention to this important grammatical phenomenon; 2) to present an analysis of the structure of DPs in Romance and to investigate the mechanism responsible for DP-internal agreement; and 3) to explore the function of agreement and its relationship with case in Romance nominal constructions.

The linguistic phenomenon of case has been extensively studied in recent years and has played an increasingly important part in modern linguistic analysis within the generative framework. However, agreement, which is, like case, another way of marking relationships and dependencies between constituents, has been, for the most part, relegated to a secondary position within modern grammatical theory. By reviewing some recent studies which view agreement as important in its own right and by investigating the mechanism responsible for DP-internal agreement in Romance languages and its function, I hope to



make a contribution to the general theory of agreement and to open a path to further research in this area.

#### 1.2. DP-internal agreement: the data.

The internal agreement occurring between nouns and other DP-internal elements in Romance languages is well known. This internal agreement can already be found in Latin, where, as well as number and gender agreement, we also find case agreement. Although the inflectional case endings disappeared throughout time from all major Romance languages except for Romanian, all other modern Romance languages have inherited this rich agreement system from Latin, with several DP-internal elements showing agreement in both gender and number. The following elements participate in agreement within DPs: nouns, articles, ordinal numerals, demonstratives, possessives, quantifiers and pre- and post-nominal adjectives. Let us see some examples containing DPs from French, Spanish and Italian:

(1) Gli alberi verdi the-Masc.Pl trees-Masc.Pl. green-Masc.Pl. (Italian) 'The green trees' cortinas bonitas (2) Unas some-Fem.Pl. beautiful-Fem.Pl. curtains-Fem.Pl (Spanish) 'Some beautiful curtains' fille Cette (3) this-Fem.Sg. girl-Fem.Sg. (French) 'This girl'

(4) Muchos libros interesantes many-Masc.Pl. books-Masc.Pl. interesting-Masc.Pl. 'Many interesting books' (Spanish) viaggi (5) I nostri the-Masc.Pl our-Masc.Pl. trips-Masc.Pl. (Italian) 'Our trips' premier étage Le (6) the-Masc.Sg. first-Masc.Sg. floor-Masc.Sg.

Example (1) shows the obligatory agreement in gender and number occurring between the definite article, the noun and a post-nominal adjective (the canonical position for Romance adjectives). Example (2) shows the pre-nominal adjective also agreeing in gender and number with both the indefinite article and the noun. (3) contains a demonstrative and (4) a quantifier, both of them agreeing with their respective nouns. Finally, (5) and (6) show the agreement of the possessive and the ordinal numeral, respectively.

#### 1.3. Theoretical assumptions and main proposals.

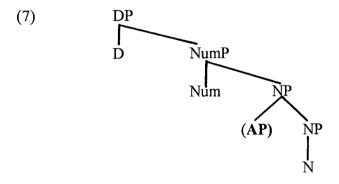
'The first floor'

The structure I propose for DP is based on important work by Cinque (1990) and others. In this work it is argued that there exists overt noun movement within DPs in Romance. Adjectives are assumed to be generated to the left of N and the unmarked surface order of noun-adjective is derived by overt raising of the noun to a functional category

(French)

intermediate between D and NP. In this dissertation I present independent evidence that suggests that this intermediate category is NumP (Number Phrase).

Following Chomsky (1995), I argue that adjectival phrases occupy the specifier position of NP and the recursiveness of APs is accounted for by the possibility of N having multiple specifiers, under current theoretical assumptions. The structure I assume for a basic DP in Romance is represented below, where irrelevant details are omitted:



The internal agreement mechanism I propose for these constructions relies on the basic principles of Chomsky's (1993) Minimalist Program. I assume that nominal constituents are drawn from the lexicon bearing all of their inflectional endings and the choice of the right ones falls on the 'checking' function performed by the syntax. I put forward an agreement hypothesis which regards agreement as feature matching in a Spec-Head configuration, either overtly at PF or covertly at LF.

Although there have been some attempts to explain the internal agreement mechanism for some of the constituents within DPs, such as Valois (1991) for French, there is no cross-categorial unified account for it, as far as I know. My proposal purports to be a

unified account of the agreement occurring between the different elements that take part in the agreeing relation inside DPs.

Finally, the relationship between case and agreement, two strategies whose main purpose is to signal relations between entities, is explored with regard to DP-internal facts. Basing my proposal on the study of a group of locative elements in Spanish and on some facts about quantifiers in French and Spanish, I argue that DP-internal agreement in Romance is the overt manifestation of case-assignment.

#### 1.4. Outline.

This dissertation is organised as follows: Chapter two reviews some of the most influential work on agreement, mainly within generative grammar but also within other frameworks, such as Head-Driven Phrase Structure Grammar.

The internal structure of DP as well as the structural mechanism accounting for the DP-internal agreement are investigated in chapter three. Chapter four explores the relationship between case and agreement and the role of agreement within Romance DPs. Finally, chapter five is a summary of the main findings of the dissertation.

### Chapter 2

## Agreement in Linguistic Theory: An Overview.

#### 2.1. Traditional grammar

The phenomenon of agreement in natural language was studied by the traditional grammarians of the nineteenth and early twentieth centuries from a purely descriptive point of view. Grammatical agreement was better known as 'concord', a term which can already be found in early Latin grammars. Agreement was regarded as a means of marking grammatical relations within a sentence, together with case-marking, use of prepositions and conjunctions and other linguistic devices such as intonation. However, the role of agreement in language was taken for granted and not generally regarded as an interesting phenomenon in its own right.

A brief consideration of the treatment of agreement or concord by early twentieth century grammarians reveals their concern with only two aspects of this phenomenon, a) its definition and classification, allowing it to be recognised, and b) the stating of a set of agreement rules that would hold in 'non-standard' agreement environments, such as the concord of one adjective with two nouns and other similar examples. In traditional Romance

grammars, such as A. Bello's (1928) or S.Gili-Gaya's (1955) dealing with Spanish, agreement is defined as 'the matching in gender and number that must occur between an adjective and a noun, and the matching in number and person between the verb and its subject'. Two 'general agreement rules' are put forward by Gili-Gaya (1955:29-58), following Bello, the first one dealing with subject-verb agreement, the second one with adjective-noun agreement:

- a. When the verb refers to only one subject, it agrees with it in number and person; and when the adjective refers to just one noun, it agrees with it in gender and number.
  - b. When the verb refers to several subjects, it must be used in its plural form; when the adjective refers to several nouns, it must be used in its plural form. If the nouns belong to different genders, the masculine form of the adjective must be used.

    [my translation]

Apart from defining agreement and stating rules for competing patterns, the aim of these grammarians was to record all the cases in which the agreement occurrences seemed to deviate from the proposed rules, or those cases in which more than one agreement pattern is possible. Some of the cases they examine are adjective agreement with two nouns, verb agreement with conjoined or collective subjects, 'deliberate' lack of agreement and the occurrence of different agreement patterns depending on the position of the agreeing elements in the sentence. With respect to the latter case, Gili-Gaya proposes the following rule (1955:36):

".... when the adjective follows two or more nouns, it agrees with them in the plural. (....) If the adjective precedes two or more nouns, it normally agrees only with the closest noun in the singular." [my translation]

(1955:36)

This rule can be illustrated with the following example from Spanish:

- (3) a. Talento y saber asombrosos

  talent-Ms.Sg. and knowledge-Ms.Sg. incredible-Ms.Pl.

  "Incredible talent and (incredible) knowledge"
  - b. \* Asombrosos talento y saber.

A long list of cases similar to the above is put forward by the traditional grammarians. No attempt is made, however, to explain the reason why example (3a) is grammatical, whereas example (3b) is ungrammatical.

It seems clear then, that the structural configurations where agreement is allowed are never at issue for traditional grammarians; instead they concentrate on stating a set of agreement rules that must hold in 'non-standard' agreement configurations. Such analyses of agreement are valid only from a prescriptive point of view, but would be of scarce scientific value in a study that aimed to explain, rather than describe, the occurrences, domains and function of agreement in natural languages.

#### 2.2. The Transformational Model.

The transformational approach to linguistic research has brought a new perspective to the study of language. Language has come to be regarded as an innate property of the human brain and, therefore, as a universal phenomenon. The approach to the study of language has shifted from a language-individual perspective to a search for what has come to be known as 'language universals'. In the sixties and seventies, J. Greenberg published the *Universals of Human Language* (four volumes), a compilation of work by different linguists on several aspects of language, such as word order patterns, word structure and feature hierarchies, and many other types of phenomena regarded by linguists as universal properties of human languages.

Inevitably, a phenomenon as widespread in languages as grammatical agreement is, could not be ignored in a study of these characteristics. As part of Greenberg's Volume 4 of the *Universals of Human Language* (1978), E. Moravcsik published what was, to my knowledge, the first paper in a current formal linguistic model which looked at agreement as an important linguistic phenomenon in its own right. In the following years, Moravcsik's paper brought along a renewed interest in the subject of agreement. This is shown in work by Corbett (1979, 1983), Lapointe (1980), Lehmann (1982), Nichols (1985,1986) and Barlow (1988), among others. I will turn to what I consider to be some of the most influential work on agreement during the eighties in the next section of this chapter.

In the late eighties and in the nineties, the interest in the phenomenon of agreement seems to have decreased somewhat, once again only being studied as an illustration for other

syntactic concepts considered to be more worthy of research, such as c-command relations or government. The term 'agreement' is used constantly in Chomsky's (1995) Minimalist model, but mainly as a label for the checking of features of functional categories in a Specifier- Head configuration; this is known as Spec-Head agreement<sup>1</sup>. Yet, there is not a developed theory of agreement in the Minimalist program, as there is, for example, of case. The study of agreement as a means of expressing grammatical relations or, indeed, as an important grammatical phenomenon in its own right has been, once again, relegated to a secondary position.

#### 2.2.1. Searching for Agreement Universals: Moravcsik (1978)

In 1978, E. Moravcsik published an article entitled 'Agreement', as part of Volume 4 of Greenberg's *Universals of Human Language* series. This is the first serious attempt to study the phenomenon of agreement from a transformational point of view. In this important article, her aims are many-fold: to draw attention to the study of agreement; to delimit which phenomena should be considered to fall within the scope of agreement, to offer a cross-linguistic survey of gender, number and person features and to review a theory according to which agreement markers and anaphoric pronouns are derived by the same type of rules and, therefore, similar in behaviour.

Moravcsik's starting point for her analysis of agreement is to propose a definition of such phenomena. She explains it is a 'working definition' in the sense that the set of

<sup>&</sup>lt;sup>1</sup> I will deal with Spec-Head agreement in chapter 3 of this dissertation.

phenomena within its scope is intuitively similar, but no theoretical naturalness is being claimed for the set of phenomena that it delimits. This definition includes various kinds of phenomena that have traditionally been considered to be 'agreement or concord', such as the agreement of quantifiers, modifiers, determiners, verbs and anaphoric pronouns with nouns in gender, number, person, case and definiteness. But she also includes within this class others that have not been traditionally subsumed under this label, such as language - particular examples of dislocation, negativity-agreement, tense-agreement and, even, government.

Other phenomena also appear to have some similarities with agreement; however, she explains, these cannot be considered to be agreement occurrences. This latter group includes lexical selection, since there is no agreement marker involved in this, phonological assimilation and stylistic or dialectic uniformity across constituents.<sup>2</sup>

Having delimited the range of phenomena which she considers to be within the agreement rubric, Moravcsik also specifies the main facts that a universal account of grammatical agreement should include. These are divided into three areas of inquiry. The first area, according to Moravcsik, should take a language with observable grammatical agreement as a starting point, and then identify three types of properties within it; firstly, the properties of those constituents that are in agreement with each other, as opposed to those that are not; secondly, the 'meaning-related' properties of agreement features; and thirdly, the morphological properties of agreement markers. The second important area of inquiry

<sup>&</sup>lt;sup>2</sup> No examples of this wide range of phenomena are offered.

should also concentrate on languages with observable agreement and identify the properties of those sentences with agreement as opposed to those sentences that do not exhibit agreement. By dividing these questions into two areas, Moravcsik makes the claim that the agreement properties of agreeing sentences must be or can be to some extent, distinct from the agreement properties of constituents. The third and last area of inquiry is the most universalist, according to Moravcsik herself, and it would need to determine the properties of the set of languages which exhibit agreement, as opposed to the set of languages that do not.

All of these questions would need to be examined in order to achieve a complete account of agreement, according to Moravcsik. In the paper discussed, she concentrates only on two sub-topics of the first area of inquiry, agreement features and agreeing constituents, leaving the rest to further research.

Her study of agreement features is restricted to gender, number and person (there is no mention of other features such as definiteness or case) and some cross-linguistically valid generalisations are offered with respect to these three types of features. Her findings about the behaviour of gender and number features in languages are remarkably similar to each other. Moravcsik's starting point for her analysis of these features is 'standard' gender and number agreement patterns, that is, those cases in which one (the same) feature is copied or shared between two constituents, but her main aim is to find 'alternative' gender and number agreement examples and to try and explain which factors, in which cases, might determine

this 'deviation' from the standard pattern. Note that this is reminiscent of the type of study we saw in the traditional grammars of agreement.

With regard to gender agreement features, Moravcsik explains that the presence of overt gender marking on the noun is not sufficient to guarantee gender agreement for all constituents that could in principle agree and that, once gender agreement does take place, the gender marked on the noun may not again be sufficient to predict the particular gender marked on the agreeing constituent. Let us illustrate this idea with some examples. In the first of the following Russian examples, Moravcsik (1978:336-338) illustrates what she calls agreement *par excellence*, that is, those cases in which the agreement marker is present in and shared by both the noun and the constituent that agrees with it; (4b) and (4c) illustrate those cases in which we encounter a 'deviation' from the standard agreement pattern:

- (4) a. babuska citala
  - grandmother-Fem. read-Fem.Past
  - 'The grandmother was reading'
  - b. babuska citaet

grandmother-Fem. read-Present

- 'The grandmother is reading'
- c. ty citala

you read-Fem.Past

'You were reading' (said of feminine 'you')

(4b) shows that the presence of an overt marker on the noun does not insure agreement on the part of all constituents that could agree ( the past tense does agree in gender with the noun, but not the present tense). (4c) shows that there can be agreement with a noun whose gender properties are not overtly marked.

Moravcsik also provides us with examples where the gender agreement marker on a constituent is different from that marked overtly on the noun that it agrees with. According to her, these 'alternative' agreements are determined by one of two reasons, either the 'class' of the constituent that the noun agrees with or the 'linear-order' in respect to the agreed-with constituent (that is, the agreement may vary depending on whether the constituent that agrees follows or precedes the noun or whether it is adjacent to the noun or not).

Interestingly, Moravcsik's findings about number agreement features are remarkably similar to those presented above with respect to gender: overt number marking on nouns is neither necessary nor sufficient to predict the same number marking on the agreeing constituent; number agreement may also vary with the linear order of agreeing and agreed-with constituents and depending on the class of the agreeing constituent. Some nominals, such as collective nominals, numerated nominals and conjoined nominals, are marked singular and yet, they take plural agreement with some constituents. For example, words such as *crowd* or *police* are inflectionally singular, but may take singular or plural agreement with their verb. The similarity between gender and number agreement is also manifested in

the phonology, in that gender and number markings are generally adjacent to each other or may even be both represented by a *portmanteau* morpheme, such as it is in Latin.

Moravcsik finds one further similarity in the behaviour of the two types of agreement features, which is, in my opinion, of particular importance, but it is, however, only mentioned in passing. I am referring to the fact that, when studying different agreement patterns, Moravcsik points out that the agreement of a verb with a noun can nearly always be predicted in terms of 'semantic gender' and 'referential number', whereas the agreement of various modifier-type elements shows the same markers as the noun inflection itself, which may, but need not, reflect underlying meaning elements. This seems to indicate that there is a significant difference between noun-phrase internal and noun-phrase external agreement<sup>3</sup>: noun-phrase internal agreement appears to be an almost purely grammatical process, whereas the agreement of a verb with its subject may be determined by other factors as well, such as semantic content. This fact is of particular importance to my study, since I will show in chapters 3 and 4 of this dissertation that DP internal agreement in Romance is a grammatical process which serves an entirely grammatical function. I will return to this distinction later on in this study.

To complete her study, Moravcsik does a survey of the 'person' distinctions of various languages and of agreement in person. She puts forward several candidates for

<sup>&</sup>lt;sup>3</sup> In this chapter, I use the term NP (Noun Phrase), following the reviewed authors, to refer to maximal nominal projections. This is not intended to be a claim about the status of these constructions. In the next chapter, I propose that these constructions are, in fact, maximal projections of the category D. i.e. they are DPs.

universally valid generalisations about the category of 'person' which are similar to the ones which have just been mentioned about number and gender.

Having examined these three types of agreement features, Moravcsik turns to the next question in her analysis of agreement: which are those constituents that may agree with nominals? She offers a survey of such constituents in different languages, putting forward generalisations about agreement of constituents in one particular feature class and about agreement of a constituent as opposed to lack of it, among others. In this brief summary, I will mention only one generalisation that holds for all constituents that agree with nominals: that all such constituents are understood as including reference to the nominal. That is, in no sentence of any language is there a constituent that agrees with a nominal such that that constituent includes reference to a nominal other than the one it agrees with or that does not include reference to any nominal at all. This claim would therefore be refuted if, for instance, there were a sentence in one language meaning 'The black cat and the white dog were fighting', where the adjective corresponding to black agreed with the nominal corresponding to dog, since in this case non-coreferential constituents would be involved in agreement.

The actual list of agreeing constituents, according to Moravcsik, includes the following: definite article, indefinite article, demonstrative adjective, possessive adjective, quantifiers, numerals, descriptive adjectives, appositive adjectives, relative pronouns (may agree with their head noun); verb (with its subject and complements); anaphoric pronoun,

<sup>&</sup>lt;sup>4</sup> I will not talk about 'person' in this summary, since it is not particularly relevant to my analysis of

reflexive pronoun, reciprocal pronoun (with their antecedents); possessed noun (with its possessor). Of course, of all these possibilities, only some are encountered in one particular language. In my survey of Romance agreement, I will only concentrate on the agreement of the first group of elements mentioned, that is the agreement of certain elements with their head-noun.

