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Demonstrative movement in Spanish: A comparative approach ¹

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0. Introduction

In Spanish, the demonstrative modifier can appear either in prenominal position, as (1a-b) shows, or in postnominal position, as (1c-d) shows:

1. a. *este/ese/aquel libro* ²
'this/that/that book'
- b. *estos/esos/aquellos libros*
'these/those/those books'
- c. *el libro este/ese/aquel* ³
'the book this/that/that'
- d. *los libros estos/esos/aquellos*
'thebooks these/those/those'

In this paper we study the syntax of the demonstrative in Spanish, and we provide a unified analysis for the two different word orders presented in (1).

In section 1 we present the theoretical hypothesis we will adopt to build our analysis of the phenomenon.

¹. This work is a revised version of the two previous papers '*Alcune considerazioni sulla sintassi del dimostrativo in spagnolo*' (1994) and '*Il movimento del dimostrativo in spagnolo*' (1995). Its content was also presented at the *XXII° Incontro di Grammatica Generativa* (University of Bergamo, February 1996) and at the *Sexto Coloquio de Gramática Generativa* (Valencia, March 1996). We are grateful to the audience of these conferences, and we are indebted in particular to Guglielmo Cinque, Giuliana Giusti and Anna Cardinaletti for their helpful and constructive comments. We are also grateful to Paola Benincà, Victoria Escandell, Dalina Kallulli, Nedžad Leko, Manuel Leonetti, Nuria Martí, Ljiljana Progovac and Ur Shlonsky. Finally, special thanks to Ignacio Bosque and Luis Sáez for their valid suggestions and comments. None of these people should be accountable, however, for any mistakes or misunderstandings herein.

². The demonstrative form *ese* has in its standard use the function to identify 'something near the hearer and far from the speaker', such as the Italian form *codesto*. Nevertheless, in the common use of the language *ese* displays also the semantic properties which are typical of the demonstrative *aquel* whose use is less frequent, namely it identifies 'something far from the speaker and far from the hearer'.

³. Notice that in Spanish nominals modified by a postnominal demonstrative are commonly used in colloquial speech. It seems that when the demonstrative appears in this position the entire nominal expression receives a depreciatory meaning. This characteristic, however, does not seem to be true in all cases and for all native speakers. In the present paper we will leave open the question concerning this variation in the connotative meaning assuming that it affects the pragmatic ground of the language.

We propose that in Spanish the demonstrative is always generated in a low position inside the extended nominal projection and that at Phonological Form (PF) it can be realized either in this position, (1c-d), or in the prenominal position, (1a-b). This second option is due to the movement of the demonstrative from its base position to [Spec, DP] before SPELL-OUT.

Observing the position the postnominal demonstrative occupies with respect to the other elements internal to the extended nominal projection, we show, in sections 2, 3 and 4, that the demonstrative is generated in the specifier position of a functional projection lower than all the other functional projections containing the different classes of adjectives and immediately superior either to the functional projection whose specifier is occupied by the postnominal possessive, if any, or to the NP projection.

In section 5 we show that the demonstrative, even when it appears at PF in the low position, behaves, from the syntactic and semantic point of view, in the same way as when it appears in [Spec, DP]: the demonstrative in prenominal or in postnominal position provides a referential interpretation. On the basis of these facts, we propose that, if the movement of the demonstrative from its base position to [Spec, DP] is optional before SPELL-OUT, it is in any case obligatory at Logical Form. Moreover, we propose that this movement is motivated by feature checking: the demonstrative, which is specified for the Referential and Deictic features has to raise to [Spec, DP] in order to check the Referential feature which is in D° by Spec-Head Agreement.

Finally, in section 6, we try to extend this analysis to other languages. We show that also in those languages in which the demonstrative always appears in [Spec, DP] at PF this element is generated in the same position we found for Spanish. We propose, then, that the cross-linguistic variation concerning the obligatoriness, the optionality or the impossibility for the demonstrative to raise to [Spec, DP] before SPELL-OUT can be accounted for by suggesting that the Referential feature on the demonstrative has to be checked already at PF in the first case -see Italian, French, German, Albanian-, either at PF or at Logical Form in the second case -see Spanish, Catalan, Bosnian-Serbian-Croatian, Russian, Rumanian, Modern Greek-, and has to be delayed until Logical Form in the third case -see Hebrew, Irish-.

1. Theoretical assumptions

1.1. Demonstrative as Specifier

With the aim of providing a unified analysis for the cases presented in (1), we set our hypothesis in the idea that in Spanish the prenominal position (1a-b) and the postnominal position (1c-d) in which the demonstrative can appear are deeply related the one with the other. In section 5 we show empirical data in favour of this assumption. We discard, in this way, the possibility that in Spanish, and in other languages in which we have the same phenomenon (cf. section 6.1.1.), there exist two different structural positions available for the demonstrative one totally unrelated to the other.

As for the categorial status of the demonstrative, we assume that this element has to be conceived as a maximal projection. In this way, we assume that the demonstrative occupies the specifier position of a functional projection which belongs to the extended nominal projection. For this assumption, we adopt Giusti's (1993) proposal.

Giusti shows that in many unrelated languages, (2), the demonstrative co-occurs with the article. She observes that the order of the two categories is not the same (cf. (2a-c)

vs. (2d) vs. (2e)), and that the co-occurrence of the demonstrative with the article does not depend on the enclitic nature of the article itself (cf. (2 a-c,e) vs. (2d)).

2.	a.	ika n anak 'this the child'	Dem Art N	<i>Javanese</i>	(cf.(25) p.59)
	b.	ez a fiú 'this the boy'	Dem Art N	<i>Hungarian</i>	
	c.	afto to vivlio 'this the book'	Dem Art N	<i>Modern Greek</i>	
	d.	sa madrinn 'this man-the'	Dem N-Art	<i>Old Icelandic</i>	
	e.	pan wig jainan 'the way this'	Art N Dem	<i>Gothic</i>	

She proposes, then, that the demonstrative and the article do not have the same intrinsic nature and consequently do not correspond to the same structural position.

Observing in detail the syntactic behaviour of the demonstrative in Rumanian, Giusti claims that in this language the demonstrative is generated in the specifier of an AgrP immediately dominated by the DP projection, and that it can be realized either in this position (3a), or, by raising to [Spec, DP], in the prenominal position (3b):

- 3.
- a. b̀aiatul acesta (frumos)
'boy-the this (nice)'
 - b. acest (frumos) b̀aiat (frumos)
'this (nice) boy (nice)'
 - c. frumosul (*acesta) b̀aiat
'nice-the (*this) boy'

In (3a) the noun moves over the demonstrative to D° where the enclitic article appears. The fact that the demonstrative allows N-to-D movement, shows that it can be conceived neither as a D nor as an intermediate functional head.⁴ Therefore, the only possible solution is to assume that the demonstrative is in a specifier position. In this way, it could be easily explained why its presence blocks the movement of an adjective to [Spec, DP] as in (3c): a violation of the Minimality Principle would prevent Spec-to-Spec movement of the adjective, otherwise possible in Rumanian.⁵

4. In fact, the data in (3) show that there is no violation of the Head Movement Constraint, the principle which forbids a head from raising past another head (see Travis (1984) and Baker (1988)).

5. According to Giusti, the following contrasts in Italian gives empirical support to the analysis of the demonstrative in [Spec, DP]:

- i. a. Di chi/ di quale studente hai letto la risposta?
'of whom/of which student have-you read the answer?'
- b. *Di chi/ di quale studente hai letto questa risposta?
'of whom/of which student have-you read this answer?'

In Italian, unlike English-type languages, it is not sufficient to claim that definiteness triggers opacity effects given that (i.a) is well-formed. On the other hand, if demonstratives are analysed as specifiers, the ungrammaticality of (i.b) can be easily explained: in this case the genitive PP cannot be wh-moved from within nominals because Spec-to-Spec movement is blocked by the presence of the demonstrative in [Spec, DP]. As in English, the Spanish definite article prevents wh-movement of genitive PPs when they are agents (ii.a), but wh-extraction out of nominals is possible when the genitive PP is a theme (ii.b):

1.2. An antisymmetric approach

In order to capture the Spanish data in (1) in a unique structure, we adopt in our analysis the antisymmetric approach proposed by Kayne (1994). Kayne's antisymmetric hypothesis imposes, through the notion of *asymmetric c-command*⁶, a rigid *specifier > head > complement* order across languages. According to this order, a head which appears in the structure to the left of its specifier must have raised to a head position asymmetrically c-commanding its trace and the specifier.

Moreover, we adopt, for the structure of nominals, the analysis proposed by Cinque (1993, 1994). According to this analysis, which is compatible with an antisymmetric approach, only the head noun moves to higher functional heads, while modifiers stay in their base positions unless they need to check some feature in a higher specifier.⁷

- ii. a. *De quién/ de qué estudiante has escuchado la respuesta?
'of whom/of which student have-you heard the answer?'
b. De quién/ de qué pintor han publicado la foto?
'of whom/of which painter have-they published the picture?'

Putting aside the cases in (ii.a), wh-movement of genitive PPs in cases such as (ii.b) always gives rise to ungrammatical constructions if a demonstrative is realized in the DP, as (iii) shows:

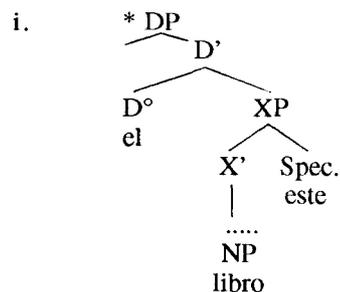
- iii. a. *De quién/ de qué pintor han publicado esta/esa foto?
'of whom/of which painter have-they published this/that picture?'
b. *De quién/ de qué pintor han publicado la foto esta/esa?
'of whom/of which painter have-they published the picture this/that?'

Therefore, according to Giusti's observations for the cases in (i), the Spanish data in (iii) can be considered empirical arguments for the assumption that also in this language the prenominal demonstrative occupies the [Spec, DP] position.

6. The definition of c-command that Kayne formulates refers exclusively to categories, preventing segments from entering into this relation:

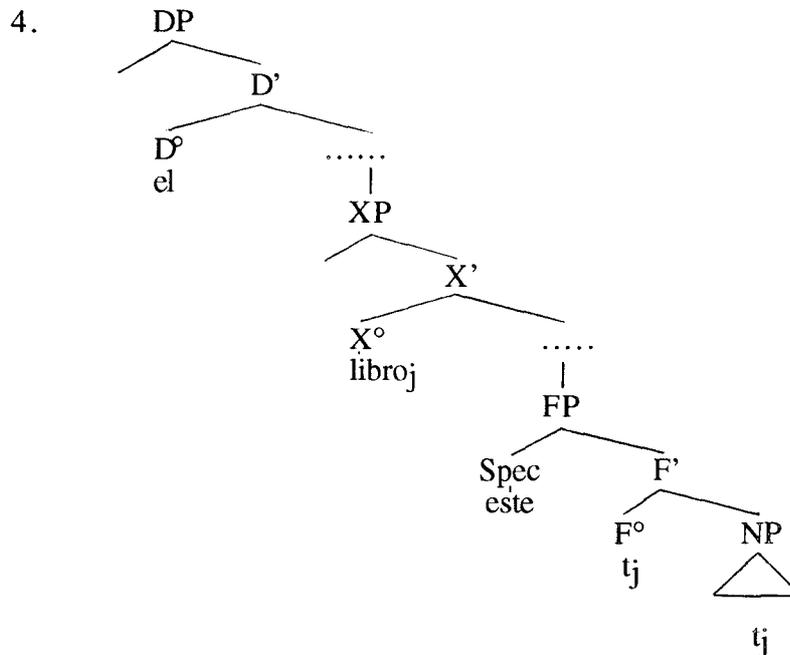
"X c-commands Y iff X and Y are categories and X excludes Y and every category that dominates X dominates Y"
(3), p.16

7. By these assumptions, we do not consider available a right-adjunction hypothesis such as the one proposed in (i) for the Spanish data in which the demonstrative follows the noun, (1c-d):



In a previous theoretical framework, a similar symmetric structure has been proposed by Ernst (1992) for Irish demonstratives, which occur postnominally. As we will show in detail later, there exist some theoretical arguments which contribute to reject this alternative. The more consistent one we anticipate here is that, since in Spanish and Irish the postnominal demonstrative always precedes the PP subject of the noun and all the other PPs complements of the noun, we would be obliged to

In this way, the order ‘Noun - Demonstrative’ we observe in cases such as (1c-d) is obtained by the movement of the noun to a higher head position, as the structure in (4) shows:⁸



We assume that the low position the demonstrative occupies in (4) must be taken to be the base position. Moreover, we assume that in Spanish -and in the other languages- the demonstrative is generated in this low position. Therefore, we reject the hypothesis that there exist two different unrelated positions for the demonstrative in the extended projection of the nominals. In those cases in which we have the order ‘Demonstrative - Noun’, (1a-b), we propose that this is obtained by the movement of the demonstrative to [Spec, DP] in order to check some feature which is present in this landing site, as the structure in (5) shows. The nature of the feature that justifies demonstrative movement to [Spec, DP] will be expressed in section 5.

$$5. \quad [\text{SpecDP } \textit{este}_i [\text{D}^\circ [\dots [\text{XP} [\text{X}^\circ \textit{libroj}] [\text{FP } t_j [\text{F}^\circ t_j] [\text{NP} [\text{N}^\circ t_j]]]]]]]]$$

1.3. The presence of the definite article

The Spanish data in (1) show that, when the demonstrative appears prenominal, the article does not co-occur with it. In Spanish, as in many other languages, the prenominal demonstrative and the article are in complementary distribution -cf. (1a-b)

adjoin them in a very high position in the structure outside the NP, contrary to what is currently assumed.

⁸ In an antisymmetric framework, a competing structure for (4) could be a structure in which the entire NP raises past the functional projection containing the demonstrative. But also this hypothesis would have undesirable empirical consequences. In fact, as we noticed in footnote 7, in this case it would be difficult to justify why the constituent NP must exclude, in its movement, the PP subject of the noun and all the other PPs complements of the noun.

and the ungrammaticality of (6a)-. On the other hand, when the demonstrative occurs postnominally, the DP projection is occupied by the article. In Spanish, as in Rumanian, (3a), the presence of the article in D° is obligatory when the demonstrative follows the noun -cf. (1c-d) and the ungrammaticality of (6b)-. Furthermore, the only possible form for the article is the definite one, as (1c-d) and the ungrammaticality of (6c) show:

6. a. *este el libro
 'this the book'
 b. *libro este
 'book this'
 c. *un libro este
 'a book this'

The data in (6), compared with those in (1), make us to formulate the two following questions:

- a. why is it that the presence of the article is obligatory when the demonstrative appears in postnominal position, (6b), while its absence is necessary when the demonstrative appears in prenominal position, (6a)?;
 b. why is it that the unique accepted form for the article is the definite one when the demonstrative is postnominal, (6c)?

As far as the first question is concerned, we assume that (6b) is ill formed for the same reasons for which sentences such as: **libro nuevo está en el despacho* (lit. 'book new is in the office') or **he comprado libro nuevo* (lit. 'I-have bought book new') are excluded. Sentences of this type are ungrammatical because the DP projection is not filled by some functional element after SPELL-OUT. In fact, Spanish requires that the DP is in general lexically overt. Moreover, in cases like these, D° can neither be interpreted as an empty category receiving existential interpretation (cf. Longobardi, 1994), due to the intrinsic characteristics of the head noun *libro* 'book'.⁹

9. Longobardi (1994) proposes the following two universal principles:

- i. [D e] = default existential interpretation ((65), p.641)
 ii. An empty head must be lexically governed ((66), p.641)

(i) establishes that a D which lacks overt lexical content is always interpreted as a 'pure existential operator', and it is submitted to the general proper government condition like every empty category (ii). The interaction of the two principles can explain, among other things, why in Romance languages, where N raises to D in Syntax, argumental singular mass nouns and bare plurals can appear only in direct object position. In fact, only in this position can the empty D° be lexically governed by the verb. On the basis of these considerations, one could expect that singular mass nouns and plural common nouns modified by a postnominal demonstrative would appear with an empty D° at least in direct object position, like in cases such as (iii):

- iii. He comprado libros (interesantes)
 'I-have bought books (interesting)'

Nevertheless, this does not seem to be the case. In fact, the corresponding constructions are always ungrammatical:

- iv. a. He comprado *(el) pan este/ese.
 'I-have bought *(the) bread this/that'
 b. He comprado *(los) libros estos/esos.
 'I-have bought *(the) books these/those'

We propose that the sentences in (iv) are ill formed because the presence of the demonstrative

So we propose that the presence of the article in those constructions in which the demonstrative appears postnominally, (1c-d), is necessary to make the DP projection visible after SPELL-OUT, given that the D° cannot be interpreted as an empty category.¹⁰

A principled way to justify the well formed cases in (1) and the ungrammatical constructions in (6a-b) has been proposed by Giusti (1996b) in studying the complementary distribution of the demonstrative with the article across languages. She assumes that in general a functional projection is instantiated in order to realize some feature ϕ , and that this feature has to be ‘visible’ in order to be interpreted at Logical Form. She also assumes that the visibility condition imposed on functional features is the Spec-Head relation. Then, she proposes the following two general principles:

7. Avoid Functional Head.
8. A Functional Projection must be licensed (at all levels of representation).

prevents the empty D° from being interpreted as existential. In this way, the contrast between (iii) and (iv) could be accounted for by suggesting that the demonstrative has to be obligatorily interpreted in [Spec, DP] at LF. Consequently, in cases such as (iv) there would be a clash of features in DP: the existential interpretation selected by the empty category in D° (cf. (i)) would contrast with the intrinsic features peculiar of the demonstrative. As for the nature of the features the demonstrative is specified for, we refer the reader to section 5.

¹⁰ Bosque -p.c.- pointed out to us that constructions such as (i) are ill formed because the definite features of the postnominal demonstrative do not agree with the features of the determiner *cuatro* ‘four’, which must be lexically realized:

- i. *cuatro libros estos/esos
‘four books these/those’

In principle, we agree with his intuitive idea -cf. footnote 9-. However, in our analysis we do not refer to the notion of ‘definiteness’ to exclude constructions such as (6b) and (6c). Moreover, as for the case in (i), we assume that *cuatro* does not occupy D° , according to Giusti (1993); rather it can be analyzed either as an AP or as an existential quantifier which occupies the head of a QP immediately superior to the DP (cfr. also Cardinaletti and Giusti, 1992). An argument in favour of the first analysis is that, if *cuatro* is in D° , we expect constructions such as *estos/esos cuatro libros* ‘these/those four books’ to be ungrammatical as is (6a), contrary to fact. Compare the grammaticality of *estos/esos cuatro libros* with the grammaticality of *estos/esos últimos libros* ‘these/those last books’ with a prenominal adjective. Thus, according to this analysis, the ungrammaticality of (i) is due to the same reasons which exclude constructions such as (6b) and (ii) -cfr. footnote 9-:

- ii. *última película esta/esa
‘last film this/that’

On the other hand, if we consider the second analysis Giusti proposes, (i) is excluded because the QP can select either indefinite partitives -and *libros estos/esos* cannot undergo this interpretation (cfr. footnote 9)-, or ‘definite partitive’ PPs, or both of them -i.e. in *cuatro libros de los que leí ayer* (lit. ‘four books of those that I-read yesterday)-. Therefore, (i) is excluded for the same reasons which exclude (6b) and (ii). Compare, in this respect, the well formed constructions in (iii):

- iii. a. cuatro de estos/esos libros
‘four of these/those books’
- b. cuatro de los libros estos/esos
‘four of the books these/those’

(7) establishes that when the specifier is lexically filled in order to realize some relevant feature, the functional head does not need (and by minimalist requirements cannot) be occupied by any lexical element. (7) can account for cases such as (1a-b) and other cases in which, still inside the extended nominal projection, most functional heads are not lexically realized. Its violation is instead responsible for the ungrammaticality of cases such as (6a). As for languages in which the DP is ‘doubly-filled’ at PF -i.e. Javanese (2a), Hungarian (2b), Modern Greek (2c), and others-, Giusti proposes that this redundancy is due to the fact that the article realizes or reinforces some features that are not properly made visible by the demonstrative alone. On the other hand, the obligatory presence of the article in cases such as (1c-d), even if in contrast with principle (7), is justified by principle (8). On the basis of what we anticipated, in (1c-d) the article has to be inserted as a ‘last resort’. In fact, only in this way the relevant features in DP the demonstrative must check by raising to [Spec, DP] at Logical Form can be rendered ‘visible’ either at PF or, crucially, at LF. This requirement also accounts for the ungrammaticality of (6b).

Let us now consider the case of question (b). A tentative proposal to account for the obligatory presence of the definite form of the article in D° , (1c-d), is to assume that only definite features are compatible with the features the demonstrative is specified for. We will call these features ‘Referential’ features, as we will justify in section 5. In this way, if referential features have to be selected inside the DP projection in order to enable demonstrative movement at Logical Form, the insertion of an indefinite article in D° would show that this requirement has not been satisfied; and this would give rise to a clash of features between the head and its specifier. The obligatory movement of the demonstrative to [Spec, DP] at LF would be blocked, and the construction ruled out (see (6c)). On the other hand, if the definite form of the article is inserted in D° for the reasons we have just mentioned, there would be no clash of features between the head and its specifier. As it is assumed, in fact, referentiality implies definiteness.

Summarizing, we propose that in Spanish the demonstrative has the status of a maximal projection. When it occurs preceding the noun, (1a-b), it occupies the [Spec, DP] position; on the other hand, when it occurs postnominally, (1c-d), it occupies the specifier of a functional projection inside the extended projection of the noun, (4). We also propose that in this second case the demonstrative appears in the position in which it is generated, and that at LF it moves obligatorily to [Spec, DP] in order to check its referential features.

When the demonstrative follows the noun at PF, the D° must be lexically filled (cf. (1c-d) vs. (6b)). We propose that the D° must be overt in order to make ‘visible’ the peculiar features selected in this functional position at all levels of representation. This also prevents the D° being interpreted as empty. The only possible determiner which can satisfy this requirement is the definite article (cf. (1c-d) vs. (6c)). We propose that it is the unique form compatible with the referential features selected in D, which make the demonstrative movement to [Spec, DP] possible at LF. Some of these proposals will be empirically motivated in the following sections.

2. *The position of the postnominal demonstrative*

We have seen that also in Rumanian, (3a), the demonstrative can be realized postnominally. Giusti (1993) proposes that in this case the demonstrative occupies the specifier of a functional projection (AgrP) immediately dominated by the DP. This

assumption is justified by the fact that in Rumanian no category (e.g. adjectives) can intervene between the noun raised to D^o and the demonstrative itself (cfr. **băiatul frumos acesta* [lit. 'boy-the nice this']).

As for the Spanish data we do not adopt Giusti's analysis. In Spanish, contrary to what happens in Rumanian, the postnominal demonstrative always follows the adjectives at PF:

9. a. La reacción desinteresada esta/esa en realidad era preocupante.
'the reaction desinterested this/that really was worried'
- b. *La reacción esta/esa desinteresada...
'the reaction this/that desinterested...'
- c. El chico alto este/ese vive cerca de casa.
'the boy tall this/that lives near home'
- d. *El chico este/ese alto...
'the boy this/that tall...'

(9a) and (9c) exemplify the unmarked word order. In cases like these a predicative analysis for the demonstrative alone is excluded because no intonational break between the adjective and the demonstrative itself is produced, and because the demonstrative does not have stress mark.¹¹

On the other hand, the ungrammatical sentences (9b) and (9d) become correct if there is intonational break between the demonstrative and the adjective. Following Cinque (1993, 1994), we assume that in cases like these the structural representation should be different, given that the AP establishes a modification of predicative type, namely a modification with respect to the entire DP projection.¹²

¹¹. Notice that in Spanish, whenever the demonstrative is used predicatively, as shown by its occurrence in postcopular position, (i.a), it is always graphically marked by a stress :

- i. a. Mi libro es éste/*este.
'my book is this'
- b. Mi libro es este libro/*éste libro.
'my book is this book'

¹². An argument in favour of this hypothesis is given by the behaviour of adjectives such as *principal* 'main', which can never be predicated, (i):

- i. *Este hecho es principal.
'this fact is main'

When this adjective co-occurs with a demonstrative, the only possible constructions are: the one in which the demonstrative appears prenominaly -(ii.a)-; or the one in which the postnominal demonstrative follows the adjective -(ii.b)-. The alternative construction in which the postnominal demonstrative precedes the adjective *principal* -(ii.c)- is always excluded even with a sharp intonational break between the two elements, contrary to what happens in (9b,d).

- ii. a. Esas dos razones principales no son suficientes para disculparle.
'those two reasons main are not sufficient to excuse him'
- b. Las dos razones principales esas no son suficientes para disculparle.
'the two reasons main those are not sufficient to excuse him'
- c. *Las dos razones esas principales no son suficientes para disculparle.
'the two reasons those main are not sufficient to excuse him'

2.1. The postnominal demonstrative and adjectives

Cinque (1993, 1994) proposes that there exists a specific unmarked serialization of the different classes of APs across languages. He also proposes that each of these different classes of APs are universally generated in the specifier position of functional projections which are located between DP and NP. In Romance languages the realization of the adjectives to the right of the noun is to be attributed to the raising of the noun to an intermediate functional head between N and D. The absence of N movement in Germanic languages is due to a parametric variation: Romance, contrary to Germanic, has strong features in the intermediate functional heads which need to be checked in Syntax (cfr. Chomsky, 1993).

With these considerations in mind, and given the contrastive data in (9), we propose that the position in which the demonstrative is generated is a very low position inside the extended projection of the noun. Therefore, we formulate the following generalization:

10. In Spanish the demonstrative is generated in the specifier position of a functional projection intermediate between the DP and the NP and lower than all the functional projections containing APs.

Let us observe, now, the behaviour of the postnominal demonstrative with respect to the different classes of adjectives which can modify an 'event' noun, according to Cinque's terminology.¹³ The general internal structure which Cinque proposes for these nominals, and which we extend to Spanish, is presented in (11):

11. [DP D [XP poss.AP X [YP card.AP Y [WP ord.AP W [ZP speaker-orientedAP Z [HP subject-orientedAP H [NP Manner/ThematicAP N]]]]]]]¹⁴

(Cinque, 1993, (30), p. 27)

According to Cinque, we assume that in cases like these the head N can move at most as far as the head H of the functional projection HP.

In Spanish, when the postnominal demonstrative co-occurs with a 'manner' adjective, this adjective always precedes the postnominal demonstrative in the unmarked order, and can never follow it, as the contrasts in (12) show:

12. a. La reacción desinteresada esta/esa en realidad era preocupante.
'the reaction disinterested this/that really was worrying'
this disinterested reaction was really worrying

¹³. It is important to notice that in Cinque's terminology 'event' nominals refer to nouns strictly associated with the predication. The nouns which belong to this class project the same theta-roles than their corresponding verbs. These theta-roles must be saturated by arguments (PPs or APs), independent of the result, eventive, stative, etc., readings of the noun itself.

¹⁴. In (11), as in the structural representation we present in (14), the prenominal possessive adjective appears in the specifier of a functional projection immediately dominated by DP, according to the syntactic behaviour this element has in languages such as Italian (*la sua strana risposta* [lit. 'the his/her strange answer']) (cfr. also Longobardi (1995)). As for Spanish, on the other hand, we assume, adopting Picallo's (1992) analysis, that this position is not the final landing site to which a genitive raises in Syntax. Picallo suggests that, in Spanish, this category further moves to D°, given that it behaves like a clitic -namely an X° category- and is in complementary distribution with the article.

15. a. El chico alto este/ese vive cerca de casa. [size adjective]
 ‘the boy tall this/that lives near my home’
 b. *El chico este/ese alto...
16. a. El cuadro redondo este/ese es muy antiguo. [shape adjective]
 ‘the painting round this/that is very antique’
 b. ?*El cuadro este/ese redondo...
17. a. El cenicero azul este/ese me lo regaló María. [colour adjective]
 ‘the ashtray blue this/that to-me[clit.] it[clit.] gave Maria’
Maria gave me this/that blue ashtray
 b. ?*El cenicero este/ese azul...
18. a. El grabado inglés este/ese está mal hecho.¹⁶ [nationality adjective]
 ‘the engraving English this/that is badly made’
 b. ?*El grabado este/ese inglés...
 c. Las ciudades españolas estas/esas no son muy pintorescas.
 ‘the cities Spanish these/those are not very picturesque’
 d. *Las ciudades estas/esas españolas...
 ‘the cities these/those Spanish’

Moreover, as we expect, the same results can be observed when more than one postnominal adjective appears in the construction, as is shown by the contrasts in (19):

19. a. ?El jarrón redondo azul este/ese no vale mucho.
 ‘the vase round blue this/that is not worth’
 b. ?El jarrón azul inglés este/ese...
 ‘the vase blue English this/that...’

-
- i. a. el cuadro redondo este de aquí/de acá
 ‘the painting round this here’
 b. *el cuadro este de aquí/de acá redondo

The complex sequence ‘demonstrative+locative’ will be examined in detail in section 3.2. Finally, in cases in which we contrast the spatial position of an object with the spatial position of another one, the postnominal demonstrative can never appear preceding the adjective, (ii) (thanks to Luis Sáez for these data):

- ii. a. El cuadro redondo este y el cenicero aquel me encantan.
 ‘the painting round this and the ashtray that to me[clit.] like very much’
I like very much this round painting and that ashtray
 b. *El cuadro este redondo y el cenicero aquel me encantan.

¹⁶ Cinque does not make any distinction between the different semantic functions that ‘nationality’ adjectives can absorb in relation with a particular head noun (possessive, locative, etc.). If we consider the different cases from this point of view, the term ‘nationality’ could be further specified according to the different theta-roles saturated by the adjectives belonging to this class. Here we will leave the question about this further distinction open.

- c. ?La chica alta francés esta/esa es muy antipática. ¹⁷
'the girl tall French this/that is very disagreeable'
- d. *El jarrón redondo este/ese azul...
- e. *El jarrón azul este/ese inglés...
- f. *La chica alta esta/esa francés...
- g. *El jarrón este/ese redondo azul...
- h. *El jarrón este/ese azul inglés...
- i. *La chica esta/esa alta francés...

The ungrammaticality of the constructions in (15b), (16b), (17b), (18b,d) and (19d-i) show that also in those cases in which the head noun belongs to the class of 'object-denoting' nominals, the postnominal demonstrative occupies a structural position lower than those occupied by the APs which can be crossed over by the noun. Therefore we conclude that generalization (10) is correct. ¹⁸

¹⁷. Notice that the sentences in (19a-c) are not completely acceptable because, in general, Spanish tends to avoid nominal constructions with two or more adjectives preceding a postnominal demonstrative, as Ignacio Bosque pointed out to us. Nevertheless, the contrasts between these cases and cases such as (19 d-i) are clear.

¹⁸. Bosque -p.c.- observes that whenever a descriptive adjective is modified by an intensifier, it can never precede a postnominal demonstrative, (i.b); rather it must follow the demonstrative, (i.c):

- i. a. este niño tan tonto
'this child so stupid'
- b. *el niño tan tonto este
- c. el niño este tan tonto

Sáez -p.c.- suggests that in these cases *tan* 'so' does not seem to have in Spanish the intensifier status. Rather it seems to behave like an anaphoric element strictly related to the presence of the demonstrative which must, in some sense, c-command it. This would explain the word order in (i.c) and (i.a). We are not able to account for constructions of this type, but it seems plausible that a different structural representation is involved in these cases. Observe, also, that we have the same results when the adjective is modified by an intensifier such as *muy* 'very', (ii):

- ii. a. este niño muy tonto
'this child very stupid'
- b. *el niño muy tonto este
- c. el niño este muy tonto

On the other hand, when the adjectival intensifier is represented by a bound morpheme such as *-ísimo* 'very', we have the same word order showed in the text, (iii):

- iii. a. ¿Te acuerdas del niño tontísimo ese que conocimos ayer noche?
'do you remember the child very stupid we met yestrday night?'
- b. *¿Te acuerdas del niño ese tontísimo que conocimos ayer noche?

