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Licensing Empty Nouns in French

Petra Sleeman

Licensing Empty Nouns in French

ACADEMISCH PROEFSCHRIFT

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aan de Universiteit van Amsterdam,
op gezag van de Rector Magnificus
Prof. dr P.W.M. de Meijer
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door ANTONIA PETRONELLA SLEEMAN

geboren te Haarlem

Promotor: Prof. dr A.C.J. Hulk
Co-promotor: dr D. Delfitto

*for Mente
for Tessa, Astrid and Jelmer*

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Theoretical Assumptions

0. Introduction

The theoretical framework for the analysis of empty noun constructions will be Chomsky's principles-and-parameters model. For details, the reader is referred to Chomsky (1981, 1982, 1986, 1992).¹

The analysis of empty noun constructions that I will propose in this study contributes in at least two ways to the theory of grammar. First, it defends Abney's (1987) DP hypothesis and especially Valois' (1990, 1991) claim that postnominal adjectives in the Romance languages are base-generated in a prenominal (functional) position. Second and most importantly, this study contributes to the discussion on empty nouns (see e.g. Chomsky 1982; Jaeggli & Safir 1986; Rizzi 1986).

In this chapter I will present the discussion in the generative literature of these two points, DP-structure (§1) and the licensing of empty pronouns (§2) as the theoretical background for my analysis of empty noun constructions in the chapters that will follow.

1. The DP-hypothesis

The analysis of the licensing of pronominal "heads" that I present in this study defends the DP-hypothesis (Abney 1987) and the idea that both prenominal and postnominal adjectives in Romance are generated within the functional system dominating NP (Valois 1990, 1991). Nowadays, the advantages of a DP-analysis above an NP-analysis are still not clear to every

¹ The DP-structures that I propose in this study are not always in accordance with Kayne's (1994) antisymmetry theory. The main goal of this dissertation is to explore how empty nouns are licensed. I will leave it for further research to examine how the antisymmetric DP-structures that I will assume can be transformed in symmetric structures.

linguist. One of the problems with a DP-analysis is that it seems that the determiner becomes the head of the noun phrase. For some linguists this is unacceptable. For them, the head of the noun phrase is the noun. These linguists defend the NP-hypothesis (Zwicky 1985; van Langendonck 1992). For others, the determiner is the head. Those linguists defend the DP-hypothesis (Hudson 1990; Hewson 1991).

For the linguists mentioned above, the noun phrase only has one head: for those who defend the NP-hypothesis it is the noun, for those who defend the DP-hypothesis it is the determiner. But in Abney's original view, there were two heads. Both the determiner and the noun were the head of the noun phrase, although in different ways. In Abney's view, the noun is the semantic head, whereas the determiner is the structural head. This is also Radford's (1993) view. Besides the determiner as a structural head, Radford distinguishes other functional heads that appear between DP and NP. He defends a multi-headed DP-hypothesis.² Payne (1993), in response, rejects Radford's multi-headed DP-hypothesis and defends the NP hypothesis. For him, there can only be one head, the noun. For Grimshaw (1991), N and D are of the same category ($[-V, +N]$), the difference being that N is lexical, whereas D is functional. The N-D system is a multiheaded extended projection.

In this study, I will share Abney's, Radford's and Grimshaw's insights and adopt a multi-headed DP-hypothesis. I assume that the NP is dominated by several functional projections:

² As a matter of fact, also Abney already tentatively proposed several other functional projections in between DP and NP, viz. AP and QP (see below).

The presence of DP as a functional projection of NP has been defended by Abney (1987) on the basis of the striking similarity between definite articles and pronouns in many languages. He claims that both are generated in D^0 , the difference being that determiners take an NP-complement, whereas pronouns do not. Pronouns are intransitive determiners. The DP-hypothesis has also been defended by Longobardi (1994a). Longobardi argues that D^0 always has to be filled, at least at LF, in order for the DP to be referential. He claims, among other things, that for this very reason proper names raise from N^0 to D^0 , via head-to-head movement. The DP-hypothesis has also been used to explain the postnominal position of the article in various languages (Romanian, Scandinavian): the noun raises to D^0 and left-adjoints to the determiner (Grosu 1988; Taraldsen 1990).

It has been claimed that, besides DP, NP has other functional projections. Ritter (1991) claims on the basis of Hebrew that there is a number phrase in between NP and DP. The noun, N^0 , raises to the head of NumP, because its number features have to be checked.

A third functional projection that has been distinguished is AP. Abney already tentatively proposed that there could be other functional projections dominating NP, such as AP. The adjective-as-a-functional head-hypothesis is adopted by among others Radford (1993) for English and Barbiers (1992) for Dutch. For French, Valois (1990, 1991) claims that both prenominal and postnominal adjectives are adjoined to NP and its functional projections. Adjectives cannot be heads, in his view, because the noun moves, via head movement, to Num^0 , so that the adjectives between become postnominal at S-structure. For Bernstein (1993a,b), most adjectives are adjoined to NP or functional projections of NP, but a small group are heads: adjectives that can only be used attributively, in a prenominal position, such as *simple* 'simple', *ancien* 'former' etc. In this study, I adopt Cinque's (1993) view. According to Cinque, all adjectives, both prenominal and postnominal, are generated within the Spec of several functional projections of NP.

A fourth functional projection of NP that has been distinguished in the literature and that I will make use of is QP (quantifier phrase). In the literature, two different QPs have been distinguished: QP dominating DP (Abney 1987; Bianchi 1992 and many others) and QP dominated by DP. Floating quantifiers are generated in the higher QP, whereas the other quantifiers are generated in the lower QP (see, among others, Abney 1987; Löbel 1989; Corver 1990).

In this study, the motivation for the existence of both AP and QP as functional projections dominating NP will come from the analysis of the licensing of pronominal NPs. I will claim that only if QP and AP are generated within the functional system dominating NP can they license pronominal NPs.

The analysis of null nominal constructions presented in this study will also defend the generation of “postnominal” adjectives within the functional system dominating NP. I will claim that, especially in French, (some of the) postnominal adjectives can license noun ellipsis and the quantitative pronoun *en*. Again, the AP containing the postnominal adjective has to be in the right structural position in order to license the pronominal NP. The AP must be generated within a functional projection of NP.

One of the problems for a multi-headed nominal phrase is Abney’s original assumptions that functional projections can only contain closed lexical classes and that functional elements lack descriptive content. Whereas determiners form a closed class and have little descriptive content, adjectives certainly do not form a closed class and do have descriptive content. In this respect, quantifiers take a position between that of determiners and adjectives. In this study, I will assume that categories forming non-closed classes and with descriptive content are indeed possible within the functional system dominating NP, at least in the Spec of functional projections. I will also call these functional projections themselves QP and AP, after the specifier that they contain, but it might also be possible to give them another name. In any case, their head is (phonologically) empty.³

This study will thus provide an argument for a multi-headed DP-hypothesis. It will be argued that a (functional) head-complement (NP) relation is necessary (but, as I will show in the next section, not sufficient) in order for pronominal NPs to be licensed.

2. The licensing of pronominal NPs

Since Chomsky (1982), the licensing of small *pro*, an empty category of the type [-anaphor, +pronominal], has generally been related to inflection. It was proposed that subject *pro* was only possible in languages with a “rich enough” inflectional system, i.e. the pro-drop languages, so that the inflection could provide the grammatical features of the “missing subject”.

The “licensing of *pro* by rich inflection” approach has been adopted by several linguists to explain noun ellipsis facts (Olsen 1987; Delsing 1992; Kester 1996). It was proposed that adjectival inflection could license ellipted

nouns. This claim was especially made for the Germanic languages, in which the noun can very easily be left out.

However, there are languages in which empty nouns do not seem to be licensed by inflection. In French for instance, the adjective can be inflected, but base-generated empty nouns do not seem to have anything to do with the inflection of the adjective. In (2), an empty noun is not possible, although the adjective is inflected:⁴

- (2) *Je préfère l’intelligente *pro*.
I prefer the intelligent FEM SG

This shows that in French, empty nouns are not licensed by the inflection of the adjective. I will claim the same for Italian and Spanish.

Lobeck (1991, 1993, 1995) claims that noun ellipsis in English can be licensed, not by inflection, because English adjectives are not inflected, but by features on the specifier, which “can be loosely defined as rich agreement” (Lobeck 1991, p. 91). Whereas Lobeck (1991) distinguishes three kinds of features: [+Kase] (possessive phrases, e.g. *John’s*), [+Number] (*these, those*) and [+Q] (quantifiers), Lobeck (1993, 1995) reduces them to two, [+possessive] and [+plural]. These features can be expressed in a morphological way, but do not necessarily have to. Cardinals (except for *one*) are [+plural] although this is not expressed in a morphological way. Because of the feature [+plural], cardinals license empty nouns in English.

In a note, Lobeck adds the feature [+partitive] to the features [+poss] and [+plural]. This feature serves to explain why the quantifiers *one* and *each* can license empty nouns, although they are [-plural].

In this dissertation, I will claim that the feature [+partitive] always plays an important role in the licensing of empty nouns. This implies that I will even replace Lobeck’s features [+poss] and [+plural] by the feature [+partitive]. I will take this feature to be simply a semantic feature, so that I will assume that morphology does not play any role in the licensing of empty nouns, at least not in Romance and English.⁵

Traditionally, a distinction is made between the formal licensing and the identification of *pro*. While the formal licensing of *pro* determines its structural position, its identification has to do with the recoverability of its

³ Another possibility is to distinguish [-lexical, +functional] categories from [+lexical, +functional] categories, as Cardinaletti & Giusti (1991) do. D is a [-lexical, +functional] category, N is [+lexical, -functional] and Q is [+lexical, +functional]. In Cardinaletti & Giusti’s system, only DP and QP are functional projections of NP, so that AP is [-lexical, -functional] in their view. In my system, AP would be [+lexical, +functional].

⁴ If sentence (2) is explicitly used in a contrastive manner, it becomes grammatical.

⁵ This analysis of noun ellipsis differs from the one I proposed in Sleeman (1993). In that paper, I proposed that the empty NP was a base-generated variable that was licensed by being operator-bound by a quantificational element (see Cinque 1990b). Subsequent research on the licensing of the quantificational pronoun *en*, however, changed my analysis of noun ellipsis.

feature content. According to Rizzi (1986), the formal licenser and the identifier of *pro* have to be the same element. The licenser is a Case-marking head (the type of licensing heads differ from one language to another). Small *pro* is identified by features of the licenser:

- (3) *Licensing of pro* (Rizzi 1986):
pro is Case-marked by X_y (where X is a governing head of the type y). Let X be the licensing head of an occurrence of *pro*; then *pro* has the grammatical feature specification of the features on X coindexed with it.

In (4), *pro* is formally licensed by the nominative assigning head INFL and its content is also determined by INFL:

- (4) *pro* verrà.
 will-come
 'He/she will come.'

In (5), *pro* is formally licensed by the Case assigning head V and its content is defined through coindexing with a slot in the theta-grid of V :

- (5) La buona musica riconcilia *pro* con se stessi.
 the good music reconciles with oneself
 'Good music reconciles people with themselves'.

In studies that deal with the licensing of empty nouns, the Case-marking requirement is generally replaced by a proper government requirement. It is proposed that empty nouns have to be properly governed by an element with the appropriate properties within the extended projections of NP (Bosque 1986; Contreras 1989; Cardinaletti & Giusti 1991; Lobeck 1991, 1993, 1995; Kester 1996). Inflection or *phi*-features generally are considered appropriate properties.

In this study I will claim that empty nouns have to be formally licensed by a proper governor with a partitive meaning. As for the identification of empty nouns, I will claim that a "specific" interpretation of the formal licenser plays an important role (see, among others, Enç 1991; Diesing 1992). I will show that this analysis can account for a wide range of data involving empty nouns in various languages and can also account for the use of quantitative pronouns (such as *en* in French), in languages which have one. Finally, I will show that the proposed analysis can also account for substantivization data (at least in French) involving the "conversion" of an adjective into a noun.

Noun Ellipsis

0. Introduction

Noun ellipsis is the omission of a noun that can be recovered from the linguistic or extra-linguistic context. An example is given in (1), in which *the third* is used instead of *the third book*, because *book* can be recovered from the linguistic context (*of this writer's books*):

- (1) Of this writer's books, I prefer the third.

In English, the possibility of leaving out a noun is very restricted. In most cases, the pronoun *one* has to be used:

- (2) *Of these tables, I prefer the small.
 (3) Of these tables, I prefer the small one.

Whereas in English, noun ellipsis is hardly possible, in other Germanic languages, such as German, Dutch or the Scandinavian languages, nouns can easily be left out. In most studies on noun ellipsis in these languages, it is noted that adjectival inflection plays a crucial role (see e.g. Olsen 1987 for German; Barbiers 1990 and Kester 1996 for Dutch; Delsing 1992 for the Scandinavian languages). In these languages, all inflected adjectives allow the ellipsis of the noun, while the non-inflected ones do not. This is illustrated by the following Dutch examples:

- (4) Zij heeft een zwarte auto, maar ik heb een groene *e*.
 she has a black car, but I have a green (one)
 (5) *Zij heeft een zwart hek, maar ik heb een groen *e*.
 she has a black fence, but I have a green (one)

In English, on the other hand, adjectives do not inflect. Because of the relation between noun ellipsis and adjectival inflection in the other Germanic languages, the quasi-absence of noun ellipsis in English is generally related to the lack of adjectival inflection (Lobeck 1991, 1993, 1995).

In most recent studies on noun ellipsis, it is assumed that the empty noun is of the small *pro* type (see e.g. Lobeck 1991, 1993, 1995; Kester 1996). According to Rizzi (1986), small *pro* is authorized if it is formally licensed by Case-marking and identified by the *phi*-features of the Case-marker. Although in Rizzi's paper, small *pro* is itself an argument (subject or object), whereas in the case of noun ellipsis the empty noun is part of an argument, Rizzi's theory is generally applied to noun ellipsis as well. The noun ellipsis data in the Germanic languages are generally accounted for by means of Rizzi's identification requirement. Adjectival inflection is somehow able to identify the empty noun of the small *pro* type.