In the last section of her study, Moravcsik sets out to find some single general hypothesis about the nature of agreement. Her aim is to test the frequently proposed hypothesis according to which in a phonetically directed grammatical derivation, the derivational source of agreement markers is the same as the derivational source of anaphoric pronouns. She tests three different versions of such a hypothesis; the first and most restrictive one turns out not to be valid and Moravcsik concludes that total formal identity of all agreement markers with some anaphoric pronouns is not a characteristic of any language in her sample.

The second and more relaxed version of this hypothesis, according to which agreement markers and some anaphoric pronouns would be identical except for their phonological shape, is also tested and turns out to be false too, since there are, for instance, examples of languages where the categories distinguished in agreement markers are apparently never distinguished for any anaphoric pronouns in the language. For example, in Akkadian, the 'dual' is a nominal but not a pronominal category.

Lastly, Moravcsik analyses the third and weakest version of this hypothesis, according to which agreement markers and anaphoric pronouns would be derived by the same 'type' of rules; Moravcsik explains that all this means is that agreement markers have to include reference to the agreed-with noun phrase and that they should include some of its features; but this imposes no restrictions on 'how different' the features can be. It is not restrictive enough.

Despite the fact that none of the versions of the hypothesis can be proved to be true, Moravcsik concludes that, in general, if agreement markers make a 'type' of distinction in a language, for instance, in gender, number or person, then, that 'type' of distinction will also be present in the pronominal system of that language, suggesting that there is some relationship between agreement and anaphoric pronominalisation.

The importance of Moravcsik's research lies in several factors: firstly, it is, to my knowledge, the first generativist study to be devoted entirely to the phenomenon of agreement and to treat it as an important universal property of human languages. Secondly, although part of the article is devoted to the study of 'non-standard' agreement occurrences, something which, as we have seen in the previous section, fits exactly with the work of traditional grammarians, Moravcsik does not limit herself to listing these 'non-standard' cases, but goes further by analysing the structural conditions under which these 'non-standard' agreement cases occur. Thirdly, it exhaustively lists the different types of constituents that may agree in different languages. And lastly, and, in my opinion, most importantly, Moravcsik mentions, albeit in passing only, something which I consider to be an

important generalisation about agreement in general, that is, the fact that there appears to be a significant difference between noun-phrase internal and noun-phrase external agreement: noun-phrase internal agreement appears to be an almost purely grammatical process, whereas verb-subject agreement may be determined by other factors as well, such as semantic content.

#### 2.2.2. Resolution Rules: Corbett (1983, 1988)

Basing his description on the Slavic languages, G. Corbett (1988) puts forward a general theory of agreement which incorporates traditional statements or definitions of agreement itself and of agreement patterns. Agreement is referred to as 'the matching of properties between elements in specified syntactic configurations'. According to Corbett, any theory of agreement should be able to specify its domains, but such a theory will be more complete if, as well as specifying these domains, it can also predict them.

Corbett argues that an adequate theoretical description of agreement should enable us to include statements such as the following (referring to Slavic):

- a. The attributive adjective normally agrees with its head noun in number, case and gender.
- b. The predicate normally agrees with the subject in some combination of number, case, person and gender.
- c. The relative and personal pronouns normally agree with their antecedent in number and gender.

According to Corbett, the necessary inclusion in these statements of 'normally', shows that this apparently simple phenomenon is sometimes complicated by the fact that there exists a range of 'choices' or 'options' that can apply in various agreement domains, that is, situations in which alternative agreement features can be assigned. Among the types of structure that can present agreement choices in Slavic are conjoined noun phrases, quantified expressions, sentences of the form NP+copula+NP, predicate adjective agreement, predicate noun agreement, structures where the controller lacks overt features (such as infinitive phrases and clauses functioning in nominal positions) and some others.

Consider the following examples from Russian, containing conjoined noun-phrases (Corbett, 1988:25-27):

- (5) Prepodavalis' matematika i fizika
  taught-Pl.Refl. mathematics-Fem.Sg and physics-Fem.Sg.
  'Mathematics and Physics were taught'.
- In (5) the verb is plural, showing agreement with the conjoined noun phrases as a whole.

According to Corbett, this data from agreement with conjoined noun phrases requires a theory that can incorporate a type of rule that will apply in these contexts. He refers to this type of rule as 'resolution rule'. Resolution rules are feature computations that must resolve agreement conflicts. In the above example the resolution rule dictates the plural agreement on the verb with the conjoined noun phrases. However, it is not always the case that conjoined controllers will always result in plural agreement. Let us consider the following example (Corbett 1988:26):

(6) byla v nej i skoromnost', i izjascestvo,
was-Fem.Sg in her and modesty-Fem.Sg. and elegance-Neut.Sg.
i dostoinstvo.

and dignity-Neut.Sg.

'She was modest, elegant and dignified'.

In this example, it is clear that the agreement is with *skoromnost* as this noun is feminine singular. It seems, then, that in this case a different type of resolution rule has applied and the agreement of the verb seems to be dictated by the nearest of the three conjuncts. According to Corbett, resolution rules must specify the values resulting from different feature combinations but, as examples (5) and (6) show, one structure may result in different agreement patterns, which proves that different resolution rules may apply in one single structure.

The existence of choices or options that may apply in particular agreement occurrences may be determined, according to Corbett, not only by the syntax of the phrase, but also by morphological and semantic factors. In order to illustrate this idea, Corbett proposes some examples dealing with gender conflict resolution in Slavic languages. The first example comes from Slovenian, a language with three genders, masculine, feminine and neuter; the gender resolution rules proposed by Corbett for this language are as follows:

- 1. If all conjuncts are feminine, then the feminine form is used;
- 2. Otherwise, the masculine form is used.

The operation of these rules may be seen in the following examples:

(7) Marina, Marta in Marjanca so prizadevne

Marina-Fem. Marta-Fem. and Marjanca-Fem. are-Pl. assiduous-Fem.Pl.

'Marina, Marta and Marjanca are assiduous.'

This example shows the operation of the first rule. Any other type of combination produces masculine agreement, even when there is no masculine conjunct present:

(8) ta streha, okno in gnezdo pod njim mi
that-Fem. Roof-Fem. Window-Fem. and nest-Neut. under it me-Dat
bodo ostali v spominu
will-Pl remain-Masc.Pl in memory

'That roof, window and the nest under it will remain in my memory'

According to Corbett, gender agreement in Slovenian is straightforward, since the resolution rules only need to refer to the syntactic gender of nouns. However, there are cases where the resolution rule requires access to morphological or semantic information. This can be seen in languages like Serbo-Croat; consider the following example from this language which has a very similar gender system to that of Slovenian and the same resolution rules operate:

(9) Vredali su ga nebriga i offended-Masc.Pl. are-Pl. him carelessness-Fem. and lakomislenost Tahir-begova capriciousness-Fem. Tahir-beg-Fem.Poss.

'The carelessness and capriciousness of Tahir-beg offended him'

Example (9) appears to be in breach of the above mentioned resolution rules, since all conjuncts are feminine and yet, the verb is masculine. This fact can be explained, according to Corbett, by taking into account some morphological considerations. Feminine nouns in Serbo-Croat belong to two declensional classes: the first type end in -a in the nominative singular; the second type has no ending in the nominative singular. Provided that one of the conjuncts belongs to this second morphological class, then masculine agreement is possible. We see, then, that in this example, morphology plays an important role in determining the agreement pattern of this particular structure.

One example where semantic information determines the resulting agreement pattern comes from Polish. In this language masculine personal agreement forms appear when at least one of the conjuncts is masculine personal. Consider the following example:

(10) Hania i Reks bawili sie pilka

Hania-Fem. and Rex-Masc. Amused-Masc.Pl.Pers. Refl ball-Inst

'Hania and Rex played with a ball'.

In this example, *Reks* is a dog, masculine but not personal. The use of the masculine personal form in the verb results from the combination of *Hania* being semantically human (personal) and *Reks* being syntactically masculine.

It appears, then, that resolution rules need to specify the values resulting from various feature combinations and there is evidence to suggest that these rules may require access not only to syntactic information, but also to morphological and semantic values.

Corbett argues that a theory of agreement will be more adequate if it is able to predict the resulting agreement patterns in those cases where different agreement options are possible and he presents several factors that determine the distribution of agreement patterns. This distribution is heavily constrained and the major constraints at work are the linguistic ones; however, sociolinguistic factors may also have a role at times. For example, Corbett explains, if the controller of the agreement refers to animates, it is more likely to take agreement forms with a greater degree of semantic justification than those cases when the controller is inanimate. Also, controllers which precede their targets are more likely to take agreement forms with a greater degree of semantic justification than those that follow. So both animacy and precedence have an influence on the agreement form selected.

There is also a range of sociolinguistic factors that may influence the choice of one agreement option or other, among the ones that operate in the Slavic languages are the educational level of the speaker, the occupation, the region within the area of the standard language and the sex and the age of the speaker. These, however, are not as important in determining agreement as the linguistic ones mentioned above. Taking factors such as these into account, we may be able to predict agreement patterns in those structures that may present more than one possible agreement option. Corbett argues that a satisfactory theory of agreement must be able to handle this type of data and incorporate it into the resolution rules established for a particular language.

Having presented these facts and data, Corbett concludes that, although agreement appears to be an apparently simple phenomenon, the existence of choices or options

complicates the situation and it is necessary to establish resolution rules which must take into account not only syntactic, but also semantic and morphological information.

To sum up, Corbett's work represents an exhaustive study of agreement patterns in Slavic, as well as of the elements involved in agreeing relations, that is, the 'controller', the 'target' and the 'agreeing features'. The main aim of the study is to specify agreement domains in Slavic and to identify those cases where agreement choices or options are available, that is, those cases where more than one agreement pattern is possible in a single structure, and to establish a set of 'resolution rules' that will operate in these non-standard cases of agreement. In this sense, we could say that Corbett's work, that is, the study of 'non-standard' agreement cases and the stating of resolution rules, appears to fit the traditional studies of agreement. However, Corbett does include an extensive study of those factors that may play a part in the choices of possible agreement patterns. These factors, as we have seen, may be, not only syntactic, but morphological, semantic and even sociolinguistic. According to the author, by examining these factors, one might be able to predict the resulting agreement patterns.

In my opinion, there is an important generalisation that can be drawn from Corbett's study, but seems to have escaped the author: that is, the fact that all of the structures examined in the article that can present agreement choices or options in the Slavic languages are, in fact, NP-external. It seems, then, that there is a clear distinction between NP-internal and NP-external agreement. The fact that all these NP-external structures may present options or choices in agreement patterns is explained, according to Corbett himself, by the

fact that several factors may influence the choice of one pattern of other; among these factors are semantic and morphological information. On the other hand, there does not appear to be any choices of options when it comes to analysing NP-internal agreement; it seems, then, inescapable that noun-phrase internal agreement is a purely grammatical process, not generally influenced by semantic or other types of information.

#### 2.2.3. The function of agreement: Lehmann (1988)

C. Lehmann puts forward a very interesting theory of agreement, which differs from other approaches to this topic in that its main aim is to determine the role of agreement in the functioning of language, rather than examining standard and non-standard agreement patterns, as is the case in most of the previous analyses mentioned so far. Lehmann views agreement as a means of expressing syntactic relations and argues that agreement is referential in nature; its main function is that of identifying or re-identifying referents by giving information on grammatical properties of that referent.

The purpose of Lehmann's study is to specify what agreement does and what it is for; however, he starts by delimiting what agreement is, by proposing a definition of this phenomenon. This definition is expressed as follows:

- (11) Constituent B agrees with constituent A (in category C) if the following three conditions hold true:
  - a. There is a syntactic or anaphoric relation between A and B.

b. A belongs to a subcategory c of a grammatical category C, and A's belonging to c is independent of the presence or nature of B.

c. c is expressed on B and forms a constituent with it.

The author emphasises that his definition is equivalent to the traditional notion of agreement and it comprises all and only those grammatical phenomena that have traditionally been called agreement, excluding other phenomena such as 'government', which has sometimes been regarded as a form of agreement by some linguists. Lehmann points out that agreement can appear in a government relation, but government is not subsumed under agreement.

Before turning to the actual question of the function of agreement, Lehmann analyses the similarities and differences between the two traditionally separated types of agreement, that is between internal and external agreement. This dichotomy is particularly relevant in his analysis of the function of agreement, since, as he points out, each of these types of agreement expresses a different type of reference and, therefore, has a slightly different function. Let us consider the following examples from Lehmann. Examples (12) and (13)<sup>5</sup> illustrate internal agreement; examples (14) and (15) illustrate external agreement:

(12) illarum duarum bonarum
that-Gen.Pl.Fem. two-Gen.Pl.Fem. good-Gen.Pl.Fem.
feminarum
women-Gen.Pl.Fem.

<sup>&</sup>lt;sup>5</sup> The abbreviation REL stands for 'relative marker'. REAL stands for 'realised'.

'of those two good women'

Latin

(13) yibi yara-ηgu njalηga-ηgu djiilwal-ηu-ru bura-n.
woman man-Erg [child-Erg kick-Rel.Erg] see-Real
'The man whom the child had kicked saw the woman'
Dyirbal

(14) (sara) a-x ec'-kà a-sq'-ka

I Art-child-Pl. Art-book-Pl.

Ø- re-s-to-yt

Abs.Dat.Pl.Erg.1p.Sg-give-Fin

'I give the books to the children'

(15) (sara) s-q'e+n+t

I Obl. 1p. Sg-from

'from me'

Example (12) shows the well-known agreement of the determiner, numeral and attributive adjective in Latin; example (13) shows a much rarer type of agreement, that of the relative clause with the noun. From these and other examples, Lehmann draws a very important generalisation: internal agreement may involve the category of case (as well as number and gender) but never the category of person.

The external agreement examples are form Abkhaz. In (14) we see the verb agreeing with the absolutive, ergative and indirect objects. Example (15) shows the agreement of the postposition with its complement. This type of agreement may involve the category of person, but never the category of case.

At first these two types of agreement appear to be radically different: in the case of internal agreement, modifiers agree with their heads, while in the case of external agreement, governing elements agree with their dependent NPs. Also, as we have seen, what can agree in case does not agree in person and vice versa. However, rather than viewing these facts as a cause for separating the two types of agreement, Lehmann points out that the fact that these two kinds of agreement exclude each other means that they are in complementary distribution, which indicates a deep functional unity between them.

There is also another important similarity between internal and external agreement. According to Lehmann, in all these constructions, it is the case that something agrees with an NP (and not just with the head noun). This conclusion has been granted before in the case of external agreement; however, the internal agreement facts have not always been analysed in this way. Lehmann gives a variety of arguments from different languages that illustrate this proposal, that is, the fact that in internal agreement constructions, the modifier agrees with the NP containing it, rather than with the head noun. I will present here two of his arguments to this effect:

svetlye komnaty (16)tri light-Nom.Pl. room-Gen.Sg three-Nom.Pl. Russian 'three light rooms' Frauen (17)den alten the-Dat.Pl old-Dat.Pl women-Pl. German 'to the old women'

In Russian, the lower numerals take their semantic head noun as a genitive attribute in the singular. Nevertheless such an NP is grammatically plural, according to Lehmann. Example (16) shows how the adjective is agreeing in the plural, and is, therefore, agreeing with the NP, and not with the head noun. Example (17) clearly shows the attribute and the determiner agreeing with the NP in case, since the head noun belongs to a class of nouns that never exhibit case agreement in German. In light of these facts, Lehmann concludes that all agreement, external and internal, refers to an NP.

Before moving on to the last question raised by Lehmann, the function of agreement, I would like to point out that in the case of internal agreement, Lehmann does not make it clear whether some sort of process, along the lines of the well-known percolation, takes place, which carry these features from their source, that is, the head of the phrase or some other element within it, to the NP (DP) itself. We will return to this question in chapter 3 of this dissertation.

So, what is his view of the unified function of agreement and why is the dichotomy internal/external agreement relevant in Lehmann's view of this phenomenon? At certain places in a discourse, Lehmann explains, reference is made to a certain referent. For logical and economic reasons, the referent is not identified by fully specifying all its attributes each time it recurs in the discourse. Rather, it is identified by mentioning some of the categories which it belongs to, especially person, number, gender/class and case; these categories are expressed as agreement features. These features signal that we are dealing - still or already-with a referent also appearing elsewhere in the discourse or in the speech situation.

However, the kind of reference involved is different in the two kinds of agreement. Internal agreement expresses *co-reference* of the agreeing word with other words belonging to the same NP. External agreement expresses *reference* to an NP which specifies the meaning of the agreeing word. In other words: the designations of words connected by internal agreement apply to the same referent; the designations of words connected by external agreement do not apply to the same referent. This can be illustrated by some of the above mentioned examples. In example (12) the case, gender and number agreement affixes attach to a determiner, a numeral and an adjective, implying a relation of adnominal modification. The agreement markers signal that if there is a noun in the genitive, plural and feminine in the construction, this is taken to be the head of these modifiers. Similarly, the person agreement prefix in (15) attaches to a postposition, which implies that the NP looked for is in the first person singular, so that if there is such an NP in the construction, this is taken to be the complement of the postposition.

As we have seen, then, the two types of agreement have a slightly different function, but the one thing that must be remembered is that this function is always referential, that is, it helps identify or re-identify referents by giving information on grammatical properties of that referent. In this sense, agreement is an important means of expressing syntactic relations.

At the end of this influential paper, Lehmann compares agreement with a strategy whose primary function is also that of identifying dependency relations, that is, the strategy of case marking. I will not go into details of this comparison here, but I will deal with the

relationship between case and agreement in chapter 4 of this dissertation. Whereas Lehmann only examines the relationship between Case and external agreement and proposes that both notions should be kept distinct, I will concentrate on the relationship between case and internal agreement and I will propose that the two notions serve one common function and should be examined and dealt with together. Although my results in this sense will be different from Lehmann's, I will base my analysis on his view of the function of agreement: the identification or re-identification of referents.

# 2.2.4. The directionality of agreement: Nichols (1985)

In the last decades, J. Nichols has dedicated much of her work to the study of grammatical relations in languages, and, in particular, to agreement. Nichols' approach to the study of grammatical relations is a universalist one. In 'Head-marking and Dependent-marking Grammar' (1986), she argues that the morphological marking of grammatical relations may appear on either the head or the dependent member of the constituent; languages display a tendency to use one type or the other consistently throughout their grammar. This fact, according to Nichols, provides us with a typological metric to classify different languages. In this study, she also points out that the head-marked pattern is cross-linguistically favoured, and yet, grammatical theory is strongly biased towards the dependent-marked patterns, since most of the Indo-European languages display this latter pattern.