We tentatively propose here that the contrasts in (i.b-c) and (ii.b-c) should be accounted for on a par with contrasts such as (iv.a-b):

- iv. a. este niño tan tonto/muy tonto
'this child so stupid/very stupid'
- b. *este tan tonto/muy tonto niño

In (iv.b), *este* 'this' c-commands the modified adjective. Nevertheless, the construction is ill formed. So, it seems clear that, when an adjective is modified by an unbound intensifier, the adjective occupies a structural position different from the canonical one -i.e. the specifier of a functional

All the data we have presented in this section can be considered a robust argument in favour of Giusti's (1993) hypothesis that the demonstrative has the XP status, and for this reason, occupies the specifier of a functional projection. In fact, given that in Spanish the postnominal demonstrative always appears after APs in the unmarked word order, we would expect that the head noun could not be able to move over the postnominal demonstrative if this element occupied a head position. Being the N movement a cyclic head-to-head movement, the presence of the demonstrative in a low functional head would block its raising, and, as a consequence, all the APs would appear prenominal, which is contrary to fact.

A second less strong argument is that if we assume the demonstrative occupies a specifier position, we expect that, also in Spanish, wh-movement of a genitive out of the nominal projection is impossible. In fact, if the demonstrative occupies the [Spec, DP] position, the trace left by the wh-movement of the genitive would not be licensed inside the nominal projection, as Giusti (1993) and other authors (Campbell, 1991) pointed out -cf. also footnote 5-. This hypothesis is confirmed by the ungrammaticality of the following sentences:

20. a. *De quién/ de qué pintor han publicado esta/esa foto?
 'of whom/of which painter have-they published this/that picture?'
 b. *De quién/ de qué pintor han publicado la foto esta/esa?
 'of whom/of which painter have-they published the picture this/that?'

In order to rule out cases such as (20b) we could propose that wh-movement of the genitive PP is blocked either in Syntax or at Logical Form.

If we choose the first possibility we have to assume that this movement is blocked at structural levels lower than [Spec, DP] (cf. Rizzi, 1990): the genitive could not cross over the functional projection containing the demonstrative because its specifier position is filled by the demonstrative itself, giving rise to a violation of the Minimality Condition. This possibility, however, could be plausible if it is possible to show that the functional projection which contains the demonstrative dominates the projections containing the genitive complements of the noun.

On the other hand, if we choose the second possibility, we have to assume that also in those languages in which the demonstrative can or must appear in the base position it must move to [Spec, DP] at Logical Form in order to check some particular features which are present in DP. So, in (20b) the obligatory movement of the demonstrative to [Spec, DP] at Logical Form would be blocked by the presence, in this position, of the trace of the wh-genitive. In section 5 we present independent data to support this second explanation, even if, as we show in the next section, the demonstrative occupies in Spanish a structural position higher than those positions occupied by the subject and the other complements of the noun.

2.2. The postnominal demonstrative and the subject and the complements of the noun

In the preceding section we showed that in Spanish the postnominal demonstrative occupies a structural position lower than the positions occupied by the APs: in the unmarked word order, it always appears after these modifiers. We showed that this position is the specifier position of a functional projection which belongs to the extended projection of the noun, and we proposed that it is the base position.

projection intermediate between DP and NP-. If this intuition is on the right track, the contrasts in (i.b-c) and (ii.b-c) can be considered a further argument in favour of the proposal we want to defend here (cf. the generalization (10)).

Let us now see which position the postnominal demonstrative occupies in relation to the subject and the other complements of the noun.

With ‘event’ nouns, we observe that the internal complements always follow the demonstrative when this element appears postnominally (21a-c). The realization of the demonstrative after the complements of the noun always gives rise to ungrammatical structures, (21d-f):

21. a. La reacción (alemana) esta/esa a las críticas preocupó a todos.
‘the reaction (German) this/that to the criticisms worried everybody’
- b. La respuesta (ministerial) esta/esa al problema no solucionará nada.
‘the answer (ministerial) this/that to the problem will not solve anything’
- c. La conquista (italiana) esta/esa de Libia resultó un gran fracaso.
‘the conquest (Italian) this/that of Libya was a great defeat’
- d. *La reacción (alemana) a las críticas esta/esa...
- e. *La respuesta (ministerial) al problema esta/esa...
- f. *La conquista (italiana) de Libia esta/esa...

We find the same word order in cases in which the genitive PP saturates the Agent theta-role, namely, it is the subject of the NP:

22. a. La reacción (imprevisible) esta/esa de Alemania...
‘the reaction (unexpected) this/that of Germany...’
- b. La respuesta (descortés) esta/esa del Gobierno...
‘the answer (rude) this/that of the Government...’
- c. El ataque (rápido) este/ese de Italia...
‘the attack (quick) this/that of Italy...’
- d. *La reacción (imprevisible) de Alemania esta/esa...
- e. *La respuesta (descortés) del Gobierno esta/esa...
- f. *El ataque (rápido) de Italia este/ese...

The same also happens in those few cases in which both the Agent PP and the Theme PP can appear simultaneously in the construction:

23. a. ?La descripción esta/esa de Juan del ladrón no fue muy detallada.
‘the description this/that of Juan(Agent) of the thief(Theme) was not very detailed’
- b. *La descripción de Juan esta/esa del ladrón no fue muy detallada.
- c. *La descripción de Juan del ladrón esta/esa no fue muy detallada.

With ‘object-denoting’ nouns, we encounter, again, the same results, as the contrasts in (24) and (25) show: ¹⁹

¹⁹. Nevertheless, in Spanish there are some cases in which the postnominal demonstrative must obligatorily follow a PP[de NP], as the contrasts in (i) show -Bosque p.c.-:

- i. a. La mesa de comedor esta/esa es demasiado grande.
‘the table of kitchen this/that is too large’
the kitchen table this/that is too large
- b. *La mesa esta/esa de comedor...

Cases of this type do not invalidate our hypothesis. In fact, in the specific case presented in (i) the sequence *mesa de comedor* can be analysed as a nominal compound (cf. Dardano (1978), a.o.) rather than a noun modified by an internal complement. Arguments in favour of this proposal are given either in (ii), where the presence of the article inside the PP blocks this interpretation, or in (iii), where the simultaneous presence of a genitive PP which expresses the possessor gives rise to the

24. a. La falda (corta) esta/esa de María está toda arrugada.
 ‘the skirt (short) this/that of Maria is all creased’
 b. El hermano (pequeño) este/ese de Carlos no quiere estudiar.
 ‘the brother (younger) this/that of Carlos does not want to study’
 c. *La falda (corta) de María esa...
 d. *El hermano (pequeño) de Juan este...
25. a. El cuadro este/ese de Juan de Picasso no es nada más que una copia mal hecha.
 ‘the painting this/that of Juan(Poss.) of Picasso(Agent) is nothing more than a badly made copy’
 b. *El cuadro de Juan este/ese de Picasso...
 c. *El cuadro de Juan de Picasso este/ese...

According to the resulting structural order ‘Demonstrative - PP’ we have presented in the examples from (21) to (25), we propose for Spanish the following generalization:

26. In Spanish the demonstrative is generated in the specifier position of a nominal functional projection which immediately dominates the NP projection.²⁰

2.3. *Slightly modifying Cinque’s internal structure for nominals*

Let us come back to the internal structure Cinque (1993, 1994) proposes for ‘event’ nominals, (11), we repeat here in (27):

27. [DP D [XP poss.AP X [YP card.AP Y [WP ord.AP W [ZP speaker-orientedAP Z [HP subject-orientedAP H [NP Manner/ThematicAP N]]]]]]

As (27) shows, Cinque assumes that thematic and manner adjectives compete for the same position: the specifier of NP.

In section 2.1. we showed that manner adjectives and thematic adjectives always

expected results:

- ii. a. La mesa esta/esa del comedor...
 ‘the table of the kitchen this/that...’
 b. *La mesa del comedor esta/esa...
- iii. a. La mesa de comedor esta/esa de María...
 ‘the kitchen table this/that of Maria(Poss.)...’
 b. *La mesa esta/esa de comedor de María...
 c. *La mesa de comedor de María esta/esa...

²⁰ The generalization in (26), as it is formulated, assumes a Larsonian structure for the internal NP projection (cf. Larson, 1988), namely a structure which creates more specifier positions inside the NP-shell in order to host the possessor PP in the higher one and the Agent PP in the lower one (cf. (25)). This hypothesis seems to us more plausible than the one defended by Picallo (1992), who proposes that the possessor PP occupies the specifier of a functional projection external to the NP and immediately superior to it. For further considerations which can support our assumption, we refer the reader to section 5 in the text.

precede the postnominal demonstrative, (12) and (13); while in section 2.2. we showed that the genitive PPs subject of the noun follow the postnominal demonstrative (22), like all other complements of the noun.

The different position the thematic adjectives and the genitive PPs occupy in relation to the postnominal demonstrative is quite surprising if we adopt the hypothesis that also genitive PPs subject of the noun are in [Spec, NP].

A possible solution to this problem is to propose that thematic and manner adjectives do not actually occupy the [Spec, NP], contrary to (27), but rather a higher position. If we want to maintain Cinque's idea, we should have to assume that, in a Larsonian structure with more specifier positions inside the NP-shell, the demonstrative occupies the specifier position lower than the one occupied by thematic and manner adjectives. But this hypothesis would lead to two main theoretical problems difficult to treat.

The first and more consistent of these is that we would have to assume that the demonstrative is generated in an internal NP position. This assumption would be difficult to justify given that the demonstrative does not establish any thematic relationship with the noun.

The second problem is that we would have to assume that the agentive theta-role is assigned to two different positions inside the NP-shell: to a position higher than the demonstrative, when it is saturated by a thematic adjective; and to a position lower than the demonstrative, when it is saturated either by a genitive PP, (22), or by a postnominal possessive adjective. In section 4, we will see that the postnominal possessive adjective always follows the postnominal demonstrative in Spanish.

Taking into account these theoretical problems, we propose that thematic and manner adjectives occupy a position external to the NP projection. This position is the specifier of a functional projection which dominates the functional projection containing the demonstrative.²¹

At first glance, this proposal does not seem to cause theoretical consequences; rather it seems to have the advantage of explaining in a natural way the fact that these adjectives agree in phi-features with the head noun, as all other adjectives. Moreover, the fact that thematic adjectives absorb a theta-role in a position external to the NP does not seem to posit any problem. In fact, also the prenominal possessive adjective, which is assumed to occupy a position inside a functional projection higher than NP (see Cinque (1993), (1994), Longobardi (1995), et al.), saturates a theta-role assigned by the head noun.²²

An independent argument which can support the hypothesis we are defending is given by the following cases:

²¹. The idea that thematic adjectives occupy a position higher than [Spec, NP] seems to be confirmed also in Bulgarian, where the agent and the possessor can be realized by adjectival form:

i.	Penkinijat	vuzmoz'en	otgovor
	ADJ.	ADJ.	N
	'of Penka(Agent)-the	possible	answer'
	<i>the possible answer that Penka can give</i>		

(Dimitra-Vulchanova and Giusti, 1996)

²². In order to give thematic adjectives a derivation similar to the one proposed for possessive adjectives, we could tentatively suggest that they reach the specifier of the functional projection we singled out through XP-movement. Nevertheless, we leave the question about its derivation open here.

28. a. La reacción inmediata de Juan preocupó a todos.
 manner Adj. Agent PP
 ‘the reaction immediate of Juan worried everybody’
- b. Los manuscritos benedictinos del Conde de Olivar fueron robados.
 them.(Agent) Adj. Possessor PP
 ‘the manuscripts Benedictine of the Earl of Olivar were robbed’

The grammaticality of the two sentences would be surprising if we assume that thematic and manner adjectives, which compete for the same position, occupy the [Spec, NP] position after SPELL-OUT, as Cinque suggests. In fact, (28a) should be excluded because the manner adjective *inmediata* and the agentive PP *de Juan* would occupy the same position -i.e. [Spec, NP]-.

The same consideration is available for (28b). Here, the noun *manuscritos*, which can assign theta-roles even if it is an ‘object-denoting’ noun, does not prevent the co-occurrence of the agent -expressed by the adjective *benedictinos*- and the possessor PP *del Conde de Olivar*.

Therefore, according to the position the postnominal demonstrative occupies in relation to the thematic adjectives, all other ‘low’ adjectives and the genitive PPs, and according to the results presented in (28), we conclude, slightly modifying Cinque’s proposal, that thematic and manner adjectives occupy a position external to the NP projection. We also propose that this position is the specifier of a functional projection very low in the structure, which dominates the functional projection containing the postnominal demonstrative.

3. The structure

3.1. The base position of the demonstrative

We have seen that in Spanish the demonstrative occupies the specifier of a functional projection higher than the positions occupied by the subject of the noun and by its complements and lower than all the functional projections containing APs, as the generalizations (10) and (26) proposed. The structures we propose are the following :²³

²³. Bosque and Picallo (1994) provide evidence that in Spanish ‘classificatory’ adjectives are not compounds, contrary to what Crisma (1990) suggests. With the term ‘classificatory’ adjectives the authors refer to those adjectives which “introduce a domain in relation to which the object denoted by the head noun is classified” (p.5) and do not saturate a licensed theta-role. Adopting this proposal, it becomes appropriate to introduce, in the structures (29) and (30), another functional projection whose specifier hosts this class of adjectives. Its structural position would be immediately superior to the functional projection containing thematic adjectives, (i.b) and (ii.b). We have also to assume that in cases like these the head noun must raise obligatorily to the head position of HP, in (29) -cf. (i.b)-, and to the head position of MP, in (30) -cf. (ii.b)-, crossing over the functional projection containing the ‘classificatory’ adjectives. This proposal is justified by the fact that the noun always precedes the ‘classificatory’ adjective. Moreover, when it co-occurs with a thematic adjective, the thematic adjective always follows the ‘classificatory’ adjective, (i.a) and (ii.a):

- i. a. la reforma agraria mejicana (*agraria)
 ‘the law agrarian Mexican (*agrarian)’
 b. [DP la [XP ... [HP [H reforma_i] [JP [AP agraria] [J t_i] [LP [AP mejicana] [L t_i] [NP
 [N' [N t_i]]]]]]]]]

29. [DP D [XP[HP subject-orientedAP H [LP Manner/ThematicAP L [FP DemonstrativeP F [NP Agent/Exper.PP [N' N ThemePP]]]]]]]
30. [DP D [XP[ZP qualityAP Z [HP sizeAP H [LP shapeAP L [MP colourAP M [OP nationalityAP O [FP DemonstrativeP F [NP PossessorPP N [NP AgentPP [N' N Compl.PP]]]]]]]]]]]]]

(29) represents the partial structure which corresponds to ‘event’ nominals. (30), on the other hand, represents the partial structure which corresponds to ‘object-denoting’ nominals. Recall that we also assume the hypothesis that all genitive PPs occupy an internal NP position (see footnote 20). For this reason, we propose for ‘object-denoting’ nominals, (30), a Larsonian structure for the internal NP projection.²⁴ Finally, extending to Spanish Cinque’s proposal that the noun moves in Syntax to higher positions, we obtain for the two classes of nominals the following possible orders after SPELL-OUT, already presented in previous sections:

31. a. la respuesta inmediata esta de Juan...
 [DP la [XP ...[HP [H respuesta_i] [LP [AP inmediata] [L t_i] [FP [DemP esta] [Ft_i] [NP [PP de Juan] [N' [N t_i]]]]]]]]]]
 ‘the answer immediate this of Juan’
-
- ii. a. los residuos atómicos rusos (*atómicos)
 ‘the residues atomic Russian (*atomic)’
 b. [DP los [XP ...[MP [M residuos_i] [JP [AP atómicos] [J t_i] [OP [AP rusos] [O t_i] [NP [N' [N t_i]]]]]]]]]]

When in these environments a postnominal demonstrative appears, it always follows the ‘classificatory’ adjective (iii). This fact confirms, again, the generalization (10). When the ‘classificatory’ adjective co-occurs with a thematic adjective, these two types of adjectives always precede the demonstrative, (iv).

- iii. a. la reforma agraria esta/esa (*agraria)
 ‘the law agrarian this/that (*agrarian)’
 b. los residuos atómicos estos/esos (*atómicos)
 ‘the residues atomic these/those (*atomic)’
 c. la incursión aérea esta/esa (*aérea)
 ‘the raid aerial this/that (*aerial)’
- iv. a. la reforma agraria mejicana esta/esa / ?los residuos atómicos rusos estos/esos
 ‘the law agrarian Mexican this/that’ / ‘the residues atomic Russian these/those’
 b. *la reforma esta/esa agraria mejicana / *los residuos estos/esos atómicos rusos
 c. *la reforma agraria esta/esa mejicana / *los residuos atómicos estos/esos rusos

The proposal we have just suggested to accommodate the ‘classificatory’ adjectives inside the extended nominal projection we propose ((29) and (30)) does not account for the corresponding order in English. In fact, in English, ‘classificatory’ adjectives seem to occupy a lower position with respect to thematic adjectives. We do not know how to account for this asymmetry. A possibility would be to maintain for English the idea that ‘classificatory’ adjective plus noun form a compound (cf. Crisma (1990)), contrary to what happens in Spanish. Nevertheless we leave this question open here.

²⁴ For the moment, we assume that nouns such as *libro* ‘book’, *cuadro* ‘painting’, (25), *manuscritos* ‘manuscripts’, (28b), etc., exclusively belong to the class of ‘object-denoting’ nominals, even though they can assign an agentive theta-role. In this way, the NP-shell in (30) can be justified.

- b. la conquista italiana esa de Libia...
 [DP la [XP ...[HP [H conquista_i] [LP [AP italiana] [L t_i] [FP [DemP esa] [F t_i] [NP [N' [N t_i] [PP de Libia]]]]]]]]]]
 'the conquest Italian that of Libya'
- c. el cuadro inglés ese de María...
 [DP el [XP ...[MP [M cuadro_i] [OP [AP inglés] [O t_i] [FP [DemP ese] [F t_i] [NP [PP de María] [N' [N t_i]]]]]]]]]]
 'the painting English that of María(Possessor)'

3.2. The internal structure of the demonstrative

In this section we will show that in Spanish the demonstrative in [Spec, FP], (29) and (30), can also have a complex internal structure.

In constructions in which the demonstrative *este* 'this' appears, the locative form *aquí* 'here' can be simultaneously realized. In Spanish, the locative form has to be obligatorily preceded by the preposition *de* 'of'. The resulting sequence is *este de aquí* 'this [of] here'.²⁵

We propose that in these cases the locative has the unique function to reinforce the deictic value of the demonstrative we assume it is specified for (cf. section 5). In fact, the interpretation of the DP does not change if the locative is present or absent: the information expressed by *este libro* 'this book' and by *este libro de aquí* 'this book [of] here' are the same.²⁶

The sequence *este de aquí* can be realized either in postnominal position, as in (32a), or the demonstrative can be realized in [Spec, DP] at FP and the locative appear postnominally, as in (32b):

32. a. El libro este de aquí está mal hecho.
 'the book this of here is badly made'
- b. Este libro de aquí está mal hecho.²⁷

²⁵ In the text we will use the sequence *este de aquí* 'this [of] here' as exemplificative case. The same combination 'demonstrative+locative' is also possible with the other forms of demonstratives and locatives. So, we can have *este de acá* 'this [of] here'; *ese de acá* 'that [of] there'; *ese de allí* 'that [of] there'; *ese de allá* 'that [of] there'; *aquel de allí* 'that [of] there'; *aquel de allá* 'that [of] there'. On the other hand, what is impossible, is to realize in the same sequence a demonstrative form which, for example, expresses proximity to the speaker with a locative which expresses distance from the speaker, or viceversa, as in **este de allí/allá* 'this [of] there' or **aquel de aquí* 'that [of] here'. A possible account for the impossibility of such combinations will be suggested later in the text.

²⁶ Notice that the independent deixis compatible with the presence of the demonstrative, and, sometimes, necessary, can be expressed by a gestural way.

²⁷ In Spanish we can have cases in which only the locative can appear, as in (i):

- i. El libro de aquí me gusta
 'the book of here to-me(clit) likes'
I like the book here

Such constructions can receive the interpretation of *este libro (de aquí) me gusta* 'I like this book ([of] here)' even if the demonstrative does not appear lexically realized. In order to account for cases like these, we propose that here an abstract movement of the demonstrative to [Spec, DP] is involved at Logical Form. An argument that can support this proposal is that, if in the same constructions a

33. a. Este libro viejo de aquí de sintaxis/ sobre la guerra está mal hecho. ²⁸
 'this book old of here of syntax/on the war is badly made'
 b. *Este libro de aquí viejo de sintaxis/ sobre la guerra...
 c. *Este libro suyo de aquí de sintaxis/ sobre la guerra... ²⁹
 d. *Este libro viejo de sintaxis/ sobre la guerra de aquí ...

We assume that the sequence 'demonstrative+locative' has to be considered a constituent. Arguments which can support this hypothesis can be found observing the syntactic behaviour of this sequence in other languages in which it can appear. One of these arguments is that in some languages the sequence 'demonstrative+locative' can or must move together to [Spec, DP] in Syntax, as happens in Bosnian and Serbo-Croatian, in non-standard English and in Scandinavian:

- | | | |
|--------|----------------------------|-----------------------------------|
| 34. a. | ona tamo (nova) knjiga | <i>Bosnian and Serbo-Croatian</i> |
| | 'that there (new) book' | |
| b. | this here (nice) book | <i>English</i> |
| c. | denne herre (flotte) bilen | <i>Norwegian</i> |
| | 'this here nice car-the' | |

Bosnian and Serbo-Croatian provide another piece of evidence that the sequence we are examining is a constituent, as noticed in Brugè and Giusti (1996). In fact, when the noun phrase modified by the sequence 'demonstrative+locative' is fronted, a clitic in Wackernagel position can follow either the whole noun phrase, as in (35a), or the sequence *onu tamo* 'that there', as in (35b):

35. a. [[[onu] tamo] knjigu] mi donesi
 'that-Acc there book-Acc me(CL.Dat) give(Imp.)'

²⁸. In Spanish the deictic reinforcer *de aquí* cannot appear when the noun belongs to the class of 'event' nominals, as (i) shows:

- i. *Esta respuesta de aquí preocupó a todos.
 'this answer of here worried everybody'

Sáez -p.c.- points out that in (i) the presence of the locative is impossible because the locative cannot be interpreted without a real spatial content which must be restricted to the communicative context. We have the same results when the noun is an abstract noun, (ii):

- ii. a. *Estos modales de aquí
 'these manners of here'
 b. *Esta vez de aquí
 'this time of here'

As for (ii.a), we have to say that it is acceptable only if the locative is interpreted as an adverbial PP (cf. footnote 27) and not as deictic reinforcer; namely if the construction receives the following interpretation: 'these manners of these places...'. Therefore we conclude that the ungrammaticality of (i) and (ii) is due to the incompatibility of the characteristics of the head noun with the intrinsic properties of the locative in Spanish. However, these properties can vary cross-linguistically. In fact, in Italian, where the locative can 'extend' its spatial value, sentences such as (i) and (ii) are grammatical with the interpretation of the locative as deictic reinforcer, as we will show later.

²⁹. As we will show in section 5, it seems that there is evidence to assume that the postnominal possessive occupies a position external to the NP projection.

- b. [[*onu*] *tamo*] *mi knjigu donesi*
 'that-Acc there me(CL.Dat) book-Acc give(Imp.)'
give me that there book

On the other hand, if in the same construction the head noun is modified by the demonstrative alone and an adjective, the clitic must appear immediately after the demonstrative, as in (36a), and it can never appear after an adjective, as in (36b):

36. a. *onu mi novu knjigu donesi*
 'that-Acc me(CL.Dat) new book-Acc give(Imp.)'
 b. **onu novu mi knjigu donesi*
 'that-Acc new me(CL.Dat) book-Acc give(Imp.)'
give me that new book

The well-formed sentence in (35b), compared with the grammaticality of (35a) and (36a), and contrasted with (36b), the ungrammaticality of which is due to the fact that the demonstrative plus the adjective do not form a constituent, strongly supports the constituent status for the sequence 'demonstrative+locative'.

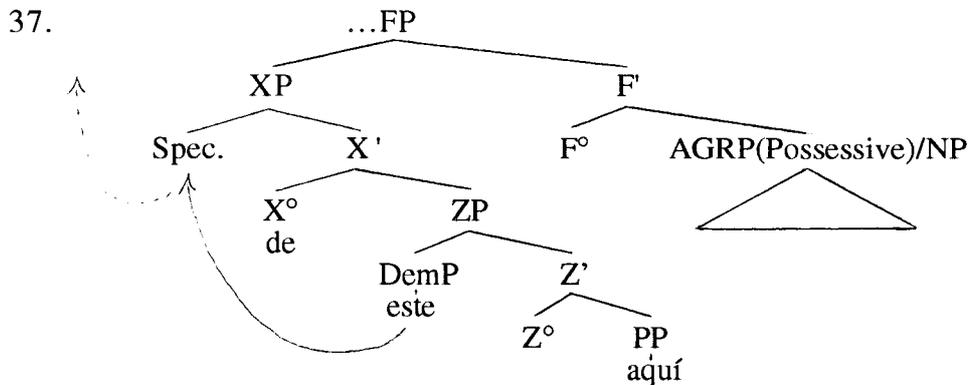
Let us now examine the internal structure of the constituent built by the demonstrative and the locative. As we have shown earlier, (32)-(33), we assume that the base position it occupies in the structure is the same position we found for the postnominal demonstrative. In order to capture the strict relation which is established between the two elements, we extend to this sequence the analysis that Kayne (1994) proposes for the *de*-constructions in French. In this way, we assume that the sequence *este de aquí* 'this [of] here' has a complex internal structure in which the element *de* 'of' occupies the head position of a maximal projection comparable to the CP projection.³⁰

Este 'this' and *aquí* 'here' are considered as maximal projections dominated by the 'preposition' *de* 'of', which establish a predication relation between them, as in a small clause with an abstract copula. This predication relation can be further motivated by proposing that *este* and *aquí* must both agree either for the positive value, or for the negative value of the feature [\pm speaker]. This fact would also account for the impossibility to combine *este* 'this' with *de allí* '[of] there', or *aquel* 'that' with *de aquí* '[of] here'.

Keeping these considerations in mind, and adapting Kayne's analysis to our case,³¹ we suggest that the complex sequence 'demonstrative+locative' has the internal structure presented in (37):

³⁰ In this respect, notice that when the sequence 'demonstrative+locative' appears, in some Italian dialects, in a predicative construction, the locative is obligatorily preceded by the complementizer *che* 'that'. This happens in the dialect of Montale (Florence), in which we have [**kwesto 'ke 'kwi*] 'this that here', and in the dialect of Parma, in which we have [*kost ke 'ki*] 'this that here' (cf. Poletto, 1995).

³¹ The structure we propose in (37) is a reduced and slightly simplified version of the structure which Kayne proposed during his 'Venice lectures' (spring, 1995) to account for constructions such as *qualcuno di interessante* 'someone of interesting', and which appears also in Kayne (1994) p. 106-110, to account for constructions such as *quelqu'un de célèbre* 'someone of famous' in French.



In this structure, *este* moves obligatorily to [Spec, XP], assuming, according to Kayne, that *de* in X° requires for its specifier to be occupied by a lexical element. In this way, we obtain the order *este de aquí*, and the orders *ese de acá*, *ese de allí*, *aquel de allí* and *aquel de allá* in the other cases.³²

The position to which the demonstrative raises, namely the [Spec, XP] position, gives, then, the demonstrative the possibility of moving to [Spec, DP] before SPELL-OUT or, at the latest at Logical Form, for the reasons we will express later in the text (see section 5).³³

32. In the structure in (37) we have assigned to the locative *aquí* 'here' the categorial status of a PP. This choice has been made according to Larson (1988), who proposes for Bare Adverbs either the status of NPs, since they can function as subjects - e.g. in copular sentences-, or the status of PPs with an abstract preposition.

33. Notice that one can object that a structure such as (37) violates the Left Branching Principle. Even though in this case this violation indeed takes place, it is necessary to specify that the statements of this Principle should be in any case reconsidered in the light of the Kayne's antisymmetric approach. In fact, constructions such as (i):

- i.
-
- Gianni_i era ritenuto [t_i inadatto] da tutti
 'Gianni_i was considered [t_i unable] by everybody'

where the small clause is followed by another complement -i.e. the PP *da tutti* 'by everybody'-, also violates the Left Branching Principle. Here we will not say anything about this question, leaving the topic open and maintaining the structure in (37).

4. The Postnominal demonstrative and the postnominal possessive adjective

Let us observe, now, the behaviour of the postnominal demonstrative with the postnominal possessive adjective in order to ascertain whether the generalizations (10) and (26) can be maintained also for this case.

In Spanish, there exist two paradigms for possessive forms: the ‘clitic’ series and the ‘strong’ series. The ‘clitic’ series is morphologically poorer, given that its forms only agree in number with the head noun, (38a-b). The two series also differ in syntactic behaviour. In fact, while the ‘clitic’ forms can appear only in prenominal position, in complementary distribution with the article (cf. (38a-b) vs. (38c-d)), the ‘strong’ forms can appear in postnominal position, (38c), and in predicative constructions, (38d). They can never appear in prenominal position.

38. a. (*el) mi libro / (*los) mis libros ³⁴
 (*the) my(Sing) book(Sing/Masc) / (*the) my(Plu) books(Plu/Masc)’
 b. (*la) mi mano / (*las) mis manos
 (*the) my(Sing) hand(Sing/Masc) / (*the) my(Plu) hands(Plu/Masc)’
 c. el libro mío/*mi.
 ‘the book my(strong)/*my’
 d. el libro es mío/*mi.
 ‘the book is my(strong)’

As for the prenominal possessive forms, we called them ‘clitic’ forms because they undergo all syntactic tests which characterize them as clitics. Spanish prenominal possessives cannot be modified by any category, cannot be coordinated (**mi y tu hermano* [lit. ‘my and your brother’]), cannot appear in predicative constructions, (38d), and cannot receive stress (focus), as many authors have pointed out. As for the position these elements occupy in the structure, we adopt Picallo’s (1992) hypothesis (cf. footnote 14), which assumes that in Spanish possessives raise to D° in Syntax. She suggests that possessives move as XPs, namely from Spec to Spec, as far as the functional projection immediately dominated by DP - which we can call AgrGenitivePhrase following Siloni (1994) and Longobardi (1995)-. While in languages such as Italian and Catalan this position represents the last step for movement, in Spanish the same elements move further as X° elements until D°. This last step is justified by the clitic nature of possessives in Spanish and their complementary distribution with the definite article.

Let us pass on, now, to the possessive in postnominal position. As shown before, (38c), the only available forms which can appear in this position are the forms belonging to the ‘strong’ series.

Observing the unmarked word order inside the nominal extended projection, we can notice that the postnominal possessive undergoes the same restrictions which

³⁴. Notice that the complementary distribution between definite article and prenominal possessive does not affect some Spanish dialects. In some dialects of Asturias, (i.a), Galicia, (i.b), Aragon (i.c), León and Santander areas, the two categories must cooccur.

- | | | | | |
|----|----|-------------|--------------------|------------------|
| i. | a. | la só casa | ‘the his/her home’ | <i>Asturian</i> |
| | b. | a súa casa | | <i>Galician</i> |
| | c. | a suya casa | | <i>Aragonese</i> |

The same is true for Medieval Spanish, where definite article and prenominal possessive occurred simultaneously in the structure (see Lapesa (1980) among other historical studies).

characterize the postnominal demonstrative.³⁵

When it modifies an 'event' noun, the unique position the postnominal possessive can occupy is after a manner adjective, namely the class of adjectives which occupies the lower functional projection, (29). The postnominal possessive can never precede it, as the contrasts in (39) show:

39. a. La reacción desinteresada suya me parece sospechosa.
'the reaction disinterested his/her to-me(clit.) seems suspicious'
b. *La reacción suya desinteresada...
c. La conquista rápida suya preocupó a todos.
'the conquest quick his/her worried everybody'
d. *La conquista suya rápida...