However, although lack of adjectival inflection can thus account for the cases in English in which noun ellipsis is not possible, it cannot explain why noun ellipsis is possible in some cases, such as in (1). Furthermore, in French, adjectives inflect, but noun ellipsis is not always possible (Ronat 1977):

(In the morning an interesting lecture and some less interesting ones were given):

- (6) *Malheureusement je n'ai pas entendu l'intéressante.
unfortunately I neg have neg heard the interesting
'Unfortunately, I have not heard the interesting one.'

In contrast, non-inflecting adjectives do sometimes allow noun ellipsis in French, just as in the English example (1). Composed color adjectives, for instance, do not inflect, but allow noun ellipsis:

- (7) De ces robes, je préfère la vert foncé.
of these dresses, I prefer the green deep
'Of these dresses, I prefer the deep green one.'

This suggests that besides the inflection of the adjective arguably relevant for most Germanic languages, there is some other grammatical device which can license noun ellipsis.

It has been noted by some linguists (e.g. Barbaud 1976; Ronat 1977) that the adjectives that allow noun ellipsis in French are "classifying" adjectives.¹ "Classifying" adjectives include superlatives, as in (8):

- (8) De ces filles, Marie est la plus intelligente.
of these girls, Marie is the most intelligent (one)

Color adjectives, as in (9):

- (9) De ces robes, je préfère la bleue.
of these dresses, I prefer the blue (one)

Adjectives which Barbaud calls hierarchic adjectives: the ordinals, as in (10),

- (10) De ses livres, je préfère le premier.
of his books, I prefer the first (one)

précédent 'preceding', *suisant* 'following', *prochain* 'next', as in (11),

- (11) Je n'ai pas lu le précédent.
I neg have neg read the preceding
'I have not read the preceding one.'

and *même* 'same', *autre* 'other', *seul* 'only', as in (12)-(14):

- (12) J'ai pris les mêmes que toi.
I have taken the same (ones) as you
(13) Je prends l'autre.
I will take the other (one)
(14) De tous mes amis, ils sont les seuls à le savoir.
of all my friends, they are the only to it know
'Of all my friends, they are the only ones who know it.'

¹ The word *classifying* is somewhat misleading. In fact most adjectives classify. Still, they do not always allow noun ellipsis, as the ungrammatical sentence (6) shows. In §6 of this chapter and in chapter 4, I will try to give a more precise characterization of the class of adjectives that allow empty nouns than the notion "classifying" does.

Furthermore "classifying" adjectives include measuring adjectives such as *grand* 'big' and *petit* 'small'.^{2,3}

- (15) De ces chiens, je préfère le grand.
of these dogs, I prefer the big (one)

This suggests thus that in French the semantic properties of the adjective rather than its morphology plays a crucial role in the licensing of ellipted nouns.

In this chapter, I investigate what the adjectives that license noun ellipsis in French have in common semantically and how their semantic properties allow them to license ellipsis of the noun. Furthermore, I investigate whether the analysis proposed for French can be extended to English, where just as in French noun ellipsis is not licensed by adjectival inflection, and whether it can be extended to other Romance languages.

The chapter is organized as follows. First, in §1, I discuss licensing by adjectival inflection, which has been proposed for the Germanic languages. In §2 through §9, I discuss the licensing of noun ellipsis in French; in §2 through §5, I show that a DP-analysis can better account for the data than an NP-analysis. In §6, I discuss the semantic properties of the adjectives that can license ellipsis of the noun. In §7 and §8, I propose a licensing mechanism that, as will be shown in §9, can account for the French data. In §10 through §12 the analysis proposed for French is extended to English and to other Romance languages. In §13, I speculate on the difference with respect to the licensing of noun ellipsis between Romance and English on

² These cases have to be distinguished from cases such as *le malade* 'the ill' with an inherently "human" interpretation (see chapter 5).

³ Anne Zribi-Hertz has pointed out to me that even adjectives that normally do not allow noun ellipsis (cf. (6)) do allow it if the adjective is explicitly used in a discriminating way (the examples are hers):

- (i) Parmi les exposés présentés au colloque, je distinguerai trois catégories: les intéressants, les atroces et les incolores.
among the talks delivered at the colloquium, I will distinguish three categories: the interesting ones, the awful ones, and the colorless ones
- (ii) Parmi les tableaux exposés dans ce musée, je distinguerai trois catégories: les magnifiques, les bizarres et les affreux.
among the paintings exhibited in this museum, I will distinguish three categories: the magnificent ones, the strange ones, and the awful ones

The reason for this is that in (i) and (ii), the context that the adjectives are used in, i.e. the opposition with other adjectives, makes the adjectives "classifying".

the one hand and Germanic languages different from English on the other. Finally, in §14, I summarize the results.

1. Dutch and other Germanic languages

In Dutch, German and the Scandinavian languages, attributive adjectives take an inflectional ending in most cases. In Dutch, for instance, the inflectional ending is schwa. The attributively used adjective in (16) takes this ending, whereas the predicatively used adjective in (17) does not:

- (16) Ik neem de oude auto.
I will take the old car
- (17) Deze auto is oud.
this car is old

All adjectives with this schwa morpheme allow ellipsis of the noun:

- (18) Ik neem de oude *e*.
I take the old (one)

Attributive adjectives do not always take a schwa morpheme. They do not take a schwa morpheme if they modify a neuter singular noun and are preceded by an indefinite determiner:

- (19) een oud huis
an old house

In this case, the adjective does not allow ellipsis of the noun:

- (20) *Ik heb liever een oud.
I have preferably an old
'I prefer an old one.'

Even if they are used attributively, participial adjectives ending in *-en* do not take a schwa morpheme:

- (21) de verloren wedstrijden
the lost matches

These adjectives do not allow ellipsis of the noun either:

- (22) *Van die wedstrijden moeten de verloren overgespeeld worden.
 of those matches must the lost replayed be
 'The lost matches must be replayed.'

According to Muysken (1983) and Muysken & van Riemsdijk (1986), the inflectional marking on attributive adjectives in the Germanic languages is Case marking. This is not only true for German, which has unambiguous Case marking, but also for a language like Dutch, which has only the schwa ending. Muysken and Muysken & van Riemsdijk suggest that if the noun is absent, another element has to bear a Case-marker. The difference in grammaticality between (18) and (20) is then the consequence of the respective presence and absence of a Case marker on the adjective. The linguists support this idea with facts from German. Normally the German adjective *lila* 'lilac' remains uninflected, even in attributive use, see (23). However, in informal speech, *lila* can be inflected (24):

- (23) ein lila Kleid
 a lilac dress
 (24) ein lilanes Kleid
 a lilac dress

Interestingly, noun ellipsis is only possible with the inflected form of *lila*. This shows that if the noun is absent, another element must bear an inflectional ending:

- (25) *ein lila
 a lilac
 (26) ein lilanes
 a lilac (one)

However, the Case-marking requirement does not account for the fact that in the absence of a noun, it is an adjacent element, and not just an arbitrary one, which must bear an inflectional ending. Compare the Dutch examples (27)-(29):

- (27) *de gratis
 the free (ones)
 (28) *de mooie gratis
 the beautiful free (ones)
 (29) de gratis groene
 the free green (ones)

Example (27) shows that noun ellipsis is not possible because of the uninflected adjective. In (28), however, another adjective bears an inflectional ending, but the result is still ungrammatical. Example (29) shows that the element bearing an inflectional ending has to be adjacent to the ellipsed noun.

An account for the noun ellipsis data which does not present this problem is proposed by Kester (1996). Following Lobeck (1991, 1993, 1995), Kester assumes that the empty noun in the case of noun ellipsis is of the small *pro* type. Just as Lobeck, she relates the licensing of this kind of *pro* to the licensing of subject *pro* in pro-drop languages. Whereas for subject *pro* it has been claimed in the literature that it is licensed by verbal inflection (see e.g. Chomsky 1982), Kester proposes that in Dutch and other Germanic languages, ellipsed nouns of the small *pro* type can be licensed by adjectival inflection. She adopts a DP-analysis and assumes that adjectives are generated within the extended projections of NP. Since the licenser has to (properly) govern *pro* (Rizzi 1986; Lobeck 1991, 1993, 1995), Kester's approach can explain why (29) is grammatical and (28) is ruled out. In (28), the inflected adjective does not (properly) govern the ellipsed noun because of the intervening uninflected adjective in a lower functional projection.

Kester extends her analysis of Dutch to other Germanic languages, such as German and the Scandinavian languages. Since just as the Germanic adjectives, Romance adjectives can be inflected, the analysis also applies to Romance languages. Since in English, adjectives are uninflected, the prediction is that noun ellipsis is not possible in English.

Below I argue that in Romance, noun ellipsis is not licensed by adjectival inflection. Furthermore, I show that noun ellipsis is sometimes possible in English. I relate the licensing of noun ellipsis in Romance to the licensing of noun ellipsis in English, a language without adjectival inflection.

I first discuss French. Subsequently, I extend my analysis of French to English, Italian and Spanish.

2. French

One of the best known studies that tries to explain why only a limited class of adjectives in French allow the ellipsis of the noun, is Ronat's (1977). In Ronat's opinion, relational adjectives are generated as an adjunction to N^0 ; quantifiers and adjectives that allow the ellipsis of the noun are dominated by N' ; all the other intransitive adjectives, i.e. adjectives not followed by a complement, are dominated by N'' , and determiners and restrictive relative clauses (from which Ronat derives transitive adjectives, i.e. adjectives followed by a complement) are generated in [Spec, NP] (a kind of

extraposition transformation within the NP moves the relative clause to a position to the right of the noun):⁴

Ronat tries to explain why only quantifiers and a restricted class of adjectives allow ellipsis of the noun in French by means of the following claim:

- (31) N' has to dominate something at S-structure.

If this "something" is not a noun then it has to be either a quantifier or an adjective. Ronat's assumption that quantifiers and the class of adjectives that allow noun ellipsis are dominated by N' accounts for the grammaticality of the following cases:

- (32) les _{N'}[deux *e*]
the two

- (33) la _{N'}[*e* verte]
the green (one)

⁴ Ronat mentions only three cases of noun ellipsis: with cardinal numbers, with *seul* and with color adjectives. Cardinal numbers and *seul* are quantifiers generated to the left of the noun, whereas color adjectives are adjectives generated to the right of the noun. In order to be able to account for the possibility of noun ellipsis with prenominal adjectives (the ordinals, *autre*, *même*, *précédent*, *suivant*, *prochain*, *grand*, *petit*, and the prenominal superlatives), Ronat would have to distinguish an adjective position to the left of the noun dominated by N'.

In the following cases, however, noun ellipsis is not possible because N' does not dominate anything:⁵

- (34) *_{NP}[le _{N'}[*e*]
the
(35) *le _{N'}[*e*] qui est susceptible de te plaire
the that is susceptible of you please
(36) *le _{N'}[*e*] susceptible de te plaire
the susceptible of you please
(37) *les _{N'}[*e*] magnifiques
the magnificent

There are two problems with Ronat's proposal, one conceptual and one empirical. The conceptual problem is that Ronat needs the ad hoc constraint (31) to exclude (34)-(37). The empirical problem is the ungrammaticality of (38) and (39). Although N' does dominate something in these cases, namely *deux* in (38) and *seul* in (39), the sentences are ungrammatical:

- (38) *Je n'ai pas entendu les _{N'}[deux *e*] intéressantes.
I neg have neg heard the two interesting
(39) *C'est le _{N'}[seul *e*] captivant que j'aie lu.
it is the only captivating that I have SUBJ read

The ungrammaticality of these sentences cannot be attributed to the fact that the combination of "something" dominated by N' with "something" dominated by N'' should not be possible, because (40) and (41) are grammatical:

- (40) Je n'ai pas entendu les _{N'}[deux *e*] que tu m'avais dit d'aller écouter.
I neg have neg heard the two that you me had told of go listen
'I did not hear the two that you had told me to attend.'

⁵ Since relational adjectives are dominated by N', constraint (31) would predict that they allow noun ellipsis, but, in general, they do not:

- (i) *De ces cartes, je préfère la postale.
of these cards, I prefer the postal

Ronat explains this by suggesting that adjunction to the empty N° is not possible.

- (41) De toutes ces robes, celle-ci est la _N[seule *e*] susceptible de me plaire.
 of all these dresses, this is the only susceptible of me please
 'Of all these dresses, this is the only one which pleases me'.

In this chapter, I propose a solution that will be an answer to both the conceptual and the empirical problem. Although I reject Ronat's N'-constraint, I retain her syntactic distinction between restrictive relative clauses and transitive adjectives on the one hand and intransitive adjectives on the other. In the next section, I repeat Ronat's arguments in favor of a syntactic distinction.

3. Transitive adjectives

Ronat (1974, 1977) shows that transitive adjectives, i.e. adjectives followed by a complement, behave like restrictive relative clauses and she proposes to relate them transformationally: she derives transitive adjectives from restrictive relative clauses by means of a deletion transformation. Intransitive adjectives are base-generated within the NP.⁶ Ronat shows that transitive adjectives and restrictive relative clauses differ from intransitive adjectives in at least the following respects (the examples are Ronat's):

1. Transitive adjectives and restrictive relative clauses can be combined with a noun preceded by *seul(e)(s)*, whereas intransitive adjectives cannot:

- (42) Les seuls livres susceptibles de te plaire sont là.
 the only books susceptible of you please are there
 'The only books which might please you are there.'
 (43) Les seuls livres que je connaisse sont là.
 the only books that I know are there
 (44) *Les seuls livres rouges sont là.
 the only books red are there

⁶ Also in English, transitive adjectives seem to be related to restrictive relative clauses; both types are generated in a postnominal position, whereas the intransitive adjectives are generated in a prenominal position (see Bolinger 1967):

- (i) a man proud of his country
 (ii) a man who is proud of his country
 (iii) a proud man

2. Nouns preceded by a possessive adjective are compatible neither with a transitive adjective nor a restrictive relative clause, but they are compatible with an intransitive adjective:

- (45) *Je te donnerai mes livres capables de te plaire.
 I you will give my books capable of you please
 (46) *Je te donnerai mes livres qui sont rouges.
 I you will give my books that are red
 (47) Je te donnerai mes livres rouges.
 I you will give my books red
 'I will give you my red books.'