Much in the same way, agreement is studied from a universalist point of view. Nichols concentrates on the question of the directionality of agreement, an aspect of agreement which, to my knowledge, has not been dealt with before. In her article "The Directionality of Agreement" (1985) she addresses the question of whether there is any universal, inherent directionality to agreement rules. By 'directionality', however, she does not mean left-to-right and right-to-left progression through surface strings but rather higherto-lower and lower-to-higher agreement in relational hierarchies and syntactic trees. Higherto-lower agreement occurs when the controller of agreement is a higher-ranked relation than the target. Lower-to-higher agreement occurs when the controller is a lower-ranked relation than the target. That is to say, higher-to-lower agreement occurs when a non-head agrees with a head; lower-to-higher agreement occurs when a head agrees with a non-head. Higherto-lower agreement is referred to as 'downwards' agreement and lower-to-higher agreement as 'upwards' agreement<sup>6</sup>. Nichols explains that the literature on agreement gives the impression that agreement always goes downwards; that is, traditionally agreement is seen as a process where non-heads agree with heads. One source of this impression is the fact that for case agreement the examples discussed in print do in fact illustrate downwards agreement. Another very important fact is that for subject-verb agreement which clearly goes upwards (from non-head to head of the clause), there is a strong tendency in generative linguistics to treat it as something other than agreement. We can see this, for example, in Chomsky (1981:48ff), where subject-verb agreement was described as government of the

<sup>&</sup>lt;sup>6</sup> Nichols explains that the usage of these terms is fairly metaphorical, since it relies on the graphic

subject's nominative case by INFL. In treating agreement as government, this analysis in effect claimed that it goes downward.

Nichols points out that this vision of agreement as going uniformly downwards is far from the truth and shows that it can go in either direction, that is to say, in some contexts non-heads agree with heads, but in other contexts, heads agree with non-heads. Before going into some of the examples she uses to illustrate this fact, I would like to review her definition of the phenomenon of agreement.

Nichols proposes a very traditional definition of agreement; she uses the term to mean coincidence in grammatical categories, features or feature values on two different words in a sentence, where one word has the category or feature for a principled reason and the other merely acquires it from the first. The same feature or category must be present on both words. The definition of agreement is not met if the morphology of one word merely reflects the influence of another rather than sharing features with it.

The coincidence of categories or features on the two words is crucial to her definition of agreement, since it excludes several types of 'morphological influence' which do not meet the criteria for agreement. One type of non-agreeing morphological influence is government, where a governing word dictates a category or feature for another word, as when a Russian verb governs the accusative or dative or instrumental or other case on its object. Another type is what Nichols calls sequence-of-tense rules where a past tense main verb causes a subordinate verb with past or future reference relative to the main verb to shift

representation of trees, where heads are placed above their dependents.

to the pluperfect or conditional. This is not agreement because the main and subordinate verbs do not share the same tense category. Although these examples (and some others provided by Nichols) involve a word influencing the morphology of another, they cannot be considered to be agreement examples, since there is no coincidence of categories on the two parties involved.

Let us now consider some of the examples that Nichols uses to illustrate her proposal, that is, the fact that agreement is bi-directional. Nichols divides the agreement cases she examines into two groups: agreement involving heads and agreement not involving heads. Agreement involving heads is found in many constituent types. In clauses we come across one of the most frequent types of agreement, verb-argument agreement. This type of agreement always goes only upwards, from non-head to head of the clause. Nichols provides us with an example from Abkhaz where the verb agrees with the subject, direct object and indirect object with prefixes showing the person, number and gender of each:

As shown by this example verb-argument agreement for finite verbs goes upwards across languages. There appear to be no instances where arguments copy features from their finite verbs. According to Nichols, the situation is different, however, with non-finite verbs, where we can find some examples of agreement going downwards. Let us consider this absolute construction from Latin:

(19) omnibus rebus comparatis diem dicunt all-Abl. things-Abl. prepared-Abl. day they-say 'When everything is ready, they set a day'

The subject of the absolute clause and the participle are in the same case. According to Nichols's analysis, the ablative is assigned to the participle, which is the head of the construction, and then, transmitted to the subject via agreement, and that agreement must be downwards, since it goes from head to non-head.

If we examine agreement within NP's, we find that this agreement is always downwards, since the dependent modifier(s) agree with the head noun. Presumably, upwards agreement within NP's is impossible, since adjectives have no inherent features that nouns could agree with. As for PP's, we find that they can also exhibit agreement in some languages, with the adposition agreeing in person, number and gender with its object. In the following example from Tzutujil,

(20) ruu-majk jar aachi
3Sg-because-of the man
'because of the man'

the preposition agrees with its object in person and number. Since the preposition is the head of the construction, this must be upwards agreement. Nichols explains that there are no examples of downwards agreement in PP's since adpositions do not have inherent lexical features that their objects could pick up.

Agreement involving heads is, then, clearly bi-directional. As for the second type of agreement, that is, agreement not involving heads, Nichols explains that it appears to go regularly downwards, with higher-ranked categories controlling it and lower-ranked ones acquiring their categories. Let's consider the following example from Russian:

Ona lucse rabotaet golodnaja
she-N.Sg.Fem best works hungry-N.Sg.Fem.

'She works best (when she's) hungry'

Here the controller is the subject of the construction, and therefore it is governed; the target of the agreement, the predicative adjective, is ungoverned and therefore, a lower-ranked relation. The agreement is, hence, downwards.

In summary, Nichols concludes that agreement is inherently bi-directional. Agreement involving heads can go in either direction, sometimes within a single language. The occurrence of one type of agreement or other seems to be based on parts of speech and not on syntactic structure. In PP's and finite clauses, upwards agreement is the only possibility, but there is no constituent type in which agreement is necessarily downwards. However, agreement between non-heads can go only downwards.

The importance of Nichols' study lies in the fact that it shows that the controller of agreement is not always the head of a construction, as generally thought; we have ample evidence that shows that agreement can go from non-head to head as well. However,

I believe that, from Nichols' examples, we can draw a much more significant generalisation that appears to have escaped the author. It is the case that in all of the previous examples the

controller of the agreement is a nominal element. In (18), an example of what Nichols called upwards agreement, the controllers are the three nouns and the target is their verb. Equally, in (20), another example of upwards agreement, we see that the controller of the agreement is the noun and its target, the preposition (the head of the construction). The same results can be found if we analyse the examples of downwards agreement. In (21), we see the predicative adjective agreeing with its controller, the subject noun. Agreement within NP's is always downwards agreement, that is, the head noun is the controller and its target is the adjective.

The only apparent counter-argument to this generalisation could be the absolute clause seen in (19), where, according to Nichols' analysis, we see the noun agreeing in case with the participle, which she considers to be the head of the construction. Even if we accept this as a valid analysis of this construction, we must not forget that case is a phrasal property, not an inherent feature on the participle, and, as such, it is not appropriate to state that the participle is the controller of the agreement. Besides, there is evidence that the participle is the target and the noun are the controllers in the following absolute clauses from Spanish:

a. Terminados los deberes, se fueron finished-Masc.Pl. the homework-Masc.Pl. they-left
b. Terminada la comida, se fueron finished-Fem.Sg the meal-Fem.Sg. they-left
"When they finished the homework/meal, they left"

In these examples, gender and number are inherent features of the DP, which controls the agreement of the past participle.

Basing it on these facts, I would like to propose the following generalisation: agreement is a process where there is a controller and a target, and the controller is always a nominal element. If this theory is proven to be right, it would render Nichols' theory superfluous, since there would be no need to state that agreement is bi-directional (in the sense that sometimes it appears to be controlled by the head of the construction and other times it is controlled by a non-head). Agreement could be seen as a uniform process controlled by a nominal element. I leave this important matter open to further research, since in this dissertation I will only deal with NP-internal agreement facts.

# 2.2.5. The interaction of Syntax, Morphology and Semantics: Lapointe (1980).

S. Lapointe (1980, 1983, 1988) has dedicated a great deal of his work to the development of a theory of agreement. He views agreement as a process where syntax, morphology and semantics are at work. He applies the term agreement to those 'morphosyntactic' co-occurrences in which there is an overt controller and an overt controllee and in which the form of the controllee depends on universally specified **semantic** categories of the controller. Lapointe suggests that the controller and the controllee are 'linked' and this linkage is determined by a series of logical rules. The potential controllees in agreement occurrences can only be those elements which are 'logically connected' to

potential controllers and bear the appropriate morphological features. The interaction of logical (semantic) and morphological conditions on agreement allow for the production of only certain possible types of agreement. Lapointe presents us with a very comprehensive theory of agreement; however, I will not review it in detail here, since it is not particularly relevant to my analysis of DP-internal agreement facts, given that I will be arguing that this type of agreement is a purely grammatical process.

## 2.3. Other linguistic models.

In the eighties, the partial revival of interest in agreement phenomena led to the development of several competing approaches to its study and characterisation. In this section, I will very briefly look at two of those approaches. The first one will be within Head - driven Phrase Structure Grammar, as developed by Pollard and Sag; the second one within the Autolexical approach, developed by Steinberg and Caskey, following Sadock's (1985) theory.

# 2.3.1. Head-Driven Phrase Structure Grammar.

One of the linguistic schools that has researched into the subject of agreement is the so-called *Head-driven Phrase Structure Grammar* (HPSG), mainly developed by Pollard and Sag at the end of the eighties and beginning of the nineties. HPSG is a 'non-derivational

theory of natural language syntax and semantics'<sup>7</sup>. Pollard and Sag (1994) view their approach to linguistic theory as a competing framework with Chomsky's widely accepted research framework. They point out some similarities between theirs and Chomsky's approach, such as the fact that in both theories structure is determined chiefly by the interaction between lexical entries and parameterised universal principles of grammatical well-formedness. Moreover, in both theories, there are assumed to be distinct 'levels' of linguistic structure.

There are, however, many differences between the two theories, the main one being perhaps the fact that HPSG does not utilise movement in their account of structures, and, although the concept of phonetically null elements or traces is present in their theory, they propose that the relationship between a trace and another constituent should be analysed as a matter of 'structure sharing' and not as one of movement. There are other crucial differences between the theories, such as the number of structural levels posited (two levels in HPSG: phonology - PHON- and syntax-semantics -SYNSEM) and the fact that tree-configurational notions such as government or c-command are not regarded as linguistically significant, among others. In this brief account, however, we will only concentrate on their view of agreement facts.

Pollard and Sag present their view of agreement in contrast with other approaches, in particular derivational approaches such as the Principles and Parameters Theory.

According to them, the derivational approach to agreement assumes a directional process in

<sup>&</sup>lt;sup>7</sup> Other similar non-derivational approaches come from Generalised Phrase Stucture Grammar (GPSG),

general, that either 'copies' or 'moves' bundles of agreement features from a nominal -the agreement controller- onto something that agrees with it -the agreement target. Agreement features are considered to be head features. General constraints, formulated as 'feature percolation' or 'feature matching' principles, ensure that phrases inherit agreement information from their lexical heads.

Pollard and Sag's approach, on the other hand, assumes that two elements that participate in an agreement relation specify partial information about a single linguistic object. Agreement is simply the systematic variation in form that arises from the fact that information coming from two sources about a single object must be compatible. In this theory, the structures that are required to be identical in agreement phenomena are called 'indices'. The attributes person, number and gender are not specified as part of syntactic categories, as they are in standard theories, but rather belong to the internal structure of referential indices. These indices are abstract objects that function in discourse to keep track of the entities that are being talked about. (Thus agreement features serve the practical purpose of helping conversants to keep referential indices distinct from each other by encoding relevant properties of the entities that they are 'anchored to' ). Just which properties of referents are encoded by agreement features is subject to cross-linguistic variation, but some of the most common ones are person, number and gender.

Pollard and Sag's main thesis is that a purely syntactic treatment of agreement cannot deal with many occurrences of agreement phenomena, the type of cases that have

Lexical-Functional Grammar (LFG) and Categorial Grammar(CG).

come to be known as 'agreement mismatches'. Pollard and Sag argue that in examples such as (23),

(23) The hash browns at table nine is getting angry (said by one waitress to another)

agreement is guided by transferred reference, rather than by any inherent agreement property of the phrase itself, and this would be difficult to account for in a purely syntactic theory of agreement.

At the same time, they study what they call 'purely semantic' theories of agreement, such as that outlined in Dowty and Jacobson (1989), and conclude that this type of analysis cannot deal either with many agreement patterns found across languages. One of the examples they use to show the inadequacy of a purely semantic theory is shown below:

- (24) a. That dog is so ferocious, it even tried to bite itself.
  - b. That dog is so ferocious, he even tried to bite himself.
  - c. \*That dog is so ferocious, it even tried to bite himself.
  - d. \*That dog is so ferocious, he even tried to bite itself.

Pragmatic principles of English allow a male dog to be referred to by both masculine and neuter pronouns, even in the same discourse. However, a purely semantic approach to agreement has no obvious way of explaining why examples (24c and 24d) are ungrammatical. The antecedent of a pronoun is uniquely determined by purely syntactic reasons.

The type of theory of agreement Pollard and Sag put forward can be characterised as 'pragmatic' (as well as syntactic and semantic) in the sense that formal agreement features are assumed to be linked to reference markers or indices. There is also a set of conditions, referred to as 'anchoring conditions', which are pragmatic constraints determined by the discourse. The non-standard agreement cases presented above can be, according to the authors, easily explained by this type of theory. So, in example (23), they assume that there is a transfer of reference from the 'original' plural referent to a 'final' singular referent (a customer), governed by contextual or pragmatic conditions. It is this final referent that determines the number of the index, and therefore of the verb.

In contrast with this 'index agreement', they point out that there exists another type of agreement, which they call 'syntactic agreement', which is mainly 'case concord'; this, according to them, does not involve index identity. It is a purely syntactic process. Indices have content; case does not have any content. Case concord arises from language-specific constraints requiring structure sharing between a noun's case value and that of another sign (e.g. a determiner or adjective) that is dependent on the noun.

As I mentioned earlier, in this dissertation, I propose that the agreement in number and gender of Romance adjectives, determiners, quantifiers, etc. with a nominal is a purely syntactic process which is much more similar to what they referred to as 'case concord' than to any semantically significant index agreement. The role of this type of agreement, I argue, is to signal dependencies and relationships between different elements and, in this sense, gender and number agreement in Romance is just a manifestation of case relations.

# 2.3.2. Autolexical Syntax.

Following Sadock (1985), Steinberg and Caskey (1988) put forward a theory of agreement, the main aim of which is to provide an account of the mechanisms of control in what they describe as 'complex cases' of agreement, for instance, conjoined NPs whose component nouns diverge in feature composition. They propose that complex agreement phenomena can be interpreted as a result of non-derivational interaction between independent modular components of the grammar; this interaction is determined by the properties of each component. Their claim is based on the assumption that a non-derivational approach which incorporates the interaction between several components of the grammar (such as semantics and syntax) will be able to account more easily for non-standard or non-symmetrical examples of agreement.

Basing their proposal on examples such as the following (where both a and b are grammatical),

(25) a. Los caminos y plazas fueron construidas the-Masc.Pl. roads-Masc.Pl. and plazas-Fem.Pl. were built-Fem.Pl. por los españoles.

by the spaniards.

b. Los caminos y plazas fueron construidos
the-Masc.Pl. roads-Masc.Pl. and plazas-Fem.Pl. were built-Masc.Pl.
por los españoles.

by the spaniards.

'The roads and plazas were built by the Spaniards'

they claim that an analysis that regards syntactic agreement as a process which involves feature-copying (that is, the head is the source of feature information and this information is simply 'passed on' from source to target) cannot account for examples such as 25(a,b).

Instead, they propose the need for a type of rule known as a 'resolution rule' in order to avoid these conflicts in agreement modification. Such resolution rules (which include what is known as the 'Proximity Principle' and the 'Macho Principle'<sup>8</sup>) are processes which follow in a straightforward manner from the interaction between the syntax and the semantics of conjoined phrases.<sup>9</sup>

It seems clear that this type of analysis of agreement processes needs to rely heavily on three main components of grammar and it cannot simply be explained as a syntactic mechanism. 'Complex' or 'non-standard' agreement patterns are taken as a starting point for their analysis and no attempt is made to explain the role of agreement in any of the components of the grammar (syntax, semantics, morphology or phonology). Also, it is not clear whether there is any need to apply this 'interactive' approach to 'standard' cases of

<sup>&</sup>lt;sup>8</sup> Ibid. 292 - 293 for an explanation.

<sup>&</sup>lt;sup>9</sup> For an explanation of the interaction mechanism, ibid. 296 - 298.

agreement, that is, those cases where no conflicts occur and agreement features are just copied or matched between a head and its dependants.

## 2.4. Concluding remarks.

In this chapter I have undertaken to review what I consider to be some of the most influential work on agreement. As we have seen, the phenomenon of agreement has been dealt with by linguists working within different grammatical frameworks. Traditional grammarians of the first half of the century referred to it as 'concord'. Agreement was mentioned in their studies as a means of marking grammatical relations within a sentence and most of their research into agreement was limited to defining it and listing those agreement occurrences that did not follow the general agreement rules in one particular language ('non-standard' cases). However, no attempt was made to explain under which conditions does agreement take place (structural conditions) or what syntactical mechanism is at work in agreement occurrences.

The transformational approach to language study brought along a new interest in this phenomenon. The fact that language was being studied from a universal point of view meant that a linguistic phenomenon as widespread in human languages as agreement is could not be ignored. Several studies were published which dealt with different aspects of agreement. In this brief survey, I have concentrated on four such studies. The importance of Moravcsik's study lies on the fact that it is, to my knowledge, the first generativist study which specifies the main facts about grammatical agreement. She identifies the main areas that a universal

study of agreement should include and studies some of the possible agreement patterns in natural languages. She also studies some of the 'non-standard' occurrences of agreement, but, unlike traditional grammarians, goes beyond simply listing these occurrences by explaining under which conditions do these 'non-standard' cases take place and which factors might account for their 'deviation' from the standard pattern.