On the other hand, with 'object-denoting' nouns the postnominal possessive can appear either following the adjective or preceding it without any change in the intonation. In fact, native speakers do not perceive any difference between the alternative orders in (40a-b) and (40c-d).³⁶

40. a. El cuadro redondo suyo es muy antiguo.
'the painting round his/her is very antique'

³⁵ The postnominal position of the possessive does not necessarily imply a contrastive interpretation, neither in Spanish nor, for example, in Italian. This reading depends on the contexts in which the construction is used. However, it is obvious that, with the possessive having the possibility to appear also prenominal, the postnominal position preferably receives this contrastive interpretation. In fact, the same interpretation is impossible to obtain in Spanish in the other available position for reasons we just expressed in the text. It is possible that one associates the contrastive interpretation with an 'emarginated' structural position of the postnominal possessive, namely a position which does not correspond to the base position we assume this element occupies in the cases we are going to present in the text. Nevertheless, we assume that a contrastive interpretation is irrelevant to determine the position the postnominal possessive occupies in the structure. In fact, this interpretation can be obtained also in the base position and not necessarily in an 'emarginated' position, as the word order of the examples in (39)-(43) show and as, in other contexts, the use of a strong form instead of its clitic counterpart displays -i.e. *vi a él* 'I-saw him' vs. *lo vi* [lit. 'him(clit.) I-saw]-. Finally, we judge this consideration strictly related to what happens in some dialects of central and southern Italy. In these dialects, the possessive in prenominal position appears only in its reduced morphological form (i.e. *mi/tu* 'my/your' vs. *mio/a/tuo/a*), and can appear in this position only when the head noun belongs to the kinship nouns, (i.a). In all other cases, the unique possibility for the possessive is to occur postnominally (cf (i.b) vs. (i.c)).

- i. a. *mi/tu zia* 'my/your aunt' (dialect from Ancona)
b. **mi/tu libro* 'my/your book'
c. *el libro mio/tuo* 'the book my/your(strong)'
d. **el mi/tu libro*
e. **el mio/tuo libro*

On the basis of (i.c), it does not seem correct to assert that the postnominal possessive occupies an 'emarginated' structural position.

³⁶ This possibility with 'object-denoting' nouns reminds us what happens in the same environments with the postnominal demonstrative (see the discussion in footnote 15). A possible account for these cases could be to assume that there exists another functional projection whose specifier can host the possessive. This functional projection would occupy an intermediate position between the higher position -i.e. D°- and the lower position -i.e. the position we are trying to identify in this section-. Nevertheless, at first glance it seems to us that this proposal, even if plausible, can hardly be supported for Spanish, given the results of (41b-c), (41e-f) and (43e) below.

- b. El cuadro suyo redondo...
- c. El nieto americano suyo es moreno y pequeño.
'the nephew American his/her is dark-haired and short'
- d. El nieto suyo americano...

Nevertheless, if the same class of nouns is modified by more than one adjective, (41), then we can observe the same restrictions in the word order we have observed in the case with 'event' nouns:

- 41. a. El cuadro redondo inglés suyo no vale mucho.
'the painting round English his/her is not worth'
- b. *El cuadro suyo redondo inglés...
- c. *El cuadro redondo suyo inglés...
- d. El nieto pequeño americano suyo es moreno.
'the nephew short American his/her is dark-haired'
- e. *El nieto suyo pequeño americano...
- f. *El nieto pequeño suyo americano...

Putting aside the alternative constructions in (40), which we are unable to account for at this point of our investigation, the contrasts in (39) and (41) can be considered convincing arguments to propose that in Spanish the postnominal possessive occupies a position lower than all the functional projections containing APs.

Let us now observe the position the postnominal possessive occupies with respect to the complements of the nouns. As (42) and (43) show, the postnominal possessive always precedes them:

- 42. a. La reacción suya a las críticas preocupó a todos.
'the reaction his/her to the criticisms worried everybody'
- b. *La reacción a las críticas suya...
- c. El descubrimiento suyo de América produjo mucha riqueza.
'the discovery his of America produced great wealth'
- d. *El descubrimiento de América suyo...
- 43. a. El cuadro suyo de Picasso no es nada más que una copia mal hecha.
'the painting his/her of Picasso is nothing more than a badly made copy'
- b. *El cuadro de Picasso suyo...
- c. El cuadro chico suyo de Picasso...
'the painting little his/her of Picasso...'
- d. *El cuadro chico de Picasso suyo...
- e. *El cuadro suyo chico de Picasso...

Finally, as for the relative order between the postnominal demonstrative and the postnominal possessive, we can notice that the postnominal demonstrative always precedes the postnominal possessive, (44). Therefore, we propose that the postnominal possessive occupies a position lower than the one occupied by the postnominal demonstrative.

- 44. a. El libro (viejo) este suyo de sintaxis no me convence.
'the book (old) this his/her on syntax does not convince me'
- b. *El libro (viejo) suyo este de sintaxis...

The data presented so far, makes us wonder which position the postnominal possessive occupies inside the nominal extended projection. In the literature specific studies on this topic do not seem to exist, at least to our

knowledge. Recently, Picallo (1992) says, in a brief footnote, that in Catalan the postnominal possessives “do not behave like arguments, instead, they seem to behave like pseudo-adjectives in some respects.”(p.49).

Given that the postnominal possessive does not necessarily occupy an ‘emarginated’ position inside the structure, as we commented on in footnote 35 and as the contrasts in (42)-(43) confirm (if it follows the APs, it always precedes the complements of the noun), we could suggest two tentative proposals. However, the validity of both of them cannot be easily checked through empirical data, given ‘Cinque’s Generalization’ (1980, 1981) concerning the phenomenon of possessivization of genitive PPs.

The first proposal is that the postnominal possessive occupies either a unique position inside the NP -namely the higher specifier of this projection-, or different positions inside the NP, according to the theta-role it can saturate in the different cases -namely it occupies the same positions occupied by the corresponding genitive PPs-.

The second proposal is to assume that there exists another functional projection external to the NP which immediately dominates it, and whose specifier hosts the postnominal possessive after SPELL-OUT. This second proposal seems to us more plausible from a theoretical point of view. A piece of evidence that can support it is that the postnominal possessive shares the same properties of the adjectives rather than those of the complements of the noun. In fact, it agrees obligatorily in gender and number with the head noun and it cannot be introduced by the preposition marking genitive Case *-de* ‘of’ in Spanish-.³⁷

Therefore, if we assume that the postnominal possessive occupies the specifier of a functional projection which immediately dominates the NP, we should slightly modify the generalization (26) in the following way, according to the resulting order in (44):

45. In Spanish the demonstrative is generated in the specifier position of a nominal functional projection which immediately dominates either the functional projection containing the possessive or the NP projection.

5. *The movement of the demonstrative*

5.1. *The intrinsic features of the demonstrative*

Let us now return to the main topic of our investigation, namely the possibility in Spanish of realizing the demonstrative either postnominally, (46a), or prenominally, (46b).

46. a. El libro este/ese/aquel fue publicado en 1990.
 ‘the book this/that/that was published in 1990’
 b. Este/ese/aquel libro fue publicado en 1990.
 ‘this/that/that book was published in 1990’

³⁷. Notice that this proposal is compatible with the ‘Case Checking Principle’ proposed by Longobardi (1995). Its formalization, together with all its possible combinations, is presented at pp.15-16 of his paper. Given that the author does not consider the case of the postnominal possessive, we can extend his hypothesis to our case by suggesting that, besides the AgrGP and the base position inside the NP, there exists an intermediate functional projection inside the extended nominal projection in which genitive Case is assigned.

In the preceding sections we showed that the postnominal demonstrative always appears in a structural position lower than all the functional projections whose specifiers are occupied by the different classes of adjectives, and immediately superior either to the NP or to the functional projection whose specifier is occupied by the postnominal possessive. So, we proposed the insertion of another functional projection (FP) inside the extended nominal projection corresponding to the position where the postnominal demonstrative (cf. (29)-(30)) occurs. Finally, we proposed that in Spanish the demonstrative is generated in the specifier of FP (see (10) and (45)). According to this proposal, in (46a) the demonstrative appears, after SPELL-OUT, in the same position in which it is generated, while the noun raises in Syntax to a higher X° position.

In (46b), on the other hand, we propose that the prenominal position the demonstrative occupies is a derived position, due to the long movement of the demonstrative itself from [Spec, FP] to [Spec, DP] in Syntax.

Moreover, given the grammaticality of both (46a) and (46b), we assume that in Spanish the movement of the demonstrative to [Spec, DP] is optional in Syntax.

At this point, it becomes necessary to justify, in accordance with the Minimalist framework (Chomsky, 1993), the reasons which enable the demonstrative to move in Syntax, giving as resulting constructions examples such as (46b).

We assume that a common noun modified by a demonstrative is interpreted as a referential nominal expression. In other words, we assume that a common noun modified by a demonstrative designates directly the entity which it refers to, and, for this property, it can receive neither existential nor generic interpretation, as happens with proper names and pronouns. Consequently, we propose that the demonstrative makes the common noun it modifies behave like a proper name or, more appropriately, like a pronoun.

Therefore, on the basis of these observations, we formulate the following assumption:

47. The demonstrative is an element specified for the features [+Referential] and [+Deictic].

From a syntactic point of view, an argument which can support (47), is given by the fact that, as in the case of proper names and pronouns, a nominal modified by a demonstrative cannot be further modified by a restrictive relative clause, as shown in (48) and (49):

48. a. Este libro, que publicó el año pasado, tuvo poco éxito.
'this book that he-published the last year had little success'
b. El libro este, que publicó el año pasado, tuvo poco éxito.
'the book this that he-published the last year had little success'
49. a. *Sólo comprarán estos libros que hayan sido publicados después del '90.
'only they-will-buy these books that have(Subj.) been published after the '90s'
b. *Sólo comprarán los libros estos que hayan sido publicados después del '90.
'only they-will-buy the books these that have(Subj.) been published after the '90s'

The sentences in (48) can be judged well-formed only if the relative clause is interpreted as appositive. The restrictive interpretation for the relative clause is excluded in both cases. This fact can also explain why the sentences in (49) are ungrammatical. In these cases the relative clause can be interpreted only as a restrictive

relative clause because of the presence of the subjunctive mood in the relative clause itself.³⁸

Furthermore, we assume that D° contains the Referentiality feature [\pm REF], the positive or negative value of which must be checked by some element in the structure, according to the following assumption made by Longobardi (1994):

50. “All D position are universally generated with an abstract feature $\pm R$ (suggesting “referential”), which must be checked with respect to at least one of its values.” (Longobardi, (97), p. 659)

Finally, we propose that in Spanish the [+REF] feature in D° must obligatorily be checked by the demonstrative on the basis of the proposals just made. We also propose that, in this language, such checking can take place either in Syntax -i.e. before SPELL-OUT-, or at Logical Form.³⁹

On the basis of these assumptions, we are able to account for the demonstrative movement to [Spec, DP] in the Syntax, and, at the same time, for the optionality of such movement at this level of representation.

If the movement of the demonstrative is carried out in the Syntax, the [+REF] feature in D° is checked already at this level through the Spec-Head Agreement process. In this way, we will have constructions such as (46b). In these cases the head D cannot be lexically filled for the reasons we expressed in section 1.3.

On the other hand, if the demonstrative movement is not carried out in the Syntax, as in (46a), the movement rule on the demonstrative must apply at Logical Form, in order to satisfy the referential interpretation that the nominal must receive, which, also

³⁸. Following Longobardi's (1994) discussion on the semantic properties of proper names and pronouns (cfr. pp.633-640 and the references cited there), we can notice that also a noun modified by a demonstrative shares the same characteristics. In fact, a noun modified by a demonstrative is never ambiguous between a *de re/de dicto* reading, contrary to what happens with definite descriptions, but it has always a *de re* reading, just like proper names and pronouns. Moreover, it has a *rigid designation* -cf. Kripke's (1980) terminology-, in the sense that, as Longobardi affirms for proper names, “[it appears] to designate the same object throughout all possible worlds (i.e., also in counterfactual situations).” (p.639).

³⁹. Longobardi (1994), in order to justify N-raising to D° for proper names and the generation in this position for pronouns, proposes two other assumptions strictly related to that presented in (50). These assumptions are repeated in (i) and (ii).

- i. This $\pm R$ feature is strong in Romance and weak in German. (ex.(98), p.659)
- ii. +R is universally checked iff the D is interpreted as being in a chain/CHAIN containing an object-referring expression (... , i.e. a pronoun or a proper name). (ex.(99), p.659)

If our proposal can be considered plausible from a theoretical point of view, in (ii) we should have to insert the demonstrative in addition to the elements -pronoun and proper name- mentioned by the author. On the other hand, as for (i), we have to say that, unfortunately, checking [+REF] feature by the demonstrative does not seem to undergo the distinction between Romance and Germanic languages. In fact in Spanish, as in Rumanian, the two possibilities -*strong* and *weak*- seem to be simultaneously available to account for the optionality in (46) and (3) respectively. Moreover, as for Germanic languages, it seems that the [+REF] feature is always *strong*; in fact, in this group of languages the demonstrative always raises to [Spec, DP] in Syntax (cf. section 6.1.2.). However, given that demonstrative movement is an XP movement, we can assume that (i) only refers to X° elements. In section 6.2. we will give a tentative general proposal for the movement of the demonstrative.

in these cases, can be obtained in [Spec, DP] through the Spec-Head Agreement process. In these cases, the head D has to be realized at PF for the reasons presented in section 1.3. (cf. also footnote 9).

Therefore, we propose, for the demonstrative in Spanish, the following assumption:

51. In Spanish the demonstrative can raise to [Spec, DP] optionally in Syntax, but it must raise to [Spec, DP] obligatorily at Logical Form.

This hypothesis can be argued for by the fact that the interpretation of the nominals modified by a demonstrative is always referential, even in case in which the movement has not taken place before SPELL-OUT.

An argument that can support it is provided by (48b) and (49b). The sentence in (48b), where the demonstrative appears postnominally, is well-formed only if the relative clause is interpreted as an appositive relative clause, as happens in (48a). (49b), where the relative clause can only have the restrictive reading, is ungrammatical, as is (49a), even though the demonstrative is postnominal.

Another argument is given by the ungrammaticality of the following two sentences:

52. a. **Algunos estos libros* tuvieron poco éxito.
 ‘some these books had little success’
 b. **Algunos libros estos* tuvieron poco éxito.
 ‘some of books these had little success’

(52a) is excluded because the DP *estos libros* ‘these books’ can receive neither the existential reading nor the partitive Case which are required and assigned by the existential quantifier *algunos* ‘some’ to its complement (cf. Cardinaletti and Giusti (1992)).⁴⁰ We propose that this fact is due to the presence of the demonstrative which gives the DP itself the referential interpretation.⁴¹

(52b) is ill formed even if the definite article is absent (see bare plurals *-algunos libros* ‘some books’- and modified bare plurals *-algunos libros interesantes* ‘some interesting books’-) and the demonstrative appears in postnominal position. This fact lead us to extend the considerations made to account for the ungrammaticality of (52a) to this case: in (52b) the presence of the demonstrative in postnominal position makes the DP incompatible with the existential reading and the partitive Case which are required and assigned by the quantifier *algunos* ‘some’. Given that the existential interpretation for nominals depends on the content of D° (cf. Longobardi, 1994, and footnote 9), we have to conclude that in (52b) this projection is specified for the [+REF] feature, and that at Logical Form the unique element in the structure which can satisfy the checking of this feature is the demonstrative itself. The cases in (52)

⁴⁰ For the incompatibility of partitive Case with nonexistential nominal expressions, we refer the reader to the argumentations presented in Brugè and Brugger (1996).

⁴¹ Notice that if the complement of the existential quantifier is realized as a ‘definite partitive’ PP, according to Cardinaletti and Giusti’s analysis, the presence of the demonstrative is possible either in prenominal or in postnominal position, as (i) shows:

- i. a. *Algunos de estos libros* tuvieron poco éxito.
 ‘some of these books had little success’
 b. *Algunos de los libros estos* tuvieron poco éxito.
 ‘some of the books these had little success’

For an explanation of cases like these, we refer the reader to the discussion we made in footnote 10.

support the hypothesis that there exists a strict relation between the low position in which we propose the demonstrative is generated and the position inside DP where the referential interpretation takes place. Consequently, the [Spec, DP] position is a derived position for the demonstrative in Spanish, to which it must raise in any case, at the latest at Logical Form.

A third empirical argument which supports the assumptions in (47) and (51) is represented by the following cases:

53. a. *Este mi libro de sintaxis fue publicado hace dos años.⁴²
 'this my book on syntax was published two years ago'
 b. *Mi libro este de sintaxis fue publicado hace dos años.
 'my book this on syntax was published two years ago'

(53a) is excluded because in the DP projection both the specifier and the head appear lexically filled, contrary to Giusti's (1996a-b) hypothesis (cf. section 1.3.).

The fact that also the sentence in (53b) is ungrammatical even if only the head D is filled by the possessive at PF leads us to conclude, once again, that at Logical Form the demonstrative must be in any case interpreted in [Spec, DP]. On the basis of this hypothesis, we can then account for the ungrammaticality of (53b). In these cases the demonstrative, which must raise to [Spec, DP] in order to check its [+REF] feature by Spec-Head Agreement, cannot satisfy this requirement because the same feature has been already checked by the possessive which has moved to D° in the Syntax. So, the [+REF] feature is no more available for the demonstrative.

5.2. *The pronominal possessive as referential element*

The hypothesis that in Spanish the pronominal possessive provides referential interpretation for the nominal expression it modifies is justified by the fact that a nominal modified by a pronominal possessive cannot be further modified by a restrictive relative clause, as happens with proper names and pronouns. So, we

⁴². Brucart (1994) observes that in Spanish there are cases in which the demonstrative and the pronominal possessive can cooccur in the structure, such as in Catalan and Italian:

- i. estos mis hijos ((9) p.54)
 'these my(Plu) sons'

Nevertheless, he suggests that this possibility is very limited and defective in the common use (cfr. the ungrammaticality of **todos estos mis hijos* 'all these my(PLU) sons' vs. the grammaticality of *todos estos hijo míos* 'all these sons my(Plu)[strong]'), and proposes that cases like (i) must be considered residues of Medieval Spanish, where this cooccurrence was common. Notice that also in some Spanish dialects demonstratives and pronominal possessives cooccur in the structure, probably the same dialects which require the presence of the article together with the pronominal possessive (see footnote 34). We can tentatively propose here, according to Cardinaletti -p.c.-, that in some of these dialects there exists a weak form for the pronominal possessive, as it seems to be the case in (i), together with the strong form. This weak form would occupy the specifier of a functional projection (AgrGP) immediately dominated by DP after SPELL-OUT. This hypothesis would account for the simultaneous realization both of the article and of the demonstrative with the weak form of the pronominal possessive. Notice that we would have to assume the same proposal for some Italian dialects in which the three forms -clitic, weak and strong- seem to coexist. Nevertheless, we will leave the question about the change from the strong form to the clitic form of the pronominal possessive in the passage from Old Spanish to Modern Spanish open here.

propose that the prenominal possessive checks the [+REF] feature in D° .⁴³ In fact, the sentence in (54) is well-formed only if the relative clause is interpreted as an appositive relative clause:

54. Mi libro, que publiqué el año pasado, tuvo mucho éxito.
 ‘My book that I-published the last year had a great success’

Coming back to the ill formed sentences in (53), a demonstrative in [Spec, DP] at PF can occur with a postnominal possessive:

55. Este libro mío de sintaxis fue publicado hace dos años.
 ‘this book my(strong) on syntax was published two years ago’

If the possessive always needs to check the [+REF] feature in D° , the grammaticality of (55) would be surprising. This sentence would be ruled out for the same reasons we proposed to explain the ungrammaticality of (53b).

Nevertheless, we do not consider (55) a counterexample to the proposal suggested for cases like (53b). What we propose is that in cases like (55) there is no clash in checking the [+REF] feature between the possessive and the demonstrative. Evidence which can support this are given by the fact that the postnominal possessive allows for the presence of the indefinite article in D° -*un libro mío* ‘a book my(strong)’ is the only possible form in Spanish to express the indefiniteness with a possessive-, and by the fact that in Spanish, in cases like (56), the relative clause can be interpreted as a restrictive relative clause, besides the appositive interpretation, contrary to (54):⁴⁴

56. El libro mío que publiqué el año pasado tuvo mucho éxito.
 ‘the book my(strong) that I-published the last year had a great success’

The well formed sentence in (56) together with constructions such as *un libro mío* ‘a book my(strong)’, leads us to conclude that the postnominal possessive is not specified only for the [+REF] feature. So, we tentatively propose that the possessive is specified either for the positive or for the negative value of the Referential feature. In this way, contrary to what happens with the demonstrative -(51)-, the postnominal possessive has not to move to DP at Logical Form if this movement has not taken place in Syntax. On the other hand, if the possessive chooses the positive value of the Referential feature, it must raise in Syntax, cliticizing to D° , for checking reasons.

⁴³ For the incompatibility between the prenominal possessive and the restrictive relative clause see also the different proposal suggested by Brucart (1994).

⁴⁴ Notice that if in sentences such as (56) the demonstrative appears in its base position, the relative clause can only have the appositive interpretation, being the restrictive one excluded, (i.a). The same happens if the demonstrative is realized in [Spec, DP], (i.b). Compare these cases with (48) and (49).

- i. a. El libro este suyo, que publicó el año pasado, no tuvo mucho éxito.
 ‘the book this his that he-published the last year had not a great success’
 b. Este libro suyo, que publicó el año pasado, no tuvo mucho éxito.
 ‘this book his that he-published the last year had not a great success’

The contrast between (56) and (i.a) with respect to the possibilities of interpretation of the relative clause can be considered another important argument in favour of the hypothesis that the demonstrative must always raise to [Spec, DP] at the latest at Logical Form, as (51) proposes and (47) justifies.

However, we propose that this movement is possible only if the [+REF] feature itself is available, namely if it need not be checked by a demonstrative.⁴⁵

The contrasts in (57) provide another empirical argument in favour of the hypothesis that the postnominal possessive does not have to move to DP at Logical Form, and consequently that this element is not specified only for the [+REF] feature:

57. a. *Cuatro/Algunos mis libros de sintaxis fueron publicados hace dos años.
 ‘four/some my books on syntax were published two years ago’
 b. Cuatro/Algunos libros míos de sintaxis fueron publicados hace dos años.
 ‘four/some books my(strong) on syntax were published two years ago’

(57a) is ungrammatical for the same reasons we have proposed to rule out sentences such as (52): the existential quantifiers *cuatro* ‘four’ and *algunos* ‘some’ prevent the realization of *mis libros* ‘my books’ as their complement because this DP is referential, given its behaviour with relative clauses, (54).

On the other hand, (57b) is well-formed, contrary to (52b). In this case the DP *libros míos* ‘books my(strong)’ is interpreted as an existential nominal expression. This implies that the possessive does not raise to DP at Logical Form, otherwise this projection would not be compatible with the existential interpretation, and ruled out like (57a). In (57b) the DP *libros míos* seems to behave like a modified bare plural, namely like a DP with an empty D° (cf. Longobardi (1994) and footnote 9).

Given these considerations, we conclude that when the possessive appears in its low position, it need not move to DP at LF, being its presence compatible either with an indefinite article, as we showed above, or with an empty D°, as in (57b), like any other adjective.⁴⁶

Moreover, as the contrasts in (58) show, a nominal modified by a prenominal possessive, (58a), cannot be further modified by a relative clause in subjunctive (cf. (49)); on the other hand, if the possessive is realized in its low position, (58b), the same construction is well-formed:

⁴⁵ Observing the contrasts between (53b) and (55), one can suggest that the ungrammaticality of (53b) is due to a violation of the Minimality Principle: the possessive movement is blocked by the presence of the demonstrative in a specifier which is placed between its low position, (44a), and the D°, as suggested in Brugè (1994). Nevertheless, we assume here that this proposal cannot be considered theoretically correct. In fact, if the movement of a particular element to a higher position is justified by checking some specific feature, or features, there would be no need for the possessive to pass through the [Spec, FP] which hosts the demonstrative in its movement to D (cf. the discussion at the end of section 2.1.).

⁴⁶ Notice that in general it is not the possessive in prenominal position which obligatorily checks the [+REF] feature, preventing, in this way, this feature from being available for checking by the demonstrative, but the fact that the possessive is realized in D°. In this respect, compare the ungrammatical cases in Spanish presented in the text with parallel grammatical constructions in Italian, Catalan and German:

- | | | | | |
|----|----|-------------------|-----------------|----------------|
| i. | a. | questo mio libro | ‘this my book’ | <i>Italian</i> |
| | b. | aquest meu llibre | ‘this my book’ | <i>Catalan</i> |
| | c. | diese meine Hände | ‘this my hands’ | <i>German</i> |

Moreover, at first glance, it seems that also in English and French the possessive is specified for the [+REF] feature which must check in DP.

- | | | | |
|-----|----|---------------|----------------|
| ii. | a. | *this my book | <i>English</i> |
| | b. | *ce mon livre | <i>French</i> |

58. a. *Sólo irán a Barcelona sus estudiantes que hayan superado los parciales.
 ‘only they-will-go to Barcelona his students who have(Subj.) got through the partial exams’
 b. Sólo irán a Barcelona los estudiantes suyos que hayan superado los parciales.
 ‘only they-will-go to Barcelona the students his[strong] who have(Subj.) got through the partial exams’

5.3. Some residual cases

Let us come back to the assumption proposed in (47) which establishes that the demonstrative is an element specified for the [+Referential] and [+Deictic] features. Besides the main values the demonstrative can have in the language and that are described by this assumption, this element can also be used either as a discourse anaphora, as in (59a), or it can function as a ‘deictic *ad phantasma*’, as is the case in (59b):⁴⁷

59. a. Juan es guapo, inteligente y simpático. Sin embargo, estas cualidades no hacen de él el hombre perfecto.
 ‘Juan is handsome, intelligent and likeable. Nevertheless, these qualities do not make him the perfect man’
 b. En Córdoba hay estas casitas de estilo alpino...
 ‘In Cordoba there are these little houses of Alpine style...’

We propose that what distinguishes the characteristics of the demonstrative in the two uses presented in (59) with the properties of the same element in the use we have commented on until now is that when the demonstrative functions as a discourse anaphora or as a ‘deictic *ad phantasma*’ it maintains its specification for the feature [+Deictic], but loses the [+Referential] value.⁴⁸ In this paper, however, we will disregard the characteristics that the demonstrative can assume in these two cases and we will limit our field of investigation to those intrinsic properties of the demonstrative we consider basic, namely those properties expressed in (47). Nevertheless, it seems important to notice that the demonstrative in its use as discourse anaphora or as ‘deictic *ad phantasma*’ displays the same syntactic behaviour we observed until now, as the cases in (60), compared with those in (59), show:

⁴⁷. The term ‘deictic *ad phantasma*’, used in the sense of Bühler (1934), designates those deictic elements referring to persons or objects which belong to the speaker’s (imaginary) world.

⁴⁸. A piece of evidence which supports this hypothesis is that the demonstrative can be modified by a relative clause with restrictive interpretation when used in these two functions, as (i) shows:

- i. a. Estas/esas cosas que me dices no me gustan para nada.
 ‘these/those things that to-me(clit.) you-tell not to-me(clit.) they-like at all’
I do not like all these/those things you tell me
 b. Quisiera comprar aquellos sombreros que se doblan.
 ‘I-should like to buy those hats which fold up’

Notice, however, that the demonstrative form *aquel* ‘that’ can be used as a discourse anaphora or as a deictic ‘*ad phantasma*’ more easily than the demonstrative form *este* ‘this’, which appears to be more linked to the spatial dimension of the context in which the communicative act takes place.

60. a. Juan es guapo, inteligente y simpático. Sin embargo, las cualidades estas no hacen de él el hombre perfecto.
 'Juan is handsome, intelligent and likeable. Nevertheless, the qualities these do not make him the perfect man'
- b. En Córdoba hay las casitas estas de estilo alpino...
 'In Cordoba there are the little houses these of Alpine style...'

Given the well formed constructions in (60), it seem plausible to extend our analysis to these cases. So, we tentatively propose that the movement of the demonstrative from [Spec, FP] to [Spec, DP] in Syntax, (59), or at the latest at Logical Form, (60), is due to the fact that in [Spec, DP] the demonstrative must check some other particular feature which in one case is peculiar to the anaphoric interpretation and in the other is peculiar to the 'deictic *ad phantasma*' interpretation.

6. *The comparative approach*

On the basis of what has been presented until now, let us say in Spanish the demonstrative is generated in the specifier position of a functional projection (FP) inside the extended nominal expression. This projection is placed lower than all the functional projections containing the Adjectives, (10), and immediately dominates either the NP projection or the functional projection containing the postnominal possessive, (45). We propose that the movement of the demonstrative from [Spec, FP] to [Spec, DP] is optional in Syntax -i.e. before SPELL-OUT-, and obligatory at Logical Form, (51).

Observing the phenomenon in a wider cross-linguistic perspective, we could suggest, adopting and extending Giusti's (1993) proposal, that across languages there exists more than one position inside the DP projection in which the demonstrative is generated, parametrizing in this way the different realizations of the demonstrative in the structure with respect to the head noun. Nevertheless, our intention would be to propose that in all languages there exists a unique position in the structure in which the demonstrative is base generated. In order to support this idea, we could suggest that in all languages the unique position in which the demonstrative is generated is the one we have proposed and justified for Spanish. The languages will vary as to their power to allow, oblige or prevent the movement of the demonstrative to [Spec, DP] in Syntax. A way to make this hypothesis theoretically consistent is to find some empirical argument that can show that even in those languages which do not allow the demonstrative to appear in postnominal position at PF, this element starts from the same low position we have proposed for Spanish. An argument, which can be found in many languages, is represented by the position the locative which functions as reinforcer of the demonstrative occupies in the structure (cf. section 3.2.). In those languages in which the demonstrative obligatorily appears in [Spec, DP] and can cooccur with the locative, it can be argued that the demonstrative has moved in Syntax leaving the locative in the base position, on a par with what happens for the sequence 'demonstrative +locative' in Spanish, (37). Therefore, in these languages, the position of the locative itself will be taken to indicate the base position of the demonstrative, much in the same way as a floating quantifier marks the base position of the noun phrase it quantifies over in Sportiche's (1988) hypothesis.

6.1. *The demonstrative in other languages*

In this section we show that what we have proposed for the demonstrative in Spanish can be extended to other languages.

6.1.1. *Languages in which the demonstrative can appear in postnominal position*

Let us begin our general overview by examining the behaviour of the demonstrative in a language related to Spanish.

In Catalan, the demonstrative modifying a nominal can appear either in prenominal position or in postnominal position, as in (61) show:

61. a. Aquest quadre és molt antic.
 'this painting is very antique'
 b. El quadre aquest és molt antic.
 'the painting this is very antique'

Notice, however, that the alternative construction in (61b) is not accepted in all Catalan areas. The north of Catalonia in general uses the demonstrative only in its prenominal position; while the west, and in particular the south of the region, use both (61a) and (61b). The use of the second construction is limited to colloquial or spoken speech, as happens in Spanish. Putting aside those areas in which the phenomenon does not take place, in Catalan, the postnominal demonstrative appears in a position lower than all the functional projections containing adjectives. This happens both in the case in which the head noun belongs to the 'event' nouns class, as the contrasts in (62b-c) show, and in the case in which the head noun belongs to the 'object-denoting' class, as (63b-c) shows:

62. a. Aquesta reacció desinteressada ens ha preocupat a tots.
 'this reaction disinterested worried everybody'
 b. ?La reacció desinteressada aquesta...
 'the reaction disinterested this...'
 c. *La reacció aquesta desinteressada...
 'the reaction this disinterested...'
63. a. Aquest quadre rodó és molt antic.
 'this painting round is very antique'
 b. ?El quadre rodó aquest...
 'the painting round this...'
 c. *El quadre aquest rodó...
 'the painting this round...'