3. In standard French, the quantitative pronoun *en* can only be extracted from an NP introduced by a plural indefinite article if the NP contains an intransitive adjective (in spoken French, however, (48) and (49) are accepted):

- (48) *J'en ai des capables de sauter au plafond.
 I of them have PL IND ART capable of jump to the ceiling
 (49) *J'en ai des qui sont capables de sauter au plafond.
 I of them have PL IND ART that are capable of jump to the ceiling
 (50) J'en ai des rouges.
 I of them have PL IND ART red
 'I have some red ones.'

4. Demonstrative pronouns may be followed by a transitive adjective or a restrictive relative clause, but not by an intransitive adjective:

- (51) Je ne t'ai envoyé rien que ceux capables de te plaire.
 I not you have sent anything but those capable of you please
 'I have only sent you the ones that might please you.'
 (52) ceux que j'ai vus
 those that I have seen
 (53) *Je ne t'ai envoyé rien que ceux rouges.
 I not you have sent nothing but those red
 'I have only sent you the red ones.'

5. Word order: intransitive adjectives cannot be preceded by a PP, transitive adjectives and restrictive relative clauses can:

- (54) le seul toit gris de Paris
the only roof gray of Paris
'the only gray roof in Paris'
- (55) *la seule porte de Paris grise
the only door of Paris gray
- (56) la seule porte de Paris susceptible d'être repeinte
the only door of Paris susceptible of be repainted
'the only door in Paris that might be repainted'
- (57) la seule porte de Paris qui soit grise
the only door of Paris that is gray
'the only gray door in Paris'

Although I adopt Ronat's idea that restrictive relative clauses and transitive adjectives are related, I will not derive the latter from the former by means of a deletion transformation. Nor will I generate restrictive relative clauses in the Spec of NP, to the left of N', and extrapose them to the right of the noun, as Ronat does.

In the seventies, the various positions of adjectives could be distinguished by means of rewriting rules. It was also possible to relate transitive adjectives to relative clauses by means of a deletion transformation. In the principles-and-parameters model (Chomsky 1981), however, rewriting rules were replaced by licensing mechanisms and syntactic transformations were reduced to move-alpha.

I assume that, just like restrictive relative clauses, transitive adjectives are licensed by means of predication (see e.g. Williams 1980; Rothstein 1983). Williams (1980) right-adjoins restrictive relative clauses to N'. It is more likely, however, that restrictive relative clauses are adjoined to NP (see Safir 1986 and references cited there), or to a maximal functional projection of NP. In that case, relative clauses would be more like other kinds of predication, in which there is also a maximal projection as the "subject".^{7,8}

⁷ CPs and APs are not the only possible predicative adjunctions to NP. Hulk and Verheugd (1992, 1994) claim that *de* + adjective, as in (i), is a predicative QP, with *de* as the head of QP, and an AP, as the complement of Q:

- (i) Je n'ai mangé que deux pizzas de chaudes.
I not have eaten but two pizzas of hot
'I have only eaten two hot pizzas.'

Besides a restrictive relative clause, a transitive adjective, or an adjective preceded by *de*, the predicate can be a present participle followed by a complement. I assume that these predicates are IPs (see also Drijkoningen 1987). The distribution of these IPs resembles that of restrictive relative clauses and transitive adjectives:

Apart from a position for the restrictive relative clauses and transitive adjectives, Ronat distinguishes three positions for intransitive adjectives and one for quantifiers. Although I accept the idea that several positions have to be distinguished, I will modify Ronat's proposals by making use of a more recent framework.

4. Quantifiers and intransitive adjectives

Basically, intransitive adjectives can be divided into two groups: prenominal and postnominal adjectives. Quantifiers only occur prenominally.

Ronat generates the postnominal intransitive adjectives to the right of the noun. But in accordance with recent assumptions in generative syntax, I assume that all intransitive adjectives are generated in the extended projections of NP (see, among others, Abney 1987; Valois 1990, 1991; Bernstein 1993a,b; Cinque 1993). A point of discussion in these studies, however, is the exact position of the adjectives: are they heads, specifiers or adjuncts? Abney proposes that adjectives are generated (in English) as the

- (ii) Le seul élève de Jean participant à la compétition est David.
the only pupil of John participating to the competition is David
'The only pupil of John's who is taking part in the competition is David.'

⁸ Although A° is the same in (i) and (ii), the APs are generated in different positions: the adjective in (i) is an intransitive adjective and is generated in one of the functional projections of NP, whereas the adjective in (ii) is a transitive adjective and therefore a predicate:

- (i) les hommes jaloux
the men jealous
'the jealous men'
- (ii) les hommes jaloux de leurs femmes
the men jealous of their wives

Sometimes the difference in adjective type (transitive or intransitive) is accompanied by a difference in meaning (see Ronat 1974). The intransitive adjective *susceptible*, for instance, means 'easily vexed', whereas its transitive counterpart means 'capable of'.

Sleeman and Verheugd (to appear) claim that the predicative use of transitive adjectives (and also of present participals and adjectives introduced by *de*, see the previous note) is caused by their having syntactic arguments. One of these arguments, in general the external one, is an empty operator. They assume that attributive adjectives, on the other hand, do not take syntactic arguments, so that they can modify the noun phrase directly. This means that in (i), the adjective is lexically intransitive. There can be no empty complement, because in that case the adjective would be a transitive adjective and therefore a DP-internal predicate.

head of the functional projection AP. Valois (1990, 1991) proposes that both in Germanic and in Romance languages all intransitive adjectives are generated in a prenominal position, in the same order in both types of languages, as adjuncts of NP and its functional (maximal) projections. The postnominal position at S-structure of adjectives in the Romance languages would be the result of N-movement to the head of NumP, a functional projection dominated by DP, which contains features that have to be checked by the noun (Ritter 1991). The prenominal position of adjectives would be the result of the adjective incorporating into the noun, which is on its way to NumP.

Bernstein (1993a) proposes that numerals and prenominal adjectives are generated in functional projections dominating NumP, whereas the adjectives that surface postnominally are generated in between NumP and NP. Most of the adjectives are adjuncts, but some of them are heads.

Cinque (1993) argues that all adjectives are generated in Spec-positions. Cinque presents several arguments in favor of this assumption, two of which will be presented here. The first argument is that adjectives generally appear in a strict order, such as in (58):

- (58) poss.> card.>ord.>qual.> size> shape> color> nat.
 (i) suoi due altri bei grandi quadri tondi grigi cinesi
 (the) his two other beautiful big paintings round gray Chinese
 'his two other beautiful big round gray Chinese paintings'

Since adjunctions are normally free, an adjunction hypothesis cannot easily account for this relatively fixed word order. A generation-in-Spec hypothesis, on the contrary, can produce the desired result more easily, since the word order can be made to follow from the hierarchical order of the functional projections in whose Specs the adjectives are generated. Hopefully, the rigid hierarchy of functional projections can be derived on independent grounds, possibly involving the kind of features realized on the head.

Cinque's second argument is that the generation-in-Spec hypothesis can explain why there is a limit on the combination of adjectives (apparently not exceeding six or seven): there is only a limited number of functional projections dominating NP in the Spec of which adjectives can be generated. The adjunction hypothesis cannot explain this restriction, because an unrestricted number of adjunctions to one and the same projection is possible in principle.

In this work, I adopt Cinque's position. My analysis of noun ellipsis in French will motivate Valois' claim that "postnominal" adjectives are generated in a pre-NP position. Since the noun has to move past these

adjectives to the head of NumP, they cannot be generated in a head position, because Travis' (1984) Head Movement Constraint would block the movement. The adjectives can then be either adjuncts or specifiers. My analysis of noun ellipsis will motivate their generation in the Spec of extended projections of NP, because I will propose that they must be able to properly govern NP. This is only possible if they are specifiers, in which case they can properly govern via Spec-Head agreement, but not if they are adjuncts.

Due to this and due to Cinque's arguments, I assume that intransitive adjectives in French are generated in the specifier of extended projections of NP. Furthermore, I adopt Bernstein's distinction between pre-NumP and post-NumP functional projections: the postnominal surface position of adjectives would be the result of the noun moving to the head of NumP, but the prenominal position of the other adjectives would not be the result of their incorporation with the noun in the course of its movement to the head of NumP, as in Valois' proposal.

Although in general I will assume that adjectives are generated in specifier positions, I will make one exception. I will assume that relational (denominal) adjectives are heads of an extended projection of NP. Since in Valois' theory the order of adjectives is the same at D-structure in Germanic and in Romance languages, relational adjectives have to be generated in a position immediately to the left of the NP, as the following Dutch example shows:

- (59) lege Parijse cafés
 empty Parisian bars

In the Romance languages, relational adjectives immediately follow NP at S-structure, as the following French example shows:

- (60) des cafés parisiens vides
 PL IND ART bars Parisian empty
 'empty Parisian bars'

However, this S-structure cannot be derived by simply moving the noun to the head of NumP, because in that case the relational adjective would not be adjacent to the noun at S-structure (cf. Lamarche 1991):

- (61) des NumP[Num[cafés]_i vides parisiens NP[N t_i]]

I therefore assume that the relational adjective is generated as the head of a functional projection immediately dominating NP. The noun moves first

to this functional projection and incorporates with the adjective. Subsequently the complex formed by the noun and the relational adjective moves further to Num°, yielding the result shown in (60). As Ronat shows, relational adjectives cannot be combined with empty nouns, probably because they have to incorporate with a noun. Therefore, they will not play any role in this study.⁹

Apart from DP I distinguish at least 3 pre-NumP functional projections: one for the numerals, which are generated in [Spec, QP], one for the ordinals, *seul, autre, même, prochain, précédent* and *suivant*, which I will call *ord*AP, for ordering adjectival phrase; and one for the “prenominal” adjectives and “prenominal” superlatives, which I will call *pre*AP.¹⁰ Furthermore, I distinguish at least two post-NumP positions: one for the “postnominal” intransitive adjectives (among which the color adjectives) and “postnominal”

⁹ Grevisse (1988:307) notes that even relational adjectives sometimes allow noun ellipsis. This seems to be a rather marginal phenomenon, however, due to the fact that relational adjectives have to be interpreted in relation to a noun (see, e.g., Hietbrink 1990):

- (i) Elle allait désertier le règne végétal et sauter par-dessus le minéral.
she was going leave the kingdom vegetable and jump over the mineral
'She was going to leave the vegetable kingdom and go over to the mineral kingdom.'

¹⁰ Hulk (1982) shows that in spoken French, cardinals can be followed by *de*:

- (i) J'en ai une de casserole qu'elle est trouée.
I have one of pan that she is perforated
'I have a pan with a hole in it.'

Hulk assumes, with Milner (1978), that in all varieties of French, cardinal numbers are followed by *de* at D-structure, which is deleted later in the derivation. Whether it is assumed that *de* is present at D-structure or not, the example shows that besides the generation of “postnominal” adjectives the generation of cardinal numbers in a specifier position, viz. the spec of QP, is also motivated. Corver 1990 and Hulk & Verheugd 1992, 1994 assume that *de* is the head of QP.

Another piece of evidence for Spec-positions might be provided by right-dislocated nouns introduced by *de*. I propose that, in these cases, the right-dislocated part, which is right-adjoined to NP (see also Hulk 1996), is a copy of the functional projection that contains the licenser of the ellipsed noun plus its complement, the NP. Whereas the head of this functional projection is spelled out in the right-dislocated part as *de*, the specifier is empty but bound by the licenser of the empty noun. Right-dislocation is possible in all cases of noun ellipsis (see Milner 1978; Azoulay-Vicente 1985):

- (ii) C'est _{postAP}[[la plus intelligente]_{NP}[*pro*]] _{XP}[[*e'*]] _{X₀}[*de*] _{NP}[*fille*]].
it is the most intelligent, of girl
'She is the most intelligent girl.'

superlatives, which I will call *post*AP, and one for the relational adjectives, which I will call *rel*AP. Combined with the proposal for transitive adjectives (see the previous section), this yields the following D-structure:

(62)

After incorporation of the noun with the relational adjective, the noun moves to Num°. This yields the following S-structure:

- (63) les deux premières petites vaches laitières blanches capables de me plaire
 the two first little cows dairy white capable of me please
 'the first two little dairy cows that please me'

The assumption of structure (62) leads us to the following observations with respect to the noun ellipsis facts presented in §2 of this chapter. Adjectives base-generated to the right of the noun (i.e. transitive adjectives) never allow noun ellipsis (cf. (36)), whereas some of the adjectives generated to the left of the noun do. Therefore I tentatively conclude that the possibility of noun ellipsis in French partly depends on the adjective being base-generated to the left of the noun. I will formalize this idea in §7. In that section, I will propose that empty nouns have to be properly governed by an element with a partitive meaning. Since government is to the right in French, and furthermore involves a head-complement relation, it follows that right-adjuncts cannot allow ellipsis of the noun.

After having discussed and revised Ronat's proposals with respect to the adjective and quantifier position in NP (see the representation in (62)), I now turn to the status of the empty noun.

5. The empty noun

In earlier accounts of noun ellipsis constructions in French, the empty nominal was represented as a subphrasal gap, an N° or an N' (see e.g. Ronat 1977; Hulk 1982, 1984).

Lobeck (1991), however, claims that at least in English an ellipted constituent has to be a maximal projection, not only in noun ellipsis cases, but also in other ellipsis cases. Thus in (64) the ellipted constituent is IP, in (65) it is VP and in (66) it is NP (the examples are Lobeck's):

- (64) Even though she doesn't know exactly $_{CP}[who \text{ } _{IP}[e]]$, Mary thinks that someone interesting is speaking tonight.
 (65) Because Mary $_{VP}[might \text{ not } _{VP}[e]]$, John will attend the rally.
 (66) Although John's friends were late for the rally, $_{DP}[Mary's \text{ } _{NP}[e]]$ came on time.