G. Corbett's work represents a study of agreement patterns as well as of the elements involved in agreeing relations. The main aim of the study is to specify agreement domains and to identify those cases where agreement choices or options are available and to establish a set of 'resolution rules' that will operate in these non-standard cases of agreement. Corbett includes a survey of factors which play a part in the choice of agreement patterns; these factors may be syntactic, morphological, semantic or, even, sociolinguistic.

J. Nichols concentrates on the study of the elements that control the agreement in an agreeing relation, that is, the 'controllers'. According to Nichols, the controller is not always the head of the construction, as generally thought; we have ample evidence showing that agreement can also be controlled by the non-head. She refers to this fact as 'directionality'. Nichols explains that agreement is inherently bi-directional: downwards agreement takes place when a non-head agrees with a head; upwards agreement takes place when a head agrees with a non-head.

As I have pointed out in the relevant sections of this chapter, there are, in my opinion, several crucial conclusions about agreement which may be drawn from these

studies, but that seem to have escaped the authors: firstly, there appears to be a difference in the behaviour of NP-internal and NP-external agreement. As shown, by Moravcsik's and Corbett's research, the only structures that appear to present agreement choices or options are, in fact, NP-external and these choices seem to be influenced by semantic information; however, there does not appear to be any choices or options when it comes to NP-internal agreement. This tendency seems to indicate that noun-phrase internal agreement is a purely grammatical process, whereas noun-phrase external agreement shows a greater semantic justification.

Secondly, taking Nichols' research as a basis, we can draw another important conclusion: all agreement seems to be controlled by a nominal element. This generalisation would account for what Nichols calls downwards agreement (those cases where the controller of the agreement is the head of the construction) and upwards agreement (cases where the controller is a non-head and the target is the head of the construction). If this theory is proved to be true for all instances of agreement, we can dispense with theories of directionality, such as the one presented by Nichols.

On the other hand, C. Lehmann presents an approach to the study of agreement which differs from the above mentioned ones in that its main aim is to determine the role of agreement in the functioning of language, rather than examining standard and non-standard agreement patterns or controller and target issues. He views agreement as a means of expressing syntactic relations and argues that its main function is that of identifying referents by giving information on grammatical properties of those referents. The kind of reference

involved is different depending on whether we are dealing with (NP)internal or (NP)external agreement. External agreement expresses reference to an NP which specifies the meaning of the agreeing word; internal agreement expresses coreference of the agreeing word with other words belonging to the same NP. That is, the designation of words connected by internal agreement applies to the same referent, but the designations of words connected by external agreement do not apply to the same referent. Lehmann compares **external** agreement with case marking, a strategy whose primary function is also that of identifying dependency relations, and he proposes that both notions should be kept distinct. However, in the following chapters of this dissertation, I will examine the relationship between case marking and **internal** agreement and I will propose that the two notions serve one common function and should be dealt with together. In this sense my view of these facts will differ from the one presented by Lehmann. Nevertheless, I will base my analysis of agreement on his view of the function of agreement, the signalling of syntactic relations by identifying referents.

Finally, we have reviewed other linguistic frameworks and we have seen that they propose theories of agreement which are characterised by the interaction of syntax, semantics and pragmatics. They suggest that 'complex cases' of agreement (that is, non-standard cases) can not be explained by a theory that takes agreement to be a purely syntactic process. However, Pollard and Sag explain that there exists another type of agreement, which they call 'syntactic agreement', which is mainly case concord, which is a purely syntactic process. I will argue that NP-internal agreement in gender and number in

Romance is, actually, much more similar to what they refer to as 'case concord' than to any semantically significant theory of agreement.

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# Chapter 3

# Agreement within DPs.

### 3.1. The structure of nominal constructions in Romance.

In the generative grammar tradition, the internal syntax of nominal constructions has been the subject of much research over the past three decades. The interest in this subject can be traced back to Chomsky's (1970) "Remarks on nominalization", where the parallelism or lack of parallelism between nominal and verbal structures is investigated. Since then, this issue has been at the centre of many different proposals about the internal structure of nominal phrases.

Among the most significant proposals regarding the parallelism between Noun Phrases and Verb Phrases are: a) the DP-hypothesis, proposed by Abney (1987) according to which Noun Phrases are embedded under a higher functional projection, Determiner Phrase (DP), a syntactic structure which can be seen to parallel that of Verbal Phrases, which are also embedded under a higher functional projection (IP or CP); b) the Configurational Hypothesis, proposed by Giorgi and Longobardi (1991), based on previous work by authors such as Cinque (1980). According to this hypothesis, the argument

structure of nouns is systematically mapped into hierarchical structures, similar to those of verbs, and is therefore subject to variation depending on the different head parameters; c) The Noun Incorporation Hypothesis, proposed by Ritter (1988), Valois (1991) and Picallo (1991), according to which the noun incorporates to higher functional heads such as Agreement in a similar fashion to what occurs inside the Verb Phrase.

The last two proposals mentioned here rely on the parallelism between the argument structure of verbs and nominalisations (configurational hypothesis) or on their similar syntactic behaviour (incorporation onto a higher functional head). In this dissertation I will not deal with the parallelism between nominals and verbs; however, I will assume, together with many other advocates of the DP-hypothesis, that the D element is the head of the nominal construction. DP is considered to be a functional projection which is the 'perfect' projection of N, just in the same way as CP is the 'perfect' projection of V. Szabolcsi (1992) has claimed that both DP and CP have the function of saturating a predicate, that is to say, of turning a predicate (VP or NP) into an argument.

It has been argued that, just like C, D is sometimes instantiated for syntactic reasons. In some cases at least, the element filling D is not inserted for semantic reasons.

Giusti (1992) provides some examples from Romanian to this effect:

(1) a. profesorul a mers la Paris
professor-the went to Paris

- b. \*profesor a mers la Parisprofessor went to Paris'The professor went to Paris'
- (2) a. l-am vazut pe profesor
  - (I) saw PREP professor
  - b. \*l-am vazut pe profesorul
    - (I) saw PREP professor (\*the)

'I saw the professor'

In (1) we see the noun phrase (DP) in subject position. In this position the article is obligatory, we cannot find a singular bare noun. In (2) however, we see a noun phrase (DP) as object of a preposition; in this position, the interpretation is definite, but the article may not appear. In (1) the article is present to signal nominative case. In (2) this is not necessary since the preposition takes over the case-marking function. We see then that in cases such as this the (non-) occurrence of the article is not related to semantic information (definite/indefinite meaning), but is instantiated for syntactic reasons.

In this dissertation, I will follow the path opened by the DP-hypothesis and assume that nominal expressions are projections of the category D, at least when they are in argument positions<sup>1</sup>. Before going into the syntactic representation that I will assume for

<sup>&</sup>lt;sup>1</sup> It has been argued that an NP can only be an argument if it is embedded under DP. A "bare" NP can only function as a predicate (that is, it can only be found in predicative or vocative functions). See Longobardi (1994) for an explanation of these facts.

DPs, there remains another question that has to be addressed, that is, the existence (or not) of other functional categories within nominal constructions. To that question I turn now.

#### 3.1. 1. Noun movement within DPs.

In recent studies, it has been suggested that the No element raises to a higher head within DP. The original proposal comes from Cinque (1990), where he suggests that the base position of APs (Adjective Phrases) within nominal projections is, despite appearances, the same in Romance and in Germanic languages, namely to the left of the N, and that their different surface position is due to the raising of the N in Romance (but not in Germanic) to a functional head intermediate between N and D.

This head-movement analysis of the noun is in the spirit of the movement analysis of the verbal head proposed in Emonds (1978) and Pollock (1989), once more suggesting the parallelism between nominal and verbal projections. Pollock presents an analysis of IP in which he explains the position of postverbal adverbs in French infinitives by moving and adjoining the verbal head onto the head of a functional category (AGRP) to the left of the adverb. The analysis of noun movement suggested to account for the position of postnominal adjectives in Romance is similar to this. Some empirical evidence for the existence of this parallelism comes from the position of descriptive adjectives and VP adverbs in Romance languages and in English. Whereas in Romance, both descriptive adjectives and verbal adverbs must appear post-nominally, in English both of them appear to

the left of the elements they modify, as seen in these French and English examples from Lamarche (1991):

- (3) a. La destruction brutale d'une ville
  - b. The brutal destruction of a city
  - c. \*The destruction brutal of a city
- (4) a. De detruire brutalement une ville est barbare
  - b. To brutally destroy a city is barbaric
  - c. \*To destroy brutally a city is barbaric

This parallelism, as well as the morphological relation between adjectives and adverbs supports a similar account of the position of adjectives and adverbs and, hence, a similar analysis of both structures.

Cinque (1990), (1994) provides several arguments for the analysis of No movement to a higher functional category; these arguments are mainly based on the distribution of thematic and attributive adjectives in Italian (and in other Romance languages). Cinque's arguments for the existence of noun movement in Romance are well known, and for the sake of brevity I will not go into details of his study here.

As well as Cinque, other linguists have argued independently for the existence of noun movement in Romance. Longobardi (1994) has argued for a head-to-head movement from No to a higher functional head, in this case, D. He specifically analyses proper nouns in Romance and concludes that these elements raise overtly up to D in Romance, but not in Germanic. Once more, this exemplifies the overt noun raising theory in Romance versus the

lack of it in Germanic. Proper nouns raise to D only in those languages where common nouns overtly raise to a functional head intermediate between N and D. Similarly, Dobrovie-Sorin (1987) argues that in Romanian, the N raises overtly up to D, adjoining to the left of it; this derives the fact that, in Romanian, the definite article is enclitic on the noun. Likewise, leftward N-movement to a functional projection has been argued to apply in various other language groups, for example in Semitic (Ritter 1988) and Scandinavian (Taraldsen 1990).

We can conclude, then, that ample research in this area has provided us with evidence for the postulation of: a) the existence of noun raising to a higher functional category in several language groups, and b) an analysis which minimises the difference between Romance and Germanic nominal constructions, by positing that the base position of adjectival phrases within DP is the same in both language groups, that is to the left of the N, and that their different surface position is due to the overt raising of the N in Romance to a functional head intermediate between N and D, but not in Germanic (where such movement takes place at LF).

I will adopt this analysis of nominal structure and I propose, together with other researchers, that there exists noun movement within nominal constructions in Romance<sup>2</sup>. Arguing for head movement of the noun requires a landing site between N and D, since raising the noun all the way to D in the syntax would rule out potentially grammatical

<sup>&</sup>lt;sup>2</sup> One issue that has not been addressed so far, is what motivates this overt movement in Romance. I believe that the existance of overt movement in Romance versus the lack of it in Germanic is related to agreement facts within the two language groups. I will return to this question in the section 3.2 of this chapter.

constructions. This fact has led to the postulation of different functional categories within DP. For example, Cinque (1990) argues for Agreement Phrase (AgrP), Bernstein and Picallo (1991,1990), adopting Ritter's (1991) proposal for Hebrew, argue for a Number Phrase (NumP), Valois (1991) proposes a NumP and a Case Phrase (CaP) and so on.

I will follow some of these proposals and suggest that this intermediate functional category be analysed as Number Phrase.

#### 3.1.2. Evidence for NumP.

There are two types of evidence for the labelling of the intermediate functional category as NumP. The first type is empirical and it comes from Bernstein's and Ritter's (1991, 1995) research into Romance and Hebrew, respectively. I will propose a second type of evidence which is theory-internal.

Bernstein's (1991) proposal comes from the comparison between certain facts about French and Walloon (which also belongs to the Romance language group). Walloon differs from other Romance languages in that it has pre-nominal adjectives, as shown in example (5a); (5b) shows the canonical post-nominal order in French:

(5) a. one bleuve cote

one blue dress

b. une robe bleue

one dress blue

'a blue dress'

Another morphological phenomenon must be noted about Walloon. A phonetically realised plural suffix is never found on the noun. Bernstein explains that although French shares this characteristic, there is a fundamental difference between the two languages. There is a class of nouns in Frech where plurality is marked by irregular forms ( *un mal/ des maux*, 'an evil/evils', and several others). In Walloon these nouns only exhibit an invariable form corresponding to the singular. Also, the liaison existing after a noun in 'literary' French (but not in colloquial French) seems to indicate that plural nouns in this language are syntactically marked for number, whereas Walloon nouns are never syntactically marked for number (exhibiting neither irregular plurals nor liaison). The plural affix that appears in the written language is purely an orthographic convention.

A further characteristic of Walloon is the appearance of a feminine plural marker (es) which co-occurs with prenominal adjectives, as seen in (6):

- (6) a. les beles feyes
  - 'the pretty girls' (Fem.Pl.)
  - b. li neur sipene
    - 'the black thorn' (Fem.Sg.)

As we can see, this marker only appears in plural constructions. Bernstein argues that this marker is not an adjectival marker and provides several arguments to this effect, for example the fact that it never appears with predicative adjectives (since there is no noun following), the fact that in co-ordinated structures with several adjectives, it is limited to the last

adjective in the co-ordination, and the fact that it can appear after elements other than adjectives, for example quantifiers and adverbs.

Based upon these facts, Bernstein concludes that the morpheme (es) is the overt realisation of a functional head (Num) which projects to a maximal category. Now, in Walloon the noun never incorporates with Num, as a consequence of the absence of overt movement. (es) cannot remain an independent element given its affixal character. Association of the (es) with the preceding element is merely an orthographic convention. Hence, Bernstein concludes that [adjective + es] is not lexically inserted at D-structure. Instead (es) is a functional head occupying Num at surface-structure.

A different type of empirical evidence comes from Ritter's (1995) work on Hebrew. She analyses genitive constructions in Hebrew which provide independent motivation for a syntactic projection intermediate between D and N; her analysis of dual suffixes suggests that this intermediate projection is NumP<sup>3</sup>.

## 3.1.2.1. Theory-internal evidence.

As I mentioned above, I would like to propose that a second type of evidence for NumP comes from theory-internal facts. There are several elements that could be considered to be candidates for this functional category within Romance DPs, namely, gender and number, since these are the features shared by all constituents within DP, but also case, since this is a property of all DPs.

Following Chomsky (1993, 1995), I will assume that the aim of the functional categories is to check features of the lexical (substantive) categories. Elements are drawn from the lexicon with all their inflectional endings and these are checked against the features of the functional category. It has to be noted that, under minimalist assumptions, a functional category does not contain morphological endings, as previously assumed; instead it is assumed to contain 'bundles' of features.

Functional categories, being 'checkers', force movement; this movement can either be: a) overt (that is, prior to Spell-out), which raises the full set of features of a syntactic element, that is, the element itself, or b) covert (taking place at LF), which affects only the formal features of a constituent. The trigger of overt movement is, according to Chomsky (1995) the presence of a non-intrinsic [+strong] feature on the functional category. This [+strong] feature has to be checked immediately after being introduced in the derivation. The results of this is to force overt movement of an element with a feature of a matching type to the checking domain of the functional category.

If we apply this theory to our Romance nominal constructions, we find that overt movement exists, and, therefore, the functional category has to contain a non-intrinsic [+strong] feature. Let us examine our three candidates: gender is an unlikely candidate, since it is an intrinsic property of nouns. In Romance languages, gender (also referred to as 'grammatical gender') is listed in the lexical entry for each noun. We could say that N is the

<sup>&</sup>lt;sup>3</sup> I will not go into the details of her anlysis here. For an explanation of her findings, ibid. Ritter (1991,1995).

locus for gender and it would be wrong to assume that it headed its own projection, being as it is an intrinsic feature of N.

On the other hand, both number and case are considered to be, in the current model, non-intrinsic features of nominals. They are what Chomsky calls 'optional' features. They are not intrinsic properties of N, or of the head of the nominal construction, D. It seems unlikely that case could head its own functional projection, since it is a phrasal property, and as such, a property of the head, D. But there is a more important reason for not considering case to be the label of this functional category.

Let us refer to this functional category as XP. As we know, movement of the noun to X is overt, which means that there must be a [+strong] feature on the functional head. It has been generally conceded that there is a strict relationship between overt movement and overt morphology on the element to be checked. Since all Romance languages show overt number features (but not case features), we must conclude that this optional [+strong] feature that forces movement must be [+/- plural]. It seems logical that this functional category intermediate between D and N is, therefore, a NumP (Number Phrase), since it fits all the requirements of the theory. Number is a [-intrinsic] property of nominals, and it is [+strong] in Romance, as shown by the fact that it forces the N to raise to the functional category.

The postulation of NumP within DP allows us to capture the difference between Romance and Germanic languages with respect to noun raising. NumP contains a strong

feature that forces noun movement in Romance. In Germanic, though, this feature is not strong, hence that lack of overt movement in these languages.

Therefore, I propose that the structure of Romance DP is as represented in (6):

## 3.1.3. The position of adjectives within DP.

So far, we have established the existence of two functional categories within DP. There remains another issue that needs to be addressed, namely, the position of adjectives (APs) within nominal constructions<sup>4</sup>. There has been much discussion in the post-GB literature about this matter. The debate on the position of adjectives in the last decade has shifted from assuming that it is determined by the head-parameter, to assuming that is the result of other operations such as the noun-raising that takes place within DP.

The canonical order for APs in Romance is noun-adjective, as shown by the following examples:

<sup>&</sup>lt;sup>4</sup> There are, of course, other issues to be addressed with regard to DP structure, such as its argument structure, the presence of PP complements, etc. I will not go into details of these here, since they are not relevant to my study of agreement.

(7)	La casa grande	(Spanish)
	the house big	
	'the big house'	
(8)	un ragazzo simpatico	(Italian)
	a boy charming	
	'a charming boy'	
(9)	Les livres rouges	(French)
	the books red	
	'the red books'	

The most generally accepted position in Romance syntax has been that these adjectives are adjoined to some maximal (functional) projection dominating NP (Valois, 1991, Lamarche 1991, Bernstein, 1991, 1993). Other lines of anlalysis have also been pursued. For instance Cinque (1994) has proposed that these adjectives are generated in the specifier position of different functional projections intermediate between D and N.