With relation to the subject and the other complements of the noun, the Catalan postnominal demonstrative always appears preceding them in the unmarked order, as the contrasts in (64) with an 'event' noun, and in (65) with an 'object-denoting' noun show:

64. a. La reacció aquesta d'Alemanya/a les crítiques no ha impressionat ningú.
 'the reaction this of Germany/to the criticisms has not shaken anyone'
 b. *La reacció d'Alemanya/a les crítiques aquesta...
 'the reaction of Germany/to the criticisms this...'

65. a. El germà aquest d'en Joan és molt jove.
 'the brother this of John is very young'
 b. *El germà d'en Joan aquest...
 'the brother of John this...'

Finally, since the postnominal demonstrative also precedes the postnominal possessive, as we can observe by the contrasts in (66), we extend to this language the hypothesis proposed for Spanish. In Catalan the demonstrative is generated in the specifier of the nominal functional projection FP placed lower than all the functional projections containing the adjectives, (10), and which immediately dominates either the NP or the functional projection containing the postnominal possessive, (45). The movement of the demonstrative from [Spec, FP] to [Spec, DP] in order to check its [+REF] feature is optional before SPELL-OUT-, but obligatory at Logical Form, (51).

66. a. ??El llibre aquest seu de sintaxi no em convenç.
 'the book this his on syntax does not convince me'
 b. *El llibre seu aquest de sintaxi no em convenç.⁴⁹
 'the book his this on syntax does not convince me'

Also in Catalan, the demonstrative *aquest* 'this' can be realized independent of its [+Deictic] feature through the locative reinforcer *d'aquí* '[of] here'. As happens in Spanish, the complex sequence *aquest d'aquí* 'this [of] here' can appear in the same position we propose the demonstrative is generated in, (67a), or the demonstrative alone can move in Syntax and the locative stay 'in situ', as in (67b).

67. a. ?El quadre (rodó) aquest d'aquí (de Picasso) està mal penjat.
 'the painting (round) this of here (of Picasso) is badly hanged'
 b. Aquest quadre (*d'aquí) (rodó) d'aquí (de Picasso) (*d'aquí) està mal penjat.
 'this painting (round) of here (of Picasso) is badly hung'

Another language in which the demonstrative shares the same syntactic behaviour we have seen in Spanish and in Catalan is Bosnian-Serbian-Croatian. In this language, the demonstrative can appear, besides the prenominal position, in

⁴⁹. In section 5 we have proposed that the incompatibility between the postnominal demonstrative and the prenominal possessive, (53b), is due to the fact that, realizing the possessive in D°, it checks the [+REF] feature already in Syntax, preventing, in this way, that the same feature be checked by the demonstrative at Logical Form. Nevertheless, it seems that the demonstrative must appear in Syntax in [Spec, DP], (i.b), and never in its base position, (i.c), even in those languages in which the prenominal possessive appears in the specifier of AgrGP, as is in Catalan. :

- i. a. el seu llibre
 'the his book'
 b. aquest seu llibre
 'this his book'
 c. *el seu llibre aquest
 'the his book this'

A tentative proposal to account for these contrasts is to suggest that if in D° the [+REF] feature is chosen, the prenominal possessive, which is compatible with this feature, moves to [Spec, DP] at Logical Form. Therefore, (i.c) would be excluded for the same reasons which blocks constructions such as (53b) in Spanish.

postnominal position, leaving the DP projection empty, as in (68). Bosnian-Serbian-Croatian does not display a definite article at all. The realization of the demonstrative in postnominal position is acceptable only at a highly stylistic level.⁵⁰

68. a. ovaj/onaj lijepi momak
 'this(Masc.Sing.Nom.)/that(Masc.Sing.Nom.) nice boy'
 b. ?lijepi momak ovaj/onaj
 'nice boy this/that'

We extend to these languages the general hypothesis proposed for Spanish and Catalan. Arguments which support this proposal are given by the contrasts in (69)-(72):⁵¹

69. a. ?nezainteresovana reakcija ova na kritike
 'disinterested reaction this(Fem.Sing.Nom.) on criticisms'
 b. *nezainteresovana reakcija na kritike ova
 'disinterested reaction on criticisms this'
 this disinterested reaction to the criticisms
70. a. ?suknja ova Marijina
 'skirt this Mary(Genitive)'
 b. *suknja Marijina ova
 'skirt Mary(Gen) this'
 this skirt of Mary

In (69) and (70), the postnominal demonstrative can only precede a complement of the noun and never follow it, as in Spanish and Catalan. At the same time, if a postnominal possessive is realized in the structure, the postnominal demonstrative always precedes it, (71):

71. a. Knjiga ova tvoja o sintaksi
 'book this your of syntax'
 b. *Knjiga tvoja ova o sintaksi⁵²
 'book your this of syntax'

⁵⁰. We thank Nedžad Leko for his helpful comments on the Bosnian-Serbian-Croatian data we discuss in this paper.

⁵¹. For independent reasons, in Bosnian-Serbian-Croatian adjectives appear in prenominal position, apart from some marked cases.

⁵². Notice that in Bosnian-Serbian-Croatian, the prenominal possessive, which behaves like an XP, as in Italian and Catalan, (i.a), can be never realized in Syntax in prenominal position if the demonstrative appears in its base position. Observe in this respect the ungrammaticality of (i.c):

- i. a. ova moja rasprava o sintaksi
 'this my discussion about syntax'
 b. ?ova rasprava moja o sintaksi
 'this discussion my about syntax'
 c. *moja rasprava ova o sintaksi
 'my discussion this about syntax'

In Bosnian-Serbian-Croatian, the cooccurrence of the demonstrative and the possessive has the same syntactic behaviour as that observed in Catalan (see footnote 49).

Finally, since in this language the deictic feature of the demonstrative can be reinforced by a locative, the complex sequence, on the one hand, and the locative alone, on the other, can appear in the base position, (72):

72. a. knjiga ova ovdie o sintaksi
 ‘book this here of syntax’
 b. ova knjiga ovdie o sintaksi (*ovdie)⁵³
 ‘this book here of syntax (*here)’

Therefore, we extend to Bosnian-Serbian-Croatian the hypothesis we have proposed for Spanish. We also extend to the sequence *ova ovdie* ‘this here’ the structure proposed in (37). However, we assume that in this language, such as in English, (34b), Norwegian, (34c), Italian, (footnote 27, ex.(iv)), and, as we shall see later, in others, the preposition which heads the XP projection and which selects the small clause is lexically empty. This case is comparable to those cases in which infinitival complement clauses are introduced by an empty complementizer.⁵⁴

Let us now observe what happens in Rumanian. As the constructions presented in (3) and repeated here in (73) show, in this language the demonstrative can appear at PF either in prenominal position, (73a), or in postnominal position, (73b).⁵⁵

73. a. acest (frumos) băiat (frumos) al Mariei
 ‘this (nice) boy (nice) of Mary’
 b. băiatul acesta frumos al Mariei
 ‘boy-the thisA (nice) of Mary’
 c. *băiatul frumos acesta al Mariei
 ‘boy-the nice thisA of Mary’
 d. *băiatul (frumos) al Mariei acesta
 ‘boy-the nice of Mary thisA’

⁵³. Recall, moreover, that in Bosnian-Serbian-Croatian the sequence ‘demonstrative+locative’ can raise jointly to [Spec, DP] before SPELL-OUT. See (34a) and (i):

- i. ova ovdie knjiga o sintaksi
 ‘this here book of syntax’

⁵⁴. Even if the data are not as clear as in Bosnian-Serbian-Croatian and Catalan, we also tentatively extend our hypothesis to Russian. In fact, also in this language the demonstrative can appear postnominally in the colloquial speech of highly educated people, as Michael Yadroff pointed out to us.

- i. a. (eta) italjanskaja reakcija (eta) [na amerikanskuju akciju] (**eta)
 ‘(this) italian reaction (this) [to the american(ACC) action(ACC)] (**this)’
 b. (eta) kniga (eta) moja (?*eta)
 ‘(this) book (this) my (?*this)’

⁵⁵. In Rumanian the demonstrative in prenominal position belongs to a very high stylistic level. Stylistically high, even if in a lower rank, is also the use of the form *acesta* ‘this’ in postnominal position. In the current the language, the demonstrative appears in postnominal position and in its reduced forms, as the cases in (i) show:

- i. a. băiatul asta/ăla
 ‘boy(Masc.)-the(Masc.) this(Masc.)/that(Masc.)’
 b. cartea asta/aia
 ‘book(Fem.)-the(Fem.) this(Fem.)/that(Fem.)’

We assume that, when the demonstrative appears postnominally, it occupies the specifier of a maximal projection immediately dominated by the DP, as the contrasts in (73b-c) show (cf. also the discussion in section 1.1.). Therefore, we assume that the position the demonstrative occupies in (73b) is a derived position, and not the basic one in [Spec, FP]. When the demonstrative is realized in this position, the invariable bound morpheme *-a* obligatorily appears on the demonstrative, giving the resulting form *acesta* ‘this’, as (73b), contrasted with (73a), shows.

Giusti (1993) proposes that this morpheme should be taken as a Spec-Head agreement marker which signals the presence of the trace of the N° , moved to D° , in the head of the functional projection containing at PF the demonstrative in its specifier.

On the other hand, Niculescu (see Tasmowski-De Rick, 1990, footnote 24, p.98) points out that this *-a* has to be considered as a residual reduced form of a deictic adverb.

If we assume this second hypothesis, we could suggest that the enclitic morpheme *-a* should be compared to the locative reinforcer, which, having lost its unbound form in the development of the language, appears in Rumanian obligatorily cliticized on the demonstrative. A possible empirical argument in favour of this approach is that, contrary to what happens in the other Romance languages, in Rumanian the locative can never appear as reinforcer of the demonstrative, as (74) shows:

74. a. *bàiatul acesta (de) aici
 ‘boy-the this_A here’
 b. *acest băiat (de) aici
 ‘this boy here’

Nevertheless, if this could account for cases such as (74a), it cannot explain why in (74b), where the demonstrative is realized in its basic form, namely without the ‘locative’ bound morpheme, it is any way impossible to realize the locative reinforcer.⁵⁶ We leave this question open here. The only remark we should like to make is that in Rumanian the impossibility of realizing the locative reinforcer independently, prevents us from showing the base position in which the demonstrative is generated in this language.

Therefore, the null hypothesis is to assume that in Rumanian the demonstrative starts in the [Spec, FP] -see (29), (30) and (37)-, as in the other languages, and raises obligatorily to an intermediate position before SPELL-OUT.

The hypothesis that the postnominal position in which the demonstrative appears at PF is an intermediate position can be supported by observing what happens in other languages in which the demonstrative can be realized at PF in more than two positions. One of these languages is Bosnian-Serbian-Croatian. In fact, in this language, besides the base position -i.e. [Spec, FP]- and the [Spec, DP] position (cf. section 6.1.1.), the demonstrative can appear in what we define an intermediate position, as (75a) compared with the cases in (68) and the contrasts in (75b-c) show:

75. a. ?lijepi ovaj/onaj momak
 ‘nice this/that boy’
 b. ono američko kontrolisanje banaka
 ‘that american control banks(Genitive)’

⁵⁶ Notice that, for some native speakers, constructions such as (74b) are well-formed if the locative *de aici* ‘[of] here’ is interpreted as a real adverb, and not as a locative reinforcer of the demonstrative. Nevertheless, it is interesting and at the same time quite surprising to observe that for the same speakers the locative *de aici* ‘[of] here’ is always impossible, even with this ‘adverbial’ interpretation, in cases in which the demonstrative appears postnominally in its form *acesta*, as in (74a).

- c. američko ono kontrolisanje banaka
 ‘american that control banks(Genitive)’
that american control of the banks

Another language which also displays this intermediate position, besides the basic one and the high position in [Spec, DP], is Modern Greek (cf. Giusti, 1996a), as the constructions in (76) show:

76. a. afto to oreo to vivlio tou Janis
 ‘this the nice the book of Janis’
this nice book of Janis’
 b. to oreo to vivlio afto tou Janis
 ‘the nice the book this of Janis’
 c. to oreo afto to vivlio tou Janis
 ‘the nice this the book of Janis’

Therefore, on the basis of the data in Bosnian-Serbian-Croatian, (75), and in Modern Greek, (76), we extend our hypothesis to Rumanian. In this language, for reasons we are unable to account for at this point of our investigation, neither the demonstrative alone, nor the sequence ‘demonstrative+locative’, nor the locative alone can be realized in their base position. The only available positions in which the demonstrative can appear at PF is the intermediate position and the high [Spec, DP] position.

So, we conclude that in Rumanian the demonstrative must obligatorily move to the intermediate position in Syntax,⁵⁷ and can optionally raise to [Spec, DP] in Syntax, but, as happens in all other languages, it must obligatorily move to [Spec, DP] at the latest at Logical Form in order to check its referential feature.

6.1.2. Languages in which the demonstrative must appear in prenominal position

Let us observe, now, what happens in those languages in which the demonstrative has to be obligatorily realized in the [Spec, DP] position at PF. In order to extend our hypothesis to these languages it is necessary to find some empirical evidence that can justify that the demonstrative, even if in [Spec, DP] at PF, starts from the low [Spec, FP] (cf. (29) and (30)).

Let us come back to the locative as deictic reinforcer of the demonstrative and to the complex structure proposed in (37). An empirical argument which can render theoretically plausible our proposal even for these languages is to detect the exact position the locative reinforcer has in the structure, given that, as we showed for Spanish, in the case in which the demonstrative moves in Syntax to [Spec, DP], the locative reinforcer remains in its base position, unless the movement in Syntax affects the entire complex, as in the cases in (34).

Let us start by examining the behaviour of the demonstrative in Italian.

In Italian, the unique possible position the demonstrative can occupy in the

⁵⁷ We propose that the movement to this intermediate position is optional in Syntax for those languages such as Bosnian-Serbian-Croatian and Modern Greek which, as we have seen, also display this option.

structure is the prenominal one -i.e. the [Spec, DP]-. In this language it is possible to realize the locative element with the value of reinforcer of the deictic feature peculiar to the demonstrative. The two elements can appear string adjacent only when the demonstrative functions as a pronominal category. The resulting combinatorial sequences, are: *questo qui* 'this here', *questo qua* 'this here', *quello lì* 'that there' and *quello là* 'that there'.

When the demonstrative modifies a noun, the locative reinforcer always appears in postnominal position:

77. Questo libro qui non è molto interessante.⁵⁸
'this book here is not very interesting'

When the noun is modified by a 'postnominal' adjective, the locative *qui* must follow, in the unmarked word order, the adjective itself. This is true either with 'event' nouns, or with 'object-denoting' nouns, as the contrasts in (78) and (79) show:

78. a. ?Questa risposta diplomatica qui non convincerà nessuno.
'this reply diplomatic here will not convince anybody'
b. *Questa risposta qui diplomatica non convincerà nessuno.
'this reply here diplomatic will not convince anybody'
c. ?Questa risposta ministeriale qui è una vera vergogna.
'this reply ministerial here is a real disgrace'
d. *Questa risposta qui ministeriale è una vera vergogna.
'this reply here ministerial is a real disgrace'
79. a. Questo libro vecchio qui di fisica non deve essere venduto.
'this book old here on physics must not be sent'
b. *Questo libro qui vecchio di fisica non deve essere venduto.
'this book here old on physics must not be sent'
c. Questo libro inglese qui di sintassi è molto interessante.
'this book English here on syntax is very interesting'
d. *Questo libro qui inglese di sintassi è molto interessante.
'this book here English on syntax is very interesting'

Finally, as for the position the locative occupies in relation to the PP subject of the noun and the other complements of the noun, we have to confirm that also in Italian, as in Spanish, the locative reinforcer must always precede them, as the contrasts in (80) show:

80. a. Questa risposta qui del governo/al problema è una vera vergogna.
'this reply here of the Government/to the problem is a real disgrace'
b. *Questa risposta del governo/al problema qui è una vera vergogna.
'this reply of the Government/to the problem here is a real disgrace'
c. Questo libro qui di sintassi/di Gianni è molto interessante.
'this book here on syntax/of Gianni is very interesting'
d. *Questo libro di sintassi/of Gianni qui è molto interessante.
'this book on syntax/of Gianni here is very interesting'

⁵⁸. These constructions have in common with the corresponding constructions in Spanish the two following properties: a) they are commonly used in colloquial speech; and b) the presence of the locative in postnominal position can assign a depreciatory reading to the entire nominal expression in the pragmatic ground (cf. footnote 3).

On the basis of the resulting well-formed constructions we have presented so far, we can observe that in Italian the locative reinforcer appears in the same position in which the postnominal demonstrative, the complex sequence ‘demonstrative +locative’ or the locative alone are realized in Spanish. Therefore, we conclude that also in Italian the demonstrative is generated in the low [Spec, FP] position, dominated by all the functional projections containing the adjectives, and which dominates either the NP or the functional projection containing the postnominal possessive. Nevertheless, contrary to Spanish, in Italian the demonstrative must obligatorily move to [Spec, DP] already in Syntax in order to check its [+REF] feature.

In French also, where the demonstrative must appear preminally at PF, it is possible to realize the locative reinforcer. In most areas of the country, its presence in the structure has the function of making the deixis explicit, namely of expressing the different types of deictic relation between the speaker and the identified ‘object’. In French this relation is not morphologically expressed by the demonstrative alone, given that there exists a unique demonstrative form: *ce* ‘this’.⁵⁹

81. a. *ce livre-ci* ⁶⁰
 ‘this book here’
 b. *ce livre-là*
 ‘that book there’

As for the position the locative reinforcer occupies in the structure, we can observe that in French the locative always follows the adjectives, (82), and always precedes the genitive PPs and the other complements of the noun, (83):

82. a. *ce livre rouge-ci*
 ‘this book red here’
 b. **ce livre-ci rouge*
 ‘this book here red’
 c. *ce livre italien-ci*
 ‘this book Italian here’

⁵⁹. In French the locative reinforcer is realized through the clitic form *-ci* ‘here’ instead of the unbound adverbial form *ici* ‘here’, (81a). Coming back to the complex structure proposed in (37), we tentatively suggest that in French the ‘bare adverb’ *ici* undergoes a cliticization process which turns it into a clitic element. For this reason it must cliticize to the lexical element which immediately dominates it in the structure -e.g. the noun moved to higher positions in Syntax, or an adjective-. Probably, the same proposal could be extended to the other locative form *là*, even though in this case there is no morphological difference between the unbound adverbial form and its ‘clitic’ counterpart.

⁶⁰. Notice that in French the locative can also be absent: *ce livre*. In this case, the demonstrative *ce*, receives the meaning of ‘this’ by default. The same is not true in some Lombard dialects of Switzerland. In these dialects also there exists a unique demonstrative form: *quello*. Contrary to what happens in French, the neutralization of the different types of deixis makes the presence of the locatives *qui* ‘here’ and *li/là* ‘there’ obligatory in these dialects. The locative forms always appear in their base position:

- | | | | | |
|----|----|----------------------------|---|---------------------|
| i. | a. | <i>quel libro *(qui)</i> | = | <i>questo libro</i> |
| | | ‘that book here’ | | ‘this book’ |
| | b. | <i>quel libro *(li/là)</i> | = | <i>quel libro</i> |
| | | ‘that book there’ | | ‘that book’ |

Thanks to Cecilia Poletto for these data.

- d. *ce livre-ci italien
'this book here Italian'
83. a. ce livre-ci de Jean
'this book here of John'
- b. ?*ce livre de Jean ci ⁶¹
'this book of John here'
- c. ce reponses-ci au problème
'this answer here to the problem'
- d. *ce reponses au problème ci
'this answer to the problem here'

Given that in French the locative reinforcer always appears in the same position in which the postnominal demonstrative - (10) and (45)-, the complex sequence 'demonstrative +locative' and the locative alone are realized in Spanish, we extend our hypothesis also to this language.

Moreover, we can observe the same results in German, as the cases in (84) show:

84. a. dieses Buch hier
'this book here'
- b. dieses schöne Buch hier von Hans
'this nice book here of Hans'
- c. *dieses schöne Buch von Hans hier
'this nice book of Hans here'

and, among other languages, in Albanian, ⁶² as the contrasts in (85) and (86) show:

85. a. ky libr-i këtu
'this(Nom.) book-the(Nom.) here'
- b. ky libr-i i kuq këtu
'this book-the I red here'
- c. *ky libr-i këtu i kuq
'this book-the I red here'
- d. ky reagim-i i shpjtë këtu
'this reaction-the I quick here'
- e. *ky reagim-i këtu i shpjtë
'this reaction-the here I quick'
86. a. ky libr-i (i kuq) këtu mbi sintakën
'this book-the (I red) here on syntax-the(Acc.)'
- b. *ky libr-i (i kuq) mbi sintakën këtu
'this book-the (I red) on syntax-the(Acc.) here'

⁶¹ For some native speakers the construction in (83b) is well-formed even if the locative reinforcer follows the genitive PP. Nevertheless, in this case, the unique possible reading the construction can receive is with a strong contrastive stress on the entire DP *ce livre de Jean* 'this book of John', giving as resulting interpretation something like: 'this book of John here, and not the other book(s) of John'. On the other hand, in the construction (82a), excluding the possible intonational break between the locative and the genitive PP, no element which compounds it receives a contrastive stress. Rather the entire projection receives an informative value.

⁶² Thanks to Dalina Kallulli for her helpful comments on the Albanian data.

- c. ky reagim-i (i shpijtë) këtu ndaj problemit
'this reaction-the I quick here to problem-the(Abl.)'
- d. *ky reagim-i (i shpijtë) ndaj problemit këtu
'this reaction-the I quick to problem-the(Abl.) here'

So, we propose, that also in those languages in which the demonstrative must appear in [Spec, DP] at PF, the demonstrative is generated in the same position we have found for Spanish, and, among others, for Catalan and Bosnian-Serbian-Croatian. The empirical evidence which brings us to generalize in this sense is given by the position the locative reinforcer occupies inside the nominal extended projection in these languages, as we have shown in this section. The difference between Italian, French, German, Albanian, ect., on the one hand, and Spanish, Catalan, Bosnian-Serbian-Croatian, Russian, Rumanian, Modern Greek, etc., on the other, is that in the first group of languages the demonstrative does not have the possibility of remaining in its base position at PF, or, in some cases, of appearing in an intermediate position; rather it must move to [Spec, DP] already in Syntax.

6.1.3. Languages in which the demonstrative must appear in postnominal position

In other languages, the demonstrative must be realized in a postnominal position at PF. It can never raise to [Spec, DP] in Syntax.

As for these languages, we assume that the crucial empirical evidence in favour of our idea to extend to them our hypothesis is represented by the position the demonstrative occupies in the structure in relation to the other categories which belong to the extended nominal projection. We assume that also these languages display the internal nominal structure proposed by Cinque (1993,1994) -see (11) and (14) and the modifications we introduced in (29) and (30)-.

The first language which belongs to this group is Hebrew.⁶³ In Hebrew, the demonstrative must appear in postnominal position. Its presence at PF in [Spec, DP] is excluded, (87).

- 87. a. ha-tšuva ha-zot/ha-hi
'the-answer(Fem.) this(Fem.)/that(Fem.)'
- b. *ha-zot/ha-hi ha-tšuva
'this(Fem.)/that(Fem.) the-answer(Fem.)'
- c. ha-sefer ha-ze/ha-hu
'the-book(Masc.) the-nice(Masc.) this(Masc.)/that(Masc.)'
- d. *ha-ze/ha-hu ha-sefer
'this(Masc.)/that(Masc.) the-book(Masc.)'

If, in the same structure, an adjective is realized, the demonstrative always follows this modifier, (88a,c), and can never precede it, (88b,d).

- 88. a. ha-tšuva ha-mešanyenet ha-zot/ha-hi
'the-answer(Fem.) the-interesting this(Fem.)/that(Fem.)'
- b. *ha-tšuva ha-zot/ha-hi ha-mešanyenet
'the-answer(Fem.) this(Fem.)/that(Fem.) the-interesting'

⁶³. We are grateful to Ur Shlonsky for the data in Hebrew and for his helpful suggestions.

- c. ha-sefer ha-yafe ha-ze/ha-hu
 ‘the-book(Masc.) the-nice(Masc.) this(Masc.)/that(Masc.)’
 d. *ha-sefer ha-ze/ha-hu ha-yafe
 ‘the-book(Masc.) this(Masc.)/that(Masc.) the-nice(Masc.)’

The cases in (88) show that the demonstrative in Hebrew appears, with respect to the adjectives, in the same position we found for Spanish.

We have the same results we presented for Spanish when the demonstrative cooccurs with complements of the noun. In these cases, in fact, the demonstrative always precedes the subject and the other complements of the noun:

89. a. ha-tšuva (ha-me anyenet) ha-zot šel Dani/la-še?ela ⁶⁴
 ‘the answer (the-interesting) this of Dan/to-the-problem’
 b. *ha-tšuva (ha-me anyenet) šel Dani/la-še?ela ha-zot...
 ‘the answer (the-interesting) of Dan/to-the-problem this’
 c. ha-sefer (ha-yafe) ha-ze šal taxbir/šel Dani
 ‘the-book (the-nice) this on syntax/of Dani’
 d. *ha-sefer (ha-yafe) šal taxbir/šel Dani ha-ze
 ‘the-book (the-nice) on syntax/of Dani this’

Furthermore, in Hebrew the demonstrative can be reinforced by a locative element. The resulting complex sequences *ha-ze kan* ‘this here’ and *ha-hu sham* ‘that there’ cannot be separated by any category, and appear in the same position in which the demonstrative alone appears inside the nominal projection, as (90) shows:

90. a. ha-sefer ha-yafe ha-ze kan šel Dani (*kan)
 ‘the-book the-nice this here of Dani (*here)’
 b. ha-sefer ha-yafe ha-hu sham šel Dani (*sham)
 ‘the-book the-nice that there of Dani (*there)’

Another language, unrelated to Hebrew, in which the demonstrative must appear in a low position at PF is Irish. As (91) shows, in Irish the demonstrative forms *seo* ‘this’ and *sin* ‘that’ must be realized in postnominal position: ⁶⁵

91. a. an fear seo/sin
 ‘the man this/that’
 b. an leabhar seo/sin
 ‘the book this’

⁶⁴ Notice that also in construct state constructions the demonstrative occupies the same position with respect to adjectives and complements of the noun, as (i) shows:

- i. a. beyt ha-more AP ha-ze PP
 ‘home the teacher AP this PP’
 b. *beyt ha-more ha-ze AP PP
 c. *beyt ha-more AP PP ha-ze

⁶⁵ The Irish data comes from Ernst (1992) and Ball (ed., 1993), given that we were not able to gather them with native speakers. Thanks also to Paolo Acquaviva. Ernst, studying the syntactic behaviour of the demonstrative in Irish, excludes any movement process and suggests that the demonstrative is located in a right branch adjoined to NP and immediately dominated by the genitive phrase, also right--adjoined to NP. As for the reason why we do not adopt Ernst’s hypothesis, we also refer the reader to footnote 7.

Moreover, as happens in Hebrew, the demonstrative can never precede the adjective, as the ungrammaticality of (92b) shows, and, at the same time, it can never follow a complement of the noun, as the ungrammaticality of (93b) shows. In Irish, the demonstrative appears in a structural position lower than the positions the adjectives occupy, (92a), and immediately superior to the NP projection, (93a).

92. a. an leabhar nua seo
 'the book new this'
 b. *an leabhar seo nua
 'the book this new'
93. a. an leabhar (nua) seo faoi teangedaiocht
 'the book (new) this on linguistics'
 b. *an leabhar (nua) faoi teangedaiocht seo
 'the book (new) on linguistics this'

The syntactic behaviour of the demonstrative in Hebrew and Irish does not give rise to theoretical problems for the analysis we are proposing in this paper. Rather there is evidence to extend it to these languages, since in these languages the demonstrative occupies the same position that the postnominal demonstrative and the sequence 'demonstrative+locative' occupy in Spanish.

Therefore, we conclude that in languages such as Hebrew and Irish the demonstrative is realized in its base position at PF.⁶⁶ What distinguishes these two languages from languages such as Spanish and Italian is that in Hebrew and Irish the movement of the demonstrative to [Spec, DP] can be neither optional nor obligatory in Syntax. Rather that it must move to this position only at Logical Form in order to check its [+REF] feature.

6.2. *The general hypothesis*

In section 5 we provided strong evidence to assume that in Spanish the demonstrative, even when it appears in postnominal position, is in any case interpreted in [Spec, DP], given that only in this position it can check, through Spec-

⁶⁶. We extend our analysis also to Welsh. In this language, in fact, the demonstrative always appears in postnominal position, as happens in Irish:

- i. a. y dyn hwn/yna
 'the man this/that'
 b. y ferch hon/yna
 'the girl this/that' (from Ball (ed.), 1993, p.314)

Moreover, even though it seems that the demonstrative and the locative cannot cooccur in the structure, the locative can appear alone with feminine and masculine nouns, and it is interpreted as a demonstrative, (ii).

- ii. a. y dyn yma/yna
 'the man here/there' = 'this/that man'
 b. y ferch yma/yna
 'the girl here/there' = 'this/that girl' (from Ball (ed.), 1993, p.314)

We tentatively extend to these cases the proposal suggested for the same constructions in Spanish (see footnote 27).

Head Agreement, the [+REF] feature we showed it is specified for, (47). This requirement allows us to justify the existence of a strict relationship between the two positions in which the demonstrative can appear -i.e. [Spec, DP] and [Spec, FP]-, and consequently, to propose that in Spanish the demonstrative is generated in [Spec, FP] -cfr. (29) and (30)-. The demonstrative raises to [Spec, DP] optionally before SPELL-OUT but obligatorily at Logical Form (51).

In section 6.1. we presented the syntactic behaviour of the demonstrative in other languages in order to ascertain whether it is possible to extend to them the analysis we have proposed for the demonstrative in Spanish. We showed that there is evidence to assume that cross-linguistically the demonstrative is generated in a low position inside the extended nominal projection, namely in the [Spec, FP] position. Moreover, given that the interpretation of the demonstrative is the same across languages, we have proposed that even in those languages in which this element can appear only in the base position it must in any case move to [Spec, DP] at Logical Form in order to check its [+REF] feature.

According to Chomsky's (1993) minimalist program, a type of variation across languages depends on whether a particular feature is *strong* -i.e. the checking process occurs already at PF- or *weak* -i.e. the checking process must be carried out only at Logical Form. If it is *strong*, and the checking process implicates a movement rule, the movement must take place before SPELL-OUT, otherwise if the same feature is *weak* the movement must take place after SPELL-OUT, namely at Logical Form.

Therefore, we formulate, for the demonstrative, the following parametrized principle:

94. Checking the [+REF] feature in Spec.DP is obligatory by Logical Form.⁶⁷
- a. the Demonstrative checks its [+REF] feature in [Spec, DP] before SPELL-OUT when this feature is *strong*;
 - b. the Demonstrative checks its [+REF] feature in [Spec, DP] after SPELL-OUT when this feature is *weak*.

(94) can account for the syntactic behaviour of the demonstrative in all the languages we have examined until now.

(94a) accounts for the behaviour of the demonstrative we observe in Italian, (77)-(80), French, (81)-(83), German, (84), and Albanian, (85)-(86). In languages such as these, the demonstrative always appears in [Spec, DP] because, with its [+REF] feature being *strong*, it has to be checked already in Syntax.

On the other hand, (94b) accounts for the behaviour of the demonstrative in Hebrew, (87)-(90), and Irish, (91)-(93). Since the [+REF] feature on the demonstrative is *weak* in languages such as these, the checking via movement must take place only at Logical Form, and, for this reason, at PF the demonstrative must be realized in its base position.