The structure that I have proposed for the French DP strongly suggests that in French the gap is also a maximal projection. Quantifiers and prenominal adjectives are generated in the specifier of extended projections of NP, whereas transitive adjectives are right-adjoined to NP.

A possible counterargument to the claim that in noun ellipsis constructions the gap is a maximal projection is that for example in (67) the complement PP seems to be dominated by N' , because it is a complement of the empty head of the NP. Therefore it seems that the gap is not maximal here:

- (67) Ce fut le premier bombardement de la partie sud de la ville, mais déjà le troisième de la partie nord.
 it was the first bombardment of the part south of the city, but already the third of the part north
 'It was the first bombardment of the southern part of the city, but already the third of the northern part.'

In my opinion this is only an apparent counterexample. In recent literature (e.g. Grimshaw 1990) it is proposed that only a certain type of noun (complex event nominal) has syntactic arguments, i.e. arguments dominated by N' . A property of complex event nominals is that they do not pluralize and cannot be combined with a demonstrative, an indefinite determiner, or with numerals. In the next section I will show that the adjectives that allow noun ellipsis have a partitive meaning and mean, roughly, the one or the ones from a given set (corresponding to a certain property). I therefore assume that, just as numerals, they cannot be combined with complex event nominals. The noun *bombardement* in (67) then has to be "treated as though it referred to an individual rather than an event" (Grimshaw 1990:55) and means: an instance or case of bombardment. The nominal behaves like a result nominal in this case. Grimshaw claims that result nominals, although they can have semantic arguments, do not have a syntactic argument structure. I assume therefore that in (67) the PP is not a complement dominated by N' but, as Grimshaw proposes, an (A-)adjunct to NP. As a result, the gap is a maximal projection.

Partitive constructions might also represent a possible counterargument to the claim that the gap is a maximal projection. Cardinaletti & Giusti (1991), however, claim that in partitive constructions the prepositional phrase is not dominated by N' or NP but is part of the QP projection. Under this analysis, the gap can be a maximal projection:

- (68) J'ai lu $_{QP}[trois \text{ } _{NP}[e] \text{ } _{PP}[de \text{ ses livres}]]$.
 I have read three of his books

I therefore assume that the gap in partitive constructions is a maximal projection which is licensed in exactly the same way as the gap in non-partitive constructions (see §8).

After having proposed a detailed structure for the French DP, I now turn to the licensing and identification of the empty nominal in noun ellipsis constructions. Two questions need to be answered:

1. Why are transitive adjectives unable to license noun ellipsis?
2. Why do only some intransitive adjectives (besides quantifiers) license noun ellipsis?

I have suggested in §4 of this chapter, that the fact that transitive adjectives do not license noun ellipsis has to do with their position within the DP: they are right-adjoined to NP. I formalize this idea in §7. As for the second question, in the next section I propose that the intransitive adjectives that license noun ellipsis have different semantic properties than other adjectives. I will propose that the fact that only elements with certain semantic properties allow noun ellipsis follows from licensing principles.

6. Partitivity

In §4 I proposed a DP-structure for French noun phrases with several functional projections above NP. Almost all of these functional projections of NP can contain elements that allow noun ellipsis in their Spec: cardinal numerals in [Spec, QP]; ordinals, *seul*, *autre*, *même*, *prochain*, *précédent* and *suivant* in [Spec, _{ord}AP]; *grand*, *petit* and the pronominal superlatives in [Spec, _{pre}AP], and the color adjectives and the postnominal superlatives in [Spec, _{post}AP].¹¹ The ability of an element to license noun ellipsis seems therefore not to be related to the functional projection in which it is generated; the

¹¹ According to Lamarche (1991), word order differences between the adjectives in French and in English, as in (i)-(iii), strongly suggest that the postnominal position of adjectives in the Romance languages cannot be the result of noun movement:

(i)	a rusty white car
(ii)	*une voiture _i rouillée blanche t _i
(iii)	une voiture _i blanche rouillée t _i

However, in my opinion, these problems can easily be solved. I propose that (ii) is ungrammatical because French has only one _{post}AP functional projection. The two adjectives in (ii) cannot both occupy this position. On the other hand, (iii) is grammatical because the adjective *rouillée* in (iii) is adjoined to the right of NP and functions thus as a predicate (see Cinque 1993 for a similar proposal). I propose that if [Spec, _{post}AP] is already occupied, adjectives may be generated as an adjunct of NP. The deverbal nature of *rouillée* favors its being used as a predicate adjoined to NP. That is why (iii) is grammatical, whereas (ii) is not.

elements that license noun ellipsis are generated in several functional projections of NP. Furthermore, adjectives that do not license noun ellipsis are also generated in some of the same functional projections. The adjective *intéressant* 'interesting', for instance, is generated in [Spec, _{post}AP], just as the color adjectives and the postnominal superlatives. But as we have seen in (6), *intéressant* does not license noun ellipsis.

If the possibility for an element to license noun ellipsis is not related to a special functional projection, then what makes it license noun ellipsis? I propose that the reason that some elements license noun ellipsis is that these elements have a partitive meaning. This is very clear in the case of the cardinals in [Spec, QP], of the ordinals in [Spec, _{ord}AP] and of the superlatives in [Spec, _{pre}AP] and [Spec, _{post}AP]. All of these types can be combined with a partitive PP:

(69)	J'ai lu trois de vos livres.
I have read three of your books
(70)	Je préfère le troisième de vos livres.
I prefer the third of your books
(71)	C'est le plus intéressant de vos livres.
It is the most interesting of your books

Notice that even without a partitive PP these elements still express a partitive meaning:

(72)	Tu as lu tous ses livres? Non, je n'ai lu que le troisième.
you have read all his books? No, I not have read than the third
'Have you read all his books? No, I have only read the third.' |
|------|--|

But whereas cardinals, ordinals, and superlatives can be combined with a partitive PP ((69)-(71)), which shows that they have a partitive meaning, the adjectives *autre* and *même* for instance and the adjectives of quality that license ellipsis of the noun cannot be combined with a partitive PP:

(73)	*Je préfère l'autre de ces robes.
I prefer the other of these dresses
(74)	*Je préfère la grande de ces filles.
I prefer the tall of these girls

Therefore *autre* and *même* and the adjectives of quality do not seem to license noun ellipsis by means of a partitive meaning.

However, *partitive* does not necessarily have to mean 'combinable with a partitive PP'. Enç (1991) associates partitivity with specificity. Specific DPs are always included within a set established in the domain of discourse. The ordinal in (70) and (72) is provided with specificity features. In both cases, there is a superset in the domain of discourse of which the DP containing the ordinal is a subset. In (70) it is the partitive PP which denotes the superset and in (72) the superset is denoted by the DP *tous ses livres* in the previously uttered sentence. Enç associates partitivity/specificity with a familiarity reading. The DP contains information that is mentioned in the domain of discourse and is therefore not new but rather familiar information. An example is given in (75). If a DP contains novel information, there is no specificity reading, as in (76) (see Heim 1982 for the distinction between novel and familiar information):

- (75) Several children entered my room. Two girls began to talk to me.
 (76) - What have you done today? - I have bought two books.

In (75), *two girls* has a specific interpretation. We are dealing with the inclusion of a set (*two girls*) in a superset present in the domain of discourse (*several children*). Therefore, the subset contains familiar information.

In this thesis, I claim that the licensing of empty nouns in French and in some other languages is only possible if the empty noun occurs within a specific DP. Nounless DPs have to be associated with another DP in the context, because the empty noun has to receive an interpretation. Therefore, specificity is required, because otherwise the empty noun cannot be interpreted.

However, whereas Enç associates partitivity with specificity, I make a distinction between these two notions. In this work, I use the notion *partitivity* in a way different from Enç's usage. In this work *partitive* will simply mean 'properly or improperly included within' (cf. Belletti 1988 where partitivity refers to nonspecifics). *Partitivity* will thus mean 'potentially but not necessarily specific', for reasons to be made clear in §8. Therefore, both in (75) and (76), *two* will be considered to be a partitive element, although the DP only has a specific interpretation in (75). In §8, we will see that even if the DP contains novel information (and is thus nonspecific), a subset is formed out of the superset denoting the kind.

Partitivity entails the inclusion in a set. I claim that proper or improper inclusion plays an important role in the licensing of empty nouns in French and several other languages. I will make a distinction between elements that always imply the inclusion in a set and elements that do not. The first group contains quantifiers, superlatives, ordinals, adjectives such as *seul*, *autre*, *même*,

précédent, *prochain*, and *suivant* (in the next chapter I will add pronouns to this group). These elements do not themselves denote properties and can therefore only be used as attributes to form a subset. I will use the notion *D-partitivity* to refer to this group of elements. In this thesis, I show that D-partitives allow noun ellipsis in all Romance languages that will be discussed and in English.

I contrast D-partitives with N-partitives. I use the notion *N-partitivity* to refer to elements that denote a property themselves and can therefore be used as predicates. Since N-partitives denote a property, their attributive use results in the intersection of two properties: one denoted by the adjective and the other denoted by the noun. The intersection forms a subset of the kind denoted by the noun. N-partitives are adjectives of quality. In §4.7 I will show that superlatives are D-partitives and not N-partitives although they denote a quality.

I show that in most languages discussed here, N-partitives, which do not necessarily form a subset because they denote properties themselves, do not license or only marginally license empty nouns. I claim that French forms an exception. In French N-partitives can license empty nouns.

However, not all French N-partitives can license noun ellipsis. We have seen that only color adjectives and other "classifying" adjectives of quality (in a sense to be made precise in §4.4) can do so. Although N-partitives, i.e. adjectives of quality, are not partitive in the sense that quantifiers are, I propose that they are partitive in a more loosely defined sense. In §4.4, I will propose that the "classifying" adjectives of quality that license empty nouns have to express cognitively relevant, distinctive, notions such as colors and distinctions such as 'good'-'bad', 'big'-'small' or 'old'-'new' (but see footnote 3). Only these adjectives of quality universally serve to create subsets at a cognitive level. Their use is therefore almost naturally associated with the existence of a superset. This relates them to the D-partitives, the difference being that "classifying" adjectives of quality do not necessarily form subsets, but can also be used predicatively, whereas D-partitives necessarily form subsets. I propose that only adjectives of quality that express cognitively relevant distinctive notions are "partitive enough" to license empty nouns.

The discussion of the notion *partitivity* in this section has shown that my usage of this notion is quite different from Enç's. Both in Enç's usage and in my usage, *partitivity* means 'properly or improperly included in'. This is discussed in chapter 3 (§10). In that chapter I assume that both the pronouns *quelques-uns* 'some' and *tous* 'all' have a partitive meaning. The difference between these two pronouns is that *quelques-uns* denotes a set that is *properly* included in another set, whereas *tous* denotes a set that is identical to the superset. In the latter case there is *improper* inclusion. But whereas in

Enç's usage partitives always have a "specific" interpretation, I use the notion even for "non-specific" cases. This will become clear in §8 of this chapter and in chapter 4, where I discuss the quantitative pronoun *en*. I will claim that *en* is used instead of an empty noun if the partitive element which governs this empty noun has a "non-specific" interpretation. My usage of the notion *partitivity* differs in another respect from Enç's. Whereas in Enç's usage partitives are D-partitives, i.e. inherent partitives, whose function it is to form a subset of a DP (or an NP), in my usage they can also be N-partitives, i.e. accidental partitives, which can create a subset of a set denoted by a noun, but which do not necessarily have this function. A relatively small number of adjectives of quality in French are N-partitives. All other adjectives of quality are neither D-partitives nor N-partitives. Therefore they cannot license noun ellipsis. These distinctions are schematized in table 2.1:

table 2.1

partitives

<i>D-partitives</i>	cardinals, superlatives, ordinals, <i>seul, autre, même, précédent, prochain, suivant</i> , pronouns
<i>N-partitives</i>	color adjectives, <i>grand, petit, ...</i>
<i>non-partitives</i>	all other adjectives of quality

I have proposed that elements that license ellipsis of the noun always have a partitive reading (D-partitivity or N-partitivity). In the next two sections, I will formalize the idea that numerals and a restricted class of adjectives allow noun ellipsis because of their partitive meaning.

7. Licensing of the empty noun

We have seen in §5 that according to Lobeck (1991), the ellipted element in English ellipsis cases is a maximal projection. Lobeck argues that the ellipted element is a base-generated empty pronominal, viz. *pro*. Lobeck shows that just as overt pronominals ellipted elements have the following properties:

- (77) *Ellipsis:*
- ellipsis can occur in either a coordinate or subordinate clause separate from that containing its antecedent;
 - ellipsis can occur across "utterance boundaries";
 - ellipsis obeys the backwards anaphora constraint, which means that the ellipted constituents can precede, but not command, their antecedents;
 - ellipsis can not only have a syntactic antecedent, but also a pragmatic antecedent.

Lobeck illustrates these properties with four pairs of sentences, one containing an ellipted element and one an overt pronoun.

Property *a* is illustrated by sentences (78)-(79):

- (78) We liked some wines from France but/although most *e* were too dry.
 (79) Sue eats fish and/because she hates meat.

Sentences (80)-(81) show that both ellipsis and overt pronouns occur across utterance boundaries:

- (80) A: John caught a big fish.
 B: Yes, but Mary's *e* was bigger.
 (81) A: Does Sue eat fish?
 B: Yes, but she hates it.

In (82)-(83) it is shown that both ellipsis and overt pronouns obey the backwards anaphora constraint:

- (82) a. Although most *e* were too dry, we liked some wines from France.
 b. *Most *e* were too dry, although we liked some wines from France.
 (83) a. Because she doesn't like meat, Sue eats fish.
 b. *She doesn't like meat because Sue hates killing animals.

Property *d* is illustrated by (84)-(85): both ellipsis and overt pronouns can have a pragmatic antecedent:

- (84) (Sarah and Geoff have two sons, Charlie and Sam. The two boys are playing with their new toys. Charlie's breaks.)
 Sarah: Sam's *e* better not do that.
 Geoff: Some *e* are just poorly made, I guess.
- (85) (John walks into the kitchen and finds milk spilled all over the floor and two guilty-looking kids. John.)
 A: All right, who did it?
 B: He did it.
 C: No, I didn't. She did it.