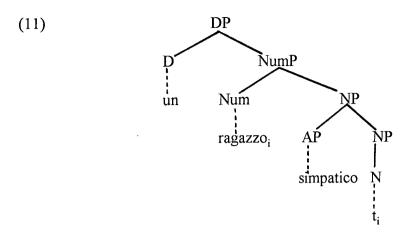
I will adopt a different view here and suggest that APs are generated in the specifier position of NP. Following Chomsky (1995), I propose that the possible occurrence of several adjectives with a noun can be accounted for if we assume the possibility of phrases having multiple specifiers. The resulting structure would then be as in (10), where irrelevant details have been omitted<sup>5</sup>:

The adjective is generated to the left of the noun, in the specifier position. The resulting order in Romance, as we have seen, results from the overt raising of the noun to the head of NumP.

This view of the position of adjectives has several advantages over competing proposals: a) it allows us to generate adjectives in Spec-of-NP, a logical place for noun modifiers to appear; b) it avoids having to postulate the existence of a large number of otherwise unmotivated functional projections between D and N; and c) AP and N appear in a Spec-Head configuration, which predicts an agreeing relationship between the two elements, as indeed is the case in Romance languages. We will discuss this issue in the next section of this chapter.

The structure I assume for a simple DP such as the ones in (7,8,9) may be represented by (11):

<sup>&</sup>lt;sup>5</sup> (10) represents a DP containing two adjectival phrases. The occurrence of more APs is accounted for by



Before we examine the agreeing relations established between these elements, we must note that there exists a group of adjectives in Romance that may appear both post-nominally and pre-nominally, with a slight difference in interpretation depending on their position, that is, there are semantic differences that correlate with the syntactic distribution of these adjectives. There is also a very small group of adjectives that appear only pre-nominally:

(12)

a. El mero hecho

\*El hecho mero

'the mere fact'

b. El alto precio

the high cost

c. El precio alto

the cost high

the recursive nature of the Specifier position.

'The high cost'

The adjective in (12a) belongs to the small group of adjectives that may appear only prenominally. Examples (12b,c) show an adjective that may appear in either position with a different interpretation. I propose that the pre-nominal position of these adjectives is the result of incorporation into the head noun. This is supported by two facts: a) pre-nominal adjectives can never be phrasal:

- (13) a. Un precio demasiado alto
  - a price too high
  - b. \*Un demasiado alto precio
    - a too high price
    - 'A too high price'

The fact that these adjectives cannot be phrasal shows that they are not in Spec position, but they are adjoined to the head noun.

The second piece of evidence comes from the fact that pre-nominal adjectives do not license null nouns:

- (14) a. El mero hecho
  - b. \*El mero Ø

However, null nouns are licensed by post-nominal adjectives:

(15) a. La chica guapa

the girl pretty

b. La Ø guapa

the pretty

# 'the pretty girl'

I take this fact as an indication that these pre-nominal adjectives are incorporated to the left of the noun, and this incorporation is not possible with null nouns.

Having established the structure that I assume for nominal constructions, let us now turn to examine the agreeing process.

## 3.2. The agreement mechanism.

Barlow and Ferguson (1988) argue that there are several points of inquiry that must be addressed in a thorough study of general agreement. These points of inquiry are the following: a) *Domain*, i.e. what kinds of elements agree with what kinds of elements in what kinds of grammatical configurations. b) *Features*, i.e., what grammatical categories, either inherent or overtly marked, are matched in agreement constructions. c) *Directionality*, in other words, which element is the starting point or 'controller' of the matching and which is the 'target' or one that matches. d) *Function*. What functions (syntactic or semantic) may the agreement serve and under what conditions. e) *Strictness, conflict and variation*. That is to say, what kind of 'mismatches' are found in agreement patterns; what kind of 'resolution rules' operate when two or more agreement patterns are in conflict and what sociolinguistic or pragmatic functions may be served by such different options or patterns.

With respect to Romance nominal constructions, I will deal with the first four of these points of inquiry, that is, the domain where agreement is found, the agreement features involved in the agreement relation, the directionality and the function that agreement serves

within these nominal constructions. The fifth point of inquiry, i.e. the strictness, conflict and variation and the existence of conflicting agreement patterns is, as I mentioned in the previous chapter, very limited in DP-internal agreement structures (basically, the only existing patterns where we come across choices or options within nominal constructions are conjoined nouns) and, more importantly, this limited number of options does not carry any semantic or pragmatic significance, as opposed to other (non internal) agreement structures, where the choice of one pattern or another may serve a pragmatic or sociolinguistic function. In other words, DP-internal agreement is a purely grammatical process.

But before going into the first of these four points, I will try to provide a characterisation of the phenomenon of agreement.

#### 3.2.1. What is agreement?

Many attempts have been made to define the term 'agreement'. Some of the definitions we come across are too permissive, such as the ones that view agreement as any case in which 'the formal category of one word depends on that of another'. This view of agreement is not restrictive enough, since it would include cases such as (16) below:

I have seen that film,
where the participial form of *see*, 'seen', 'depends on' the form of the main verb selecting it.
But surely we cannot conclude from these facts that the two verbal forms are in an agreement relationship, since there is no matching of categories between them.

As we saw in the previous chapter, several more restrictive definitions have been put forward by different linguists. One important and very comprehensive definition is the one proposed by Lehmann (1988:55):

- (17) Constituent B agrees with constituent A (in category C) if and only if the following three conditions hold true:
  - a. There is a syntactic or anaphoric relation between A and B.
  - b. A belongs to a subcategory c of a grammatical category C. and A's belonging to c is independent of the presence of nature of B.
  - c. c is expressed on B and forms a constituent with it.

This definition virtually comprises all and only those grammatical phenomena that have traditionally been called agreement.

I would like to propose a simpler, but, I believe, equally restrictive, definition of agreement:

(18) Two constituents are said to be in an agreement relationship if and only if there exists a matching of morphological properties between the two constituents in a specific syntactic configuration.

The 'matching of properties' is the crucial part of the definition, since it excludes some grammatical configurations which have often been considered to be agreement. One of these is, for example, nominative/accusative case assignment by the verb<sup>6</sup>. In this configuration,

<sup>&</sup>lt;sup>6</sup> Part of the reason why case assignment by the verb has been regarded as an agreement relation comes from the fact that in the Principles and Parameters framework, this nominative/accusative case assignment

there exists a syntactic relationship between verb and DP; also, the formal properties of the DP are 'affected' by this relationship, since the case of the DP is determined by the verb; yet, we cannot say that the two elements 'agree' in case since this is only a property on the DP, that is, there is no 'matching' between the verb and the DP as far as this property (case) is concerned.

The definition also excludes other configurations that are sometimes regarded as agreement, such as 'negative concord', of the type *ne....pas* in French, *not....ever* in English, etc, since in none of these structures is there any matching of morphological features. The definition does include, however, the agreement of: a) determiners, quantifiers, demonstratives, possessives with nouns, in number, gender, case and, sometimes, definiteness; b) adjectives (both predicative and attributive) with nouns, in number, gender, case (or definiteness); c) pronouns with their antecedent nouns, in person, number and gender; d) verbs with their subject and object nouns, in person, number and gender; and e) prepositions with their object nouns. These are the main types of agreement, although there are some other occurrences, such as the agreement we find in some languages between possessed nouns with their antecedent nouns, and appositive nouns with their head nouns.

From all these examples of agreement, we can draw two important generalisations:

a) all agreement involves a nominal element; and b) in all of the above examples it is the case that there is 'feature matching' between all the constituents involved in the agreement relationship.

was said to take place in an 'Agreement Phrase' (AgrS/AgrO). Whilst the verb does agree in many cases

With this working definition in mind, let us now proceed to examine some empirical data from Romance DPs.

## 3.2.2. DP-internal agreement. The Data.

The internal agreement occurring between nouns and other DP-internal elements in Romance languages is well known. This rich internal agreement can already be found in Latin, where, as well as number and gender agreement, we also find case agreement (in the proper sense of 'matching' of case properties between the two or more elements taking part in the agreeing relationship). Let us examine the following Latin examples:

- (19) a. Canis fortis vehementer latravit

  dog-Masc.Sg.Nom. brave-Masc.Sg.Nom. loudly barked

  'The brave dog barked loudly'
  - b. Laetum mercatorem vidit

    happy-Mas.Sg.Acc. merchant-Masc.Sg.Acc. I-saw

    'I saw the happy merchant'
  - c. Multas ancillas emi
    many-Fem.Pl.Acc. slaves-Fem.Pl.Acc. I-bought
    'I bought many slave-girls'
  - d. Hic puer / Haec
    this-Masc.Sg.Nom. boy.Masc.Sg.Nom / This-Fem.Sg.Nom

with its subject/object DPs in other properties, such as person or number, the same is not true of case.

puella.

girl-Fem.Sg.Nom

'This boy / this girl'

e. Primus

rex

/ Secunda

first-Masc.Sg.Nom. king-Masc.Sg.Nom. / Second-Fem.Sg.Nom.

regina.

queen-Fem.Sg.Nom.

'First king / second queen'

(19) shows the internal agreement of several DP-internal elements, in gender, number and case. Examples (a) and (b) show the agreement taking place between adjectives and nouns; in (c) we can see the quantifier and the noun also agreeing in the three categories; (d) contains a demonstrative and (e) contains a numeral, both of them agreeing with the noun in number, gender and case.

Although the inflectional case endings have been lost throughout time, Modern Romance languages have inherited this rich agreement system from Latin, with DP-internal elements showing agreement in gender and number<sup>7</sup>. There are several elements that take part in agreement within nominal structures. The (a) examples below are from French; (b) examples are from Spanish; (c) examples are taken from Italian.

Let us begin by showing the obligatory agreement taking place between nouns and determiners, both definite and indefinite, a part of speech not present in Latin:

<sup>&</sup>lt;sup>7</sup> Romanian is the only major Romance language which still preserves some overt case agreement.

voiture / Une voiture (20)a. La The-Fem.Sg. car-Fem.sg. / A-Fem.Sg. car 'The car/A car' chico /Los chicos b. El The-Masc.Sg. boy-Masc.Sg. / The-Masc.Pl. boys-Masc.Pl. 'The boy/ The boys' albero /gli alberi c. L' The-Masc.Sg. tree-Masc.Sg. / The-Masc.Pl. trees.Masc.Pl. 'The tree/ The trees'

The gender agreement is dictated by the grammatical gender of the noun, a property which is listed in the lexicon for all nouns. Number, however, as seen above, is not an inherent property of the noun, but rather a property of the DP as a whole. As I mentioned in section 3.1.2., I propose that number should be analysed as a nominal functional category intermediate between D and NP. We will return to this matter in the next section.

A second type of element which participates in agreement in Romance is the adjective. Let us see some examples:

(21)

a. La voiture verte / Un haricot

The-Fem.Sg. car-Fem.Sg. green-Fem.Sg. / A-Masc.Sg. bean-Masc.Sg.

vert.

green-Masc.Sg.

'The green car / A green bean'

b. Un hombre interesante / Las

A-Masc.Sg. man-Masc.Sg. interesting-Masc.Sg. / The -Fem.Pl.

notas buenas.

grades-Fem.Pl. good-Fem.Pl

'An interesting man / The good grades'

c. La macchina rossa / Gli alberi

The-Fem.Sg. car-Fem.Sg. red-Fem.Sg. / The-Masc.Pl. trees-Masc.Pl.

verdi.

green-Masc Pl

'The red car / the green trees'

As noted in section 3.1.3. of this chapter, there are certain adjectives in all Romance languages that can or must precede the noun. In this position, adjectives also exhibit agreement in gender and number:

(22) a. La grande maison / Le grand

The-Fem.Sg. big-Fem.Sg. house-Fem.Sg. / The-Masc.Sg. big-Masc.Sg.

parc.

park-Masc.Sg.

'The big house / The big park'

b. Unas bonitas cortinas / Unas cortinas bonitas.

Some-Fem.Pl nice-Fem.Pl curtains-Fem.Pl.

'Some nice curtains'

A-Fem.Sg. beautiful-Fem.Sg. house-Fem.Sg. yellow-Fem.Sg. 'A beautiful yellow house'. A third type of element which also shows agreement in Romance is quantifiers: a. Quelques animaux (23) Some-Masc.Pl. animals-Masc.Pl 'Some animals' b. Poca esperanza Little-Fem.Sg. hope-Fem.Sg. 'Little hope' c. Molti ragazzi Many-Masc.Pl boys-Masc.Pl 'Many boys' (24) below shows the agreement taking place between demonstratives and nouns; in (25) we see another type of element which also exhibit agreement, possessives: fille. / Cette enfants (24)a. Ces These-Masc.Pl. children-Masc.Pl / This-Fem.Sg. girl-Fem.Sg 'These children / This girl' b. Aquel dia / Aquellos libros That-Masc.Sg. day-Masc.Sg. / Those-Masc.Pl. books-Masc.Pl.

gialla.

casa

c. Una

bella

'That day / Those books'

- c. Questo fiore / Quella porta.

  This-Masc.Sg. flower-Masc.Sg. / That-Fem.Sg. door-Fem.Sg.

  'This flower / That door'
- (25) a. Ton costume / Ma voiture.

  Your-Masc.Sg. suit-Masc.Sg. / My-FemSg. car-Fem.Sg.

  'Your suit / My car'
  - b. Nuestra casa / Vuestros hijos.Our-Fem.Sg. house-Fem.Sg. / Your-Masc.Pl. sons-Masc.Pl'Our house / Your sons'
  - c. I nostri viaggi / La vostra

    The-Masc.Pl. our-Masc.Pl. trips-Masc.Pl. / The-Fem.Sg. your-Fem.Sg. vacanza.

holiday-Fem.Sg.

'Our trips / Your holiday'

Notice that, as shown by example (25c), in Italian DPs containing possessives, the appearance of the determiner is obligatory, unlike in the other Romance languages. In this case, the three elements, determiner, possessive and noun, agree in both number and gender.

Finally, there is one further type of adnominal modifier that takes part in the internal agreement relationship occurring between all these elements: ordinal numbers. Let us see some examples:

a. Le premier étage /La (26)The-Masc.Sg. first-Masc.Sg. floor-Masc.Sg. / The-Fem.Sg. première élève. first-Fem.Sg. pupil-Fem.Sg. 'The first floor / The first pupil' / Las segundo b. El mes The-Masc.Sg. second-Masc.Sg. month-Masc.Sg. / The-Fem.Pl. segundas vacaciones. second-Fem.Pl. holidays-Fem.Pl. 'The second month / The second holidays' /La piano c. Il primo The-Masc.Sg. first-Masc.Sg. floor-Masc.Sg. / The-Fem.Sg. prima scala. first-Fem.Sg. step-Fem.Sg.

Having seen some examples of this rich internal agreement occurring between nouns, determiners, adjectives, quantifiers, possessives, demonstratives and ordinal numbers in the three languages, let us now proceed, firstly, to do a brief survey of the agreement categories involved and, secondly, to delimit the mechanism at work in these structures.

'The first floor / The first step'

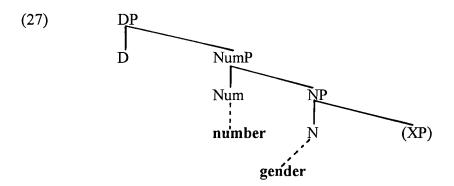
# 3.2.3. Agreement features.

As we have just seen, Romance DP-internal elements show agreement in both number and gender. Although these two inflectional properties operate in a similar fashion, they also differ from each other in several ways. In a survey of inflectional properties, Anderson (1992:82) divides these properties into three main types: a) Configurational properties, which are assigned on the basis of the larger syntactic structure within which a word or phrase appears; case is the commonest example of this kind of property; b) Inherent properties, which are lexical characteristics of individual words that must be accessible to syntactic principles of agreement, etc. in order for these to operate correctly. For instance, agreement in the Romance languages needs to know about the gender of Nouns in order to control the inflection of other DP-internal elements; and c) Agreement properties, which are assigned to words by reference to the value on a particular paradigmatic dimension of some other item within the same syntactic structure. For instance, in The cat sleeps on the bed vs. The dogs sleep on the floor, the difference between sleeps and sleep is a matter of agreement with the subject. According to Anderson, number is the commonest example of this type of inflectional property.

In most theories concerning the internal agreement occurring within DPs, the noun is seen as the source of all agreement features, with other DP-internal elements simply inheriting these features from the noun. Following Anderson, I would like to put forward a different proposal and suggest that the two properties at hand, gender and number, have different sources within DPs.

Gender is an inherent property of nouns. Chomsky (1995) refers to these types of features as 'intrinsic' features. All Romance nouns are listed in the lexicon with a gender value, either masculine or feminine. It seems clear, then, that the noun is the source of gender specification. Number, on the other hand, is clearly not an inherent property of the noun (except in idiomatic uses), either in Romance or in any other language. There is nothing intrinsic to a particular noun that determines the number of that noun. It is a property for which the noun has to be marked. As we have just seen, Anderson refers to this type of feature as an 'agreement feature'. This denomination is, I believe, misleading, since it could lead to thinking that these are the only types of features that may participate in agreement relationships. A better classification comes from Chomsky (1995) who refers to these kinds of features as 'optional' features, which are added arbitrarily as a lexical item enters the numeration. As explained at length in section 3.1.2. of this chapter there is ample evidence for the postulation of the existence of NumP, a functional category intermediate between D and N. In that section, I put forward a series of theory-internal arguments that showed that this functional category is indeed a Number Phrase. I propose, then, that this NumP be analysed as the source of number specification within nominal constructions.

Schematically, we could depict the sources of features as follows:



It must be noted, however, that these heads contain other features as well as those depicted here, such as [+/- Definite] on D, or [+/- Human] on N. I will leave these aside since they play no role in the agreement mechanism.

## 3.2.4. The structural configuration for agreement.

As shown by the data in section 3.2.2., nouns, articles, demonstratives, pre-nominal and post-nominal adjectives, quantifiers, possessives and ordinal numerals agree in gender and number in the Romance languages. Although this agreement has very often been taken for granted, there have been a few attempts to explain how it takes place within DP. Among the researches that have attempted to explain the agreement mechanism for all or some of these constituents are Valois (1991) for French and Bernstein (1993). Let us briefly review their work.