Finally, as for languages such as Spanish, Catalan, (61)-(67), Bosnian-Serbian-Croatian, (68)-(72), Russian (footnote 54), Rumanian, (73)-(74), and Modern Greek, (76), we assume that the [+REF] feature on the demonstrative shares both the *strong* and *weak* properties. The fact that these languages choose either of the two options in (94) can account for the optionality for the demonstrative to appear before SPELL-OUT either in its base position or in [Spec, DP].⁶⁸

⁶⁷. Recall that this universal requirement agrees with what is assumed in Longobardi (1994).

⁶⁸. Notice that, from a theoretical point of view, it would be better to avoid resorting to both (94a) and (94b) in order to derive the optionality that these languages display. Nevertheless, it seems to us the only way of capturing this phenomenon. Moreover, we know that cases of redundancy exist in the languages, and that the Grammar should be able to accommodate them.

7. Conclusions

We have proposed that in Spanish there exists another functional projection, inside the extended nominal projection, in which the demonstrative is generated; and the position the demonstrative occupies is the specifier of this functional projection. Starting from the idea to provide a unified analysis for pairs such as (95) and (96):

95. a. *esta reacción al problema*
 ‘this reaction to the problem’
 b. *la reacción esta al problema*
 ‘the reaction this to the problem’
96. a. *este libro gordo de sintaxis*
 ‘this book big on syntax’
 b. *el libro gordo este de sintaxis*
 ‘the book big this on syntax’

and adopting the fundamental assumptions of the antisymmetric hypothesis (Kayne, 1994) and the hypothesis proposed by Cinque (1993, 1994) on the internal structure of nominals and the movement of the noun, we have shown that:

- a. the postnominal demonstrative is realized in the specifier of a functional projection lower than all the other functional projections containing the different classes of adjectives;
- b. the functional projection which contains the postnominal demonstrative immediately dominates either the functional projection containing the postnominal possessive, if any, or the NP projection, given that the postnominal demonstrative has to precede the postnominal possessive, the PP subject of the noun and all other PPs complements of the noun, (95b) and (96b) ;
- c. a locative element can optionally cooccur with the demonstrative. This element has the function to reinforce the deictic value of the demonstrative itself. Demonstrative and locative establish a predication relation which undergoes the constituency tests, and the complex sequence ‘demonstrative+locative’ -e.g. *este de aquí* ‘this [of] here’ - or the locative alone -e.g. *de aquí* ‘[of] here’ - appear at PF in the same position occupied by the postnominal demonstrative;
- d. a noun modified by a demonstrative behaves like a referential nominal expression; and a noun modified by a postnominal demonstrative is subject to the same referential interpretation which characterizes the demonstrative when it appears in [Spec, DP] at PF.

Therefore, we have proposed that the demonstrative is specified for the features [+Referential] and [+Deictic]. Assuming that the referential interpretation takes place inside the DP, following Longobardi (1994), we have also proposed that the demonstrative must check its [+Referential] feature in [Spec, DP] through Spec-Head Agreement. These requirements have led us to claim that the demonstrative is generated in the [Spec, FP] of the functional projection whose position in the structure has been determined in (a) and (b), and that the demonstrative must move from [Spec, FP] to [Spec, DP] for checking reasons. Therefore, the [Spec, DP] position is a derived position for the demonstrative.

Since in Spanish the demonstrative displays the option to appear either in its base position, (95a) and (96a), or in [Spec, DP], (95b) and (96b), at PF, we have proposed that the movement rule on the demonstrative can apply optionally before SPELL-OUT but obligatorily at Logical Form.

If the demonstrative does not move to [Spec, DP] in Syntax, (95b) and (96b), the definite article must be realized in D° in order to signal also at PF that this position

contains some particular feature -i.e. the [+REF] feature- which prevents it from being interpreted as existential (cf. Giusti, 1996a-b).

Finally, we have tried to extend our hypothesis for Spanish to other languages. We have examined the syntactic behaviour of the demonstrative in three different groups of languages not necessarily related one with the other: 1) languages where the demonstrative can be realized in prenominal and in postnominal position -Catalan, Bosnian-Serbian-Croatian, Russian, Rumanian, Modern Greek, etc.-; 2) languages where the demonstrative has to appear in prenominal position at PF -Italian, French, German, Albanian, etc.-; and 3) languages where the demonstrative has to be realized in postnominal position at PF -Hebrew, Irish (Celtic), etc.-. We have shown that in all these three groups either the demonstrative, or the complex sequence 'demonstrative+locative', or the locative reinforcer alone, occupy the same position the postnominal demonstrative or the complex sequence *este de aquí* 'this [of] here' or the locative reinforcer *de aquí* '[of] here' occupy in Spanish. Therefore, since we have assumed that the demonstrative has to check its [+Referential] feature in [Spec, DP] in all languages, we have proposed that cross-linguistically the demonstrative is generated in the same position we found for Spanish -i.e. [Spec, FP]-.

We have thus proposed the existence of a parametrized principle to account for the different positions the demonstrative can or must occupy at PF across languages. This principle is based on the *weak/strong* properties -in Chomsky's (1993) terms- of the [+Referential] feature peculiar to the demonstrative itself.

In those languages in which the demonstrative obligatorily raises to [Spec, DP] before SPELL-OUT, the [+REF] feature of the demonstrative is *strong*. In these cases, the base position from which the demonstrative starts can be recovered by the optional realization of the locative reinforcer. On the other hand, in those languages in which the demonstrative does not move before SPELL-OUT, the same [+REF] feature of the demonstrative is *weak*. In these cases the movement has to take place only at Logical Form. Finally, in those languages in which the demonstrative can optionally raise from its base position -i.e. [Spec, FP]- to [Spec, DP] before SPELL-OUT, as in Spanish, the [+REF] feature of the demonstrative shares both the *weak* and *strong* properties.

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Subjects and Clause Structure*

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1. INTRODUCTION

One of the topics which has most inspired comparative syntactic research is the difference between null subject languages (NSLs) such as Italian and non-null-subject languages (non-NSLs) such as English: The former can have silent subjects, technically called "null subjects" or "pro-drop phenomenon", the latter cannot (see Rizzi (1993, this volume)).

In this paper, we will concentrate on how this difference affects the syntax of subjects in the two types of languages. In particular, we will see that on the one hand, differences across the two types of languages are minimal, while on the other hand, the language-internal system of subjects is much richer than might appear at first sight.

One component of this richness is that in many languages, subjects can occur either preverbally, or postverbally:¹

- | | | | |
|--------|--------------|------------|---------------|
| (1) a. | {Gianni} | è arrivato | {Gianni} |
| b. | {pro} | è arrivato | {pro} |
| | Gianni/ [he] | is arrived | Gianni / [he] |

This has immediately prompted three questions:

- i) what are the structural positions of preverbal and postverbal subjects, as in (1a)?
- ii) where does a null subject occur, in preverbal or postverbal position, or in both (cf. (1b))?

* The core of the present material has been presented in a course given at the Charles University of Prague in May 1993 (in the framework of a Tempus exchange with the University of Venice), as a comment on Guasti (1994) at the GLOW Workshop on Language Acquisition, Vienna, April 1994, at the Incontro di grammatica generativa, Milan, February 1995, and in seminars at MIT, September 1994, UC Irvine, January 1995, University of Padua, March 1995, FAS - Max Planck Berlin, July 1995, Olomouc Summer School, August 1995. The audiences of these events are kindly thanked, as well as Guglielmo Cinque, Carmen Dobrovie-Sorin, Liliane Haegeman, Richard Kayne, and Michal Starke for comments on an earlier draft. A preliminary version circulated in August 1994 in the Geneva Working Papers (GenGenP 2.1, pp. 64-78).

¹ In (1) and throughout, different occurrences of curly brackets inside one and the same example indicate alternative choices.

iii) if the preverbal specAgrS is the "nominative" position, how does the postverbal subject receive Case?

Here, we will mainly concentrate on preverbal subjects, which are often taken to be extensively different in NSLs and non-NSLs (for postverbal subjects, see fn. 2). The main differences postulated are:

Preverbal subjects as in (1a) have been taken to occur in a position different from that of non-NSL subjects, i.e., in a sentence-peripheral A' position (see Benincà and Cinque 1985, Contreras 1991, Moro 1993, Barbosa 1994, Dobrovie-Sorin 1994, among others). They are also often claimed to be left-dislocated, which implies that a null subject is present in every sentence of a NSL language.

Further, *pro* has been claimed to occur either preverbally (see Burzio 1986, Rizzi 1987), or postverbally (see Adams 1987, Bonet 1990, Contreras 1991, Solà 1992), or in either position, depending on the type of sentence (see Roberts 1993).

This has led to the postulation of another difference between subject-systems: Sometimes, nominative Case can be assigned either to the preverbal or to the postverbal position, while in other systems, only the preverbal position can receive nominative Case (see Rizzi 1990, Contreras 1991, Koopman and Sportiche 1991, Roberts 1993).

Such proposals have enriched the theory of grammar in a rather significant way. But the picture of grammar which arises is undesirable on both theoretical and empirical grounds.

Given that our ultimate goal is to address the poverty of stimulus paradox (see Hornstein and Lightfoot 1981, Chomsky 1986), it is methodologically sound to try to focalize on the similarities between languages rather than to maximize the differences. Furthermore, these proposals reflect older views on language variation, which was thought to arise everywhere in the grammar: in clause structure, in the mode of application of principles, whether a principle applies or not, etc. In the minimalist program of Chomsky (1993), (1995) (see Haegeman (1994:§11)), a more restrictive view has become plausible: that language variation is restricted to morphological properties of heads. Since the morphological make-up of a head canonically affects the amount of its movement to higher heads and the content of the agreement with its specifier, these two properties are the natural *loci* of language-variation.

As we will see below, the older picture is also inadequate from an empirical point of view. Apart from the very possibility of null subjects, a NSL is not as different from a non-NSL as the above proposals predict. The clause structure of the two types of languages share fundamental properties, which include the position of preverbal subjects, the distribution of weak subject pronouns, the mode of nominative Case-assignment.²

² As for postverbal subjects, there is much disagreement with respect to their position. Some take them to be in a rightward VP-adjoined position (see Rizzi 1982, Samek-Lodovici 1994), others postulate a rightward specVP (see Bonet 1990, Giorgi and Longobardi 1991, Saccon 1993), while a third group of researchers opts for a rightward specifier of a focus projection immediately above VP (Belletti and Shlonsky 1995). In all these proposals, such positions exist only in those languages with postverbal subjects. Again, two very different subject-systems are postulated. Recently, a fourth proposal has been explored by Ordóñez (1994), who hypothesises that the postverbal position is nothing else but the thematic position of subjects, i.e. a leftward specVP from which all subjects start out (see Zagona 1982, Kitagawa 1986, Kuroda 1988, Koopman and Sportiche 1991). This approach is more restrictive than the older ones: It needs not hypothesise a new difference, over and above the possibility of the subject remaining downstairs.

A more restrictive view, which is sufficient to account for the grammar of subjects in a NSL such as Italian, has the following features:

- a) in NSLs, preverbal subjects are not necessarily in a sentence-peripheral A' position, but occupy the canonical subject position, akin to that of e.g. English; as a consequence, a null subject is not always generated in NSLs;
- b) *pro* is strictly preverbal;
- c) there is no Case assignment to the postverbal subject position, but Case assignment always takes place preverbally via spec-head agreement;
- d) the sole difference between NSLs and non-NSLs is the nature of the agreement head. As originally proposed by Taraldsen (1978), NSLs have "rich agreement" which legitimates *pro*, through specifier-head agreement (see also Rizzi 1986b).

2. ON THE PREVERBAL POSITION OF NULL SUBJECTS

Where is *pro*? Since it is impossible to establish the position of an empty category directly, recourse to indirect evidence is necessary. When the position of overt subjects is taken into account, the question becomes more intriguing: On the one hand, most NSLs allow both preverbal and postverbal subjects, cf. (1a) above, on the other hand, not all subjects are allowed in both positions, cf. §2.2 below. With which type of subject does *pro* pattern?³

Three possible answers are found in the literature: *pro* is limited to the preverbal position, *pro* must be in postverbal position, *pro* can occur in both. Of these, only the first answer turns out to be compatible with the syntactic status of this pronoun. In the typology of pronouns recently proposed by Cardinaletti and Starke (1994), a null subject qualifies as a 'deficient' (i.e. clitic-like) pronoun, opposed to 'strong' pronouns. Compare Italian with languages which have two series of overt subject pronouns such as French (for which see Kayne 1975, 1983): *pro* patterns with the deficient *il*-series rather than with the strong *lui*-series. Like French *il* in (2), *pro* in (3) can be used as expletive, quasi-argument (see Chomsky (1981:325ff)), and impersonal and can have both [+ human] and [- human] referents; in all these contexts, strong pronouns such as French *lui* 'he' / *eux* 'they' and Italian *lui* 'he' / *loro* 'they' are ungrammatical, (4)-(5):

- (2) a. Il est arrivé trois filles.
it is arrived three girls
- b. Il pleut.
it rains
- c. Ils_{imp} m'ont vendu un livre endommagé, dans ce magasin.
they to-me have sold a book damaged, in that shop
- d. Ils sont tres beaux. (= ✓ les garçons; = ✓ les livres)
they are very nice (= the boys; = the books)

³ Since the preverbal and the postverbal subject positions are in general specialized informationally, recourse to pragmatic evidence provides a preliminary answer to the initial question: In Italian, for instance, the pragmatic conditions in which a null subject is used are closer to those of a preverbal overt subject (old information) than to those of a postverbal overt subject (new information / focus).

- (3) a. *pro* sono arrivate tre ragazze.
 b. *pro* piove.
 c. *pro*_{imp} mi hanno venduto un libro rovinato, in quel negozio.
 d. *pro* sono molto belli. (= ✓ i ragazzi; = ✓ i libri)
- (4) a. * Lui est arrivé trois filles.
 b. * Lui pleut.
 c. * Eux_{imp} m'ont vendu un livre endommagé, dans ce magasin.
 d. Eux (ils) sont tres beaux. (= ✓ les garçons; = * les livres)
- (5) a. * Lui / Loro sono arrivate tre ragazze.
 b. * Lui piove.
 c. * Loro_{imp} mi hanno venduto un libro rovinato, in quel negozio.
 d. Loro sono molto belli. (= ✓ i ragazzi; * = i libri)

Like French *il* (see Rizzi 1986a), a null subject is usually analysed as a maximal projection, rather than a head. It is therefore a 'weak' pronoun, not a clitic (see Cardinaletti and Starke 1994). Let's keep comparing *pro* with *il* and consider the distribution of this pronoun. Like weak pronouns in general, *il* has a very restricted distribution: It is strictly preverbal, (6a), and cannot appear in what seems to be its base position, (6b), nor in any sentence-peripheral position, (7a,c). Grammatical examples with full DPs are provided in (6c) and (7b,d) for comparison (for the notion DP, see Introduction, §4.3):

- (6) a. Le jour où il est arrivé ...
 the day where he is arrived ...
 b. * Le jour où est arrivé il ...
 c. Le jour où est arrivé Jean ...
- (7) a. * Il, il est parti.
 b. Jean, il est parti.
 he / Jean, he is left
 c. * Il est parti, il.
 d. Il est parti, Jean.
 he is left, he / Jean

Given these observations, we expect *pro* to occur in the preverbal subject position, specAgrSP. The (indirect) syntactic evidence discussed in the next sections points to the preverbal position for null subjects in Italian.

2.1. PREVIOUS EVIDENCE

Burzio (1986) and Rizzi (1987) have observed that a null subject patterns with a preverbal rather than with a postverbal subject. In existential constructions, (8),

where only postverbal subjects are allowed, a null subject cannot occur (see Burzio (1986:129f)). This shows that *pro* must be preverbal:⁴

- (8) a. * **Io** ci sono alla festa.
 b. Ci sono **io** alla festa.
 c. * Ci sono alla festa.
 I there amI at-the party

Floating quantifiers, on the other hand, are only compatible with preverbal subjects: Compare (9b) with (10b). A null subject, as in (11), is now possible. Although this argument is weaker than the former one, only showing that *pro* *can* be preverbal, Rizzi (1987) concluded, like Burzio, that *pro* is preverbal in Italian:⁵

- (9) a. **Tutti i soldati** sono andati via.
 b. **I soldati** sono **tutti** andati via.
 (all) the soldiers are (all) gone away
- (10) a. Sono andati via **tutti i soldati.**
 b. * Sono **tutti** andati via **i soldati.**
 are (all) gone away (all) the soldiers
- (11) Sono **tutti** andati via.
 are all gone away

This has become the standard view about the position of null subjects, and complies with the hypothesis that *pro* is licensed and identified by a rich agreement head in a spec-head configuration (see Rizzi 1986b).⁶ Nevertheless, this view is periodically challenged. For instance, Adams (1987) and Solà (1992), in a discussion including Spanish and Catalan, argue that null subjects occupy the postverbal subject position. It must be noted that these proposals are very theory-internal, and compelling empirical data have rarely been provided.⁷

At the same time, the proposal has often been made that *wh*-phrases occur in specAgrSP, which is then taken to be both an A and an A' position (see Pesetsky 1989, Bonet 1990, Diesing 1990, Guasti 1994, among others). This implies that in

⁴ The paradigm (8) holds with a non-dislocated locative. (8a,c) have a grammatical reading in which *ci* is a locative clitic which anticipates the right-dislocated locative *alla festa* 'at-the party' (accordingly, the right-dislocation intonation is needed).

⁵ The other argument discussed by Rizzi (1987), concerning coreference with subjects in adverbial clauses, is more controversial (see Solà (1992:140-145) and Guasti (1995) for discussion).

⁶ On the basis of verbal agreement with postverbal conjoined subjects in Arabic varieties, Aoun, Bennamoun, and Sportiche (1994) also conclude that *pro* is not postverbal but "enters in a spec-head relation with its identifier V + I" (p. 218).

⁷ Adams (1987) proposes that *pro* is postverbal in Italian because of her account of null subjects in Old French in terms of directional government (see Cardinaletti (1990) and Roberts (1993) for independent arguments against a directional approach to *pro* licensing, based on both Germanic and Romance languages). Solà (1992) makes the same proposal in a crosslinguistic account of postverbal emphatic subjects, as in *John did it himself*.

interrogative sentences, (i) the position is not available for the subject, and (ii) a null subject is then restricted to the postverbal subject position.

One piece of evidence for postverbal *pro* is discussed by Roberts (1993:73). On the basis of Rizzi's (1987) observation that postverbal subjects cannot license floated quantifiers in Italian (cf. (9)-(11) above), Roberts takes (12) as evidence that referential *pro* is postverbal in interrogatives (whereas it is preverbal in declaratives):

- (12) * Che film sono tutti andati a vedere?
 which film are all gone to see

If this were true, floating quantifiers should never be present in interrogative sentences. Notice, however, that the sentence in (12) could be ungrammatical for a different reason. Under the hypothesis that the past participle *andati* 'gone' should move to a position which precedes the FQ, in (12) it has not moved enough. If this is the correct analysis, we predict that floating quantifiers are compatible with the word order 'past participle - quantifier'. The grammaticality of the following sentences shows that the participle-movement analysis makes the correct predictions, whereas the postverbal-*pro* analysis does not:

- (13)a. Che film sono andati tutti a vedere?
 b. Che film sono andati a vedere tutti?

Given (9)-(11) above, (13) is only compatible with the presence of a preverbal *pro*. If *pro* were postverbal, (13) should be ungrammatical on a par with (10b). The participle-movement analysis is supported by the observation that there is much dialectal variation in the scope of past-participle movement (see Cinque 1994) and that sentence (12) is grammatical in those varieties which allow the FQ to precede the past participle (which thus also allow (9b) and (11) instead of (*I soldati sono andati tutti via*, (*I soldati sono andati via tutti*)).

In conclusion, no postverbal *pro* should be hypothesized in interrogative sentences.⁸ In what follows, I present definitive arguments in favour of the preverbal position of *pro* in Italian.

2.2. ON ITALIAN WEAK SUBJECTS

Italian possesses realised weak subjects, which allows us to establish the distribution of this class of pronouns and consequently of *pro* unambiguously. Like French *il* mentioned in §2 above, the pronouns belonging to the *egli* 'he' / *esso* 'it' series are deficient, for instance they cannot be modified and coordinated: The a. sentences in (14) and (15) contrast with the b. sentences, which contain a pronoun of the strong series (*lui* 'he', *lei* 'she', *loro* 'they', etc.) and a full DP (*Gianni*):⁹

⁸ A welcome consequence of this conclusion is that *wh*-phrases can be said to occur in a specifier position higher than AgrSP in all languages (perhaps specFocP in matrix clauses, cf. (43)). The proposal that *wh*-phrases occur in specAgrSP is incompatible with the conclusion that *pro* occurs in the preverbal subject position, specAgrSP, and should be abandoned.

⁹ The full series of weak subject pronouns is: *egli* (3rd pers. sing. masc., only human), *ella* (3rd pers. sing. fem., only human), *esso* (3rd pers. sing. masc., only non-human; also human in some dialects), *essa* (3rd pers. sing. fem., only non-human; also human in some dialects), *essi* (3rd pers. pl. masc.,

- (14)a. * [Anche / Pure / Solo egli] ha dichiarato la propria disponibilità.
 [also / also / only he] has declared the his availability
 b. [Anche / Pure / Solo lui / Gianni] ha dichiarato la propria disponibilità.
 [also / also / only he / Gianni] has declared the his availability
- (15)a. * [Egli e suo fratello] hanno dichiarato la propria disponibilità.
 he and his brother have declared the their availability
 b. [Lui / Gianni e suo fratello] hanno dichiarato la propria disponibilità.
 [he / Gianni and his brother] have declared the their availability

Like French *il*, these pronouns also have a very limited distribution. They can only occur in the preverbal subject position, (16a); any other syntactic position for DPs, exemplified in (17a) by the postverbal subject position, in (18a) by left-dislocation, in (19a) by long-distance movement, and in (20a) by isolation, is unavailable. Such restrictions do not hold for strong pronouns and full DPs, as shown in the grammatical b. examples:

- (16)a. **Egli** ha aderito.
 b. Lui / Gianni ha aderito.
 he / he / Gianni has adhered
- (17)a. * Ha aderito egli.
 b. Ha aderito lui / Gianni.
 has adhered he / he / Gianni
- (18)a. * Egli Maria non l'appoggerebbe.
 b. Lui / Gianni Maria non l'appoggerebbe.
 he / he / Gianni Maria not her would-support
- (19)a. * Egli mi hanno detto che non si presenterà.
 b. Lui / Gianni mi hanno detto che non si presenterà.
 he / he / Gianni [they] to-me have told that [he] not himself will-present
- (20)a. * Chi è venuto? Egli.
 b. Chi è venuto? Lui / Gianni.
 who has come? he / he / Gianni

human and non-human), *esse* (3rd pers. pl. fem., human and non-human). Although these pronouns are lost in colloquial Italian, they still represent a productive possibility of the language, and must be attributed to the competence of Italian speakers.

I do not consider here the special use of the *egli / esso* series as floating elements, which can be modified by *anche* (with obligatory elision of the final vowel, *anch-*) and by postponed agreeing *stesso*:

- (i) Il direttore ha parlato anch'esso / anch'egli dei gravi problemi dell'azienda.
 the director has spoken also-he of-the serious problems of-the firm
- (ii) Questi problemi sono essi stessi causa di altri gravi problemi.
 these problems are they self cause of other serious problems

Anch- and *stesso* must differ from other modifiers, such as those in (14a), in having a rich internal structure with functional space to host weak elements.

The distribution of the *egli / esso* series thus shows Italian-internally that weak subject pronouns are limited to the preverbal position. Since *pro* is a weak pronoun, it must also appear in preverbal position at S-structure (or, in minimalist terms, it must move to the preverbal position overtly, before Spell-out; see Chomsky (1993), (1995) and Haegeman (1994: ch. 11)).¹⁰

2.3. AGREEMENT PHENOMENA

A second argument to the same effect comes from agreement phenomena found in Italian dialects. In the Central-Italian dialect spoken in the area of Ancona, for instance, 3rd person plural postverbal subjects may fail to agree in number with the finite verb, which is 3rd person singular; on the other hand, preverbal subjects always agree in number with the verb:

- (21)a. Questo, lo **fa** sempre i bambini.
 b. * Questo, i bambini lo **fa** sempre.
 c. Questo, i bambini lo **fanno** sempre.
 thisACC the children itACC does / do always the children

When the subject is null, the plural interpretation is obtained only if the verb bears plural inflection:

- (22)a. * Questo, lo **fa** sempre. (*pro* = 3rd pl.)
 b. Questo, lo **fanno** sempre.
 thisACC [they] itACC does / do always

The contrast between (21) and (22) can only be explained if *pro* is strictly preverbal. If *pro* was postverbal, on a par with *i bambini* in (21a), we would expect (22a) to be grammatical, contrary to fact.

The 'postverbal-*pro*' hypothesis could be maintained by combining it with a functional account. The ungrammaticality of (22a) could be attributed to the absence of a morphologically marked 'plural' element forcing the plural interpretation of the null pronoun. However, the presence of a plural floated quantifier does not change the status of the example, as shown by the following minimal pair, where the floated quantifier contrasts with a postverbal full subject: ¹¹

¹⁰ Spell-out is the point in the derivation at which abstract structures receive an overt form. At that point, all operations which have a visible effect must already have taken place. Operations with no visible consequence are instead said to occur 'covertly' after Spell-out.

¹¹ A subject quantifier with arbitrary reading can appear in postverbal position without agreeing with the verb, (ia). The parallel behaviour of *molti* 'many' in (ib), which cannot be floated, indicates that *tutti* 'all' in (ia) is not floated:

- (i) a. Questo lo dice tutti.
 thisACC itACC says all
 b. Questo lo dice molti.
 thisACC itACC says many

- (23)a. * Questo lo dimostra tutte. (cf. ✓ Questo lo dimostrano tutte)
 b. Questo lo dimostra tutte le teorie.
 thisACC, itACC demonstrates all (the theories)

If a floating quantifier requires *pro* (see (9)-(11) above) and *pro* occupies the preverbal subject position, then (23a) is ungrammatical because the required agreement between the verb and the preverbal subject is missing.

Lack of agreement is also found in those sentences, such as interrogatives, in which the subject undergoes the so-called process of 'emargination' (see Antinucci and Cinque 1977): It appears destressed at the end of the clause, after all other complements:

- (24)a. Cosa fa i bambini?
 whatACC does the children
 b. Quando arriva a casa i tuoi amici?
 when arrives at home the your friends

Although the judgement is delicate, a contrast obtains between (25a) and (25b), where the intonation marks, respectively, emargination and right-dislocation:

- (25)a. Cosa fa i bambini?
 b. * Cosa fa, i bambini?

The contrast suggests that emargination implies a 'clause-internal' subject (occurring in the thematic position of the subject, leftward specVP, see Cardinaletti 1995b), whereas right-dislocation implies a 'clause-external' subject, in chain with a cataphoric argumental *pro* in preverbal position. The lack of agreement with the preverbal plural *pro* is the cause of the ungrammaticality of (25b):¹²

- (26)a. Cosa *pro*_{expl} fa_j [i bambini t_j ?
 b. * Cosa *pro*_i fa_j [t_i t_j] i bambini_i?

Thus, (ia) differs from (23a): The quantifier is treated here on a par with full subjects, which is impossible with the non-arbitrary *tutte* 'allFEM' in (23a). (23a) is marginally acceptable if *tutte* has an arbitrary reading, referring to a group of women.

¹² For the present concern, it is immaterial to decide whether or not the verb moves to C° in Italian interrogatives (see Rizzi 1990) - so that in (26) the verb *fa* precedes *pro* - and, in the former analysis, how *pro* is licensed:

- (i) Cosa fa_j [*pro* [t_j i bambini?

The formulation in the text is not incompatible with Kayne's (1994:81f) hypothesis that right-dislocation involves a doubling structure, where the right-dislocated item is in its base position. A right-dislocated subject is doubled by an argumental *pro*, whereas a postverbal subject cooccurs with an expletive *pro*.

2.4. PRESENTATIVE CONSTRUCTIONS IN NORTHERN ITALIAN DIALECTS

In Northern Italian dialects, the following contrast is found:

- (27)a. * Ieri ze vignù dentro do omeni; [senza PRO_i presentarse].
 (Paduan; P Benincà, p.c.)
 yesterday is come inside two men without introduce-themselves
 b. Ieri do omeni; i ze vignui dentro [senza PRO_i presentarse].
 yesterday two men they have come inside without introduce-themselves
 c. Ieri *pro*_i i ze vignui dentro [senza PRO_i presentarse].

The postverbal subject of presentative constructions, which does not agree with the verb, cannot control the empty subject of an infinitival adjunct, (27a). On the other hand, agreement and control are grammatical with preverbal subjects, (27b), and with referential null subjects, (27c) (both cooccurring with a subject clitic, *i* 'they').

This contrast is expected if the overt subject in (27a) and the null subject in (27c) occupy different positions. The overt subject (27a) is *in situ*, and being too low in the structure, it cannot control into the adjunct at S-structure. Furthermore, given the absence of agreement between subject and verb, covert raising of the subject does not take place, so that control is not obtained at LF either (see Cardinaletti (1995a), Chomsky (1995:§4.4.5)). The null subject in (27c), on the other hand, moves overtly to the preverbal subject position, from where it triggers agreement with the verb and controls into the adjunct. Null subjects thus behave like preverbal subjects, which have both capacities, (27b).

2.5. COPULAR SENTENCES WITH NOMINAL PREDICATES

One of the proposed derivations for copular sentences with nominal predicates is the following (see Moro 1993): Starting from a D-structure like that in a., in which subject and predicate occur in a so-called 'small clause' (SC), either the subject or the predicate can appear in preverbal position, as in the b. and c. examples of (28)-(29), respectively:

- (28)a. [AGRSP ... [VP sono [SC io il presidente]]]
 b. Io sono il presidente.
 I am the president
 c. Il presidente sono io.
 the president am I
- (29)a. [AGRSP ... [VP sono [SC Gianni e Maria i miei migliori amici]]]
 b. Gianni e Maria sono i miei migliori amici.
 Gianni and Maria are the my best friends
 c. I miei migliori amici sono Gianni e Maria.
 the my best friends are Gianni and Maria

In Moro's terminology, (28b) and (29b) are canonical copular sentences, (28c) and (29c) are inverse copular sentences.

When the subject is null, only the canonical word order gives a grammatical result, while the inverse one is ungrammatical, (30a,b). A similar, though opposite pattern is found when not the subject, but the predicate is expressed by a null category, as in (31a,b). Only the inverse order is now grammatical:

- (30)a. Sono il presidente / Sono i miei migliori amici.
 b. *Il presidente sono / *I miei migliori amici sono.
- (31)a. *Io sono / *Gianni e Maria sono.
 b. Sono io / Sono Gianni e Maria.

These contrasts can be easily accounted for if *pro* is only preverbal, and if it is impossible to move both the subject and the predicate out of a small clause with nominal predicates.¹³ Under the hypothesis that *pro* is postverbal, on the other hand, both (30b) and (31a) are expected to be grammatical, and one has to postulate *ad hoc* solutions to account for these particular cases. For instance, Solà (1992) suggests that the Catalan sentence corresponding to (30b) is ungrammatical "because this kind of construction [e.g. (28c), A.C.] is precisely used to focalize the subject, and hence it cannot be dropped" (p. 156). However, postverbal subjects of transitive and intransitive verbs, which are underlyingly subjects like *io* in (28), are always focalized in e.g. Italian, and therefore, by the same line of reasoning, no postverbal subject should be dropped with these verbs. This explanation is thus incompatible with the general claim that *pro* is postverbal, and cannot be used by the proponents of postverbal *pro* to account for the above asymmetry. Furthermore, this explanation does not apply to (31a), since the postverbal predicate in (28b) and (29b) is not focalized. Unless there is some independent reason for the ungrammaticality of (30b) and (31a), copular sentences indicate that *pro* is preverbal.