Lobeck claims that the ellipted element, *pro*, is licensed by being properly governed by the head of a functional projection dominating the ellipted constituent. The head can either be a [+Kase] head (which licenses a specifier in its projection at the same time, see Fukui & Speas 1986), a [+Q] head, or a [+Num] head. The head of the DP in (66), repeated here as (86), is a [+Kase] head; *three* in (87) is [+Q], and *these* in (88) is [+Num]:

- (86) Although John's friends were late for the rally, _{DP}[Mary's _{NP}[*e*]] came on time.
- (87) I have taken three _{NP}[*e*].
- (88) I prefer these _{NP}[*e*].

Lobeck formulates the following constraint to account for the English ellipsis facts:

- (89) PROPER GOVERNMENT OF ELLIPTED CATEGORIES (Lobeck 1991):
 [*e*] must be canonically governed by a functional head specified as [+Kase], [+Q], or [+Number].

Since this constraint is rather stipulative and since the governors form a heterogeneous set of elements, Lobeck (1993) tries to give a more unified and a less ad hoc account for noun ellipsis:

- (90) LICENSING AND IDENTIFICATION OF EMPTY NOMINALS
 An empty nonarbitrary pronominal must be governed by an X° specified for "strong" agreement.

Lobeck (1993, 1995) replaces the features [+Q] and [+Number] by [+Plural] and the feature [+Kase] by [+Poss], because the licenser must be specified for "strong" agreement, i.e. must bear features which can be realized in a morphological way (such as by inflection). However, these features may also be expressed in another way. Cardinals, for instance, express plurality.

Lobeck defines agreement as follows:

- (91) AGREEMENT
 A head Y is specified for agreement iff Y shares features with another head or phrase that it governs.

Lobeck's approach to ellipsis resembles proposals that have been made in the literature for the Germanic languages (see §1), in that in both cases the licensing of ellipsis is related to the licensing of empty subjects in pro-drop languages. In both cases morphology plays an important role.

However, I have shown that noun ellipsis in French does not seem to be licensed by inflection morphemes. In the previous section, I proposed that noun ellipsis in French is licensed by elements with a partitive interpretation.

It must be noted that the mere presence of a partitive element within the DP is not sufficient to license ellipsis of the noun. In the following example there is a partitive element, viz. the ordinal, but nevertheless the sentence is ungrammatical:

- (92) *C'est la troisième intéressante *pro*.
 it is the third interesting

Clearly what is required is that the partitive element be adjacent to the empty noun. Therefore I adopt the proper government requirement in (89) but propose that at least in French, the feature [+partitive] licenses noun ellipsis.

- (93) PROPER GOVERNMENT OF ELLIPTED NOUNS IN FRENCH
 [*e*] must be canonically governed by a functional head (or its specifier) specified as [+partitive].

Lobeck (1993: note 14) assumes that the feature [+partitive] is a "strong" agreement feature. She adds it to the already proposed list of features to account for the ungrammaticality of (94). Although both *a* and *one* bear the feature [-plural], which cannot license empty nouns, *one* bears the feature [+partitive], whereas *a* does not:

- (94) **a* of the men
 (95) *one* of the men

Although the feature [+partitive] may be morphologically realized in some languages, often on nouns (see §4.3), I assume that this possible morphological realization of the feature [+partitive] is not what causes

licensing of empty nouns. In the previous section, I argued that partitivity plays an important role in the licensing of noun ellipsis, since an antecedent has to be recovered from the discourse. Partitivity is a semantic feature rather than a morphological feature. In this and the following chapter I propose that partitivity licenses all cases of noun ellipsis, even those cases for which Lobeck claims that the features [+plural] (*these*) and [+poss] (*Mary's*) play an important role.¹²

In §4 I assumed that in French, quantifiers and intransitive adjectives are generated in the Specifier position of extended projections of NP. Although the specifier cannot properly govern NP from this position, Spec-Head Agreement will make the empty head of the functional projection able to properly govern the NP. Therefore, it is not necessary to assume that quantifiers or adjectives are the head of extended projections of NP. That Spec-Head agreement can provide a head with properties which it did not have before, is also proposed by Rizzi (1990) for CP and NP. In these cases, the head becomes a proper governor through Spec-Head agreement.

In §4, I showed that licensors of NPs can be the specifier of almost all extended projections of NP. Why do intervening (empty) functional projections not block proper government? A first possibility is that besides Spec-Head agreement, there is Head-Head agreement, so that the specifier of a higher functional projection can license the empty NP although there are intervening empty functional projections. A second possibility is that intervening functional projections do not have a blocking effect when (and only when) they are empty. An alternative possibility is that functional projections are projected only if they are required to host lexical material (or lexical features) (cf. Chomsky 1992). I will not decide on this matter here. What should be noted, however, is that I assume NP *pro* to be licensed in

¹² Note that at first sight there seems to be no French equivalent of (88):

- (i) *Je préfère ces.
I prefer these.

I propose however that the equivalent of (88) is (ii), with *ceux* as the pronominal form of *ces*:

- (ii) Je préfère ceux-ci.
I prefer these here
'I prefer these ones.'

In chapter 3 I propose that in (ii), NP also dominates an empty pronominal licensed by the demonstrative (see also Corblin 1990), which is in the Spec of an extended projection of NP (cf. Grosu 1992).

its base-position. It would in principle be possible to assume that the head, N^0 , raises to the empty head of the functional projection containing the licenser in its Spec. But in §5 I argued that NP *pro* is a maximal projection (NP). Furthermore, I propose in this thesis that NP *pro* is the empty variant of the quantitative pronoun *en*. In chapter 3, I propose that *en* is moved as a maximal projection out of DP. Although I assume that NP *pro* is not moved, its assimilation to *en* suggests that it is not moved via head-movement in order to be licensed. Therefore I assume that it is licensed in its base-position.

In Lobeck's system Spec-Head Agreement also plays an important role. She defines "strong" agreement as follows:

- (96) STRONG AGREEMENT
An X^0 is specified for strong agreement iff
(i) the X^0 , or a phrase or head coindexed with it, is specified for agreement and
(ii) agreement is morphologically realized on X^0 or on the phrase or head coindexed with it.

An example of Spec-Head agreement in Lobeck's system is genitive phrases in [Spec, DP]. While D^0 contains the feature [+Poss] ((i)), agreement is morphologically realized in [Spec, DP] by means of the genitive marker '*'*' ((ii)). An X^0 can thus be specified for strong agreement although agreement is morphologically realized on its sister. In the same vein, I assume that specifiers in extended projections of NP can formally license the complement of the head with which they are coindexed through Spec-Head agreement.

According to (90), empty nominals are both formally licensed and identified by a governing head specified for "strong" agreement in Lobeck's system. I propose that elements with a partitive meaning can formally license noun ellipsis but do not necessarily identify the empty noun. In the next section, I discuss the identification of NP *pro*.

8. Specificity

Cardinaletti & Giusti (1991) make use of Rizzi's (1986) theory on the licensing of small *pro* in order to account for noun ellipsis data in Italian. Rizzi claims that *pro* not only has to be formally licensed, but also has to be identified. He states that the formal licenser of *pro* is also its identifier. A well-known example is subject *pro*, as in the Italian example (97), which has

to be identified by AGR by means of the features person and number, because this increases its recoverability from the context:

- (97) *pro* parla italiano.
speaks Italian
'He/she speaks Italian.'

According to Cardinaletti & Giusti, the difference in grammaticality between (98) and (99) is due to the fact that in (98) the ellipted noun can be identified by AGR via the quantifier, whereas in (99) AGR cannot identify *pro*:

- (98) Trois *pro* arriveront demain.
three will arrive tomorrow
(99) *J'ai lu trois *pro*.
I have seen three

Cardinaletti & Giusti propose that as well as AGR, a partitive PP can also identify subphrasal *pro*, thus departing from Rizzi's statement that the formal licenser has to be the identifier. This explains why (100) is grammatical, even though the DP is in object position, so that *pro* cannot be identified by AGR:

- (100) J'ai lu trois *pro* de ses livres.
I have read three of his books

In the previous section, I proposed that NP *pro* in French is formally licensed by a properly governing element with a partitive meaning. In this section, I will claim that NP *pro* has to be identified by a partitive element with a "specific" meaning. I will claim that the difference in grammaticality between (98) and (100) on the one hand, and (99) on the other, has to do with the specific or nonspecific interpretation of the nounless DP.

Just as small *pro* in (97) is the empty counterpart of nominative third person singular pronouns, I propose that NP *pro* is the empty counterpart of the quantitative pronoun, which is *en* in French. I proposed that NP *pro* is licensed by the feature [+partitive]. In chapter 4, I do the same with respect to *en*. The formal licensing and identification of NP *pro* thus consists in providing the empty pronoun with feature content. It is identified as a partitive pronoun.

In this manner I make a distinction between syntactic identification and interpretation. A local element identifies NP *pro* as an (empty) partitive pronoun and a discourse antecedent provides it with a semantic content.

This also happens in the case of subject *pro*, as in (97). The verbal inflection identifies the empty subject as a third person singular pronoun and a discourse antecedent provides it with a semantic content. By requiring that NP *pro* has to be identified by a local element (i.e. an element with specificity features), I depart from Chao (1987), for whom discourse interpretation is sufficient.

Just as overt pronouns, empty pronouns refer to a noun in the context. Being a pronoun, NP *pro* has to refer to a noun in the context, just like *en*. Linking to a noun in the context is only possible if the nounless DP has a "specific" meaning. In chapter 3, I propose that *en* is inherently specific (i.e. anaphoric). I propose that NP *pro* is not inherently specific in French, but, being the empty counterpart of NP *en*, has to be licensed by an element with a "specific" partitive meaning.

Enç (1991) identifies linking with specificity. She notes that DPs can be definite or indefinite and specific or non-specific. Elaborating on Heim's (1982) theory of definiteness, Enç assumes that all DPs carry a pair of indices. The first index represents the referent of the DP. The second index represents a referent in the domain of discourse of which the referent of the DP is a subset:

- (101) Every $[DP \alpha]_{\langle i,j \rangle}$ is interpreted as $\alpha(x_i)$ and
 $x_i \subseteq x_j$ if $DP_{\langle i,j \rangle}$ is plural,
 $\{x_i\} \subseteq x_j$ if $DP_{\langle i,j \rangle}$ is singular.

The indices themselves bear a definiteness feature. The feature on the first index determines the definiteness of the DP. The definiteness feature on the second index determines the specificity of the DP by constraining the relation of the referent of the DP (x_i) to a discourse referent x_j that is already in the domain of discourse prior to the utterance of the DP. If the index j is indefinite, a new referent x_j is introduced into the domain of discourse and this referent will have x_i , the referent of the DP, as its subset. Enç notes that the properties of the novel superset in this case are presumably just those recovered from the head noun of the DP.

Definiteness and specificity of DPs are related phenomena. Heim's Familiarity Condition states that all definites must be familiar, in the sense that the discourse referents they are mapped onto must have been previously introduced into the discourse. In other words, definites must have antecedents. Therefore, if the index i is definite, the index j is also definite. For example this is the case in (102):

- (102) Yesterday I bought two books. Today I read the books.

Indefinites can be either specific or nonspecific. An indefinite DP such as *two books* in (103) can be either specific or nonspecific:

- (103) I have read two books.

In both cases the feature on the index *i* is indefinite. But whereas in the specific reading the feature on the index *j* is definite, it is indefinite in the non-specific reading. In the first case there is a discourse referent (x_i) in the previously uttered domain of discourse. In the second case, a new referent (x_j) is introduced into the domain of discourse (*books*), and the referent of the DP (x_i) is a subset of this referent.

Specificity (or presuppositionality in Diesing's 1992 terms) thus means that the referent of a denoting DP is linked to a previously established discourse referent.

Partitives such as *two of the books* refer to groups that are subgroups of the referent of the DP contained in the partitive PP (*books*). Enç notes that this can be ensured by requiring that the second index of the partitive DP be identical to the first index of the definite DP contained in it. Therefore, partitives are necessarily specific. Partitives involve noun ellipsis. The content of the empty noun is recovered from the discourse referent, i.e. the partitive PP.

Above we have seen that indefinite DPs can in principle have a specific and a non-specific reading. I have proposed that a specific reading is necessary for the nounless DP to be linked to an antecedent. Enç (1991) demonstrates that, in Turkish, an accusative Case morpheme on a DP in object position shows that the DP has a specific reading. While (104) has a specific reading, (105) has a non-specific reading:

- (104) İki kız-i taniyordum.
two girl-Acc I-knew
'I knew two of the girls.'
- (105) İki kız taniyordum.
two girl I-knew
'I knew two girls.'

Diesing (1992) shows that scrambling in Germanic languages has the same effect. The following examples from Dutch show that the scrambled DP gets a specific interpretation, whereas the non-scrambled DP has a non-specific interpretation:

- (106) Ik heb drie artikelen in de trein gelezen.
I have three papers in the train read.
'I read three papers SPEC in the train.'
- (107) Ik heb in de trein drie artikelen gelezen.
I have in the train three papers read.
'I read three papers NON-SPEC in the train.'

This is as predicted by Diesing's mapping hypothesis, according to which material within VP gets a non-specific interpretation, whereas material outside VP gets a specific interpretation. The scrambled DP vacates the VP, whereas the non-scrambled DP remains within the VP.

Although French does not have any special morpheme (or scrambling) which indicates that a DP is specific, it has other devices. First, we have seen that a partitive PP necessarily provides a partitive element with a specific reading. Second, according to Enç, definite DPs do necessarily have a specific interpretation. Third, subject DPs tend to have a specific interpretation, in accordance with the mapping hypothesis (Diesing 1992).