# 3.2.4.1. Previous generative studies of nominal agreement.

Valois (1991) proposes two different mechanisms to account for agreement within DPs, one for the Determiner element and a different one for adjectives. According to Valois,

Determiners agree with nouns through Spec-Head agreement in Number Phrase, since he claims that Ds are generated in Spec-of-NumP, and later on, raise up to the D<sup>o</sup> position. He extends this analysis to other elements, such as possessives, which he claims are also generated in that position. In the case of adjectives, he claims that adjective phrases are small clauses that project external arguments as in (28):

# [AP PRO [AA adjective]]

He further claims that the noun bears the gender features at the point of lexical insertion, the noun raises to the Num<sup>o</sup> position and then, the noun carries all of its features (number and gender). From that position, the noun m-commands everything within the noun phrase, so we can see agreement between the noun and the adjective as a special case of control; since the head noun 'controls' any PRO within the lower AP, it can transmit all of its features to it.

We can see several problems in this account of nominal agreement. Firstly, analysing Determiners as being generated in the Spec-of-Num position seems to be unmotivated on any grounds other than just to have the D element in a Spec-Head relation with the Noun occupying the Num position. Secondly, his account of adjective agreement would not work for pre-nominal adjectives, since the noun does not c-command (or m-command) them. And thirdly, it seems undesirable to have two entirely different mechanisms, Spec-Head relations and c-command relations, accounting for DP-internal agreement.

Although Bernstein (1993) does not propose a general account of DP-internal agreement, she suggests that nominal constituents come out from the lexicon with all their

inflectional features and that the noun moves up to the Num<sup>o</sup> position in order to check agreement features. She does not offer, however, any particular explanation as to how the agreement between the adjective and the noun is achieved or how and when the agreement features of the D<sup>o</sup> element are checked.

In the following section, I will attempt to provide an alternative structural account of DP-internal agreement, which will hold for both A and D elements.

### 3.2.4.2. Spec-head relations in DP-internal agreement.

So, what is the mechanism responsible for the agreement between the different constituents within DP? For a long time, the existence of agreement between two or more constituents has simply been regarded as a question of 'feature inheritance' or 'percolation' of features from a 'controller' to a 'target'. The notion of 'percolation' has been assumed to explain the occurrence of agreement between elements, but, yet, there is hardly any explicit discussion about how this percolation of features takes place.

In accordance with the general principles of the Minimalist Programme and the Principles and Parameters Theory, I would like to claim that agreement within DPs occurs under a Spec-Head relation, as specified below. But before going into the details of this agreement configuration, let us make the following basic clarifications:

a) DPs contain a Functional category intermediate between D and NP. This category, as we established in section 3.1.2., is NumP.

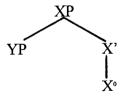
- b) NumP contains a [+strong] [-intrinsic] number feature that forces overt movement of N to NumP in Romance.
- c) Nominal constituents are drawn from the lexicon bearing all of their inflectional endings.

  The choice of the right ones falls on the 'checking' function performed by the syntax.
- d) Following Chomsky (1995) I propose that adjectives are generated to the left of N, specifically, they are generated in the multiple specifier positions of N. This analysis of adjectives as specifiers of N is compatible with Jackendoff's (1977) original view of these elements. The possibility of N having multiple specifiers accounts for the recursiveness of APs within a DP.

Having established these basic points I am adopting in my analysis, I would like to propose the following hypothesis:

# (29) Spec-Head Agreement Hypothesis

Given categories Xº and YP in a configuration such as:



YP and  $X^{\circ}$  are in Spec-Head agreement if there exists a set of features [+/-F] on both YP and  $X^{\circ}$ , such that  $[\alpha YP] [-\alpha X^{\circ}]$  is ill-formed.

My hypothesis, then, regards agreement as feature matching in a Spec-Head configuration. This matching of features is done along the lines of Chomsky's (1993) notion of 'feature checking', either overtly at PF, or covertly at LF.

The agreement mechanism, then, works as follows: all the elements that take part in the agreeing relation within DP (nouns, articles, quantifiers, demonstratives, possessives, etc.) bear gender and number features as they enter the derivation. These two features that participate in the agreeing relation come from two different sources: the noun determines the gender of the agreeing elements within the DP, being as it is the source of gender specification. Number, on the other hand, is an optional feature for which the DP must be marked. As I suggested above, the number category heads its own projection, NumP; NumP is, hence, the source of number specification. For each element taking part in the agreement relation, these two features have to be 'matched' against those of another element taking part in agreement. This is checked in a Spec-Head configuration, either overtly or covertly; if the features of the two elements being checked match, the derivation converges.

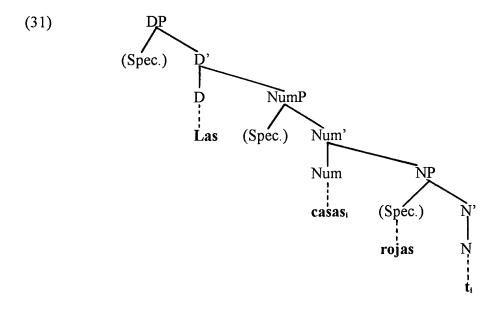
Let us see how this mechanism would apply to some of our examples. A simple phrase such as the Spanish example in (30),

(30) Las casas rojas

The-Fem.Pl houses-Fem.Pl red-Fem.Pl

'The red houses'

has the following representation (after N-to-Num raising):



The three elements in the DP, the article, the noun and the adjective, participate in the agreement relation. All of these elements bear feminine gender and plural number features as they enter the derivation. The features in each of these elements have to be matched against the features of another element within the agreeing DP.

Firstly, let us look at the checking of the agreement between the adjective and the noun. This agreement is ensured by the fact that the adjective *rojas* stands in a Spec-Head configuration with the noun *casas* at the input structure. In this configuration the two elements can match their gender and number features with each other. Note that in structures with two or more adjectives, the checking would be done in the same way since the adjectives would be in the multiple Spec-of-DP, each one of them entering, hence, in a Spec-Head relation with the noun. Before talking about the checking of the agreement for

the D<sup>o</sup> element, the definite article *las*, let us briefly touch on pre-nominal adjectives. Recall example (22b) from Spanish, repeated here as (32):

(32) a. Unas bonitas cortinas

Some-Fem.Pl. beautiful-Fem.Pl. curtains-Fem.Pl.

b. Unas cortinas bonitas

'Some beautiful curtains'

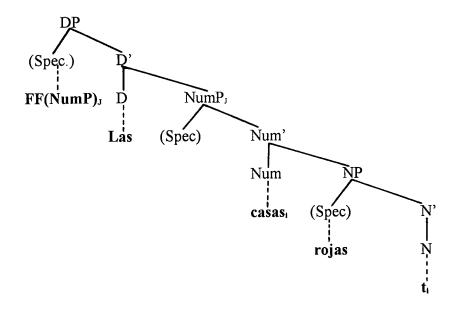
As pointed out in section 3.2.2., some adjectives in Romance can appear pre- and postnominally, as demonstrated by the above example. Also, a small group of adjectives must
always appear pre-nominally. The pre-nominal position for the adjective yields a nonrestrictive reading, the postnominal position, a restrictive reading. The fact that in some
cases the adjective appears pre-nominally does not mean that noun raising has not occurred.
As I proposed in the previous section both pre- and postnominal adjectives are generated in
the specifier position of NP. This ensures the agreement of both types of adjectives, since
they are both in Spec-Head configuration with the noun at the input structure. For the sake
of interpretation, some adjectives incorporate to the noun and raise together with it to Num<sup>o</sup>,
appearing then in a pre-nominal position<sup>8</sup>.

Secondly, going back to our example in (30), let us look at the checking of the agreement features of the D element, the definite article *las* in this case. I propose that the checking of the agreement features of the element in D is also done by matching its features with those of some other element taking part in the agreeing relation in a Spec-Head

<sup>&</sup>lt;sup>8</sup> See section 3.1.3. for an explanation of these facts.

configuration, and this other element is NumP, which raises covertly to the specifier position of D (Spec-of-DP). In accordance with the basic principles of the Minimalist programme, rather than NumP itself raising, however, it is only its formal features that raise at LF. I will refer to this set of formal features as FF(NumP); these include its categorial features [+N] and [+Num], as well as its agreement features and possibly some others which I will not mention here as they are not relevant to this discussion of agreement. Once the features have raised to this position, the NumP and the determiner can match their number and gender features in a Spec-Head configuration:

# (33) LF representation



There is an important fact that must be noted about the covert raising of NumP (features) to Spec-of-DP. In the Minimalist Programme, all movement, whether overt or covert, has to be motivated. There are two possibilities as to what triggers this covert movement of FF(NumP) to Spec-of-DP. From the previous discussion, we could assume

that it is motivated by the fact that the agreement features of D have to be checked against the same agreement features of the noun contained within NumP. This is the first of the two possibilities. However, there is a second possible interpretation of this movement. Recall that the DP has to be assigned abstract case in accordance with the general rules of Case Theory. Case is a phrasal property, and, as such, a property of the head. Do being the head of the construction is also the locus for case. Case is an optional [-interpretable] feature, in the sense of Chomsky (1995); these features cannot appear at LF, they must be checked to be eliminated. It appears, then, that we could say that NumP raises covertly to Spec-of-DP to check the case feature of D. Whichever possibility we adopt, there are two types of feature being checked in this operation, gender and number features and case features. I propose, adopting the second possibility, that the checking of the case feature on D forces movement of NumP to Spec-of-DP, at the same time checking the agreement features on the D 'parasitically'.

We can see, then, that all three elements examined so far, nouns, adjectives and articles make use of the same mechanism for the checking of agreement, that is, matching of features in a Spec-Head configuration, either overtly or covertly. Finally, let us consider the other elements that may also take part in this DP-internal agreement, quantifiers, demonstratives and possessives and ordinal numbers.

I propose, together with other researchers, that quantifiers, demonstratives and possessives are also typical D elements (with a couple of exceptions to this classification

<sup>&</sup>lt;sup>9</sup> I only introduce 'case' here very briefly; however, as we will see in the next chapter, case plays an

noted below) and, hence, occupy the D<sup>o</sup> position. Recall some of the examples in section 3.2.2.:

(34)a. Cette voiture verte this-Fem.Sg. car-Fem.Sg. green-Fem.Sg. 'This green car' (French) b. Vuestras limpias ropas your-Fem.Pl. clothes-Fem.Pl. clean-Fem.Pl. 'Your clean clothes' (Spanish) c. Molti ragazzi many-Masc.Pl. boys-Masc.Pl. (Italian) 'many boys'

In these examples the checking of agreement takes place in an identical manner to that shown above for articles and adjectives. The adjectives *verte/limpias* in the first two examples occupy the specifier position of NP and, hence, stand in a Spec-head configuration with the nouns *voiture/ropas* at the input structure. After the noun has raised to the Num position, the agreement of the demonstrative, the possessive and the quantifier is checked by covert NumP raising to Spec(DP); *cette/vuestras/molti*, occupying the D<sup>0</sup> position, match their agreement features with those of the raised NumP in a Spec-head configuration.

important role in the theory of agreement presented in this dissertation.

As pointed out above, there are two exceptions to this analysis of demonstratives, possessives and quantifiers as D<sup>o</sup> elements. The first one is Italian possessives. Recall example (25c), repeated here as (35):

The obligatory co-occurrence of the article and the possessive shows that possessives in this language are not D<sup>o</sup> elements. Instead, I would like to propose that they should be analysed as adjectives; as such, these elements are generated in the specifier position of NP, checking their agreement in the same manner as other adjectives, that is, by appearing in a Spec-Head configuration with N at the input structure. The possessive adjective later incorporates to the noun and raise together with it to Num, in the same manner as other pre-nominal adjectives.

Secondly, there exists a type of quantifiers that must combine with the definite article, preceding it:

These quantifiers have been the subject of much research in the literature. Among the different classifications of these elements, the most commonly adopted analysis suggests that quantifiers such as *todos* occupy the specifier position of DP; this analysis is based on word

order evidence and interpretation issues, but for the sake of brevity I will not go into details of it here. The agreement of the quantifier *todos*, then, is ensured by the fact that it stands in a Spec-Head configuration with the article *los* in the D<sup>o</sup> position, thus, matching their features in this way.

Finally, I propose that the last type of elements taking part in the internal agreement relation, ordinal numbers, are also adjectives that, like some other adjectives in the Romance languages, must always appear pre-nominally:

The matching of the agreement properties of these elements is done in an identical manner to that seen above for all other adjectives, either pre- or postnominal, is a Spec-Head configuration with the noun.

To sum up, this analysis of the structural mechanism at work in DP-internal agreement purports to be a unified account of the agreement occurring between the different elements that take part in the agreeing relation. In my proposal, unlike in those put forward by others, such as Valois' (1991), the agreement of nouns, adjectives, articles, quantifiers, demonstratives, possessives and ordinal numbers can be accounted for by one single process, that is, feature matching in a Spec-Head configuration.

#### 3.3 Conclusion.

In this chapter I have presented an analysis of Romance nominal constructions, within the general principles of the Principles and Parameters Theory and the Minimalist Program. I have suggested, together with many other advocates of the DP-hypothesis, that nominal expressions are projections of the category D, at least when they occur in argument positions. Following Cinque (1990) and others, I have stated that there exists overt noun movement in Romance to a functional projection intermediate between D and NP. I have presented theory-internal evidence to the effect that this intermediate projection is NumP. I have further argued that adjective phrases in Romance are in the specifier position of NP and I have also presented an analysis of the position of pre-nominal adjectives in these languages.

In the second part of the chapter, I have put forward a working definition of agreement, which delimits the range of phenomena that can be considered to be agreement proper. Having shown a range of examples showing the different elements taking part in the internal agreement relation in three major Romance languages, French, Spanish and Italian, I have presented the agreement mechanism responsible for DP-internal agreement. My hypothesis views agreement as feature matching in a Spec-Head configuration.

As far as I know, although there have been several attempts to explain the agreement mechanism for some of the constituents within DP, there is no cross-categorial account of DP-internal agreement. My proposal is an attempt to arrive at a unified account of this phenomenon.

# Chapter 4

# The Relationship between Case and Agreement. The Case of Spanish Locatives

## 4.1. The relationship between case and agreement.

In the previous chapter we examined the phenomenon of agreement within Romance DP-internal constructions. In this chapter I want to investigate the relationship between agreement and case within nominal constructions. Both agreement and case are strategies used for expressing relations between entities. It will be shown that the two phenomena are, in fact, closely related and should be treated together, at least with regard to DP-internal facts. In doing so, another important fact will be examined: the need for DP-internal elements other than nouns, such as adjectival modifiers and D itself, to receive case, an issue that has not been paid very much attention to in the literature.

I propose that D, being the head of the nominal construction is also the locus for case and this case is transmitted to the N (that is, the D-complement) and to the noun-modifiers via overt  $\Phi$ -feature agreement.

The chapter is organised as follows: in the first section I will talk about the need for DP-internal elements to be case-marked and about the relationship that holds between case and agreement, with special reference to Romance DPs. Then, I will examine a group of elements in Spanish whose categorization has been problematic because of their apparent heterogeneous characteristics and behaviour; these elements will provide evidence for the proposal that Romance nominal agreement is a manifestation of case relations. Finally, I will present some facts about quantifiers in French which will provide further evidence to this effect.

## 4.1.1. Case-marking of DP-internal elements.

The idea that all D-elements as well as adjectival modifiers and the noun itself, should receive case within their nominal construction can be sustained on both theoretical and empirical grounds.

The Generative tradition states that NP/DP must be assigned 'Abstract Case'. Recall, for example, the Case Filter of Chomsky (1981):

(1) Every overt NP must be assigned Abstract Case.

This case is regarded as a phrasal property and, ultimately, as a property of the head. It seems logical to conclude that, under current theoretical assumptions, D, being the head of the construction, is also the locus for case in the first instance. At a first glance, some empirical evidence for this idea would be provided by the fact that in many languages with no overt case marking, such as English or the Romance languages, morphological case is absent from the entire paradigm, the only elements exhibiting some inflection for case being pronouns, typical D elements. Also, in

languages with overt case-marking and obligatory D, such as German, the highest amount of case information is always marked on the D.

As far as adjectival modifiers are concerned, I mentioned above that they should also receive case within their containing DPs. This idea is predicted by the formulation of the theory, yet it has been basically overlooked in the literature. Although Case Theory developed exclusively into an investigation of the distribution of Noun Phrases and case has remained to be considered a universal property of NPs/ DPs, Case theory predicts that adjectives should also receive case, thanks to their feature [+N]. To my knowledge, one of the few linguists to deal briefly with this subject is Stowell (1981), who, in his doctoral thesis, argues that 'APs must be assigned case, depending on the position in which they occur'. In this sense, he states, APs must receive case when they function as independent arguments in an Aposition'. He further argues that APs also receive case when they occur as noun modifiers, the case we are dealing with, and gives examples from a German paradigm that show overt case agreement between a noun and its AP modifier(s). This fact has also been noticed by other linguists, such as Van Riemsdijk (1983) and Emonds (1991), who point out that both appositive and predicative As must receive case.

As far as the empirical evidence is concerned, this idea is well supported by languages, including Indo-European case languages like Latin or Ancient Greek

where case marking always appears not only on nouns but on adjectives and determiners as well, as seen in examples (2) from Greek and (3) from Latin:

- (2) ho anexetastos bios
  the-nom. unexamined-nom life-nom
  'the unexamined life'
- (3) Laetum mercatorem vidit
  happy-Acc. merchant-Acc. I-saw
  'I saw the happy merchant'

This phenomenon is traditionally referred to as concord (in gender, number and case).

There are, of course, many other languages in which DP-internal elements are marked overtly for case. It would seem strange to think that these elements are overtly marked for case if they are not required by Case theory to be (abstractly) marked. We can see, then, that the need for these elements (determiners, quantifiers and nouns) to be case-marked is supported by ample evidence, both empirical and theoretical.

# 4.1.2. Agreement as an overt manifestation of case.

If we examine 'agreement rules' in any traditional grammar of Latin, we will encounter statements such as the ones below:

- (4) a. A <u>predicative adjective</u> agrees with its noun in gender, number and case.
  - b. An <u>attributive adjective</u> agrees with its noun in gender, number and case.

It seems clear that in Latin agreement occurrences always seem to involve agreement for the three types of features: gender, number and case. In many instances, the inflectional formatives are 'portmanteau' morphemes, i.e. they realise in a single unanalysable unit values for two or all of the features. It appears, then, that Latin makes use of one single operation (that is, agreement for the 3 types of features) for what has been traditionally considered to be, within the generative grammar, two entirely different processes: case assignment and  $\Phi$ -feature agreement (matching) in gender and number.