2.6. CASE THEORY

All arguments point to the conclusion that null subjects occur in displaced position. No argument forces the opposite conclusion that *pro* occurs in the thematic, postverbal position of the subject. Question (ii) in Section 1. is thus answered.

Not only *can* a null subject occur in preverbal position, but it *must* do so. We take this to derive from the 'weak' nature of *pro*. Weak subjects are excluded from all positions except specAgrSP, as overtly shown by the distribution of 'weak' subject pronouns of the *egli / esso* series and in particular by the contrasts in (16)-(17), repeated here (see also the French *il*-series in (6)-(7) above):

- (32)a. **Egli** ha aderito.
 b. Ha aderito ***egli** / lui / Gianni.
 he has adhered he / he / Gianni

To single out the specAgrSP position, it is straightforward to assume that weak pronouns must move in the syntax to a Case-related specifier position. In the terms of Chomsky's (1993), (1995) checking framework, weak pronouns must move to

¹³ See Moro (1993:§1.3.3) for other cases where this restriction manifests itself and for an interpretation of the restriction in terms of the Empty Category Principle (ECP): The copula cannot properly govern both traces.

See §6.1 below for the structural analysis of copular sentences with nominal predicates.

their Case-checking position at S-structure (*before* Spell-out) and *cannot* postpone movement to LF.¹⁴

This result also provides an answer to question (iii) of Section 1. In Italian, the Case position relevant for subjects is preverbal, as is assumed for e.g. English and French. On the other hand, the postverbal subject position is not a Case position in Italian. This conclusion has the welcome consequence that there is no need to stipulate that NSLs possess special mechanisms to assign nominative Case to the postverbal subject position. In minimalist terms, it is sufficient to say that strong subjects, the only subjects which can occur postverbally, can check their Case features in the covert component.¹⁵

3. PREVERBAL REALISED SUBJECTS ARE NOT IN A SENTENCE-PERIPHERAL A' POSITION

Preverbal realised subjects in NSLs have often been considered as syntactically distinct from preverbal subjects in non-NSLs. Consider (33). Although the two

¹⁴ An independent, phonological reason for the ungrammaticality of (17a) should be discarded: Weak pronouns are not incompatible with Nuclear stress, as shown by weak dative *loro* studied in Cardinaletti (1991):

- (i) Abbiamo parlato loro.
[we] have talked [to] them

¹⁵ Consequently, the adjacency effects discussed by Rizzi (1990) in terms of Case adjacency (*?Ha fatto i compiti Gianni* 'has done the homeworks Gianni') should be interpreted otherwise, presumably in phonological terms (cf. Cardinaletti 1995b).

Notice also that since in the 3rd person, nominative and accusative/oblique strong pronouns are non-distinct (cf. *lui* 'he' / *lui* 'him'), the ungrammaticality of the *egli / esso* series in (17)-(20) could be attributed to the fact that it consists of "nominative" forms, combined with the hypothesis that the postverbal position, as well as all peripheral positions, requires non-nominative marking. Neither claim can be sustained, however:

A. On the one hand, the postverbal position and the other peripheral positions open to strong pronouns, such as isolation, do not require non-nominative forms: In these contexts ((ia) and (ib) respectively), the strong pronoun which distinguishes nominative and accusative/oblique forms, the 1st person singular, displays the nominative form *io* 'I' and not the accusative/oblique form *me* 'me':

- (i) a. Ho telefonato io / *me.
have called I
b. A: Chi ha telefonato? B: Io / *Me.
who has called? I

B. On the other hand, the *esso* series can be used in the complement of prepositions, a non-nominative context:

- (ii) a. Di esso hanno parlato a lungo.
of it [they] have spoken long
b. Da esso deriva anche la sua simpatia.
from it derives also his sympathy

sentences seem to be similar, *John* in (33a) is taken to be an "ordinary" subject in an A position, whereas *Gianni* in (33b) has been claimed to be a sort of adjunct, occurring in a sentence-peripheral A' position:

- (33)a. John has called.
 b. Gianni ha telefonato.

As for the exact location of the A' position, there is disagreement: Some take it to be adjoined to AgrSP (see Contreras 1991, Moro 1993, Barbosa 1994), others take it to be a higher Topic position (see Benincà and Cinque 1985). Most of these authors also claim that the position hosts left-dislocated items, so that a preverbal subject must be understood as left-dislocated. This implies that the subject in (33b) cooccurs with a resumptive null subject, as shown by the parallel left-dislocated object DP in (34), which is resumed by a pronominal copy (see Cinque (1990:§2.3.5)):

- (34) **Gianni**, Maria lo conosce da tanti anni.
 Gianni, Maria him knows since many years

A left-dislocation analysis thus implies that in NSLs, a null subject is present in every sentence, as shown in (35) (since adjunction has a rather controversial status - see Kayne 1994 - and, further, since left-dislocated subjects can precede *wh*-phrases, we represent here the left-dislocation analysis not in terms of adjunction to AgrSP, but in terms of a Topic position; cf. also Rizzi 1995):

- (35)a. [AgrSP subject [TP ... non-NSLs, e.g. English
 b. [TopicP subject ... [AgrSP *pro* [TP ... NSLs, e.g. Italian

The argument for a left-dislocation analysis of preverbal subjects in NSLs usually runs in the following way: Since in many respects, a preverbal subject patterns like a dislocated subject rather than a postverbal subject, it follows that it is dislocated (see Barbosa (1994) for a recent revival of this idea). In e.g. Northern Italian dialects, a postverbal subject cooccurs with an unmarked subject clitic, *el*, whereas a right-dislocated subject requires an agreeing subject clitic, *la*. A preverbal subject patterns with the latter, from which the conclusion is drawn that preverbal subjects are left-dislocated:

- (36)a. **El** a telefonà la Maria. (Conegliano dialect, see Saccon 1993)
 b. **La** a telefonà, la Maria.
 c. La Maria **la** a telefonà.
 the Maria_{CL} has called the Maria

Since, as standardly assumed, the subject clitic *la* cooccurs with a null subject (cf. *pro la a telefonà*), the structure of (36c) is parallel to that of (35b): *La Maria, pro la a telefonà*.

It should be pointed out that the above reasoning ignores another logical possibility: that the parallel behavior of preverbal and dislocated subjects, (36b,c), against postverbal subjects, (36a), is simply due to the fact that in both cases there is a preverbal subject. (36b) contains a preverbal pronoun (a null subject) which anticipates the right-dislocated constituent (cf. *pro la a telefonà, la Maria*), as is always the case in right-dislocation constructions (cf. *Maria lo conosce da tanti anni, Gianni* 'Maria him knows since many years, Gianni'). Thus, the preverbal realized

subject in (36c) does not behave like the right-dislocated subject of (36b), but rather like the preverbal null subject present in (36b).¹⁶

It should also be noticed that there is no strong principled reason as to why the subject should be left-dislocated, in other words nothing 'requires' the subject to be left-dislocated in a NSL. It would be a welcome result if the postulation of such a difference between NSLs and non-NSLs could be avoided, and *Gianni* in (33b) was an "ordinary" subject on a par with *John* in (33a).¹⁷

The 'left-dislocation hypothesis' is simply wrong for the realised weak subject pronouns of the *egli / esso* series, since they cannot be left-dislocated. Weak pronouns cannot precede another left-dislocated constituent, e.g. an object ((37) should be judged without assigning any parenthetical intonation to the object):

- (37) a. * *Egli a Gianni* [*pro non gli ha parlato ancora*].
 he to Gianni [he] not to-him has spoken yet
 b. * *Essa questo problema* [*pro non lo spiega*].
 it this problem [it] not it explains

This is sufficient evidence for denying the claim that NSLs cannot possess preverbal subjects which behave just like subjects in non-NSLs, i.e. not left-dislocated.

Of course, a weaker version of the 'left-dislocation hypothesis' could be correct (very difficult to maintain, though): Realised (non weak) subjects are left-dislocated in a NSL.

But even this weaker version of the left-dislocation hypothesis turns out to be incorrect: Although full subjects *can* be left-dislocated, giving rise to a grammatical variant of (37),

- (38) a. *Piero a Gianni* [*pro non gli ha parlato ancora*].
 Piero to Gianni [he] not to-him has spoken yet
 b. *La sua teoria questo problema* [*pro non lo spiega*].
 the his theory this problem [it] not it explains

they *need not* be left-dislocated, as shown by the following sentences. A full subject can in fact be found in a position 'internal' to the sentence, comparable to the position of the subject in e.g. English. This is mostly evident in contexts, such as Aux-to-Comp (see Rizzi (1982:ch.3, ch. 4)) and complementizer-deletion (see Poletto 1995), which disallow left-dislocations, but admit full subjects as well as weak pronominal subjects. Notice also that a quantifier such as *nessuno* 'nobody', which cannot be left-dislocated, is grammatical in these constructions. (39) and (40) exemplify Aux-to-Comp, (41) complementizer-deletion: ¹⁸

¹⁶ See Brandi and Cordin (1989:114) for an empirical argument against the left-dislocation analysis of preverbal subjects on the basis of data from Fiorentino.

¹⁷ Motapanyane (1994) also argues, *contra* Dobrovie-Sorin (1994:37f), that in Romanian the preverbal subject does not occur in an A' position, but is in specAgrSP, like ordinary subjects of e.g. English.

¹⁸ In (39) and (40), we use a PP, which does not need a resumptive clitic in Left-Dislocation (see Cinque (1990:§2.3.5)). A DP object is instead always resumed by a clitic. Thus, a DP object could be ungrammatical simply because there would be no way of expressing such a resumptive clitic: It couldn't be attached to the auxiliary verb, because it would c-command the left-dislocated item, and

- (39)a. Avendo **Gianni** / Avendo **egli** / Non avendo **nessuno** telefonato a Maria,
 having Gianni / having he / not having nobody called to Maria,
 b.* Avendo **a Roma** vissuto per venti anni, conosce un po' tutti.
 having in Rome [he] lived for twenty years, [he] knows almost everybody
 c.* Essendo **a Roma** piovuto tutto il pomeriggio, ...
 being in Rome [it] rained the whole afternoon, ...

(cf. A Roma (ci) ha vissuto per venti anni
 in Rome [he] (there) has lived for twenty years
 A Roma (c')ha piovuto tutto il pomeriggio)
 in Rome [it] (there) has rained the whole afternoon, ...

- (40)a. Avesse **Gianni** / Avesse **egli** / Non avesse **nessuno** telefonato a Maria, ...
 had Gianni / had he / not had nobody called to Maria, ...
 b.* Avesse **a Roma** vissuto più a lungo, ...
 had in Rome [he] lived longer, ...

- (41)a. Credevo **Gianni** / **egli** / **nessuno** avesse telefonato a Maria.
 [I] believed Gianni / he / nobody had called to Maria
 b.?? Credevo **a Roma** Gianni (ci) avesse vissuto per venti anni.
 [I] believed in Rome Gianni (there) had lived for twenty years

(cf. Credevo che a Roma Gianni (ci) avesse vissuto per venti anni)
 [I] believed that in Rome Gianni (there) had lived for twenty years

If preverbal subjects were always left-dislocated, these contrasts would remain mysterious. If preverbal subjects are, on the other hand, just ordinary subjects occurring in specAgrSP, then these contrasts follow (quite independent from the subject issue, it remains of course to be explained why the restriction against left-dislocation exists at all in these contexts; for Aux-to-Comp, see §6.2.3 below).

A similar contrast is found in interrogatives. Depending on the type of *wh*-constituent, a full subject is sometimes allowed to occur between the *wh*-constituent and the verb, (42a); this position is, however, not available for a left-dislocated item, which tends to precede the *wh*-phrase, (42b) vs. (42c):

- (42)a. A chi **Gianni** / **nessuno** ha consegnato l'invito?
 to whom Gianni / nobody has given the invitation?
 b.?? A chi l'**invito** Gianni l'ha consegnato?
 to whom the invitation Gianni it has given?
 c. **L'invito**, a chi **Gianni** l'ha già consegnato?

(42c) can be represented as in (43) (cf. Rizzi 1995):

- (43) [TopicP l'invito] [FocusP a chi] [AgrSP Gianni l'ha già consegnato]

cliticization to the past participle is independently excluded. The use of a PP does not suffer from these possible objections. The problem does not arise in (41).

Notice that (39b,c), (40b) and (41b) are grammatical in the irrelevant reading in which the PP is parenthetical.

Once again, the 'left-dislocation hypothesis' would remain silent on the contrast between preverbal subjects and left-dislocated items.

Finally, although it is perhaps difficult to be stated precisely, there is a semantic/pragmatic distinction between subjects and left-dislocated constituents. Consider the following sentences:

- (44) a. I saw a film about Wim Wenders last night. The director was a young man from Spain.
 b. I saw a film about Wim Wenders last night. The director was presented as a rather introvert person.

In (44a), the DP *the director* refers to the director of 'a film about Wim Wenders'. In (44b), the DP *the director* refers to Wim Wenders. Observe that *a priori*, the referent Wim Wenders is more accessible than the director of the film about Wim Wenders. In the latter case, interpreting the DP *the director* this way involves constructing a new referent which is indirectly related to a DP in the text. Let us turn to Italian examples. In (45),

- (45) Ho visto ieri alla Biennale un film su Wim Wenders. Il regista, Piero l'ha poi incontrato al bar un'ora più tardi.
 [I] have seen yesterday at the Biennale a film on W.W. The film director, Piero him has then met at the bar a hour later

the object DP *il regista* is left-dislocated and related to a resumptive clitic. In this sentence, it can only refer to the director of the film about Wim Wenders and cannot refer to Wim Wenders himself. This is rather surprising, since intuitively we would imagine that Wim Wenders is more accessible in the discourse.¹⁹ Now, the question is how the subject fares. In (46),

- (46) Ho visto ieri alla Biennale un film su Wim Wenders. Dopo la proiezione, il regista ha ricevuto un premio alla carriera.
 [I] have seen yesterday at the Biennale a film on W.W. After the show, the film director has received a prize for the career

il regista is a subject and may refer either to Wim Wenders or to the director of the said film about Wim Wenders. However, when the subject precedes a left-dislocated object, i.e. if it is itself left-dislocated, then, like other left-dislocated constituents, the DP *il regista* can only refer to the less accessible director of the film about Wim Wenders:

- (47) Hanno premiato un film su Wim Wenders. Il regista, il premio, l'ha ricevuto dal ministro.
 [they] have awarded a prize to a film on W.W. The film director, the prize, [he] it has received from the Minister

¹⁹ These observations are based on a discussion of Greek clitic-doubling by Anagnostopoulou (1993). She points out that the construction shows a 'familiarity' constraint: It is only possible if the referent of the doubled DP is the mentioned Wim Wenders, but ungrammatical if the referent is the understood film director. Italian Left-Dislocation thus has an opposite behaviour: It shows a sort of 'anti-familiarity' effect.

This means that if the subject DP were always considered to be left-dislocated, it would be hard to account for the difference in interpretation between the DP *il regista* in (46) and that in (47).

We conclude that no language variation like the one presented in (35) above is found, a desirable result under current views of language variation. In NSLs, preverbal realised subjects are "ordinary" subjects which do not cooccur with a null subject. Realised and null subjects are therefore in competition.

4. OVERT WEAK SUBJECTS AND PARENTHETICALS

The conclusion of the first two sections is that apart from the very pro-drop property, NSLs and non-NLSs behave essentially in a parallel way. In both types of languages, the Case-position is preverbal, and full preverbal subjects pattern alike in that they occupy the structural subject position, which is standardly taken to be specAgrSP.

In what follows, the preverbal subject position will be considered in detail, starting from the following contrast. In Italian, both full subjects and weak pronouns allow a parenthetical to separate them from the verb, whereas in other languages, full and weak subjects behave differently in this respect:²⁰

- (48)a. Gianni / Lui, secondo me, è molto simpatico.
Gianni / he, according to me, is very nice
b. Egli, secondo me, è molto simpatico.
he, according to me, is very nice
- (49)a. John / He (as you know) is a nice guy.
b. There (* as you know) was a man in the garden.
c. It (* as you know) rained the whole day.
d. It (?* as you know) costs too much.
d' It (?* as you know) is too expensive.
- (50)a. Jean / Lui (je crois) aime beaucoup la musique.
b. Il (* je crois) aime beaucoup la
musique.
J. / he (I think) likes much the music

²⁰ The sentences in (49d,d') show that nothing hinges on the choice between a lexical and an auxiliary verb. Notice also that in (49b), *there* is an expletive. The word order '*there* + parenthetical' could be grammatical as an instance of locative inversion, where *there* is a referential locative (cf. fn. 36 below).

According to Chris Wilder (p.c.), these sentences slightly improve if referential *it* is focalized:

- (i) a.?? IT, I think, costs too much.
b.?? IT, I think, is too expensive.

Under focalization, *it* is treated as a strong demonstrative pronoun (cf. *that*), and the insertion of the parenthetical becomes possible; however, recategorizing the weak pronoun *it* as a strong element is a highly marked process, hence the marginality of (i).

- (54)a. * Senki, öszerinte, **nem ment el.**
 nobody, according to him, not went PRT
 b. * Ki, öszerinte, (nem) **ment el?**
 who, according to him, (not) went PRT

The following contrasts, involving on the one hand 'weak' *wh*-phrases such as French *que* and Italian *che* and on the other strong *wh*-elements, also support the hypothesis that parentheticals cannot be adjoined to intermediate projections: In (55), the adjacency requirement between the weak *wh*-phrase and the verb can be taken to be a reflex of the overt spec-head agreement necessary for weak elements (see Cardinaletti and Starke 1994), whereas the possibility of a parenthetical between the strong *wh*-phrase and the verb in (56) suggests that the two do not (need to) occur in a spec-head configuration at S-structure (before Spell-out):

- (55)a. * Que, selon toi, doit-il faire?
 what, according to you, should-he do?
 b. * Che, secondo te, potrei fare?
 what, according to you, [I] could do?
- (56)a. Qui, selon toi, doit-il inviter?
 who, according to you, should-he invite?
 b. Cosa, secondo te, potrei fare?
 what, according to you, [I] could do?

If parentheticals cannot be adjoined to intermediate projections, two possibilities arise: Either they are adjoined to maximal projections, or they appear in the specifier position of a designated functional projection (between the subject and the landing site of the finite verb, in cases like (48)). For the present concerns, it is irrelevant to decide between the two analyses, and we will henceforth indicate the projection which contains the parenthetical as XP.

The important conclusion is that in (48) and (50), full subjects (as well as the Italian weak *egli / esso* subject pronouns) must occupy a specifier position higher than the one usually associated with the finite verb, specAgrSP. At the same time, however, the subject cannot be analysed as occupying a peripheral, left-dislocated position: In English and French, there is no resumptive pronoun (either lexical or null), and, as observed in Section 3 above, Italian weak subject pronouns cannot be left-dislocated. Nor can the pre-parenthetical subject be considered as a focalized or a topicalized constituent (for these notions, see Puskàs (this volume)). Given that only one preposed focus per sentence is allowed, a subject preceded by a focalized object, as in the Italian (57), cannot be also focalized. In the same way, although quantified phrases cannot be topicalized, as shown by the object case in the English (58a), a quantified subject does not disallow parentheticals, (58b):²²

- (57) A GIANNI, Maria, credo, ha parlato, non a Sandro.
 to Gianni, Maria, [I] believe, has spoken, not to Sandro

- (58)a.?? Most men, John met.
 b. Most men, I think, like bagels.

²² Thanks to Norbert Hornstein (p.c.) for the sentences in (58). They are counterexamples to Cardinaletti (1992), who proposed that the subject preceding the parenthetical is topicalized.

To reconcile these two apparently contradictory conclusions, we adopt the more articulated clause structure proposed in Cardinaletti and Roberts (1991), which assumes a split AgrSP and makes two 'subject' positions available. The a. sentences of (48)-(50) and the sentence in (48b) have the representation in (59):

- (59) a. [Agr1P Gianni / lui / egli Agr1° [XP_{secondo me} [Agr2P spec è [molto ...
 b. [Agr1P John / he Agr1° [XP_{as you know} [Agr2P spec is [a nice guy
 c. [Agr1P Jean / lui Agr1° [XP_{je crois} [Agr2P spec aime [beaucoup ...

4.2. ENGLISH AND FRENCH WEAK SUBJECTS

Let's now turn to the ungrammatical English and French sentences in (49)-(50).

To account for (50b), an adjacency requirement could be at work in French, where nothing can ever intervene between the deficient subject pronoun *il* and the verb:

- (60) * Il probablement va arriver demain.
 he probably will arrive tomorrow

The adjacency exemplified in (60) has been motivated by the requirement that the subject pronoun cliticize on the verb (in the phonological component, see Kayne 1983). However, if French preverbal subject pronouns are not clitics, but weak pronouns (see Cardinaletti and Starke 1994, and §2 above), then this cannot be the explanation of (60). Weak pronouns do not require adjacency with a verb, as shown by Italian (48b) above, by a parallel sentence with an adverb: *Egli probabilmente arriverà domani* 'he probably will-arrive tomorrow', and by English (61), in which no adjacency restriction holds, and an adverb can intervene between the weak subject and the verb:

- (61) a. There surely was a man in the garden.
 b. It often rained the whole day.
 c. It probably costs too much.
 c'.? It surely is too expensive.

The contrast between French (60) and English (61) can be explained in the familiar way. In French, linear adjacency is simply a consequence of verb movement: The verb moves as high as the head of the projection whose specifier is filled with the weak subject pronoun.²³ In English, where the scope of verb movement is more limited, there is space for an adverb to intervene between the subject and the verb (see Pollock 1989).

If adjacency cannot be called for, what accounts for the ungrammaticality of (50b)? Further, the contrast found in English between parentheticals, (49b-d'), and adverbs, (61), is still unexplained.

²³ Or to the head of the projection immediately below, if object clitics (which can intervene between *il* and the verb, as in *Il le voit* 'he him sees') adjoin to a head higher than that to which the finite verb is adjoined (see Kayne (1994:§4.6)). This complication will be ignored here and throughout the paper.

A semantic approach could be suggested on the basis of the observation that in (62), referential *it* is more acceptable than both expletive *there* and other instances of the same pronoun (e.g., quasi-argument *it* as subject of weather verbs; some speakers even find a difference between *it* referring to a bracelet - *It costs too much, so I won't buy it* -, and quasi-expletive *it* referring to a whole clause: *It costs too much to go to the movies these days*). The hypothesis could be that only semantically contentful elements are able to precede parentheticals. But the improvement induced by referential *it*, though real, does not lead to full grammaticality when compared to strong pronouns, as in contrast and coordination contexts. Compare (62c) with (62d-e):

- (62)a. * There, as you know, was a man in the garden.
 b. * Yesterday it, as you know, rained the whole day.
 c. ?? I saw my favorite car again today. But I can't buy it, because it, as you know, costs too much.
 d. I'm afraid to invite the Smiths to dinner, because he, as you know, eats too much, and she, as you know, talks too much.
 e. I'm afraid to invite the Smiths to dinner, because he and his daughter, as you know, eat too much.

The relevant factor seems rather to be the 'weak' status of the ungrammatical / marginal pronouns vs. the 'strong' status of the fully grammatical ones. The point is even clearer in German, where the comparison extends to pronouns such as the masculine pronoun *er*. Only when it has [+human] reference, i.e. it is a strong pronoun, is the insertion of a parenthetical possible. A non-human *er* patterns like *es* (and English *it*). Compare (63b) with (63c):

- (63)a. ** Es, soweit ich weiß, hat viel geregnet.
 it, as far as I know, has much rained
 b. * Es / Er, soweit ich weiß, kostet zuviel. (er = der Tisch)
 it / he, as far as I know, costs too much he = the table
 c. Er, soweit ich weiß, spricht nur Englisch.
 he, as far as I know, speaks only English

Even if it would turn out to be on the right track, the semantic approach is insufficient to explain these contrasts.²⁴

²⁴ The fact that non-specific indefinites disallow parentheticals can be explained by both the semantic and the syntactic approach. They are not semantically 'contentful' and are syntactically 'weak' (see Cardinaletti and Starke 1994):

- (i) a. * One, as you know, usually buys ice-cream to calm down before exams.
 b. * Man, glaube ich, soll das nicht machen.
 one, think I, should this not do

To explain that specific indefinites can precede parentheticals, the semantic approach should regard them as 'contentful', a non-trivial move, while the syntactic approach complies with their syntactically 'strong' status:

- (ii) a. One / Someone, as far as I know, has bought a house in the countryside.
 b. Einer, glaube ich, möchte ein Haus kaufen.
 one, think I, would-like a house [to] buy

Exploiting the other interpretive component of grammar, the facts above could be captured by a phonological constraint. Given the observation that weak elements are not major syntactic constituents, one could formulate the following constraint: Only major syntactic constituents can precede parentheticals. In spite of its *prima facie* plausibility, such a phonological constraint has an *ad hoc* flavour. First of all, it should be rephrased in such a way that it distinguishes between Italian and English / French weak pronouns. Although this seems to be easily done, for example by resorting to the distinction bisyllabic (*e-gli*) vs. monosyllabic (*il*), the very nature of this constraint is unclear. Firstly, the difficulty cannot be due to lack of word stress, given that weak pronouns can have word stress (Cardinaletti and Starke 1994), and should therefore be able to stay alone before parentheticals, contrary to fact. Secondly, the constraint cannot simply mean that weak pronouns are unable to form a phonological constituent by their own and need to attach (cliticise) to some other element of the clause. In French, for instance, the cooccurrence of weak pronouns and parentheticals is also banned in embedded clauses, where the pronoun could in principle attach to the complementizer:

- (64) * Le fait qu'il, selon toi, parle tres bien ...
 the fact that he, according to you, speaks very well, ...

To explain this sentence in phonological terms, the requirement should be formulated in such a way that weak subject pronouns have to form a phonological constituent with the following verb. But no such requirement seems to exist independently of the very cases to be explained here. Nor can French *il* be marked as a proclitic rather than an enclitic pronoun. As Toman (1992) has convincingly shown on the basis of Czech data, the direction of (phonological) cliticization cannot be stated univoquely, but depends on the phonological environment. This implies that (64) should satisfy phonological requirements and be grammatical, contrary to fact. Given these difficulties, it seems more promising to attribute the ungrammaticality of (64) - and of (49b-d')-(50b) above - to a syntactic constraint which relies on the distinction between weak and strong constituents.

Finally, both the semantic and the phonological approach would have nothing to say about the following contrasts between weak pronouns and full DPs: Some English speakers dislike adverbs such as *frankly* immediately after a weak pronoun, but accept them after full subjects:

- (65)a. It (?? frankly/honestly) costs too much.
 b. John (frankly/honestly) eats too much.
- (66)a. It (*incredibly) costs too much.
 b. John (?incredibly) eats too much.

The parallel behaviour of speaker-oriented adverbs and parentheticals can be captured by noting that parentheticals also express speaker-orientation. The two categories of elements have one and the same position in the syntactic tree.

After having dismissed both the semantic and the phonological approach, suppose that the asymmetries seen above are simply due to the different position of weak and full subjects. In the structure proposed above in (59), weak pronouns occupy the spec position of the projection which hosts the finite verb. Parentheticals,

which occur in a position between weak pronouns and strong subjects, can only follow strong subjects:²⁵

- (67)
- | | | | |
|----|---------------------------------------|--|--------------------------|
| | strong | | weak |
| a. | [Agr1P{John / he} Agr1° [XP parenth. | | [Agr2P {it} Agr2° [Vfin |
| b. | [Agr1P{Jean / lui} Agr1° [XP parenth. | | [Agr2P {il} Vfin [... |

5. ON THE 'SPECIALIZATION' OF SUBJECT POSITIONS

We have concluded that in English and French, weak and full subjects occupy distinct specifiers. A full subject occupies a position higher than parentheticals, but this possibility does not arise for weak subjects. The two subject positions thus seem to be specialized to host different types of subjects. Let's call this the "specialization hypothesis".

Although Italian pronouns of the *egli / esso* series belong to the same pronominal class as English or French weak subject pronouns, they are treated on a par with full subjects as far as the occurrence in the preverbal specAgr1P is concerned. The contrast between Italian on the one hand and English and French on the other is however only apparent, if one considers that Italian has another weak subject pronoun: the null subject *pro* (cf. Section 2 above).

Now, if the specialization hypothesis is correct, we expect that *pro* occupies the same specifier position as the weak subjects of English and French, whereas strong and overt weak subjects must be higher:

- (68)
- | | | | |
|--|---|--|----------------------------------|
| | strong / (overt) weak | | weak |
| | [Agr1P{Gianni / lui} Agr1° [XP parenth. | | [Agr2P { <i>pro</i> } Vfin [... |
| | egli | | |

As above, indirect evidence will help us in the task of establishing the position of *pro*.

²⁵ The paradigm in (49) shows that in English, a lower position of parentheticals, between specAgr2P and the verb, is disallowed.

The two projections hosting the subject need not be adjacent, as apparently implied by (59) / (67). Further projections could intervene, such as a designated projection for parentheticals (see Section 4.1. above), and a projection hosting quantified subjects, if their distribution must be distinguished from that of non-quantified full subjects (see Poletto (1993:76) for some arguments). It is however important to note that the highest subject position is lower than focalized constituents, as shown in the Italian (57). A subject preceding a focalized constituent is left-dislocated, as confirmed by the ungrammaticality of *egli / esso* in this word order:

- (i) a. Maria, A GIANNI ha parlato, non a Sandro.
 Maria, to Gianni [she] has spoken, not to Sandro
 b. *Egli, A GIANNI ha parlato, non a Sandro.
 he, to Gianni [he] has spoken, not to Sandro

Word order possibilities are apparently different in Romanian, where, as argued by Motapanyane (1994), the subject always precedes focalized items.

5.1. FLOATING QUANTIFIERS

Floating quantifiers (for which see Sportiche 1988) provide one piece of evidence that a null subject cannot occur in the higher subject position, specAgr1P, typical of overt subjects, nor can an overt subject be in specAgr2P, reserved to null subjects.

Consider the following contrast: The distribution of a quantifier floated off from the subject is rather unconstrained, but it cannot occur in preverbal position, (70):

(69) Non so se gli studenti, questo libro, *pro* l'hanno { *tutti* } comprato { *tutti* }.
[I] not know whether the students, this book, [they] it have all bought

(70) * Non so se gli studenti, questo libro, *tutti* l'hanno comprato.

Two observations must be made here: Firstly, *tutti* cannot function alone as a resumptive element, as confirmed by the corresponding object case in (71), where the resumptive clitic *li* 'them' is necessary:

(71)a. * Questi studenti ho promosso *tutti*.
b. Questi studenti *li* ho promossi *tutti*.
these students [I] (them) have passed all

In (70), there must be a resumptive *pro*. Secondly, a floating quantifier must be c-commanded by the element off which it is floated (see Sportiche 1988). Sentence (69) satisfies both conditions: A preverbal *pro* functions as a resumptive element for the left-dislocated subject *gli studenti* and c-commands the floated *tutti*.

Given the more articulated preverbal structure proposed above, the two conditions could be met in (70) only if the null subject could occupy the higher subject position, specAgr1P, as in (72a). But the sentence in (70) is ungrammatical. We take this to mean that *pro* cannot occupy specAgr1P and that, at the same time, an overt element (*tutti*) cannot occur in specAgr2P (cf. also §6.2.3 below). On the other hand, *pro* in specAgr2P does not c-command *tutti* in specAgr1P, and ungrammaticality is also produced, (72b):²⁶

(72)a. * [Agr1P *pro* [Agr2P *tutti* l'hanno [comprato
b. * [Agr1P *tutti* [Agr2P *pro* l'hanno [comprato

5.2. NON PRO-DROP IN ITALIAN

Further support for the 'specialization' hypothesis comes from the only context in which pro-drop is disallowed in Italian. In this case, the overt weak pronoun has the same distribution as English and French weak overt subjects, specAgr2P.