In all three cases, NP *pro* is possible. NP *pro* is possible in a subject DP, as in (98), in combination with a partitive PP, as in (100), and in a definite DP, as in (108):

- (108) Je préfère le troisième *pro*.
I prefer the third

Indefinite (non-partitive) object DPs, on the other hand, in general have a non-specific interpretation (Diesing 1992). I propose that this is the reason for the ungrammaticality of (99). Since the DP does not have a specific interpretation, NP *pro* cannot be linked to an antecedent. In chapter 3, I propose that the use of the overt pronoun *en* makes the DP specific. We will see in chapter 4 that the use of *en* can therefore make (99) grammatical, since specificity makes linking to an antecedent possible.

It should be noted that in Enç's theory supersets are always DPs. What I would like to propose, however, is that in the case of nounless DPs simple nouns referring to kinds can also be considered to be supersets. This is what happens in (109):

- (109) Je n'aime pas ces robes vertes. Je prends la bleue.
I neg like neg these dresses green. I take the blue
'I do not like the green dresses. I will take the blue one.'

In this case the superset is not formed by the DP *ces robes vertes*, but simply by the noun denoting a kind: *robes*. This is also possible with cardinals:

- (110) Several students came in. Two stayed outside.

The superset of the nounless DPs in (109) or (110) could also be whole DPs instead of simple nouns:

- (111) - Laquelle de ces robes prends-tu? - Je prends la bleue.
which (one) of these dresses take you? I take the blue.
'Which dress will you take? I will take the blue one.'
(112) Four students came to my house. Two stayed outside.

But there are also adjectives which only allow a simple noun - and not a DP - as the superset:

- (113) Je n'aime pas ces robes-ci. Je préfère l'autre.
I neg love neg these dresses-here. I prefer the other
'I do not like these dresses. I prefer the other one.'
(114) *De ces robes, je préfère l'autre.
of these dresses, I prefer the other

In fact, we could say that noun ellipsis always implies the inclusion of a subset in a previously established set denoting a kind. Even if the superset is a DP, as in (111) and (112), the empty noun refers to the noun within the DP. In this case, however, the nounless DP denotes a set which is included in the DP that denotes the superset, just as in the case of DPs containing a partitive PP. In (109), (110), and (113), on the other hand, the nounless DP denotes a subset that is distinct from the subset denoted by a DP in the domain of discourse. The noun denoting a kind forms the superset of these distinct subsets.

The account of noun ellipsis that I have given so far is more natural than Ronat's account. We do not need a special constraint, such as Ronat's N' -constraint, because the restrictions automatically follow from licensing and discourse interpretation considerations. Empty nouns have to be licensed and to be linked to a noun in the domain of discourse. Elements with a partitive meaning formally license NP *pro*. Specificity identifies NP *pro*.

In the next section, I show how this account of noun ellipsis can explain the data presented in §2.

9. Explanation of the data

The proposal developed in this chapter also has advantages above Ronat's from an empirical point of view, because it can account for the cases that

were a problem for Ronat, i.e. sentences (38)-(39), repeated here as (115)-(116):

- (115) *Je n'ai pas entendu les deux intéressantes e .
I neg have neg heard the two interesting
'I have not heard the two interesting ones.'
(116) *C'est le seul captivant e que j'aie lu.
it is the only captivating that I have read

Following Cinque (1993) I assume that all intransitive adjectives are generated in Spec-positions. The ungrammaticality of (115)-(116) is then the result of Relativized Minimality (Rizzi 1990): Proper Government of *pro* by the quantifier, or rather by the phonologically empty head of the functional projection via Spec-Head Agreement is blocked by the presence of an intervening functional head containing the intransitive adjective in its Spec. Although this functional head is phonologically empty, it is a potential head governor. Since I assume that Spec-Head Agreement can turn an empty functional head into a head governor, the intervening functional head is a potential head governor, despite the fact that the adjectives in (115) and (116) do not contain the feature [+ partitive]. For this reason, these sentences are unacceptable.

Sentences (117)-(121), on the other hand, are grammatical; in these sentences the adjective, being of the appropriate semantic type, licenses the empty noun. In (117) the ordinal licenses the empty noun:

- (117) Je préfère les deux premiers e .
I prefer the two first
'I prefer the first two.'

In (118) the adjective of quality is an N-partitive and can therefore license the empty noun. The color adjective in (119)-(120) is also an N-partitive:¹³

¹³ Although Relativized Minimality does not prevent the color adjective from licensing the empty noun in sentence (i), it is ungrammatical:

- (i) *Je préfère la rouillée verte *pro*.
I prefer the rusty green

It was proposed in footnote 10 that there is only one $_{\text{post}}$ AP projection in French. Since both adjectives in (i) are postnominal adjectives, both have to be generated in the Spec of this functional projection. This explains the ungrammaticality of (i). However, if we reverse the order of the adjectives, the result improves:

- (118) Je préfère les deux grands *e*.
I prefer the two tall
'I prefer the two tall ones.'
- (119) Je prends la petite verte *e*.
I take the small green
'I will take the small green one.'
- (120) Ce sont les deux seules vertes *e* que nous ayons.
it are the two only green that we have
'These are the only two green ones that we have.'

In (121) the empty noun is licensed by the superlative:¹⁴

- (121) Paul et David sont les deux plus intelligents *e*.
Paul and David are the two most intelligent (ones)

- (ii) Je préfère la verte rouillée.
I prefer the green rusty
'I prefer the rusty green one.'

I propose that, in (ii), the adjectival participle is a right-adjunct, because [Spec, _{post}AP] is already filled. Sleeman & Verheugd (to appear) propose that participles can be DP-internal predicates, because they can have syntactic arguments (see footnote 8), e.g. an empty external argument, as in the case of *rouillé*. Sleeman & Verheugd propose that the external argument is an empty operator, which forces the participle to be generated in a predicative position. Therefore, the structure of the DP in (ii) is as shown in (iii). The color adjective licenses the ellipsis of the noun:

- (iii) Je préfère _{DP}[la verte *pro* rouillée].

¹⁴ Note the absence of the definite article before the superlative in [Spec, _{post}AP] in (121). If there is an overt noun, "postnominal" superlatives have to be introduced by a definite article:

- (i) Paul et David sont les garçons les plus intelligents.
Paul and David are the boys the most intelligent
'Paul and David are the most intelligent boys.'
- (ii) *Paul et David sont les garçons plus intelligents.
Paul and David are the boys most intelligent

In (i) and (ii), the overt noun has moved to the head of NumP. I propose that (ii) is ungrammatical because the superlative has to be licensed by the determiner. In (ii), this relation is blocked because of the presence of the noun in the intervening NumP. In (121), there is no noun which can block the binding relation. Therefore (121) is grammatical, although the superlative is not introduced by a definite article.

The proposal given here can also account for the other, unproblematic cases mentioned in §2. Sentences (122) and (123) are grammatical because *verte* and *deux* bear the feature [+partitive], which enables them to license ellipsis of the noun:

- (122) Je prends la verte *e*.
I take the green
'I will take the green one.'
- (123) Je prends les deux *e*.
I take the two
'I will take both.'

As for (124) I will assume in chapter 3 that definite determiners license empty nouns. However, in that case they are pronouns that have to cliticize. This explains the ungrammaticality of (124):

- (124) *Je prends le *e*.
I take the

In §3 it was proposed that transitive adjectives and restrictive relative clauses are licensed as predicates, and are right-adjoined to NP.¹⁵ Since they are generated to the right of NP, Relativized Minimality does not prevent the quantifier from properly governing the empty category. This explains the grammaticality of ((40)-(41)), repeated here as ((125)-(126)):¹⁶

¹⁵ Chomsky (1986) assumes that adjunction to the maximal projection of a lexical category makes the XP opaque. This means that if the predicate is adjoined to NP, *pro* cannot be properly governed. If the predicate is right-adjoined to DP, this problem does not arise. However, Chomsky's remark concerns adjunction by movement. It is not clear if base-generated adjuncts can also make XP opaque. Therefore, I will not decide whether predicates are adjoined to NP or DP.

¹⁶ According to Kayne's antisymmetry theory (Kayne 1994), right-adjunction is not possible. A solution that has been proposed, especially for D-adjuncts, is that they are generated to the left of NP (Grosu 1988, Piccolo 1991), as the specifier of NP or an extended projection of NP. This kind of solution is not possible, however, within the theory of the licensing of empty nouns that I present in this study because the intervening PP would prevent the quantifier from properly governing *pro*.

- (i) *Je n'ai lu que les deux premiers de Zola *pro*.
I not have read than the two first of Zola

I therefore simply assume that predicates are right-adjoined to NP (or maybe DP, see the previous footnote):

- (125) Je n'ai pas entendu les deux *e* que tu m'avais dit d'aller écouter.
I neg have neg heard the two that you me had told of go listen
'I did not hear the two that you had told me to attend.'
- (126) De toutes ces robes, celle-ci est la seule *e* susceptible de me plaire.
of all these dresses, this is the only susceptible of me please
'Of all these dresses, this one is the only one that pleases me.'

Thus, all of the data presented in §2 can be accounted for by means of the licensing mechanism proposed in the previous sections.

In the next section, we turn to noun ellipsis facts in other Romance and Germanic languages in order to try to establish whether the analysis proposed for French can be applied to these languages as well.

10. English

I have proposed that in French, noun ellipsis is licensed by a [+partitive] element that properly governs the empty noun, i.e. by a quantifier or an adjective with a partitive meaning. The gap qualifies as small *pro*, which is licensed by being properly governed by a [+partitive] element.

But what about other languages? Is French unique in having noun ellipsis licensed in this way or are there other languages which can be compared to French? In this section and the following ones, I examine whether the licensing mechanism proposed for French can be applied to other languages. First, I discuss English.

Instead of an overt noun the overt pronoun *one* may be used:¹⁷

- (ii) Je n'ai lu que les deux premiers *pro* de Zola.

I leave it to further research to find a solution for the problem of this kind of right-adjunct within Kayne's framework.

¹⁷ Kester (1996) generates this prop word *one* not within NP, but within one of the lower extended projections of NP. The NP is empty and is licensed by *one*. This idea fits nicely into my analysis of noun ellipsis because the prop word *one* has the same general meaning as the numeral *one*, although they are generated in different positions and furthermore the prop word can be pluralized whereas the numeral cannot. Therefore, it is not surprising that English uses *one* as a prop word, since *one*, as a D-partitive, is extremely capable of licensing the ellipsis of the noun. This analysis can explain why in (i) *one* is not used whereas in (ii) it is. In (i), the prop word *one* is not a "better" licenser of the empty noun than the cardinal *three* is. In (ii), on the other hand, the cardinal cannot license the empty noun. Since *one*

- (127) I only attended the interesting one.

Because of this overt pronoun it appears at first glance that English has no noun ellipsis at all; in (127), the pronoun cannot be left out:

- (128) *I only attended the interesting.

This is not entirely true, however. In English, noun ellipsis is at least possible with D-partitives. In the D-partitivity cases (see §6), noun ellipsis is commonly accepted (see, e.g. Halliday & Hasan 1976):

- (129) I will take these four.
(130) This is the third (one).
(131) Of these boys, I prefer the eldest (one).
(132) I like your dress. I will buy the same (one) as you.
(133) Take this piece. I will take the other (one).
(134) Examples like the following (ones) are not as good.

With most adjectives of quality, however, noun ellipsis is not permitted, unless *one* is used instead of the noun:¹⁸

- (135) I will take the small *(one).

Color adjectives are an exception. With this class of adjectives, *one* may be left out (136), although this can be done less easily than with D-partitives. Color adjectives are clearly antonymic. This might be the reason for the acceptability of (136) without *one* (example taken from Halliday & Hasan 1976):

- (136) The green (one) suits you very well.

is a 'better' licenser than the adjective is, it is used:

- (i) I have read three (*ones).
(ii) I have read three good *(ones).

¹⁸ Halliday & Hasan (1976) give some examples where adjectives of quality are not followed by *one*. In these examples, there is a sharp contrast, which makes the adjectives "classifying" (cf. footnote 3):

- (i) Which last longer, the curved rods or the straight rods? *The straight* are less likely to break.
(ii) I like strong tea. I suppose *weak* is better for you.

These facts confirm the analysis presented for French. I claimed above that in French the inflection of the adjective plays no role in the licensing of the empty noun. In English, even if the adjective is uninflected, it can still license the ellipsis of the noun. This supports the idea that inflection does not necessarily play a role in the licensing of noun ellipsis. More importantly, the English noun ellipsis facts confirm the analysis presented for French. In English the partitive meaning of the adjective also plays an important role in the licensing of the empty noun, and even more clearly than in French; in English only D-partitives and (more marginally) some other clearly antonymic adjectives allow ellipsis of the noun. Therefore, I suggest that an ellipted noun is also licensed by a properly governing element with a partitive meaning within an extended projection of NP in English.

I suggested above that NP *pro* not only has to be formally licensed, but also has to be linked to an antecedent. I proposed that linking is only possible if the nounless DP has a specific reading. Thus the fact that indefinite objects in general do not have a specific reading could account for the ungrammaticality of (99), repeated here as (137):

- (137) *J'ai lu trois *pro*.
I have read three

However, the problem arises that the English variant of (137) is grammatical:

- (138) I have read three *pro*.

In §8, I proposed that whereas NP *pro* in French is non-specific, its overt counterpart *en* is inherently specific (i.e. anaphoric). I suggest that the identification requirement for NP *pro* has to do with the fact that French has an overt variant of the empty pronoun which is used just in case the nounless DP has a non-specific reading. Since the English empty NP pronoun does not have an overt counterpart (the pronoun *one* is not its counterpart, cf. footnote 17), it might be the case that specificity is not required for its licensing (cf. §13).¹⁹ In §12, we will see that NP *pro* is also

¹⁹ If, in English, indefinite nounless DPs are possible in object position, the question arises why color adjectives are not possible in indefinite DPs in that position:

- (i) *I will take a green

possible in indefinite DPs in object position in Spanish. But first I discuss noun ellipsis in Italian.

11. Italian

In Italian two (syntactic) noun-ellipsis constructions are possible, the *il*-type and the *quello*-type:

- (139) Di questi ragazzi, preferisco il più grande.
of these boys, I prefer the most tall
'Of these boys, I prefer the tallest one.'
(140) Di questi ragazzi, preferisco quello più grande.
of these boys, I prefer the one more tall
'Of these boys, I prefer the tallest one.'