On many occasions, this agreement process in Latin for the three types of features has been taken for granted. However, it wouldn't have to operate in this way; for example, we could have agreement only in number and gender and the predicative attribute could be assigned a different case from that of the subject DP. Or, in the case of DP-internal elements, the case at hand, we could have the adjectival modifiers exhibiting a different case from that of the D/N, as is the case with DP complements of a noun, where no agreement process is involved, that is, where there is no matching of  $\Phi$ -features.

However, as we have seen, whenever Latin exhibits an agreement operation to share  $\Phi$ -features, case assignment is part of the same operation. It seems, therefore, highly plausible to conclude that agreement in Latin involves Abstract Case assignment.

Let us now briefly go back to the Romance languages. Throughout time, many of the languages deriving from Latin have lost their inflectional case endings; in fact, none of the western European Romance languages are case languages as such. They are, however, highly inflected for  $\Phi$ -features: It would be wrong-headed to assume that the Romance languages have lost, together with their actual case inflections, the need for DP-internal elements to be case-marked. It seems only logical to conclude that in these languages the same operation that is responsible for  $\Phi$ -feature agreement will also be responsible for the assignment of abstract case. We can conclude, then, that Romance agreement is an overt manifestation of Abstract Case assignment.

This statement is supported by theory-internal arguments as well as by ample empirical evidence from languages like Latin, for example. There is, however, an even clearer example of this relationship between case and agreement, that has gone unnoted in other research.

As we saw in the previous chapter, Romance languages exhibit  $\Phi$ -feature agreement between N, adjectival modifiers and D elements (including articles, demonstratives, possessives and quantifiers). In some of these languages, though,

we find a group of elements that are defective for  $\Phi$ -feature specification, that is, they show no overt  $\Phi$ -feature agreement, and it is precisely with these elements that we encounter the insertion of the default case assigner de/di (of). It seems, then, inescapable that Romance agreement involves case-assignment and it is only when agreement is not possible, that a last-resort case assignment mechanism (de/di insertion) comes into play, as a less economical means of case-marking.

In the next section, I will examine a group of such elements, Spanish locatives. The categorial status of these elements has been considered to be problematic due to their apparent heterogeneous behaviour. These locatives, which I will argue belong to the adjectival category, will provide us with evidence that Romance internal agreement involves case assignment.

#### 4.2. Spanish Locatives

In this section I argue for an analysis of Spanish locatives as adjectives. Ample combinatorial and distributional evidence is provided in favour of this analysis and previous categorizations of these elements are discarded. It is demonstrated that this approach accommodates the distribution of locatives as well as explaining the obligatory occurrence of the dummy preposition *de* when locatives function as noun complements. It is suggested that '*de* insertion' is a broader process than generally assumed and that it is available as a case-marking device

within the nominal construction, not only for DPs, but also for APs. Two important theoretical issues are discussed: firstly, the availability of two mutually exclusive marking processes within Spanish DPs, namely overt agreement and "de insertion", and secondly, the need for adjectival phrases to receive case when they appear in certain positions.

#### 4.2.1. Some properties of Locatives

Spanish exhibits a group of clearly identified prepositions. A list of these would include *a, ante, cabe, con, contra, de, desde, en, entre, hacia, hasta, para, por, segun, sin, so, sobre, tras* and possibly some others. This group of elements show all the typical characteristics of P, such as the ability of its members to co-occur with elements regarded as typical modifiers of P:

- (5) a. Llegó justo a tiempo

  Arrived-3Sg. right on time

  'He arrived right on time'
  - b. El bosque se extiende justo hasta la fronteraThe forest Refl. expands-3Sg. right until the border'The forest expands up to the border'

They occur in positions that are typically associated with PP, for instance, as complements of verbs such as *estar* 'to be' (location), *dejar* 'to leave', and so on.



- (6) a. Mi casa está en el centro 'My house is in the centre'
  - b. Dejó el libro sobre la mesaLeft-3Sg. the book on the table'He left the book on the table'

These 'pure' prepositions are always transitive in Spanish and they subcategorise for a wide range of complements from which they cannot be stranded:

- (7) a. He estado aqui desde ayer

  Have been-1Sg. here since yesterday

  'I have been here since yesterday'
  - b. No sé de que estás hablandoNot know-1Sg. of what are-2Sg. talking'I don't know what you are talking about'

The status of these elements is not controversial and will not, therefore, be part of this study.

Locatives however, have been much discussed in the literature. Traditional grammar classifies them as adverbs. Ramsey (1956) regards them as complex prepositions when used transitively and as adverbs when used intransitively. Other grammarians state that they are prepositional adverbs. Chomsky (1988) refers to them as intransitive prepositions, due to the fact that they are not able to assign

abstract Case to their complements and, hence, require the insertion of a 'pure preposition' in order to do so:

Puse el libro encima de la mesa

Put-1Sg.Past the book on of the table

'I put the book on top of the table'

Plann (1986) argues that a group of these elements belong to a neutralised category [+N], whereas another group must be regarded as 'postpositions'. Let us review some of the properties of these locatives.

A complete list of such elements would include *delante*, *detras*, *dentro*, *fuera*, *enfrente*, *encima*, *debajo*, *cerca*, *lejos*, *alrededor*, *adelante*, *atrás*, *arriba*, *abajo*, *adentro*, *afuera*. Many of these elements were, in the past, prepositional phrases of the form [ppP [DP]], and had structures of the type [en [ frente]] 'in front', [en [cima]] 'on top'. Most of these locatives semantically paraphrase 'pure' prepositions, as shown by the following examples:

- (9) a. El gato esta tras la puerta / detras de la puerta.

  'The cat is behind the door / behind of the door'
  - b. El gato esta sobre el tejado / encima del tejado

    'The cat is on the roof / on(top) of-the roof'

These considerations might lead us in some way to consider these locatives as prepositions; however, I will not make use of diachronic arguments, since it is the purpose of this study to determine the synchronic status of these words.

There are other more convincing arguments for the similarity of these elements and 'pure' prepositions. The distribution of locatives seems to be very similar to that of prepositional phrases. Locatives appear as complements of the verb estar 'to be', poner 'to put', dejar 'to leave', positions that, as stated above, are typically associated with PP:

- (10) a. Maria puso la planta enfrente / encima / detras de la silla.
  - 'Maria put the plant in-front / on(top)/ behind of the chair'
  - b. Maria puso la planta sobre / tras la silla

'Maria put the plant on / behind the chair'

Examples (a) and (b) show that the verb *poner*, which subcategorises for two complements, seems to be able to take both 'pure' prepositions and 'locative phrases'. Closer examination, however, shows that this is surely related to the fact that in both cases the content of the head of the phrase is locative and not to the categorial status of the phrase:

- (11) a.\* Maria puso la planta [pp para la silla]

  'Maria put the plant for the chair'
  - b. \*Maria puso la planta [pp sin la silla]

'Maria put the plant without the chair'

Prepositions such as *para* or *sin*, with no locative content cannot function as complements of *poner*. It appears, then, that we cannot conclude that these locatives are prepositions basing our reasoning on this distributional argument.

In generative grammar, the ability of an element to combine with members of the class of modifiers of their category has always been regarded as a good test for categorial status. In this sense, we mentioned earlier that *justo* can be regarded as the typical P modifier. Interestingly, this element can also modify a few of the locatives under analysis:

- (12) a. Justo encima
  - 'right on-top'
  - b. Justo debajo
    - 'right underneath'
  - c. Justo delante
    - 'right in-front'
  - d. Justo enfrente
    - 'right in-front'

However, its combination with other members of this group is ungrammatical:

- (13) a.\*Justo cerca
  - 'right near'
  - b.\*Justo lejos
    - 'right far'
  - c.\*Justo arriba
    - 'right above'

I can only speculate on this fact by noting that the combination of *justo* and a locative is only possible with those members that are morphologically composed of P+N or P+P. This might be revealing in some sense; yet, I have discarded historical arguments above, and I will not make use of them at this point either. There are other factors, though, that show that the combination of *justo* and a locative is not conclusive in any way.

The majority of the elements under study combine with the members of the class of A-modifiers, the so-called 'degree-words'. Among these degree words are muy 'very', casi 'almost', tan 'so', bastante 'rather', demasiado 'too':

- (14) a. El bar esta muy cerca 'The bar is very near'
  - b. Colgó el cuadro demasiado arriba
     Hang-3Sg. the picture too up
     'He hung the picture too high'
  - c. El cine esta casi enfrente de la farmacia the cinema is almost opposite of the chemist's 'The cinema is almost opposite the chemist's'

The fact that some of these locatives cannot be modified by these elements is connected, once again, to the locative content of the word, since, presumably, most locatives are not gradable:

(15) a. \*El gato esta muy encima del tejado

'The cat is very on-top of-the roof'

b. \*El jardin esta situado tan alrededor de la casa

'The garden is located so around (of) the house'

It is obvious from these examples that *encima* 'on top', *alrededor* 'around' and some others are not gradable and cannot, therefore, be combined with this type of A-modifier. The inability of some locatives to combine with these modifiers is not unique to these words. Emonds (1987) notes that the same phenomenon takes place in English in examples where certain A (non-locative in this case) are not gradable:

- (16) a. \*We considered the performance [very/too/less excellent]
  - b. \*Her yard seems [so/most/very circular]
- c. \*The back door has remained [quite/more/rather] unpainted

  Moreover, in a paper dedicated to the study of Adjectives, J. Maling (1983) points

  out that some members of the A-modifying class can appear with certain types of

  PP, which she calls metaphorical PP, but not with locative PPs:
- a. They seemed [so/too/very] in love/out of shape
  - b. \*They live [very/so/too] at the railway crossing

We are faced with a complicated picture. Whilst a few locatives may appear with *justo*, the typical P-modifier, others may not. Moreover, many of them can appear modified by A-modifiers, and the fact that some of them cannot seems to be attributable to the non-gradable property of locatives and not to any different categorial features present in such words, as the examples above have shown. If

revealing anything at all, this syntactic test points to the conclusion that the locatives under study belong in the category (A).

So far none of these arguments has been able to substantiate the claim that these locatives are prepositions. A further possible reason to classify these elements as prepositions comes from morphological facts. Traditionally, invariable words have been associated with prepositions, whereas nouns and adjectives are always thought of as inflected elements in Spanish. Our locatives are invariable words; they do not exhibit any inflection, which has led some scholars to conclude that they are prepositions. Once more, this property does not prove that these elements are Ps, since there is a large group of elements within A, the so-called adverbial APs and some others, that are not inflected for number or for gender:

- (18)

  a. No conduzcas tan despacio

  not drive-2Sg. so slowly

  'Do not drive so slowly'
  - b. Se marchó antes de despedirsepart. left-3Sg. before of say-goodbye'He left without saying goodbye'
  - c. Antiguamente se vivía mejor anciently part. lived-3Sg better 'Life was better in the past'

The results of the preceding arguments clearly leave us with no support for the claim that this group of locatives are Ps. Historical and morphological arguments, subcategorization facts and combination with specifiers have proved to be far from compelling.

Let us now turn to some other properties of locative phrases that make the distinction between them and Ps even more clear. Consider the following examples:

- (19) Se sentó [encima \*(de) la cama]

  part. sat-3Sg. on-top (of) the bed

  'He sat on the bed'
- (20) Maria y Luis pusieron al gato [dentro \*(de) la caja ]

  Maria and Luis put-3Pl. to-the cat in (of) the box

  'Maria and Luis put the cat in the box'
- (21) El gato se escondio [ debajo \*(de) la mesa ] the cat part. hid-3Sg. under (of) the table 'The cat hid under the table'

Unlike prepositions, locative elements cannot take bare DP complements. This fact is related to Abstract Case theory. According to the theory of Case as stated by Chomsky and Lasnik (1991), every phonetically realised DP must be assigned (abstract) Case. If we further assume that V and P assign Case because of the [+N] feature that they carry and that N and A cannot assign (structural) Case, we must conclude that the locative elements in the (a) examples above are not prepositions.

Locatives require the insertion of a semantically empty de in order to assign Case to the DP complement, paralleling the rule of 'of-insertion' in English. Surely this fact by itself counts as important counterevidence for the assumption that these locatives are prepositions.

Before going into other properties of these elements, it might be useful to review further data related to the structures above. I concluded that locatives cannot be considered P since they do not assign Case to the following DP and hence, require the insertion of de. A possible argument against this assumption could be that some 'pure' prepositions can also followed by PPs as in,

- (22) a. El hombre salio [ PP de[pp entre los arbustos]]

  'The man came-out from between the bushes'
  - b. Llueve desde por la tarde
    rain-3Sg. from in the afternoon
    'It's been raining since the afternoon'

We cannot conclude that *de*, *desde* and *por* are not Ps in these examples. We are simply faced with instances of Ps subcategorising a PP as their complement instead of a DP. The fact that these Ps are perfectly able to assign Case to a DP complement is shown by the following examples, in which the same prepositions take DP complements instead:

(23) a El hombre salio [pp de [DP la casa]]

'The man came-out of the house'

b. Salio [pp desde [Dp la estacion]]

left-3Sg from the station

'He left from the station'

Locatives, however, cannot, under any circumstances, take a bare DP complement.

It might also be possible to conclude from the internal structure of locatives that they are 'compound prepositions'. In this respect, it is important to contrast their behaviour with that of elements traditionally regarded as compound prepositions, such as *acerca de* 'about':

- (24) a Nos escondimos [dentro de la caseta]
  - refl. hid-1Pl. inside of the hut

'We hid inside the hut'

- b. Escuchamos una conferencia [acerca de filosofia]
  - listened-1Pl a talk about of philosophy
  - 'We attended a talk on philosophy'
- (25) a. Nos escondimos dentro
  - b. \*Escuchamos una conferencia acerca

Acerca cannot be intransitive in any case. It needs to be followed by de and a DP complement, whereas all the locatives under study can be intransitive (as in (25a) above). It is obvious, then, that we cannot classify them as compound prepositions since that would involve a permanent transitive behaviour.

At this point, it is important to distinguish between the internal structure of these locatives. Whereas a large group of these elements may be intransitive, a small group of them, six to be precise, are intransitive by nature, that is, they cannot be followed by a complement:

```
[encima/detras (de la cama)]
               a. Puso la maleta
(26)
                 'He-put the suitcase on-top/ behind (of the bed)'
                 El hombre sentado [ enfrente (de nosotros) es mi tio]
                                     in-front (of us)
                                                            is my uncle'
                 'The man sitting
                 Luis aparco el coche [ delante (de la oficina) ]
                                         opposite (of the office)'
                 'Luis parked the car
                       gato se escondio [ dentro (de la caja) ]
                 El
                                            inside (of the box)'
                 'The cat
                                 hid
                 Nos gusta cenar [fuera (de casa)]
                  'We like to-dine
                                       out-of (the house)'
                        dueño del terreno [ alrededor (de la casa) ]
                 Es
                 'He-is owner of-the land
                                               around (of the house)'
                               esta [ cerca/lejos (de aqui) ]
                 E1
                        cine
                                    near/far (from here)'
                  'The cinema is
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b. Puso la maleta [ arriba (\*de la cama)]

'He-put the suitcase above (of the bed)'

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No me gusta sentarme [ adelante/ atras (*de personas altas)]

'I don't like to sit in-front/ behind ( of tall people)'

El gato se escondio [ adentro (*de la caja)]

'The cat hid inside (of the box)'

Nos sentamos [ afuera (*del bar)]

'We sat out (of -the bar)'
```

Intransitive locatives can, however, be modified by an NP to the left of them:

- (27) a. La historia ocurrio [ muchos años *atras* ]

  'The story took-place many years back'
  - b. El bebe debe dormir [boca arriba/boca abajo]

'The baby must sleep face up / face down'

This type of structure has led some authors to a separate treatment of these locatives.

Among them, Plann (1986) argues that these elements are 'postpositions' and, hence, assign Case to a DP to the left of them. Although 'postpositions' are not the subject of Plann's study, she clearly differentiates them from the other group of locatives, which she views as a totally different category. This differentiation seems clearly unfounded, though. The structure of these phrases is, in my view, identical to that of the following English examples:

- (28) a. The race was [ 3 hours long ]
  - b. The gap is [2 metres wide]

The measure phrases in the above examples are clearly behaving as A-modifiers.

This argument is supported by the fact that, although that position can be filled by other members of the A-modifying class, the co-occurrence of both the DP and another modifier is banned:

- (29) a. The race was [ very/extremely so/ rather long ]
  b. \*The race was [ very, 3 hours long ]
  - c. \*The gap is [ one metre quite wide ]

In the same manner, we can substitute the DPs in the examples in (27) with other A-modifying members, and we cannot combine two or more of these elements:

a. muy atras/ \*muy boca arriba
very back/ very mouth up
'At the very back/ \*Very face up'
b. bastante arriba / \*bastante boca abajo
quite up / quite mouth down

'Quite high / \*Quite face down'

Clearly, if we conclude that the DPs are just occupying the typical A-modifier position, hence, preceding the locatives, Plann's proposal that these words are postpositions has no support. I will show next that this group of six elements has exactly the same distribution as and shows identical behaviour to the other eleven members of the group under study, the only difference between them being the fact that the latter and not the former exhibit the possibility of being both transitive and

intransitive. Evidence that other categories such as V have both transitive and intransitive members shows that this difference alone is not strong enough to divide one category into two groups.

I have already pointed out some of the positions in which our locatives may appear, that is, as complements of verbs such as *estar*, *poner*, *dejar*. Recall that in those positions we were able to encounter all locatives- transitive and intransitive. Moreover, both types are modified by the same range of specifiers (see examples (14) and (15)). There are further arguments that clearly show that the two 'groups' of locatives are identical and shed some light on the classification of these elements. First, when locatives function as complements to nouns they are always preceded by the preposition *de*:

- (31) a. [La vecina \*(de) arriba] siempre se esta quejando
  the neighbour of upstairs always part is complaining
  'The neighbour upstairs is always complaining'
  - b. [ El cine \*(de) enfrente ] ha cerradothe cinema of opposite has closed-down'The cinema opposite has closed down'
  - c. [El jardin \*(de) detras de la casa] esta muy ordenado
    the garden of behind of the house is very tidy
    'The garden behind the house is very tidy'

Two aspects of these examples are worth noting. On the one hand, it must be emphasised that both transitive and intransitive locatives appear in this position and both are introduced by de. On the other hand, the disappearance of the preposition causes the ungrammaticality of the construction. De appears to be a default Casemarking procedure for constructions that cannot receive Case otherwise and would, hence, be disallowed. We will explore this further below.