²⁶ That an overt element cannot occur in specAgr2P, reserved to null subjects, is also shown by the sentences corresponding to (72a) but containing a full subject, such as (ia) and (ib), in the analysis depicted in (ic):

(i) a. * Non so se gli studenti *tutti* l'hanno comprato.
b. * Non so se essi *tutti* l'hanno comprato.
c. * [Agr1P gli studenti / essi [Agr2P *tutti* l'hanno [comprato

It is an old observation that in the present subjunctive, which does not distinguish among the three persons of the singular, a null subject can be interpreted either as 1st or as 3rd person. The 2nd person interpretation is ungrammatical, and the overt 2nd person pronoun is obligatorily inserted:²⁷

- (73)a. Che *pro* possa riuscirci non è chiaro. (*pro* = I / *you / he)
 that [I / he] cansUBJ manage-it not is clear
 b. Che tu possa riuscirci non è chiaro.
 that you cansUBJ manage-it not is clear

In the past subjunctive, things are very similar. The 1st and 2nd person singular have the same form, and the 2nd person interpretation of a null subject is rather marginal, although not excluded:²⁸

- (74)a. Che *pro* potessi riuscirci non era chiaro. (*pro* = I / ??you)
 that [I / ??you] couldSUBJ manage-it not was clear
 b. Che tu potessi riuscirci non era chiaro.

In the complementizer-deletion contexts discussed above in Section 3., speakers divide in two groups: One group is represented by the judgments given before in the paper, where all kinds of subjects are accepted; the other group only accepts null subjects and, in subjunctive paradigms, the 2nd person singular pronoun *tu*, as in (75) and (76) (examples and judgments by Cinque (p.c.) and (1981:298,fn.12), respectively; see also Giorgi and Pianesi (to appear)):

- (75)a. Pensa *pro* sia in grado di aiutarlo. (*pro* = I / *you / he)
 [he] thinks [I / he] amSUBJ / issUBJ able to help-him
 b. Pensa tu sia in grado di aiutarlo.
 [he] thinks you areSUBJ able to help-him
 c.*? Pensa Gianni sia in grado di aiutarlo.
 [he] thinks Gianni issUBJ able to help-him

²⁷ A functional approach, as seen for the Central Italian facts discussed in §2.3 above, cannot explain the paradigm, and it must be the licensing capacity of the AgrS head which is at stake here. The presence of a 2nd person reflexive pronoun does not change the status of the sentence (there is only a very slight amelioration if the reflexive is preverbal, cf. (ia) vs. (iia)):

- (i) a.* Penso che debba comportarti meglio.
 b. Penso che tu debba comportarti meglio.
 [I] think that (you) mustSUBJ behave-yourself better
 (ii) a.*?Penso che *pro* ti sia comportato male.
 b. Penso che tu ti sia comportato male.
 [I] think that (you) yourself areSUBJ behaved badly

²⁸ In the past subjunctive, *pro* can be interpreted as 2nd person when the subject of the matrix verb is 1st person and coreference between the two subjects is disallowed:

- (i) Non sapevo che *pro* fossi malato. (*pro* = *I / you)
 [I] not knew that [you] wereSUBJ sick

- (76)a. Non sapevo *pro* fosse malato. (*pro* = he)
 b. Non sapevo tu fossi malato.
 c.*? Non sapevo Gianni fosse malato.
 [I] not knew [he] / you / Gianni wasSUBJ / weresUBJ sick

Notice that in these cases, *tu* is a weak pronoun: The second group of speakers cannot modify nor conjoin it (**Pensa solo tu sia in grado di aiutarlo* '[he] thinks only you areSUBJ able to help-him', **Non sapevo tu e Maria foste malati* '[I] not knew you and Maria weresUBJ sick').²⁹

The particular grouping of null subjects and *tu* against the other overt subjects shown in (75) and (76) can be explained by the specialization hypothesis as follows. In the grammar of the most restrictive speakers, complementizer-deletion implies that the Agr1 projection is empty or inactive. Full subjects, which occur in specAgr1P, are therefore excluded. Only those subjects which occur in specAgr2P are possible: *pro* and *tu*.³⁰

5.3. NON-REFERENTIAL WEAK SUBJECTS

The choice between a realised and a null subject is usually attributed to the Avoid Pronoun Principle (Chomsky 1981:65). It is, however, *a priori* undesirable to have a constraint which makes explicit reference to the null vs. realised form of the subject. A reformulation of this principle is possible, as argued in Cardinaletti and Starke (1994): The choice between a realised and a null subject is better stated in terms of a general economy strategy which regulates the choice of weak pronouns (including *pro*) over strong pronouns. The preference of *pro* over *lui* is therefore parallel to that of e.g. French *il* over *lui*.

²⁹ It should be pointed out that with other moods, where *pro* is available, the 2nd person singular pronoun *tu* is not weak, but strong. With indicative verbs, for instance, *tu* can be modified and conjoined and can be followed by a parenthetical:

- (i) a. Solo tu hai capito la situazione.
 only you have understood the situation
 b. Tu, per quanto ne so, non hai superato l'esame.
 you, as far as [I] know, not have passed the exam

The homophony disappears in some varieties, where *tu* is the weak pronoun used with subjunctive mood and *te* is the strong one.

³⁰ Things are a bit more complicated, since other overt pronouns are marginally admitted in contexts such as (75) and (76) if simple, i.e. not modified nor conjoined:

- (i) a.? *Pensa lui sia in grado di aiutarlo.*
 b. **Pensa solo lui sia in grado di aiutarlo.*
 [he] thinks (only) he isSUBJ able to help-him
 c. **Pensa lui e Maria siano in grado di aiutarlo.*
 [he] thinks he and Maria areSUBJ able to help-him

These cases need further examination, given that in no other context do these pronouns display the properties of weak elements.

In Italian, there is however a Residual Avoid Pronoun Principle effect: In a number of cases, a null subject must be used instead of a realised weak pronoun. These include expletive, quasi-argument and impersonal subjects, in general non-referential usages. We illustrate this effect contrasting Italian with English and French:

- (77)a. * *Esso è chiaro che ha ragione.*
 a' *pro è chiaro che ha ragione.*
 b. It is clear that he is right.
 c. Il est clair qu'il a raison.
- (78)a. * *Esso piove tanto qui.*
 a' *pro piove tanto qui.*
 b. It rains a lot here.
 c. Il pleut beaucoup ici.
- (79)a. * *In quel negozio, essi mi hanno venduto un vecchio libro.*
 a' *In quel negozio, pro mi hanno venduto un vecchio libro.*
 b. In that shop, they have sold me an old book.
 c. Dans ce magasin, ils m'ont vendu un vieux livre.

Again, we can avoid a constraint which makes explicit reference to the null vs. realised form of the subject. Suppose that non-referential subjects are restricted to specAgr2P, whereas referential subjects are free to occur in either positions (see §7 for a possible derivation of this restriction). It follows that a realised weak subject, which in Italian occurs in specAgr1P, is excluded from non-referential usages. The English and French counterparts trivially respect the constraint by only being allowed in specAgr2P.³¹

5.4. CONCLUSION

(80) shows the generalizations about the position of preverbal subjects in NSLs (e.g. Italian), and in non NSLs (e.g. English and French), respectively:

- (80)a. [Agr1P {Gianni / lui / egli}][Agr2P {*pro* / *tu*_{weak}} V_{fin} [...
- b. [Agr1P {John / he} [Agr2P {it} Agr2° [V_{fin} ...
- c. [Agr1P {Jean / lui} [Agr2P {il} V_{fin} [...

³¹ Whether or not pronouns belonging to the *egli / esso* series have "demonstrative" nature, as sometimes claimed, the contrasts in (77)-(79) cannot be traced back to this factor. French has a subject pronoun with "demonstrative" morphology, *ça*, which can be used as quasi-argument. In this case, it is a weak demonstrative and occurs in specAgr2P, as testified by the ungrammaticality of a parenthetical following it:

- (i) *Ça (*selon lui) pleut fort.*
 it (*according to him) rains a lot

The two subject positions are specialized for different subject types. In NSLs, overt subjects, either strong or weak, occupy the higher subject position. Null subjects occur in the lower subject position (as well as Italian weak *tu* with subjunctive verbs). In non-NSLs, on the other hand, only strong subjects occur in the higher specifier, whereas weak subjects occupy specAgr2P.

The last question we have to address concerns the derivation of the sentences containing full subjects, given that two competing structures are in principle available:

- (81)a. [Agr1P DP_i [Agr2P *pro* V_{fin} ... [VP t_i
 b. [Agr1P DP_i [Agr2P t_i V_{fin} ... [VP t_i

Whereas (81b) is the only choice for non-NSLs such as English and French, (81a) could be an option for NSLs such as Italian (for thematic reasons, *pro* can only be expletive).

We do not see any language-internal advantage to assume (81a) rather than (81b), nor to postulate such a difference between NSLs and non-NSLs. For economy reasons we adopt the simpler derivation, (81b), for NSLs as well (see also §7 for an additional argument).

6. SOME EXTENSIONS

The proposed clausal structure containing two subject positions can be extended to account for a number of constructions where a constituent different from the subject is fronted to what seems to be the subject position. These include inverse copular sentences, sentences with a class of psych verbs, and PP fronting with other unaccusative verbs.

6.1. COPULAR SENTENCES

Let's consider copular sentences again, briefly mentioned in §2.5 above. The enriched clause structure containing two subject positions can be extended to account for what Moro (1993) calls inverse copular sentences, i.e. copular sentences in which the predicate appears in preverbal position instead of the subject (cf. (28c)-(29c) above and (82)):

- (82) La causa della rivolta sono Gianni e Maria.
 the cause of the riot are Gianni and Maria

Moro's (1993:31) analysis of sentences like (82) is that the preposed predicative DP is adjoined to IP (=AgrSP), where it is left-dislocated. This proposal cannot be taken literally, given that preposed predicative DPs pattern with subjects and against left-dislocated phrases in occurring in Aux-to-Comp and complementizer-deletion constructions, (83) (see Section 3 above and Moro (1993:34)):

- (83)a. Essendo la causa della rivolta Gianni e Maria, ...
 being the cause of the riot Gianni and Maria, ...

- b. Credevo la causa della rivolta fossero Gianni e Maria.
 [I] believed the cause of the riot were Gianni and Maria

Extending the double subject structure to this type of sentences, we can rephrase Moro's proposal as in (84): The preposed predicate *la causa della rivolta* appears in the higher subject position specialized to host full DPs, specAgr1P, while the subject *Gianni e Maria* remains postverbally, a possibility always available in Italian for strong DPs:

(84) [Agr1P *la causa della rivolta*] [Agr2P *prosono*] [SC Gianni e Maria] *t_{pred}*

(84) allows us both to account for the data in (83) and to dispense with the theoretically doubtful mechanism of adjunction, thus complying with Kayne's (1994) theory of phrase structure (cf. fn. 21).³²

6.2. THE SUBJECTS OF PSYCH VERBS

The above remarks have a direct consequence for the analysis of the subject of psych verbs of the *piacere* class (*interessare* 'interest', *piacere* 'please', *venir voglia di* 'feel like'; cf. Calabrese 1986 and Belletti and Rizzi 1988). These psych verbs are unaccusative: They select a theme and a dative experiencer. Their characteristic is that either the theme or the experiencer can be preposed to the preverbal position:

- (85)a. La musica piaceva molto a Gianni.
 b. A Gianni piaceva molto la musica.
 the music 'pleased'much to Gianni
 'Gianni liked music a lot'

As we will show in the next sections, the preposed dative in (85b) displays the same properties as a subject.

³² What motivates Moro's proposal is the fact that in (82), the verb does not agree with the singular preposed predicate, but with the plural postverbal subject. To avoid the assumption that the verb agrees directly with the postverbal subject and to ensure instead that agreement always obtains in a configuration of spec-head agreement, he suggests that an empty predicate is present (*pro* in specIP), which, sharing the features of the postverbal subject, triggers agreement with the verb. The empty predicate also occurs in presentative sentences like: *Sono Gianni e Maria*, which display the same agreement pattern as (82). For this and other questions raised by inverse copular sentences, we refer the reader to Moro's work. Here, we only mention one piece of evidence that is a problem for the empty-predicate approach to (82), but supports our analysis in (84). In German, the overt predicate *es* is obligatory in presentative sentences: ..., *daß es Hans und Maria sind* '... that it Hans and Maria are', but ungrammatical with nominal predicates in inverse copular sentences: *Die Ursache des Tumults sind (*es) Hans und Maria* 'the cause of the riot are (*it) Hans and Maria'. Since in German, agreement patterns are the same as in Italian, i.e. the verb is plural, this is evidence that in inverse copular sentences, agreement with the postverbal argument is not contingent on the presence of a null predicate. To account for the agreement pattern, we propose that specAgr2P is filled with an expletive *pro*, and that agreement with the postverbal subject takes place as in the other cases of postverbal subjects in Italian and German, e.g. by covert raising of the subject at LF (see §2.6 above).

6.2.1. ON THE SUBJECTHOOD OF THE DATIVE EXPERIENCER OF PIACERE

On the basis of the different extraction possibilities of 'experiencer' datives found with *piacere* and 'goal' datives, Belletti and Rizzi (1988) consider the former not as left-dislocated 'outside' the clause, but as occupying a position 'inside' the clause, the subject position specIP:

- (86)a. I libri che a Gianni sono piaciuti sono questi.
the books that to Gianni are 'pleased' are these
b.?? I libri che a Gianni ho dato sono questi. (Belletti and Rizzi 1988:337)
the books that to Gianni [I] have given are these
- (87)a. il periodo in cui a Gianni piaceva la musica rock ...
the period in which to Gianni 'pleased' the music rock ...
b.?? il periodo in cui a Gianni gli studenti parlavano di questo ...
the period in which to Gianni the students spoke of this ...

Unfortunately, the contrasts in (86)-(87) not only show that experiencer datives and goal datives may have a different distribution, as claimed by Belletti and Rizzi, but also that they have a different behaviour with respect to left-dislocation. As will become clear in §6.2.4 below (where no 'subject' analysis of the experiencer dative is available), the former do not need to cooccur with a resumptive clitic, whereas a resumptive clitic is, to my ears, almost obligatory in the latter case. In other words, the strong marginality of (86b) and (87b) can be attributed to the fact that a resumptive clitic is missing. With the clitic, these sentences improve a lot: *Wh*-extraction over a left-dislocated item gives rise to only a slight marginality:

- (88)a. ? I libri che a Gianni Maria *gli* ha dato sono questi.
the books that to Gianni Maria to-him has given are these
b. ? il periodo in cui a Gianni gli studenti *gli* parlavano di questo ...
the period in which to Gianni the students to-him spoke of this ...

Although the contrast is not as sharp as Belletti and Rizzi claimed, their conclusion that the two types of dative have an asymmetrical distribution seems correct. It is supported by the Aux-to-Comp and the complementizer-deletion constructions, which, as seen above in Section 3., do not allow left-dislocated items. In these contexts, a dative experiencer is grammatical, but a 'real' dative, which is necessarily left-dislocated, is excluded:

- (89)a. Essendo a Gianni piaciuto molto il regalo, ...
being to Gianni 'pleased' much the gift ...
b.?? Avendo a Gianni dato questi libri, ...
having to Gianni [he] given these books ...
- (90)a. Credevo a Gianni piacesse queste storie.
[I] believed to Gianni 'pleased' these histories
b.?? Credevo a Gianni (gli) avesse dato questi libri.
[I] believed to Gianni [she] (to-him) had given these books

Belletti and Rizzi's proposal that the dative occupies the preverbal subject position is natural for the case in which the dative cooccurs with a realised postverbal subject, (91a). But what happens when the subject is null, (91b)? The evidence discussed in

Section 2. rules out the possibility that it be postverbal, as in (92a). The correct representation must rather be something like (92b), with a preverbal *pro*:

- (91)a. A Gianni piaceva molto la musica. (= (85b))
 b. A Gianni piaceva molto.
 to Gianni 'pleased' much (the music)
- (92)a. * A Gianni piaceva molto *pro*.
 b. A Gianni *pro* piaceva molto.

6.2.2. ON THE POSITION OF THE DATIVE EXPERIENCER

If the preverbal subject position is occupied by *pro*, the dative must occupy a position to its left. Note that, as in the case of a postverbal subject in (89)-(90), the dative behaves like a subject. It can occur in the constructions which disallow left-dislocation, Aux-to-Comp and complementizer-deletion (cf. Section 3. above), and does not give rise to the slight marginality seen in (88) above:³³

- (93)a. Essendo a Gianni piaciuto molto, ...
 being to Gianni [it] 'pleased' much ...
 b. Credevo a Gianni non piacessero.
 [I] believed to Gianni [they] not 'pleased'
- (94) il periodo in cui a Gianni piaceva molto ...
 the period in which to Gianni [it] 'pleased' much ...

Furthermore, a negative quantifier, which cannot be left-dislocated, (95), is possible as the dative experiencer both with a postverbal subject and with a null subject, (96):

- (95)a. * A nessuno Gianni gli ha parlato ieri.
 to nobody Gianni to-him has spoken yesterday
 b. * A nessuno gli piaceva la musica.
 to nobody to-him 'pleased' the music
- (96)a. A nessuno piaceva la musica.
 b. A nessuno piaceva.
 to nobody 'pleased' (the music)

To reconcile the 'subjecthood' of dative experiencers, pointed out by Belletti and Rizzi and confirmed by these observations, with the presence of a preverbal null

³³ As shown by (93), gerunds seem to differ from the other Aux-to-Comp constructions, which do not allow referential *pros*:

- (i) a. *Ritengo essere piaciuta a Gianni.
 b. *Ritengo essere a Gianni piaciuta.
 [I] believe [to] be [it] 'pleased' to Gianni

See Rizzi (1982:Ch.4, §3) for the discussion of the types of *pro* licensed by non-finite verbs when raised to C°.

subject, the more articulated clause structure proposed above in Section 5. can be applied to these cases: The dative experiencer is in specAgr1P, whereas specAgr2P hosts *pro*:

(97) [Agr1P A Gianni_i [Agr2P *pro*_j piaceva molto t_i t_j

6.2.3. THE CORRECTNESS OF THE SPECIALIZATION HYPOTHESIS

The specialization hypothesis makes correct predictions also in the case of psych verbs. Although the relative order of *pro* and the parenthetical in (98) cannot be directly established, and two representations are potentially available, as in (99):

(98) A Gianni, credo, piacevano molto.
to Gianni, [I] think, [they] 'pleased' much

(99)a. A Gianni *pro* credo piacevano molto.
b. A Gianni credo *pro* piacevano molto.

indirect evidence indicates that *pro* can only appear in the lower subject position, following the parenthetical, whereas the dative experiencer can only appear in the higher one.

• *Aux-to-Comp*. In Aux-to-Comp contexts, the dative experiencer of *piacere* can cooccur with a null subject (see (93a) above, repeated here as (100b)), but the combination with an overt subject is not allowed, under either word order, (100c,d):

(100) a. Essendo questo libro/esso piaciuto molto a Gianni, ...
b. Essendo a Gianni *pro* piaciuto molto, ...
c. * Essendo a Gianni questo libro/esso piaciuto molto, ...
d. * Essendo questo libro/esso a Gianni piaciuto molto, ...
being this book/it to Gianni 'pleased' much (to Gianni),

...

The contrast between (100a-b) and (100c-d) leads to the following generalizations:

1) the gerundive verb moves to the head position immediately above the higher subject position (and, therefore, specifiers of higher projections, such as left-dislocations, cannot follow it; cf. (39b,c) above):

(101) a. Essendo_i [Agr1P questo libro/esso t_i [Agr2P t_i [piaciuto
b. Essendo_i [Agr1P a Gianni t_i [Agr2P *pro* t_i [piaciuto

2) full DPs and the pronouns belonging to the *egli / esso* series cannot occupy the same position as *pro* (otherwise (100c) should be grammatical);

3) the dative experiencer *a Gianni* occupies the same position as full subjects. It cannot occupy the position of *pro*, otherwise (100d) and the following should be grammatical:

(102) * Esso a Gianni piaceva molto.
it to Gianni 'pleased' much

• *Complementizer-deletion*. Complementizer-deletion contexts display a similar pattern. Either the dative experiencer or the overt weak subject can occur in the clause, a combination of the two resulting in ungrammaticality:

- (103) a. Ritengo **a Gianni** siano piaciute molto.
 b. Ritengo **esse** gli siano piaciute molto
 c. * Ritengo **a Gianni esse** siano piaciute molto.
 d. * Ritengo **esse a Gianni** siano piaciute molto.
 [I] believe to Gianni they (to-him) are 'pleased' much
- (104) a. Credevo **a Gianni** potessero piacere, ma mi sono sbagliato.
 b. Credevo **esse** potessero piacere molto a Gianni, ma mi sono sbagliato.
 c. * Credevo **a Gianni esse** potessero piacere molto, ma mi sono sbagliato.
 d. * Credevo **esse a Gianni** potessero piacere molto, ma mi sono sbagliato.
 [I] believed to Gianni they could 'please' much, but [I] was wrong

As above, the dative can cooccur with *pro*, but not with an overt subject. The conclusion is again that *esse* and *pro* have a different distribution, in particular the *egli / esso* series cannot occupy the position of *pro*:³⁴

- (105) a. Ritengo [_{Agr1P} esse Agr1° [_{Agr2P} siano [piaciute ...
 b. Ritengo [_{Agr1P} a Gianni Agr1° [_{Agr2P} *pro* siano [piaciute ...

6.2.4. TOPICALIZED DATIVE EXPERIENCERS

The above conclusions are confirmed by the structures in which the dative experiencer cooccurs with a realised weak subject pronoun:

- (106) A Gianni *essa* *piaceva* molto.
 to Gianni it 'pleased' much

³⁴ Poletto (1995) suggests that in (105), the subjunctive verb raises to C°. The distribution of pronouns belonging to the *egli / esso* series shows instead that the landing site of the verb cannot be higher than Agr1°. Being weak, these pronouns must occupy the specifier of an Agr projection, a generalization which seems to hold for all known cases of weak pronouns. Verb movement would have the further consequence that *pro* occurs after the auxiliary (as it probably happens in interrogatives, see fn. 12 above).

The movement of the subjunctive verb to Agr1° could also account for the fact that the insertion of a parenthetical in complementizer-deletion contexts gives quite marginal results:

- (i) a. Pensavano che Gianni, secondo me, non fosse malato.
 b. ?? Pensavano Gianni, secondo me, non fosse malato.
 [they] thought (that) Gianni, according to me, not wasSUBJ ill

Since *esse* occupies specAgr1, we expect that the dative experiencer is now treated on a par with any other preposed dative argument: i.e., it is left-dislocated in a high topic position. As a consequence, a negative quantifier becomes ungrammatical ((107) contrasts with (96b) above), and the dative most naturally precedes a focalized constituent:

- (107) * A nessuno essa piaceva molto.
 to nobody it 'pleased' much
- (108) a. IN QUEL MODO **a Gianni** piacciono, non fritte.
 b.?* IN QUEL MODO, **a Gianni** esse piacciono, non fritte.
 c. **A Gianni**, IN QUEL MODO esse piacciono, non fritte.
 to Gianni in that manner to Gianni they 'please', not fried

The proposed representation for (106) is the one in (109):

- (109) [TopicP a Gianni [FocusP ... [Agr1P essa Agr1° [Agr2P spec piaceva molto

Differently from other topics, however, which are most naturally resumed by a clitic pronoun, the dative experiencer does not need a resumptive clitic pronoun, a property still to be explained. As for extraction, the dative experiencer now patterns with other datives and is more marginal than in (86a)-(87a):³⁵

- (110)a.? il periodo in cui a Gianni gli studenti **gli** parlavano di questo, ... (cf. (88b))
 the period in which to Gianni the students to-him spoke of this ...
 b.? il periodo in cui a Gianni essa piaceva molto ...
 the period in which to Gianni it 'pleased' much ...

In conclusion, an experiencer dative can occur both in specAgr1P, rephrasing Belletti and Rizzi's (1988) 'subject' analysis, and in specTopicP, whereas other preposed dative arguments only have the latter possibility.

³⁵ Belletti and Rizzi (1988:337) also note that in adverbial clauses, it is possible to front the dative experiencer of *piacere*, though not "goal" datives, as shown by the contrast in (i). The same contrast can be reproduced in (ii) in the presence of an overt weak subject:

- (i) a. Tutti sono preoccupati perché a Gianni piace la linguistica.
 all are worried because to Gianni 'pleases' the linguistics
 b.?? Tutti sono preoccupati perché a Gianni ho raccontato questa storia.
 all are worried because to Gianni [I] have told this story
- (ii) a. Tutti sono preoccupati perché a Gianni essa piace molto.
 all are worried because to Gianni it 'pleases' much
 b.?? Tutti sono preoccupati perché a Gianni egli ha raccontato questa storia.
 all are worried because to Gianni he has told this story

Since the b. sentences are grammatical with a resumptive clitic, this again indicates that it is not the unavailability of left-dislocation which is at stake here, but the privileged status of the experiencer dative with respect to other datives in not needing a resumptive clitic.

6.3. OTHER VERBS

Other unaccusative verbs behave like *piacere*. An argument different from the subject, in general a locative or a dative, appears preverbally, whereas the structural subject, a theme, stays *in situ* in postverbal position (see also Belletti and Rizzi (1988:341)). The 'subjecthood' tests used above can be repeated here: The locative and the dative are allowed in Aux-to Comp and complementizer-deletion constructions:

- (111) a. Su Gianni cadde una grande disgrazia.
on Gianni fell a big misfortune
b. Essendo su Gianni caduta una grande disgrazia, ...
being on Gianni fallen a big misfortune, ...
c. Credo su Gianni sia caduta una grande disgrazia, ...
[I] believe on Gianni is fallen big misfortune
- (112) a. A Gianni è capitata una grande disgrazia.
to Gianni is happened a big misfortune
b. Essendo a Gianni capitata una grande disgrazia, ...
being to Gianni happened a big misfortune, ...
c. Credo a Gianni sia capitata una grande disgrazia.
[I] believe to Gianni is happened a big misfortune

As with *piacere*, a null subject is allowed in the structure, and still the preposed PP behaves like a subject:

- (113) a. Su Gianni è caduta l'anno scorso.
on Gianni [it] is fallen last year
b. Essendo su Gianni caduta l'anno scorso, ...
being on Gianni [it] fallen last year, ...
c. Credo su Gianni sia caduta l'anno scorso, ...
[I] believe on Gianni [it] is fallen last year
- (114) a. A Gianni capita spesso.
to Gianni [it] happens often
b. Essendo a Gianni capitata l'anno scorso, ...
being to Gianni [it] happened last year, ...
c. Credo a Gianni sia capitata l'anno scorso.
[I] believe to Gianni [it] is happened last year

The preposed PP occurs in specAgrIP, and the null subject occupies the lower of the two subject positions, as in the representation (115):³⁶

³⁶ Cases like (111) and (113a) differ from English locative inversions, such as *Every Thursday at noon, into the saloon wander three drunken stevedores* (see Branigan (1992:78)). On a par with ordinary subjects, Italian preposed locatives do not interfere with A' extraction and can be embedded under any verb, (i)-(ii), whereas English preposed locatives do not cooccur with A' movements and are only compatible with bridge verbs, (iii)-(iv) (thanks to Ian Roberts and Chris Wilder for the judgments in (iii)-(iv)):

- (i) a. la disgrazia che su Gianni cadde l'anno scorso ...
the misfortune that on Gianni fell last year ...

- (115)a. [Agr1P su Gianni Agr1° [Agr2P *pro* è [caduta l'anno scorso
 b. [Agr1P a Gianni Agr1° [Agr2P *pro* capita [spesso

7. SPECULATIONS ON THE NATURE OF THE TWO SUBJECT POSITIONS

Once the existence of the two preverbal projections has been established, we have to determine the content of these categories.

In the checking framework of Chomsky (1993), (1995), movement is motivated by the need of a functional head to get its features checked. Each head is thus identified by the type of features it checks off. In principle, we should be able to simply inspect the elements attracted into its specifier and deduce what features the head contains.

The inverse copular sentences, psych verbs and the other unaccusative verbs discussed in Section 6. are extremely helpful in this respect: They indicate that specAgr2P is a Case-related position which is also responsible for subject-verb agreement. Let's see how:

(i) inverse copular sentences, dative fronting with psych verbs and other PP frontings contain a constituent in specAgr1P whose movement cannot be motivated by the need of checking nominative Case or ϕ -features (i.e. gender, number, person). As seen above, inverse copular sentences have a predicative DP in specAgr1P. Since predicative DPs do not check ϕ -features (they do not agree with the verb), Agr1 cannot be the locus of ϕ -features. Similarly, dative fronting and PP-fronting have specAgr1P filled with a PP (not a DP). Since PPs do not check Case (or ϕ -features for that matter), Agr1 cannot be the locus of Case features either. If Agr1 checks neither Case nor ϕ -features, these features must be checked in Agr2.

-
- b. l'anno in cui su Gianni cadde quella terribile disgrazia ...
 the year in which on Gianni fell that terrible misfortune ...
- (ii) a. So che su Gianni è caduta quella terribile disgrazia.
 [I] know that on Gianni is fallen that terrible misfortune
 b. Mi dispiace che su Gianni sia caduta quella terribile disgrazia.
 [it] to-me 'displeases' that on Gianni is fallen that terrible misfortune
- (iii) a.* the day when into the room ran John...
 b. * the days when [John claimed [that on the wall hangs a huge portrait of the Maestro t]
- (iv) a. John claimed that on the wall hangs a huge portrait of the Maestro.
 b. ? Maria said that into the room ran John.
 c.* Everyone regrets that into the saloon wandered three drunken stevadores.

The Italian cases can thus be considered as 'pure' cases of locative inversion, whereas English locative inversion seems to involve an extra step of the locative phrase to an A', topic position (see Den Dikken and Næss (1992), Den Dikken (1992:206f, fn. 32)).

(ii) the features on the postverbal subject of these constructions need to be checked (Case and ϕ -features). Remember from fn. 10 that movement to check a feature can take place either overtly or covertly, and in these constructions we are led to assume that the checking is covert. But since Agr1 is already occupied by the predicative, dative or locative phrase, the only remaining landing site for the postverbal subject is specAgr2P. It thus follows that Agr2 is capable of checking Case and ϕ -features.

In conclusion, specAgr2P is the position to which subject DPs move to check their nominative Case feature and ϕ -features against those of the agreement head. Agr2P is thus essentially the same as AgrSP.

Earlier, in §5.4, we made the hypothesis that a preverbal subject DP never cooccurs with *pro*. In other words we never have a subject DP in specAgr1 and *pro* in specAgr2. We can now prove this. Since Agr2 checks Case and ϕ -features, a preverbal subject DP must pass through specAgr2P to check these features. And since preverbal subjects always leave a trace in specAgr2P on their way to specAgr1P, there is no place for *pro*.

But what is the nature of Agr1 then? Agr1 must contain some feature which attracts a seemingly heterogeneous set of elements: predicative, dative and locative phrases (see Section 6), as well as subject DPs. What we need is a feature that is shared by all these constituents and distinguish them from expletives and (most) weak pronouns, which stop in specAgr2P.

By way of speculation, let us note that in each case, the element in SpecAgr1 is the *subject of the predication* that occurs in the clause. In other words, what seems to put together subject DPs and preposed predicative, dative and locative phrases is a semantic property: their being *subjects of predication* (for related proposals, see Calabrese (1986:29) and Saccon (1993:140f)).³⁷ If so, Agr1 must contain a 'subject-of-predication' feature. Agr1P would thus be SubjP, meaning that the specifier of this projection defines the subject of predication.

A welcome consequence of these speculations is that they seem to provide an answer to the question raised by §5.3: Why are non-referential subjects restricted to specAgr2P? The answer can now be that non-referential subjects cannot qualify as 'subjects of predication'.