The *il*-type noun ellipsis construction corresponds to the English noun ellipsis cases. The D-partitive cases are perfectly grammatical. In (141) there is a cardinal and in (142) a superlative:

- (141) Tre sono sulla tavola.
three are on the table
(142) Preferisco il più intelligente.
I prefer the most intelligent (one)

In (143)-(145) we are dealing with hierarchic adjectives (*primo* 'first', *stesso* 'same', and *altro* 'other'), which are also D-partitives:

I propose that this is the case because the presence of a definite article increases a partitive interpretation of the adjective, meaning 'the one or the ones which a certain property as opposed to another subset'.

Huot (1981) observes that noun ellipsis in French is only possible with definite articles, but not with demonstrative or possessive adjectives. This might also have to do with the fact that definite articles which mean 'the one' or 'the ones' increase a partitive interpretation of the adjective:

- (i) Je prends l'autre.
I will take the other
(ii) *Je préfère cet autre.
I prefer that other
(iii) *C'est mon autre.
It is my other

- (143) Preferisco il primo.
I prefer the first (one)
- (144) Ho comprato lo stesso di mia sorella.
I have bought the same (one) as my sister
- (145) Ho preso l'altro.
I have taken the other (one)

The color adjectives and other adjectives of quality are only marginally acceptable or excluded, at least for a considerable number of native speakers. It has been pointed out to me by D. Delfitto that there are also speakers for whom roughly the same adjectives as in French allow ellipsis of the noun. In this section, I only discuss the variety of Italian in which (147) is an ungrammatical sentence. It is grammatical in the other variety of Italian (cf. Bernstein 1993a, who gives a similar example to show that in Italian, adjectives of quality cannot license the ellipsis of the noun).

- (146) ?Preferisco il verde.
I prefer the green (one)
- (147) ??Ho preso il piccolo.
I have taken the small (one)
- (148) *Leggerò soltanto l'interessante.
I will read only the interesting
- (149) *Preferisco l'intelligente.
I prefer the intelligent

These facts strongly suggest that the *il*-type noun ellipsis construction is licensed in exactly the same way as the noun ellipsis constructions in French and English, viz. by an element with a partitive meaning.

The *quello*-construction is possible with almost all adjectives of quality. The ungrammatical or marginally acceptable examples (146)-(149) become perfectly grammatical if the *quello*-construction is used:

- (150) Preferisco quello verde.
I prefer the green (one)
- (151) Ho preso quello piccolo.
I have taken the small (one)
- (152) Leggerò soltanto quello interessante.
I will read only the interesting
'I will only read the interesting one.'
- (153) Preferisco quello intelligente.
I prefer the intelligent (one)

Since there are no restrictions here, the *quello*-type of noun ellipsis does not seem to be licensed by partitivity. I assume, however, that in this construction it is not the adjective that licenses ellipsis of the noun, but *quello*, which I assume to be a pronoun in this construction:

- (154) Preferisco quello *pro* verde.

The Italian *quello*-construction may be assimilated with the French *celui* + adjective construction. In French, however, the demonstrative pronoun may only be combined with transitive adjectives and not with intransitive adjectives.²⁰

- (155) Je déteste ceux jaloux de leurs femmes.
I hate those jealous of their wives
'I hate those who are jealous of their wives.'
- (156) *Je préfère ceux intelligents.
I prefer those intelligent
'I prefer the intelligent ones.'

Italian does not have such a restriction. Both transitive and intransitive adjectives are possible in the *quello*-construction.

I assume that just as in the *celui* + adjective construction in French, the adjective in the Italian *quello*-construction is a DP-internal predicate, which is generated to the right of the empty noun. In this respect my analysis differs from Bernstein's (1993a), for whom the adjective in the *quello*-construction is an attribute, generated within the extended projections of NP. However, the phonological behavior of the Italian demonstrative pronoun *quello* suggests that a distinction has to be made between two adjectival positions, viz. an attributive and a DP-internal predicative position. Vanelli (1979) notes the following contrast:

²⁰ Sleeman & Verheugd (to appear) attribute the impossibility for intransitive adjectives in French to be used as adjuncts to an economy principle. They argue that transitive adjectives have argument structure which allows them to be adjoined, as a predicate, to NP. DP-internal intransitive adjectives, on the other hand, do not have argument structure, because nothing forces them to have arguments. Therefore, they can only be generated as attributes within the extended projections of NP. The grammaticality of (150)-(153) then suggests that such an economy principle is not operative in Italian.

- (157) Preferisco quello alto.
I prefer that high (one)
- (158) Preferisco quell'altro.
I prefer that other (one)

The masculine demonstrative adjective *quello* has several forms, whose usage depend on the initial phoneme of the following adjective or noun:

table 2.2

quello

	<i>masc. sing.</i>	<i>masc. plur.</i>
<i>before consonant</i>	quel libri	quei libri
<i>before vowel</i>	quell'anno	quegli anni
<i>before s + cons. or z</i>	quello spazio	quegli zoccoli

The pronominal forms are *quello* (masc. sing.) and *quelli* (masc. plur.). Although both adjectives in ((157)-(158)) have the initial vowel *a*, the demonstrative ends in *o* in (157), whereas there is elision of the *o* in (158). Brucart & Gràcia (1986) therefore assume that there is an empty noun between the demonstrative and the adjective in (157), but not in (158). This is also the solution I want to propose. I propose that in (157), *quello* is a pronoun, whereas in (158), *quell'* is a determiner. In the next chapter, I will propose that pronouns license an empty noun at the syntactic level. This means that the adjective in (157) is a predicate, which follows the empty noun, whereas the adjective in (158) is an attribute, which precedes the empty noun:

- (159) Preferisco quello *pro* alto.
I prefer the high one
- (160) Preferisco quell' altro *pro*.
I prefer that other one

If there is an overt noun, *alto* is an attribute, just like *altro* in (158) and (160). In that case *quello* becomes *quell'*:

- (161) Preferisco quell' alto albero.
I prefer that high tree
- (162) Preferisco quell' altro albero.
I prefer that other tree

That *quello* in (159) is a pronoun, whereas *quell'* in (160) is a determiner, is also suggested by the semantic difference between the two. Whereas the determiner *quell'* in (160) has a clearly demonstrative meaning, the pronoun *quello* in (159) does not. The pronoun *quello* can have two meanings. Either it can have a demonstrative meaning, as in (163), or it can just have a discriminating meaning, as in (159):

- (163) Prendo quello.
I take that
'I will take that one.'

Since the demonstratives in ((159)-(160)) differ in deictic force, this suggests that we are dealing with two different types of demonstratives, a pronoun in (159) and a determiner in (160).

Rizzi (1979) suggests that the phonological behavior of a masculine plural demonstrative pronoun in combination with an adjective also shows that the demonstrative is followed by an empty noun. Recall that the plural adjectival form is *quei* or *quegli* (see table 2.2):

- (164) quei lunghi articoli
those long papers
- (165) quegli strani articoli
those strange papers

In (166) and (167), *quelli* is a pronoun and licenses itself the empty noun:

- (166) quelli *pro* lunghi
those long
'the long ones'
- (167) quelli *pro* strani
those strange
'the strange one'

In (168) and (169), the only potential licenser is the adjective. But whereas licensing is marginally possible with the "classifying" adjective in (168) (cf. (147)), the "non-classifying" adjective in (169) cannot license the empty noun (cf. (148) and (149)):

- (168) ??quei lunghi *pro*
those long (ones)
(169) *quegli strani *pro*
those strange (ones)

Whereas with most adjectives of quality the *quello*-construction is the only possibility, with superlatives both the *il*-construction and the *quello*-construction are possible:

- (170) Preferisco il più grande.
I prefer the most tall
'I prefer the tallest one.'
(171) Preferisco quello più grande.
I prefer that more tall
'I prefer the tallest one.'

For (170) I have claimed that the superlative is an attribute that licenses the empty noun because of its partitive meaning. In (171) the demonstrative does not have a deictic but only a discriminating meaning. This suggests that *quello* in (171) is a pronoun which licenses an empty noun, and that the empty noun is followed by a predicate.²¹

- (172) Preferisco il più grande *pro*.
(173) Preferisco quello *pro* più grande.

With adjectives that are not adjectives of quality, *quello* only has a deictic reading:

- (i) Preferisco il ragazzo più intelligente.
I prefer the boy most intelligent
'I prefer the most intelligent boy.'
(ii) Je préfère le garçon *(le) plus intelligent.
I prefer the boy the most intelligent
'I prefer the most intelligent boy.'

²¹ In Italian, the definite article is not used before a postnominal superlative (i), as it is in French (ii):

- (174) Prendo quei tre.
I take those three
'I will take those three.'
(175) Prendo quell'altro.
I take that other
'I will take that other one.'

This suggests that these adjectives can only be generated in an attributive position and not in a DP-internal predicative position:

- (176) Prendo quei tre *pro*.
(177) Prendo quell'altro *pro*.
(178) *Prendo quei *pro* tre.
(179) *Prendo quello *pro* altro.

The *quello*-construction is not possible in these cases. Only the *il*-construction is possible, with the attributive adjective licensing the empty noun:

- (180) Prendo quei tre *pro*.
I take these three
'I will take these three.'
(181) Prendo l'altro *pro*.
I take the other
'I will take the other one.'
(182) Prendo il primo *pro*.
I take the first
'I will take the first one.'
(183) Prendo lo stesso *pro*.
I take the same
'I will take the same one.'

In this section I have analyzed two Italian noun ellipsis constructions: the *il*-construction and the *quello*-construction. I have claimed that in the *il*-construction the adjective or quantifier licenses the empty noun because of its partitive meaning. In the next chapter I propose that demonstratives in French may also license the ellipsis of the noun because of their partitive meaning, so that both the *il*-construction and the *quello*-construction involve licensing by partitivity. Although in Italian both attributive and predicative adjectives inflect to express number and gender distinctions, the Italian noun ellipsis facts suggest once again that the inflection of the adjective does not license the ellipsis of the noun.

12. Spanish

In Spanish, noun ellipsis is possible in combination with cardinals, just as in French, English and Spanish:

- (184) Juan ha visto dos libros, y María ha visto tres.
 Juan has seen two books, and María has seen three

The French noun ellipsis cases which were mentioned in the introduction to this chapter are also possible in Spanish. In (185) the nounless DP contains a superlative and in (186) a color adjective:

- (185) De estas chicas, María es la más inteligente.
 of these girls, Mary is the most intelligent (one)
 (186) De estos vestidos, yo prefiero el azul.
 of these dresses, I prefer the blue (one)

Sentence (187) shows that noun ellipsis is also possible with ordinals:

- (187) De sus libros, yo prefiero el primero.
 of his books, I prefer the first (one)

Sentences (188)–(191) also contain hierarchic adjectives (*anterior* ‘preceding; mismo ‘same’; *otro* ‘other’, and *único* ‘only’):

- (188) No he leído el anterior.
 not have read the preceding
 ‘I have not read the preceding one.’
 (189) He cogido el mismo que tú.
 I have bought the same (one) as you
 (190) Tomo el otro.
 I take the other
 ‘I will take the other (one).’
 (191) De todos mis amigos, ellos son los únicos que lo conocen.
 of all my friends, they are the only who it know
 ‘Of all my friends, they are the only ones who know it.’

Sentence (192) shows that even with a measuring adjective such as *grande* ‘big’ noun ellipsis is possible in Spanish:

- (192) De estos perros, yo prefiero el grande.
 of these dogs, I prefer the big (one)

At first glance this suggests that noun ellipsis in Spanish is licensed the same way as in French.

Spanish differs from French however, because in Spanish most adjectives of quality can be used in combination with a definite article and an ellipted noun:

- (193) Se casó con la inteligente.
 He married himself with the intelligent
 ‘He married the intelligent one.’

The French translation is ungrammatical:

- (194) *Il se maria avec l’intelligente.

Above I proposed that the reason for the ungrammaticality of (194) is that the adjective *intelligent* is not a ‘classifying’ adjective, and that for this reason it does not license the empty noun.

Since the Spanish adjective *inteligente* allows ellipsis of the noun, Spanish seems to behave like Germanic languages, in which noun ellipsis is possible in combination with almost all adjectives. In §1 of this chapter we saw that it is generally assumed that the inflection of the adjective licenses noun ellipsis in Germanic languages. For Spanish, an inflection-based analysis has been proposed by Schroten (1992). In the next section, however, I show that the inflectional system of the Germanic languages differs from that of the Romance languages. In the Romance languages that we have considered so far the noun ellipsis facts can generally be compared to the English noun ellipsis facts. The English adjective is not inflected at all for gender and number. It has been claimed in this chapter that in English, French, and Italian noun ellipsis has nothing to do with the inflection of the adjective. Since Spanish has the same type of adjectival inflection as other Romance languages, i.e., both attributive and predicative adjectives are inflected for number and gender, I propose in this section that noun ellipsis in Spanish is not licensed by the inflection of the adjective, but is licensed exactly the same way as in other Romance languages, i.e. by means of partitivity. As for the fact that in Spanish NP *pro* is possible within indefinite DPs (see (184)), I propose that specificity is not required, just as in English (see §10). In §10, I suggested that ellipted nouns are possible in indefinite DPs in English, because English does not have an overt NP pronoun. Old Spanish had an overt partitive pronoun, but modern Spanish does not have one anymore. It may be the case that the use of NP *pro* in indefinite object DPs only became possible when the partitive pronoun became lost. Further research is necessary in order to confirm this idea.

Although the Spanish noun ellipsis cases in (185)-(192) might very well be accounted for in terms of licensing by a partitive element, this kind of explanation seems to be problematic for a sentence like (193). Since the adjective *inteligente* is not an N-partitive (see chapter 4 for the discussion of N-partitives) it should not be able to license ellipsis of the noun. My solution is that in (193) it is the article that allows ellipsis:

- (195) Se casó con la *pro* inteligente.