A second argument that unifies the locatives under study and brings them closer to nouns and adjectives, separating them from Ps is their ability to modify an unrealised head noun when they function as its complement:

- (32) a. El coche [ blanco y el Ø negro ] the car white and the black 'The white and the black car'
  - b. El coche [ de Maria y el Ø de Luis ]

    the car of Maria and the of Luis

    'Mary's car and Luis' car'
  - c. El coche [ de adelante y el Ø de atras]

    the car of in-front and the of behind

    'The car in-front and the car behind'
  - d. \*El coche [ para niños y el Ø para adultos ]

    the car for children and the for adults

    'The car for children and the car for adults'

As shown by the examples (32a, b and c), DP, AP and 'Locative P' share the property of being able to appear as complement of the empty head. PPs, on the other hand, cannot appear in such contexts (as shown in (d)).

A third and last property of locatives that I will review in this section has been adopted from an article by Campos (1991). Spanish locatives may undergo reanalysis; that is, they can be stranded from their complements:

- (33) a. [¿De que edificio]; esta cerca  $t_i$  la casa? of what building is near the house 'Which building is the house near to?'
  - [¿ De que estante]; puso encima t; los libros?
     of what shelf put: 1s on-top the books
     'Which shelf did he put the books on?'
    - b. [  $\lambda$  De que ] esta cansado  $t_i$  Luis?

      of what is tired Luis

      What is Luis tired of?'
    - c. [¿ De quien]<sub>i</sub> esta enferma la madre  $t_i$ ?

      of whom is ill the mother

      'Whose mother is ill?'
  - d. \*[i Donde]i entro a casa por  $t_i$ ?

    where entered:1s to house by

    'Through where did he get into the house?'

The (a) examples show that the locatives can be stranded from their complements, as can adjectives and nouns (see (b) and (c) above) and unlike prepositions (as shown by (d)). In this sense, Locatives resemble N and A, and not P, since preposition stranding in Spanish is ungrammatical.

At this point, we can draw some conclusions from the analysis of the properties of locatives. At least two clear facts emerge from the preceding discussion. First, all the locatives under study belong to the same category. Enough evidence has been presented (distribution, Case-marking) to show that the analysis of these words as two different categories is unjustified. Second, we can no longer maintain the assumption that these locatives are prepositions. All arguments sketched here, subcategorisation, distribution, combination with modifiers, complement stranding, and Case-marking have demonstrated that these phrases cannot be analysed as PPs. The traditional categorisation has surely been motivated by semantic and diachronic arguments rather than by syntactic analyses. These data together with the fact that locative meaning tends to be associated with PP representations have played an important role in generating the confusion.

Basing my analysis on the discussion above, I propose that these words are adjectives. The arguments just given to this effect will be further elaborated in section 4.2.3. Before proceeding with this discussion, I would like to review briefly the main conclusions found in Plann's competing analysis.

### 4.2.2. Plann's (1986) Analysis. A neutralised category?

Plann's (1986) study is, to my knowledge, the first serious attempt to classify Spanish locatives according to their true synchronic and syntactic properties. She introduces the notion of neutralisation in her analysis of these words. According to her theory, some of these locatives- which she calls substantives- are a neutralised category with the feature [+N], and they resemble both nouns and adjectives, sharing characteristics of both groups. This neutralisation hypothesis is, in fact, quite in line with some proposals made by other syntacticians for different syntactic categories. Given certain distributional and combinatorial properties of some of these locatives, Plann argues that they resemble adjectives; on the other hand, the neutralisation hypothesis comes from examples such as the following (1986:134):

a. Los libros \*(de) [encima del escritorio]

the books of on-top of-the desk

'The books on the desk'

b. La carta \*(de) [dentro del cajon]

the letter of in of-the drawer

'The letter inside the drawer'

<sup>1</sup> SeeChomsky (1981) or Van Riemsdijk (1983)

In these structures, the 'substantive phrase' resembles an NP, according to Plann<sup>2</sup>. This is due to two main factors. Firstly, substantives are objects of prepositions and this is, Plann argues, a property of N and not of A. Secondly, the substantive phrase functioning as complement to a noun must receive Case by inserting the preposition de, another clue to considering these elements as nouns. These two arguments support, in accordance with Plann's theory, the classification of locatives as a neutralised category [+N].

Although the proposal is interesting, the overall conception is, in my opinion, flawed in principle. The first misconception, already pointed out in the first section of this paper, comes from the fact that Plann considers these locatives to be two distinct categories, 'substantives' and 'postpositions'. Even though the bulk of the article only deals with the first group, a clear distinction is made between the two. Plann argues that Substantives resemble N in that they receive Case when they function as complements to nouns (see examples in (34)). Nonetheless, she states that postpositions are such because they assign Case to an NP (DP) to the left of them:

- (35) a. [NP muchos años] atras many years back
  - b. [NP boca] abajo

mouth down

<sup>&</sup>lt;sup>2</sup> Note that I use here the term NP to refer to nominal constructions, following Plann's terminology.

'Face down'

And they cannot take a complement to the right of them:

- (36) a. \*Muchos años atras [de la vida]
  - b. \*Boca abajo [ del bebe]

If we accept Plann's analysis of such constructions as postpositions, we encounter one important problem:

- (37) a. Los vecinos **de** arriba the neighbours of up(stairs)
  - b. \*Los vecinos arriba

'The upstairs neighbours'

When these elements function as complements to N, they always require the insertion of *de* before them, just like the other group of locatives. Plann's analysis cannot account for this important fact. According to her, substantives need to receive Case because they resemble N; why should these elements exhibit the same requirements if they are postpositions? Typically, pre- (or post-) positions cannot (or at least need not) receive Case. The obligatory insertion of the preposition together with other arguments put forward above, point clearly in the direction that these elements are not postpositions and should be grouped and analysed together with the other locatives.

No claim is being made by the use of NP instead of DP

A second problem with this analysis is the general approach to the treatment of 'substantives'. Recall the examples in (34), repeated here as (38):

- (38)

  a. Los libros [de encima del escritorio]

  the books of on-top of-the desk

  'The books on the desk'
  - b. La carta [de dentro del cajon]the letter of in of-the drawer'The letter in the drawer'

According to Plann's theory, the main reason for postulating that locatives behave partly like N is the fact that they must receive Case in certain positions, as in the examples above. Recall, now, the following examples:

- (39) a. Samuel puso al bebito [encima de la cama]

  'Samuel put the baby on the bed'
  - b. Samuel puso ese libro [cerca del fuego]'Samuel put that book near the fire'

The possibility of examples like (39) reveals, Plann argues, a way in which substantives resemble adjectives and differ from nouns. She states that the substantives in these - and other positions - cannot be case- marked, hence, they behave like As. I will not touch upon the implications of such a statement for Case theory at this point; here and now, I only wish to comment on Plann's idea of neutralisation.

Although I will argue later against a neutralised status for locatives in Spanish, the main problem with this analysis is the overall conception of the neutralisation theory. It seems logical to postulate that certain elements might be neutralised categories that share certain features from two different categories. Furthermore, the neutralisation of N and A appears to be only natural since both categories share the feature [+N]. However, the property or properties that the neutralised category 'inherits' from each of the two categories from which it is composed should be constant, regardless of the position they occupy. Turning to Plann's hypothesis, we notice that she proposes that locatives resemble N in that they need to be Case-marked. If we took Case-marking as the one feature that locatives share with nouns, we should expect it to be constant in every position. Yet, as Plann herself states, when these phrases appear in other contexts where they are not Case-marked, they resemble A. It appears, then, that the 'inherited' features are not constant at all times in the substantives. We are faced with a neutralised group of elements that exhibit some properties or others depending on the syntactic position in which they occur. Given this, the idea of neutralisation seems to be an ad hoc concept, since we cannot identify a permanent set of [+N] features that characterise locatives.

I will not pursue the neutralisation hypothesis any further, as it has turned out to be inadequate. As I argued in the last section, these words should be best

analysed as adjectives. In the next section, I propose one further argument to this effect.

#### 4.2.3. Locatives are Adjectives. 'De-insertion'

In section 4.2.1. we saw 5 ways in which locatives resemble As. Recall some of their combinatorial and distributional properties as well as their internal structure:

- (40) a. Juan esta [Ap muy orgulloso de su coche]

  'Juan is very proud of his car'
  - b. Juan esta [LOCAT P muy cerca de su coche]

    'Juan is very near (of) his car'
- (41) a.Los papeles [Ap viejos]] son para reciclar the papers old are for recycle 'The old papers are for recycling'
  - b. [Los papeles [LOCAT P de encima de la mesa] son para reciclar the papers of on of the table are for recycle 'The papers on top of the table are for recycling'
- (i) Most locatives can combine with members of the A-modifying class. (ii) Furthermore, like As they take a DP complement always preceded by the Casemarker de. (iii) They appear in certain positions that may typically be occupied by APs and not by DPs, for example as complements of the verb estar, a common

position for locatives. (iv) Like As, Locatives can modify an unrealised head noun when they appear as their complements. (v) Locatives may be stranded from their complements. In view of these facts it seems impossible not to conclude that locatives are As.

There is, however, one fact about the behaviour of these adjectives that could count as apparent counter-evidence for this analysis. Consider the examples in (31) repeated here as (42):

- (42) a. [La vecina de arriba] siempre se esta quejando the neighbour of up(stairs) always part. is complaining
  - b.\*[La vecina arriba]

'The upstairs neighbour is always complaining'

- a. [El cine de enfrente] ha cerrado
- b. \*[El cine enfrente]

'The cinema opposite has closed-down'

As pointed out in the previous section, Plann argues that in structures such as these, the locatives resemble N because of their occurrence with the case-assigning preposition. However, I want to propose that the fact that the locative appears preceded by the preposition de is not a counter-argument for the classification of these elements as adjectives. On the contrary. Recall that in section 4.1.1. I established the need for DP-internal elements to be case-marked. As I mentioned in that section, Case has been exclusively regarded as a universal property of noun

phrases. However, the fact that APs may receive Case is predicted by the formulation of the theory. To my knowledge, the first author to touch briefly on this subject is Stowell (1981) who argues that APs may be assigned Case, depending on the syntactic position in which they occur. I argued that adjectives receive case when they function as noun modifiers, as shown, for example, by the fact that many languages with overt case marking show case morphology, not only on the noun, but also on the adjective.

It is well known that there is a default procedure for Case-assignment which applies as a last resort mechanism to assign Case to DPs that would otherwise be caseless and ungrammatical. This phenomenon, which has been very much discussed in recent literature, is known as 'of-insertion'. As shown by the examples in (42), this same procedure is being used here to assign case to the adjectives, which proves that these elements must receive case in these positions, that is, when they function as noun modifiers.

The appearance of the default case-marker de with these adjectives supports the idea for which I am arguing, that is, the fact that internal agreement in Romance DPs is a manifestation of case-assignment. Consider the following examples:

- (43) a. [La comida [AP francesa]] es mi favorita the-Fem.Sg. food-Fem.Sg. french-Fem.Sg. is my favourite 'French food is my favourite'
  - b. Solo revisaron [los documentos [AP presidenciales]]

only revised-3Pl. the-Masc.Pl. documents-Masc.Pl. presidential-Masc.Pl 'They only revised the presidential documents'

- c. [La comida [LOC de arriba] es mi favorita the-Fem.Sg. food-Fem.Sg. of on-top(no agreement) is my favourite 'The food on the top is my favourite'
- d. Solo revisaron [los documentos [LOC de fuera]]
   only revised-3Pl. the-Masc.Pl. documents-Masc.Pl. of outside(no agreem.)
   'The only revised the outside documents'

There are two obvious differences between the sentences in (a,b) and those in (c,d): firstly, in the last two examples we come across the semantically empty preposition de assigning Case to the locative phrase; and secondly the locative adjectives in (c,d) are morphologically defective, they show no inflection for gender or number unlike the adjectives in (a,b), which show agreement for both features. It seems inescapable, then, that the fact that these defective adjectives have to be preceded by the case assigning prepostion de, but other adjectives don't, shows that the latter must receive case through  $\Phi$ -feature agreement with the other elements within their DP.

If the option of transferring Case via agreement is not available for these locative adjectives, the system has to call on the default procedure of *de*-insertion in order to assign Case to these elements. Although this is a process normally available for DPs in these positions, nothing should prevent *de* from being inserted in the

same positions to assign Case to AP instead. When dealing with the subject of 'of-insertion' in English, Chomsky and Lasnik (1991) propose that the application of this rule takes place in the context of a [+N] head and not otherwise; as we know, adjectives are [+N] elements. We should, then, conclude that *de* is the overt realisation of the Case assigned to the AP, since it cannot be realised via agreement as in the case of other As.

The only obstacle that might prevent us from treating locatives as As has been, in this way, done away with. Locatives exhibit all properties of A, including the need to be Case-marked in DP-internal constructions.

Before bringing this section to an end, I would like to review briefly other DP-internal environment where *de*-insertion can also be found. Consider the following contrasting examples from French and Spanish:

- (44) a. Beaucoup de livres

  many (no agreem.) books-Masc.Pl.
  - b. Peu de dents

    Few (no agreem.) teeth-Masc.Pl.
- (45) a. Muchos libros

  many-Masc.Pl. books-Masc.Pl.
  - b. Pocos dientes

    few-Masc.Pl. teeth-Masc.Pl.

The French quantifiers in (44) are, like the Spanish locatives, morphologically defective. The Spanish quantifiers, on the other hand, show morphological agreement for both gender and number. As seen in example (44), the case-assigning preposition de has to be brought in since case cannot be transmitted from the head of the construction, the quantifier in D, to the noun through  $\Phi$ -feature agreement.

As we saw in section 4.1.2., whenever Latin exhibits an agreement operation to share gender and number features, case assignment or transmission to the different DP-internal elements is always part of that operation. It appears that, although the Romance languages have lost their case inflections, the agreement operation is still responsible for transmitting case to the DP-internal elements taking part in the agreeing relation, as demonstrated by these facts about Spanish locatives. We can conclude that internal agreement and case assignment in Romance are a single operation.

#### 4.3. Concluding remarks

In this chapter I have argued for an analysis of Spanish locatives as adjectives, which renders previous categorizations of these elements inadequate. In doing so, I have provided ample combinatorial and distributional evidence in favour of this classification and I have argued against Plann's (1986) treatment of these elements as a neutralised category.

I have demonstrated that my approach can, not only accommodate the distribution and combination of locatives, but also explain the fact that they must be case-marked by the dummy preposition de when they function as noun modifiers, arguing that 'de insertion' is a broader process than is generally assumed and is available as a case-marking device within the nominal construction, not only for DPs, but also for APs.

The general theoretical import of this analysis lies in two properties: a) the availability of two mutually exclusive case-marking processes within Romance DP: overt agreement and 'de insertion', the former being more economical than, and therefore preferred to, the latter; and b) the need for DP-internal elements such as determiners and adjectival phrases to receive case, an issue that has been skirted over in the literature.

## Chapter 5

# Summary and Conclusions.

In this dissertation I have explored the linguistic phenomenon of agreement; in particular, I have concentrated on the internal agreement occurring between different elements in Romance DPs and on the role that this internal agreement plays in these languages.

In Chapter Two I reviewed some of the previous most influential studies on agreement. It was shown that the literature on agreement has been mainly concerned with agreement mismatches and with the study of standard and non-standard agreement occurrences. Two important generalisations regarding the nature of agreement were drawn from these studies: first, there is a clear division between DP-internal and DP-external agreement, in that external agreement appears to present more agreement choices or options, and these choices seem to be influenced by semantic information. However, the existence of choices or options is very limited in internal agreement, which seems to indicate that this type of agreement is a purely grammatical process, whereas external agreement shows greater semantic justification. Secondly, I suggested that directionality theories of agreement can be dispensed with if we take into consideration a very basic assumption: all

agreement appears to be controlled by a nominal element; or, in other words, all agreement refers to a nominal.

In the third chapter, I concentrated on DP-internal agreement in three major Romance languages, French, Spanish and Italian. The structure I proposed for DP is based on work by Cinque (1990) and others. I assumed that there exists overt noun raising in Romance to a functional category intermediate between D and NP. I presented independent theoretical evidence that suggests that this intermediate category is NumP. Following Chomsky (1995), I argued that adjectival phrases occupy the specifier position of NP and the recursive nature of APs is accounted for by the possibility of N having multiple specifiers. I further argued for an incorporation analysis of pre-nominal adjectives in Romance.

In the second section of this chapter, I put forward a working definition of agreement, which delimits the range of phenomena that can be considered to be agreement proper. Having presented examples showing the different elements taking part in internal agreement relations in the above mentioned languages, I analysed the structural configuration for agreement and presented an account of the algorithm accounting for agreement among the different constituents found within DP. In accordance with the general principles of Chomsky (1993), I proposed that internal agreement can be understood as a matching of features between two or more elements in a Spec-Head configuration. The suggested mechanism can account for the agreement of all, and only, those elements that participate in agreement relations in Romance. Although there have been some previous

attempts to explain the internal agreement mechanism for some of the constituents within DP, there is, as far as I know, no cross-categorial account for it. My proposal purports to be a unified account of agreement within DP in Romance.

Finally, in the fourth chapter I investigated the relationship between internal agreement and case. Basing the analysis on the study and classification of a group of locative adjectives in Spanish, it was claimed that the two phenomena are closely related and that, overt Φ-feature agreement in Romance is a manifestation of case assignment. I argued that abstract case is transmitted to the different elements within DP via overt agreement in gender and number. It is only when agreement is not possible because of the defective nature of some adjectives and quantifiers in the Romance languages, that a last-resort case assignment mechanism, *de*-insertion, comes into play, as a less economical means of casemarking. It appears, then, that the operation of agreement in Romance nominal projections has a dual role: it shares Φ-features between constituents and it functions as a case-marking mechanism for those constituents involved in the agreement relation.

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