8. CONCLUSIONS

In this paper, we have shown that, with regard to the syntax of subjects, it is not necessary to stipulate other differences between NSLs and non-NSLs over and above the defining difference concerning the availability of null subjects. The two types of languages share many fundamental properties, among which: the distribution of weak subject pronouns (including *pro* in NSLs), which is strictly preverbal, the position of preverbal full subjects, which is an A position, the assignment of nominative Case, which only involves the preverbal subject position.

³⁷ This property thus differs from the Extended Projection Principle (see Chomsky (1982:9f), (1986:116)), i.e. the requirement that a structural subject be present in every clause. The Extended Projection Principle is intended to capture the necessity of expletives and is now reduced to the nominal feature D on AgrS (=Agr2) (see Chomsky 1995:232).

Other hypotheses often found in the literature have been discarded: that *pro* can be postverbal, that in NSLs an overt subject in preverbal position is left-dislocated, that the postverbal subject position can be assigned nominative Case.

Mainly on the basis of the distribution of weak subject pronouns, the conclusion is that two preverbal subject positions exist. These pronouns cannot be left-dislocated, but, in Italian, they can be separated from the verb by adverbs and parentheticals. Since parentheticals cannot adjoin to X' but only to XP, as shown in §4.1 on the basis of instances of overt spec-head agreement, the pronoun cannot occur in one and the same projection with the verb, but, at the same time, cannot be left-dislocated. Similar observations hold for subjects in English and French. The apparent contradiction can be solved under the assumption, which is argued to hold universally, that there is more than one preverbal subject position. The two subject positions assumed are specialized for different subject types.

The enriched clause structure can be extended to account for the syntax of inverse copular sentences, the dative 'subjects' of the *piacere*-class of psych verbs, and the fronting of PPs with other unaccusative verbs. These constructions also allow us to make some conjectures about the nature of the new posited projection Agr1P. It is not linked to nominative Case and ϕ -features, for which the responsible head is Agr2, but rather to the property of being subject of the predication.

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On the Interaction of Syntax and Morphology in Hungarian¹

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1. Introduction

In this paper we are interested in a set of phenomena in Hungarian often discussed in other languages under the heading of 'bracketing paradoxes'. We will examine two related constructions and differentiate between them according to the complexity of the 'bases' of which they are formed. We will suggest that one set of bracketing paradoxes has to be resolved by resorting to postsyntactic morphological processes.

Accepting Stump's (1991) distinctions, bracketing paradoxes are understood as morphosemantic mismatches, i.e., constructions in which morphological or morphophonological structure differs from the corresponding semantic structure, cf. (1), in which brackets, [...], mark semantic constituents, and parentheses, (...), stand for morphological constituents.

- (1) a. [[two head]-ed] -- (two (head-ed))
b. [[transformational grammar]-ian]
-- (transformational (grammar-ian))
- (2) a. [passers-by]-[∅] -- ((passer-s)-by)
b. [[un-grammatical]-ity] -- (un-(grammatical-ity))

The familiar examples quoted above illustrate mismatches in which widely accepted principles of level ordering are violated. Specifically, in order to represent the semantic structures of the examples in (1), the criterion has to be bypassed that all derivation must take place prior to compounding. In (2a), inflection is inside word formation, while in (2a) the phonological properties of the nominalizing affix require that it be added to the base before the prefix *un-* is attached, although the resulting structure would run counter to semantic composition.

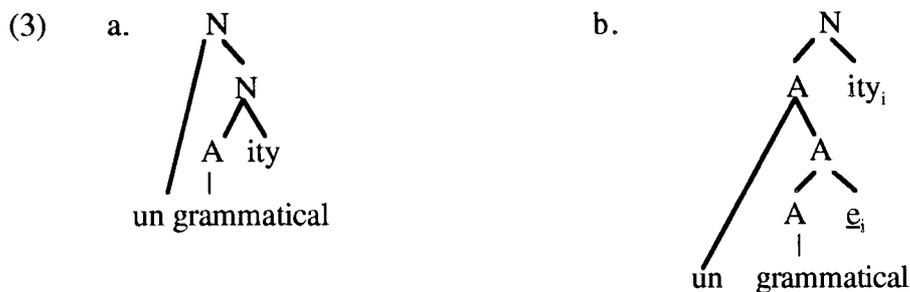
The problems illustrated in (1)-(2) are all of the kind in which either two types of word formation processes are in conflict or where inflection clashes with word formation. The issue illustrated by the class of the Hungarian bracketing paradoxes discussed in detail below, however, is of a different sort: in this language it seems that some derivational processes have to be postponed till after syntactic operations have taken place, shedding new light onto the intricacies of morphosemantic mismatches, and calling for a further extension of proposals seen in the literature in so far as postsyntactic morphological operations must involve not only inflectional but also derivational mechanisms. Analogous constructions from other languages as well as an alternative proposal will also be considered before we speculate on directions for

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further research.

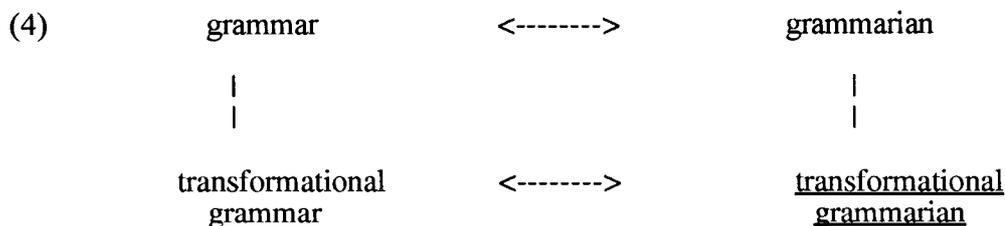
2. Selected proposals in the literature

Of the rather extensive literature on bracketing paradoxes relevant to the issues at hand, Pesetsky's (1985) approach is reviewed first. He relies on movement operations at work at the level of Logical Form (= LF) in order to account for the disparate morphophonological and semantic structures for items like *un-happi-er* or, for that matter, *un-grammatical-ity* as in (2b). It is supposed that at S-structure words have their 'regular' morphological structures, while at LF they undergo 'morphological quantifier raising' moving the head of the word into a more prominent position, as shown below.



The raising of *-ity* entails the stipulation that traces of affixes must belong to the null category class (just like prefixes), which makes it possible for *un-* to attach to an adjective in (3b), which observes both the semantic and categorial requirements of morphological constituents, in contrast to the S or PF (= Phonetic Form) structure displayed in (3a).

Spencer (1988) takes a closer look at what he calls 'personal nouns', such as (1b), and creates a 'square' from the three lexicalized items by filling in the 'missing' fourth expression at the bottom right corner of the oppositions thus formed.



According to Spencer, such paradigms apply by extension to other classical paradoxes like (1a). At their very core, these 'paradigmatic word formation' processes are driven by analogy, as transpires from (4).

Stump (1991) also relies on paradigmatic functions in his analysis of Breton plurals, which pose essentially the same problems as (2a), where the paradox arises because the inflectional affix is inside the compound. Stump's remedy is the default rule that takes heads to be central in paradigms and requires morphological processes to operate on heads. Again by extension, the derivation of *transformational gramm^{arian}* in (1b) from *transformational grammar* is therefore also seen as regular since it is the head *grammar* in the compound that undergoes affixation. His analysis

of such personal nouns is complemented by semantic considerations missing from previous ones.

Beard (1991) suggests that sublexical semantic features are responsible for the apparent noncompositionality of paradoxes like (1b), which derives from the same source as the ambiguity of classical examples, such as *old friend* 'an old actor in a friendship' versus 'an actor in an old friendship' or *good writer* 'a writer who is good' and 'one who writes well'. His Decompositional Composition works on the principle that the semantics of an adjunct may select a single feature of the head and can compose with it rather than the word as a lexical whole.

Halle and Marantz (1993) offer their Distributed Morphology to form an interface between syntax and phonology for inflections. They assume that words pick up inflectional features or actual inflectional morphology in various syntactic processes, such as head-movement, adjunction and merger. Although their proposal is not directly relevant to the issue of bracketing paradoxes, the fact that (some) word formation is deferred to post-syntactic processes is significant to the position I wish to advocate here.

Other proposals rely on a radically different conception of the relationship of morphology and syntax, such as Sadock (1985), make use of the separation of morphological and phonological information, e.g. Sproat (1984), or introduce a somewhat loose notion of 'lexical relatedness', see Williams (1981).

In the next section I will survey a number of morphosemantic mismatches in Hungarian and will show that at least some of them cannot be accommodated in the approaches discussed above.

3. Morphosemantic mismatches in Hungarian

Hungarian, like a number of other languages, has a large number of cases that can be regarded as morphosemantic mismatches in view of the requirement ordering derivational processes prior to compounding. In addition to the predictable equivalents of *transformational grammarian* and *baroque flautist*, there are a number of interesting, sometimes well-researched cases of mismatches.²

3.1. Verb + oblique argument nominalizations

Nominal compounds that appear to be nominalizations of the verb and its oblique argument belong to the lesser known types of bracketing paradoxes in the literature.

2. One such paradoxical 'occupational' compound has, however, hardly been noted: it is the somewhat humorous

- (i) alacsony-nyomás-ú kazán-fttő
 low-pressure-DENOM furnace-operator

which has the stress-pattern faithfully represented by the spacing, i.e. each 'word' has its initial stress, indicating a meaning different from what is intended, namely that it is the furnace that has low pressure, rather than the operator. An account of why the semantically justifiable stress pattern is not available will be given below.

They have been extensively dealt with by Laczkó (1985, 1990, 1993) in a Lexical-Functional Grammatical framework, as well as by Szabolcsi and Laczkó (1992) and Szabolcsi (1994) in Government and Binding Theory. They are formed of an oblique case marked noun and a deverbal nominal. The following illustrate.

- (5) a. város-ba érkez-és
city-into arriv-DEV
arrival in (a/the) city
- b. csoport-hoz tartoz-ás
group-to belong-DEV
belonging to (a/the) group
- c. élet-ben marad-ás
life-in stay-DEV
staying in life

Obviously, the head of the expression, the nominalizer affix on the right edge cannot 'inherit' the complement of the verb that it takes. On the other hand, the strings without the nominalizing affix are perfectly acceptable and commonplace verbal structures containing nonspecific NPs, as has been argued by É. Kiss (1993), among others. In addition, the nominal heads without the oblique complements are not possible, thus, we have no NPs (or DPs, for that matter) containing solely **érkezés*, **tartozás*, or **maradás*.

Note here that the oblique nominals in this group cannot consist of more than one word; as soon as a construction of two or more words precedes the verb, alternative nominalization strategies have to be selected (cf. Szabolcsi and Laczkó 1992, Laczkó 1993, Szabolcsi 1994).

- (6) a. **régi város-ba érkezés*
old city-into arriv-DEV
- b. *régi városba való/történő érkezés*
being/happening
arrival in (an/the) old city

The account that Szabolcsi and Laczkó (1992) and Szabolcsi (1994) propose for the structures above is based on Pesetsky's (1985) morphological quantifier raising, which would take a compound noun and raise the affix at LF to assign its proper scope.

- (7) a. S-structure
-
- The S-structure tree for 'városba érkezés' has a root node N. The root N branches into two N nodes. The left N branches into the noun 'városba' and another N node. This second N node branches into a V node and a DEV node. The V node branches into the verb 'érkez', and the DEV node branches into the affix 'és'. Below the tree, the text 'city-to arrive' is aligned under 'városba' and 'ékez', and 'DEV' is aligned under 'és'.
- b. LF
-
- The LF tree for 'városba érkezés' has a root node N. The root N branches into a V node and a DEV node. The V node branches into an N node and another V node. The N node branches into the noun 'városba', and the second V node branches into the verb 'ékez'. The DEV node branches into the affix 'és'. Below the tree, the text 'városba' is aligned under the N node, and 'ékez' is aligned under the second V node.

In another subtype of this construction, the deverbal noun cannot combine with the oblique complement unless the principle of compositionality is violated. In the examples below, the verbs and their complements have meanings that do not arise compositionally. If the verb underwent derivation and then the new noun were to combine with the oblique complement, the expected idiomatic meaning would be lost along the way since again it is the head's features that can be inherited in the compound.

- (8) a. ránc-ba szed-és
crease-in take-DEV
disciplining
- b. nyak-on csíp-és
neck-on pinch-DEV
catching
- c. munká-ba lép-és
work-into step-DEV
entering employment

It is this latter group that preverb + verb nominalizations can be thought to belong to, as first described by Ackerman (1987). More recently, the status of preverbs has also been questioned (see É. Kiss 1994, Piñón 1992, 1995), and it has been assumed that preverbs undergo either focus-movement or head-movement onto the verb in overt syntax. In other words, the preverb is not considered to form a lexical unit, i.e. a single word-size item, with the verb. In view of this, it provides a morphosemantic mismatch similar to those immediately above.

- (9) a. meg-érkez-és b. át-lép-és c. le-tartóztat-ás
PERF arriv-DEV across-step-DEV down-hold-DEV
transgression *arrest*

Note in connection with the behavior of preverbs that the phonological constituency of the 'words' in (9) has been shown to support the assumption that the stem and the suffix are at a lower level with respect to the preverb. On the basis of the Strict Hierarchy Hypothesis, cf. Nespor and Vogel (1986), Vogel (1989) argues that the domain of vowel harmony in Hungarian is the constituent called the Phonological Word (PW), and, since the stems in (9) harmonize with the suffixes, they form PWs as marked below. The preverbs in turn do not harmonize with the stems: in (9b) the stem has front vowels, while the preverb has a back one, and in (9c) the case is reversed. Thus the preverbs, just like nonhead constituents of compounds, are outside the minimal domain of the Phonological Word determined by the head word and must form a prosodic constituent with the head at the next higher level, which Vogel (1989) assumes is the Clitic Group (CG), characterized by a single primary stress in Hungarian.

- (10) a. [_{CG}[_{PW} át] [_{PW} lép-és]] b. [_{CG}[_{PW} le] [_{PW} tartóztat-ás]]
across-step-DEV down- hold-DEV
transgression *arrest*

All these structures can, in principle, be accounted for by morphological quantifier raising, as suggested by Szabolcsi and Laczkó (1992) and Szabolcsi (1994), following Pesetsky (1985).

However, there is evidence showing that a lexical process of compound formation may not be available to all of these complex verb nominalizations. It has been claimed before that 'ordinary' compounds cannot in general contain referential nouns, such as proper names (Postal (1969), Fabb (1984), Cinque (1993)). In current terminology, this is due to the requirement that functional categories should not be available for word-formation processes, and the head of the DP, into which all proper names must move to acquire referentiality, is such a functional category, cf. (11b, c). This is of course not to say that proper names cannot be used in compounds, but that whenever they are, their occurrence does not carry reference. Compare the use of the proper name in, e.g. *Kaposi-sarcoma*, and notice that it cannot be referred back to by a pronominal. Observe, however, that proper names can be used in the construction-type under discussion without difficulty, as seen in (11a), and referring

back to them by means of pronominals is perfectly natural.³

- (11) a. London-ba érkez-és
London-to arrive-DEV
arrival in London
- b. *London-épít-és
London-build-DEV
- c. *London-épít-ő
London-build-er
- d. város-épít-és
city-build-DEV
- e. város-épít-ő
city-build-er

While (11d-e), in which the noun *város* 'city' is not referential, are undoubtedly formed by lexical processes, unlike (11b-c), which are supposed to contain D's rather than N's in their 'argument positions' (i.e. *London*), examples like (11a) suggest that they must be formed by some syntactic operation for which not only NPs but DPs are available.

Finally, attention should be paid to nominalizations of verb + oblique pronominals, first dealt with also by Ackerman (1987).

In the null case they contain preverblike nonreferential oblique case-markers, whose form is identical with that of case-marked pronominals. When they are used nonreferentially, an NP with the same oblique case-suffix has to co-occur.

- (12) a. bele-botlott (Péter-be)
into-bumped Peter-into
(s/he) bumped into Peter
- b. rá-bízták az ügyet (Péter-re)
onto-trusted the matter-ACC Peter-onto
(they) trusted Peter with the matter

In their referential uses, they are understood as fully pronominal, and no reduplication of the sort illustrated above is possible. Then the very same examples in (12), but without the strings in parentheses, can be interpreted as meaning 'S/He bumped into him/her' and 'They trusted him (with something)', respectively. It is this latter form that can undergo 'nominalization', and yield a compoundlike construction with a referential, or more specifically, a pronominal first constituent.

- (13) a. belé-nk botl-ás
into-us bump-DEV
(the) bumping into us
- b. rá-tok bíz-ás
onto-you.PL trust-DEV
(the) trusting of you

These constructions do not necessarily have completely identical properties. (13a), for example, can be used in the plural, as in *a belénk-botlás-a-i-tok* '(lit.) the into.us-bumping-POSS-PL-2PL = your repeated bumping into us', indicating that it is (also) interpretable as a result nominal (cf. Grimshaw 1990), whereas (13b) has no plural use and can only be construed as a complex event nominalization.⁴

3. For arguments in favor of considering the constructions under discussion to be nouns, rather than gerunds or the like, see Szabolcsi (1994).

Ward et al. (1991) argue that compounds in general tolerate referential expressions. Note, however, that the compound types illustrated in (11) are not discussed by them and the contrast reported in (11) is real, which calls for some revision of their analysis.

4. Szabolcsi's (1994) arguments for the nominal nature of the construction carry over to this type. Reduplication between preverbs and case-suffixes is a highly intricate subject studied in some detail also by Marác (1991).

However, they all gloss over the paradox that arises on account of the divergence of morphological and semantic structures, and assume in effect that U-compounds are created in the lexicon of [A+[N+Sfx]] structures, which, at least according to Szabolcsi and Laczkó, undergo morphological quantifier raising at LF.

Before we discuss U-compounds any further, let us see the parallel but somewhat different construction, which we will call OS-adjective. They look much like U-compounds, and are claimed to be formed of A+N strings through suffixation of the head noun by the harmonizing *-os/as/es/ös/s* derivational ending. In all analyses they have been lumped together with U-compounds, though the conspicuous difference has often been noted that this derivational affix does not 'require' the presence of an adjective adjacent to the head noun to which it is attached, as illustrated here.

- (17) a. rövid kabát-os b. három ujj-as c. kabát-os/ujj-as
 short jacket-ed three finger-ed jacketed/fingered
 in a short jacket *with 3 fingers* *in jacket/with fingers*

Another difference has also been observed before: U-compounds can be used to designate so-called inalienable possessions, like body-parts, which cannot occur in OS-compounds.

- (18) a. öt ujj-as kesztyű/*kéz b. öt ujj-ú kesztyű/kéz
 five finger-ed glove/hand five-finger-ed glove/hand

3.3. Evidence for post-syntactic derivation

So far we have noted one construction, viz. referential nominals in compounds, that proposals to handle morphosemantic mismatches seem unable to process by means of the lexical processes as supplemented by alternative devices that they have posited. In this section we will show that these approaches face an even more serious challenge from a peculiar property of U-compounds.⁶

First of all, it has so far gone unnoticed that in contrast to OS-compounds, the adjective in U-compounds need not be a plain adjective: it can be in either comparative or superlative. (For ease of comparison *U* and *OS* are marked below at the right margin to indicate the respective compounds.

- (19) a. nagy/nagyobb/legnagyobb hatalm-ú (uralkodó) U
 great/greater/greatest power-U monarch
 monarch with (the) great/er/est power

6. There is yet another highly productive compoundlike construction that has a syntactic base: I-adjectives. Again the issue is complex, but what is relevant here is the fact that, informally speaking, postpositional phrases can undergo derivation by being suffixed the adjectival ending *-i*, cf.:

- (i) a [AP [PP Mari mögött] -i_A] ház
 the Mary behind I house
 the house behind Mary
- (ii) *a mögött-i ház

For analogous derivations in other languages, see section 4.

- b. nagy/*nagyobb/*legnagyobb üveg-es (rekesz) OS
 large/larger/largest bottle-OS crate
crate for large/er/est bottles

Secondly, some U-compounds can contain universal quantifiers (even though the resulting expression is not a quantifier proper), whereas they are excluded from OS-compounds, which can have numerals instead, much like U-compounds.

- (20) a. minden oldal-ú b. minden irány-ú (vizsgálat)
 every side-U every direction-U investigation
pertaining to pertaining to
every side; every direction;
multilateral multidirectional
- (21) a. *minden oldal-as b. száz oldal-as (könyv)
 every side/page-OS hundred page-OS book
a 100-page book

Thirdly, the adjective in U-compounds can be complemented by an intensifier, also unavailable for the equivalent constituent in OS-compounds.⁷

- (22) a. nagyon/igen/rendkívül nagy hatalm-ú (uralkodó) U
 very very extremely great power-U monarch
monarch with very/extremely great power
 b. *nagyon/*igen/*rendkívül nagy üveg-es (rekesz) OS
 very very extremely large bottle-OS crate
crate for very/extremely large bottles

While it can be claimed that the gradation of adjectives is a lexical process, and thus the examples in (19) are not crucial (although it might then be asked why the corresponding OS-compounds are not possible), the complex adjectival constructions must undoubtedly be classified as syntactic phrases. But even the comparative can be shown to have a syntactic source as evidenced by the examples to follow.

- (23) a. háromnál kevesebb lámpájú/ujjú U
 three-than less lamp/finger-U
with less than three lamps/fingers
 b. *háromnál kevesebb lámpás/ujjas OS
 three-than less lamp/finger-OS

Having demonstrated that U-compounds allow APs (and NumPs) in their first constituents while the corresponding parts of OS-compounds are confined to zero-level categories, we will now forgo any further comparison and concentrate solely on U-compounds. In addition to the comparative constructions illustrated above, it will be seen in the examples to follow that the APs in U-compounds can contain fully referential DPs as well.

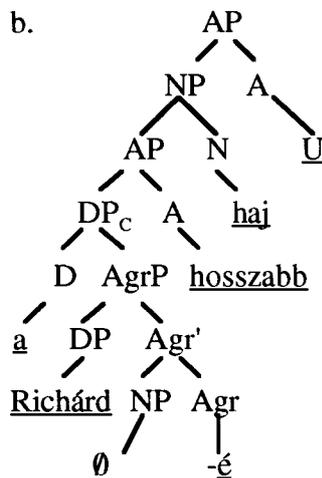
- (24) a. a Richárd hatalmá-nál nagyobb hatalm-ú (uralkodó) U
 the Richard's power-than greater power-U monarch
(a/the monarch) with power greater than Richard's power

7. Obviously, the ungrammatical examples become grammatical if parsed (and interpreted) differently, i.e. as 'very etc. large (or largest) crate for bottles'. That, however, is irrelevant here.

- b. a Richárd-é-nál nagyobb hatalm-ú (uralkodó) U
 the Richard-s'-than greater power-U monarch
 (*a/the*) monarch with a power greater than Richard's

The structure in (24b) is a result of (in effect) deletion under identity with the head noun *hatalm-* 'power', whatever the exact nature of the operation may be. Note, however, that in order to process the structure at the relevant level, i.e., Logical Form, the head noun has to be available there. In other words, if the head noun 'disappears' in the lexicon in the derivational process that forms an adjective of it, no identity between it and the noun in the DP inside the AP can be realized. The following example is supplemented with a representation of what appears to be its structure on the surface.

- (25) a. a Richárd-é-nál hosszabb haj-ú (lány) U
 the Richard-s'-than longer hair-U girl
 (*a/the*) girl with hair longer than Richard's



It is at the position of the ellipsed NP that the 'visible' nouns *haj* 'hair' and *hatalm-* 'power' (can) occur when the constructions appear in their full forms. Note that for ease of exposition the case suffix is not spelled out in this representation but simply marked on the DP by a subscript C. It must also be mentioned that in the position of the DP *Richárd* any complex referential noun phrase can of course be inserted, e.g., *az elötte álló fiú* 'the boy standing in front of you', without affecting grammaticality judgements.

It is not difficult to realize now that if maximal projections, such as NPs, APs and DPs, can occur in the constructions under discussion, these U-compounds, which will hereafter be referred to also as 'phrasal derivations', simply cannot be produced in the lexicon. Consequently, we have to look for other ways to handle them. Two alternatives offer themselves. Firstly, if these are regarded as bracketing paradoxes, then previous methods of resolving morphosemantic mismatches are not applicable and have to be augmented. On the other hand, we may say that we have to do with a new kind of structure which calls for a completely different analysis.⁸

8. Now we are closer to understanding why the compound in mentioned note 1 has to be segmented the way shown here:

- (i) [alacsony-nyomás-ú] [kazán - fűtő]
 low pressure-U furnace operator

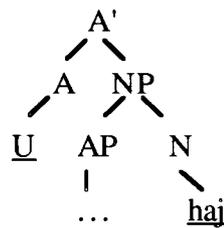
introduces two new distinctions: one between internal and external syntax and another between lexeme word-class, which takes part in the internal syntax of its combination with 'dependents', and wordform word-class, which combines with heads 'outside' the construction. The two wordclasses can be different, e.g., verb and adjective in German, and noun and adjective in Serbian.

While Haspelmath's findings have a much wider coverage than ours and indeed show that the problems outlined in the previous sections are not confined to Hungarian, the proposed solution essentially defers the problem by renaming it. To wit, the earlier difference between derivation and inflection is reborn in the form of one between the items whose lexeme wordclass does not, at any point, differ from their wordform wordclass and those whose lexeme wordclass differs from their wordform wordclass at some stage. Moreover, the first group will contain words whose internal syntactic properties are the same as their external syntactic characteristics, while the second do not. It must, however, be said in favor of Haspelmath's initial suggestion that the affixes in question seem not to allow any further (lexical) affixation, that is, the constructions thus created do not undergo further derivation (though they may be inflected for number, case, or gender) -- at least in the cases which we have been able to confirm.

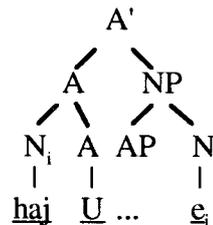
Edging toward a possible account for the problems posed by these phrasal derivations in general, and U-compounds in particular, we may rely on Cinque's (1993) original insight, which posits phrases versus heads in accounting for the headedness of compounds, and Kayne's (1994) Linear Correspondence Axiom, which (a) requires that complements and specifiers be placed on the opposite sides of a head, (b) eliminates the distinction between specifiers and adjuncts, and, finally, at least as far as our concerns go in this paper, (c) dilutes the dividing line between word and phrase syntax, in effect allowing phrases to serve as derivational primitives. Thus, *can opener* is derived from $[_N \textit{er} [_{VP} \textit{open} [_{NP} \textit{can}]]]$ by multiple adjunction. Under Cinque's and Kayne's assumptions, the following illustrate the derivation of U-compounds like (25a) repeated for convenience here.

- (25) a. $[_{AP} [_{DP} [_{AP} \textit{a} \textit{Richard-é-nál} \textit{hosszabb}] \textit{haj}]-\acute{u}] \textit{(lány)}$
 the Richard-s'-than longer hair-U girl
 (a/the girl) with hair longer than Richard's

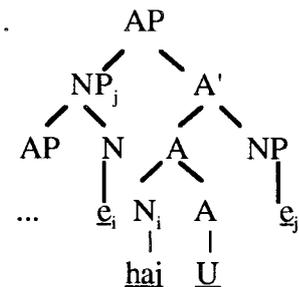
- (27) a.



- b.



- c.



With the internal AP *a Richárdénál hosszabb* 'longer than Richard's' left unanalyzed here, the properties represented are as follows. In (27a) the head A takes an NP complement, whose head noun has an adjoined AP. Following Kayne (1994), head-movement of N to A is executed first (27b), then the NP complement of the head adjective *U* is adjoined to A' in specifier position in (27c). If the division between inflection and derivation is one between lexical and syntactic head movement, then by allowing the head of the NP to move onto the affixal head of the AP, we have in effect defined the operation as inflectional, thus reconciling Haspelmath's original insight with our analysis.

Note that the heads involved in this and similar constructions (cf. (26) and note 5) may be thought of as belonging to functional rather than lexical categories. The relations that the Sorbian (Macedonian, Russian, etc.) possessive adjectival affixes and the Hungarian *-U* affix determine between their NP complements and the referential DPs they are in are by and large identical to those relations that verbs of possession like *have* define between their objects and subjects. Moreover, German *-ende* may also be a functional head, much like Hungarian *I*, since they resemble predicative verbs like *be* in English. For the relation between the two, cf. Kayne (1993).

It may be supposed that the analogous constructions in (26) are analyzed in ways similar to the above, but the Hungarian U-compound presents one more difficulty that has not been accounted for. Even though the suggestion that *-U* takes phrasal complements corresponds to the facts discussed, it does not resolve the question of why the head noun always has to be adjoined by an AP. Recall that U-adjectives like (16), where the affix is added to a bare noun, are ungrammatical. I have no suggestion as to how this could be captured, unless the standard relationship between adjectives and nouns is reversed and it will be required that adjectives take NPs as complements, much along the lines of Ritter's (1991) proposals.

The structures reviewed here also help us reevaluate our conception of categories in syntax. The questions that will have to be examined will involve issues of how to categorize prenominal structures which occupy positions that are (otherwise) reserved or occupied by adjectives, and whether this is sufficient evidence to classify them as adjectives. Note here that much traditional terminology has been reinterpreted in current theoretical linguistics, cf. Chomsky's (1955) definition of functional notions such as subject and object as derived from structural relations. But one traditional functional concept, the 'attribute' has escaped attention, and it is precisely this one that is the source of the difficulty here. That our worries are indeed caused by 'attributeness' is demonstrated by the fact that the structures concerned (that is, those that we have evidence of) cannot be used in predicative positions, unlike (almost) all 'ordinary' adjectives. To illustrate, (28a) is ill-formed, although the 'simple', and possibly lexicalized U-compound in (28b), is acceptable, but then the non-lexicalized (and non-inalienable) one in (28c) is again ungrammatical, although as an attributive adjective it is possible with the very same noun -- unlike its English equivalent.¹⁰

- (28) a. *Mari [a Richárdénál hosszabb haj-ú] volt/maradt
 Mary the Richard's-than longer hair-ed was/remained
Mary was/remained longer-haired than Richard

10. Note here that while OS-compounds are grammatical as predicates, the postpositional I-compounds mentioned in note 5 are not acceptable, which supports the idea of a closer syntactic relation between U-compounds, which can incorporate NPs, and I-compounds, which are constructed from PPs.

- b. Mari hosszú-haj-ú volt/maradt
 long-hair-ed
Mari was/remained long-haired
- c. *Az asztal hosszú-láb-ú volt/maradt
 the table long-legg-ed was/remained
The table was/remained long-legged

5. Conclusion

We have shown in this paper that there is more complication in the issue of bracketing paradoxes than has so far been noticed. Two subtypes of possessional compounds have been distinguished: OS-adjectives (including *white-haired*) as well as the set of examples in (1) constitute 'traditional', i.e. lexical, bracketing paradoxes. U-compounds and I-compounds and the cases reviewed in section 4, are mismatches of a completely different kind since they involve phrase-size items as bases for derivations. The evidence presented forces us to defer some apparently derivational process to a postsyntactic stage, where previously only inflectional rules had been supposed to be at work.

It has been suggested that the affixes be regarded as heads that take maximal categories as complements. In these structures Kayne's (1994) Linear Correspondence Axiom makes movement in effect obligatory in languages like Hungarian, which have right-headed compounds. Head-movement and adjunction 'conspire' to yield the left-branching structures, much along the lines of *can opener* in English.

We have also raised the possibility of reviving the traditional functional notion of 'attribute', which could have the role of defining a 'possessional' or a predicative relation exclusively inside a DP. 'Attribute' might then act as a functional category into which ordinary adjectives may (have to) move in DPs, and whose heads are overt only in languages like those reviewed here. Since this category is unavailable in predicates (= VPs), the phrasal derivations discussed here cannot occur there.

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