I relate the analysis of (195) to the analysis of noun ellipsis with relative clauses and genitival PPs in Spanish, as in (196)-(197):

- (196) Los *pro* que enviaron al hospital estaban muy graves.
the ones that they sent to the hospital were very seriously injured
- (197) Prefiero los *pro* de María.
I prefer the ones of María

Contrary to Bernstein (1993a), who claims that in these cases, as well as in (195), the article nominalizes an AP, a relative clause, or a PP, so that there is no empty category at all, I believe that there is an empty category in all these cases, which is licensed by the article.²² This is also Bosque's (1986) idea, at least for (196)-(197). According to Bosque, however, the definite article in Spanish can license an empty category via proper government because of its "relative richness": it is inflected for gender and number. This would explain why in Spanish the definite determiner can license an empty noun, whereas the English definite article cannot. However, a problem for this solution is presented by languages like French or Italian, which have relatively rich definite articles, but which do not license ellipsis of the noun:

²² According to Bernstein the definite article in Spanish is a "subordinator of XP other than NP", whereas in Italian it is not. Her basic idea is that "the definite article in Spanish is able to bind an open position (in the sense of Higginbotham 1985) and therefore creates an argument out of a (otherwise) predicative category". In Italian, on the other hand, the definite article may only be a subordinator for NP. As for French, Bernstein analyzes it as Spanish. In French, the definite article may take AP as a complement, instead of NP. Although Bernstein's analysis may explain the productivity of noun ellipsis in Spanish and the unproductivity of noun ellipsis in Italian (at least for a considerable number of native speakers), it does not explain the position of French in between these two. If the definite article is a subordinator for AP in French, we would expect all adjectives to be possible in cases of noun ellipsis in French, as it is in Spanish. However, in French, only some adjectives are possible.

- (198) *Les qu'ils envoyèrent à l'hôpital étaient grièvement blessés.
(199) *Je préfère les de Marie.
- (200) *I che mandarono all' ospedale furono feriti gravemente.
(201) *Preferisco i di Maria.

Therefore, I propose that the Spanish definite article can license ellipsis of the noun in exactly the same way as elements with a partitive meaning in French can. It has often been noted in Spanish grammars that the definite article in cases like these is a pronoun which can be compared to the Italian pronoun *quello* (see the previous section) and the French pronoun *celui* (see chapter 3, §6) followed by an adjective or a relative clause. These pronouns do not really have demonstrative force in cases like these, but can be compared to the English *the one(s)*. I assume that the article in (195)-(197) is in fact a pronoun: it is followed by an empty noun and it licenses the empty noun itself, because it has a discriminating meaning. It forms a subset of a larger set and has therefore a partitive function.²³ Since it only has a discriminating meaning it needs the support of a relative clause, a genitival PP or an adjective which makes it refer.²⁴

²³ Although *el* in (i) is a pronoun and not an article in my analysis, phonologically it behaves the same way as the article *el* with the prepositions *a* and *de*, the contracted forms *al* and *del* are used:

- (i) Se casó con el *pro* inteligente.
herself married with the intelligent
'She married the intelligent one.'
- (ii) Enviaron María al hospital de Madrid y Juan al *pro* de Barcelona.
they sent Mary to the hospital of Madrid and Juan to the of Barcelona
'They sent Mary to the hospital in Madrid and Juan to the one in Barcelona.'
- (iii) los médicos del hospital de Madrid y los médicos del *pro* de Barcelona
the doctors of the hospital of Madrid and the doctors of the of Barcelona
'the doctors of the hospital in Madrid and the doctors of the one in Barcelona'

²⁴ In Old French, the definite article could also function as a pronoun. This was possible if it was followed by the genitive form of a proper name:

- (i) la Carluns
the of Charles
'Charles'

This is also possible in Romanian, even with common nouns:

If the definite article in (195)-(197) is a pronoun that licenses ellipsis of the noun, the material that follows has to be to the right of the empty noun. I therefore claim that not only in (196)-(197) but also in (195) the material following the definite article is a predicate, base-generated to the right of the empty noun. Since the adjective in (195) is a predicate, base-generated to the right of the noun, it does not c-command the empty noun and therefore cannot license it. Since it is not the adjective itself that licenses the empty noun, all kinds of adjectives of quality are possible in this construction in Spanish.

I have proposed in the previous section that the Italian *il*-construction is only possible with attributive adjectives, whereas the adjective in the *quello*-construction is a predicative adjective. In the Spanish noun ellipsis case (195), a definite article is combined with a predicative adjective. Since in the examples (185)-(192) we also have the combination of an adjective with a definite article, it might also be possible here that it is not the adjective but the article which licenses the ellipsis of the noun. I claim, however, that at least in some of these cases, it is the adjective itself and not the definite article which licenses the ellipsis. This is motivated by the fact that some adjectives are always attributive, as we have seen in the previous section. I claim that at least the cardinals, the ordinals, and the adjectives *otro* and *unico* are inherently attributive adjectives which can license the ellipsis of the noun. Superlatives might be analyzed either as attributive adjectives or as predicative adjectives, just as in Italian. This is also true for the color adjectives and adjectives of quality with a clearly discriminating meaning, such as *grande*, although a predicative analysis might be preferred. The combination with the indefinite pronoun *uno* supports a distinction between attributive and predicative adjectives in Spanish. Whereas *uno* is used in combination with most adjectives, it takes the form *un* before the ordinals, *ultimo* and *otro*. In chapter 4, with respect to comparable data in Italian, I will argue that *uno* is a pronoun immediately followed by an empty noun, whereas *un* is a determiner followed by adjective + empty noun:

(202) uno *pro* rosso
a red (one)

(203) un octavo *pro*
an eighth (one)

(ii) al vecinului
the of neighbor-the
'the neighbor's'

(204) un ulterior *pro*
a last (one)

(205) un otro *pro*
another (one)

Whatever the exact analysis of the examples (185)-(192) is, the ellipted noun is licensed by a partitive element in these cases, the definite article or the adjective. In (195)-(197), *pro* is also licensed by the definite article. Then in all cases ellipsis of the noun in Spanish is licensed by partitivity, which relates Spanish to French, English, and Italian.

The discussion of the "partitivity-type" languages has shown that in all languages noun ellipsis is licensed by D-partitives but not always by N-partitives. Sometimes N-partitives license noun ellipsis, but sometimes another strategy is used. This is schematized below:

table 2.3 adjectives of quality

<i>French</i>	N-partitives
<i>English</i>	<i>one</i> -strategy
<i>Italian</i>	<i>quello</i> -strategy
<i>Spanish</i>	<i>el</i> -strategy

After having discussed the "partitivity" type of licensing, I now turn back to the "inflection-type" of licensing which was already discussed at the beginning of this chapter.

13. Licensing mechanisms

I have proposed that in French, English, Italian and Spanish, noun ellipsis is licensed in a different way than in Dutch, German and the Scandinavian languages. Whereas for this last group of languages it has been proposed in the literature that empty nouns are licensed by adjectival inflection, I have proposed that in the first group of languages the meaning of the licenser, viz. a partitive meaning, plays a crucial role. I have proposed that D-partitives and to a minor extent N-partitives can formally license ellipted nouns.

Since adjectives inflect also in the Romance languages just as Germanic adjectives do, the question may arise why in the Romance languages

adjectival inflection cannot license empty nouns. As a matter of fact, we would even expect adjectival inflection in the Romance languages to be able to license empty nouns because in these languages adjectival inflection expresses a number and gender distinction (*phi*-features), which also plays an important role in the licensing of subject *pro*. In this section, I speculate on the reason for the difference between licensing of noun ellipsis in Romance and Germanic. I will explore whether it is possible to relate this difference to a difference in agreement mechanisms. However, this section will only have a speculative character. More research is needed, which is beyond the scope of this study.

Kester (1992, 1996) shows that the nature of adjectival inflection in Germanic languages is different than in Romance languages. This suggests that the different manners of licensing have to do with the type of adjectival inflection.

In Dutch, only attributive adjectives inflect. The inflection consists of a simple schwa. Adjectives that modify singular indefinite neutral nouns such as in (207) do not take the inflectional ending:

- (206) een kleine jongen MASC
a little boy
(207) een klein kind NEUT
a little child

In German, attributive adjectives modifying indefinite nouns are marked for number, gender, and Case, whereas those modifying definite nouns simply take an *-e* ending:

- (208) ein kleines Mädchen
a little girl
(209) das kleine Mädchen
the little girl

Also in Scandinavian, a distinction is made between weak adjectival inflection and strong adjectival inflection. The so-called weak adjectival inflection is only used in definite attributive adjectives and is morphologically poor. "Strong" adjectival inflection is used in indefinite attributive adjectives and in predicative adjectives. Strong adjectival inflection expresses number and/or gender distinctions. Kester illustrates this with the following examples from Norwegian:

- (210) det store huset
the big house-the
'the big house'
(211) et stort hus
a big house
(212) Huset er stort.
house-the is big
'The house is big.'

Kester shows that in Romance, on the other hand, adjectival inflection always expresses *phi*-features. It can be used both in definite and indefinite DPs and both in attributive or predicative adjectives. She illustrates this with the following examples from Spanish. In (213)-(214) we are dealing with predicatively used adjectives:

- (213) El chico es alto.
the boy is tall
(214) Las chicas son altas.
the girls are tall

In (215)-(216) the adjective is used attributively and the DP is definite:

- (215) el chico alto
the boy tall
'the tall boy'
(216) las chicas altas
the girls tall
'the tall girls'

Both weak and strong inflection in German and the Scandinavian languages and the schwa in Dutch license empty nouns. Delsing (1992) gives the following examples from Swedish:²⁵

- (217) Jag gillar inte den gröna.
I like not the green
'I do not like the green one.'

²⁵ Whereas in Dutch, uninflected adjectives cannot license ellipsis of the noun, in the Scandinavian languages they can. I propose, therefore, that the absence of an affix in Scandinavian expresses a relation to the presence of certain functional features.

- (218) Jag vill ha en grön.
I want-to have a green
'I want to have a green one.'

The following German examples are taken from Bhatt (1990):

- (219) Welches Auto hast du gekauft? Das rote oder das blaue?
which car have you bought? The red (one) or the blue (one)?
(220) Die Hausfrau stellte erst das Bügeleisen ab. Sie besaß ein elektrisches.
the housewife switched first the iron off. She possessed an electric
'First, the housewife switched the iron off. She had an electric one.'

In §1, we saw that noun ellipsis in Dutch and German is only possible with adjectives that are inflected.

Hence, the agreement systems in Romance and German differ in two important ways. First, in Romance, both attributive and predicative adjectives agree with the noun, whereas in Germanic only the attributive adjectives generally do so. Second, in Romance, adjectival agreement does not depend on the form of the determiner (definite or indefinite), whereas in Germanic it does.

In Germanic, therefore, attributive and predicative adjectives are two different systems with respect to inflection. In Romance, on the other hand, there is just one system. The difference suggests that whereas there is Spec-Head agreement (both with attributive and with predicative adjectives) in Romance, an agreement chain is formed from DP to NP in Germanic. It might be assumed that adjectival inflection is related to the presence of one or more functional features within the DP-system, expressing definiteness (DP), gender (gender phrase) or number (number phrase) (see e.g. Barbiers 1992; Menuzzi 1994). If there is no noun to form the foot of the chain, the next highest up element in the DP has to take over this role, which is only possible if this can be expressed in a morphological way. This would explain why empty nouns need to be licensed by inflected adjectives and why such an adjective has to immediately dominate NP. This interpretation of the licensing mechanism in Germanic combines Muysken's (1983) and Muysken's & van Riemsdijk's analysis with Kester's (1996).

It has been proposed in this chapter that Romance has another system of licensing noun ellipsis than Germanic. Whereas in Romance ellipsis is licensed by partitivity, in Germanic it is licensed by adjectival inflection.

However, I suggest that in Germanic, noun ellipsis can also be licensed by partitivity, especially with determiners that do not inflect, such as cardinals:

- (221) Ik heb twee *pro* van de boeken gelezen.
I have two of the books read
'I have read two of the books.'

In §8, I proposed that NP *pro* does not only have to be licensed by partitivity, but that it also has to be identified by a "specific" reading of the licenser. I propose that a "specific" meaning is required if NP *pro* is licensed by partitivity in the Germanic languages as well. This explains why (222) is ungrammatical. Since the indefinite DP in object position has a non-specific interpretation, it cannot be linked to an antecedent:

- (222) *Ik koop drie *pro*.
I buy three

However, when we add an adjective, the sentence becomes grammatical:

- (223) Ik koop drie kleine *pro*.
I buy three small
'I buy three small ones.'

In French, on the other hand, indefinite DPs in object position are ungrammatical (at least in a somehow formal style of speech), even if they contain an adjective that licenses the ellipsis of the noun:

- (224) *J'ai acheté trois petites *pro*.
I have bought three small

I suggest that the fact that (223) is grammatical while (224) is ungrammatical is due to the different licensing requirements. I have proposed that in French, NP *pro* is the empty counterpart of the quantitative pronoun *en*, a specific (i.e. anaphoric) pronoun. Since NP *pro* is not inherently specific, it has to be licensed by a specific element. Also in other languages with an overt NP pronoun, such as Dutch and Italian, an indefinite nounless DP is not possible in object position, see (222) and (225):

- (225) *Ho letto tre *pro*.
I have read three

In these languages, an overt NP pronoun has to be used to make the DP specific so that linking to an antecedent is possible:²⁶

- (226) Ik koop *er* drie *t_i*.
I buy of it three
'I will buy three.'
(227) *Ne_i* ho letti tre *t_i*.
I of it have read three
'I have read three.'

In languages without an overt NP pronoun, however, such as English and Spanish, indefinite nounless DPs in object position are possible. This suggests that specificity does not play any role in the licensing of the empty noun. But because of the empty noun, the DP cannot get a "novel" interpretation, but only a "specific" interpretation.

If I am on the right track with this idea, it would explain the grammaticality of (223) as opposed to the ungrammaticality of (222) and (224), for which I have proposed that the empty noun is licensed by partitivity. In (222) and (224), NP *pro* is the empty counterpart of an overt NP pronoun, *er* in Dutch and *en* in French, which is specific. In (223), on the other hand, the empty noun is licensed by adjectival inflection. Dutch does not have an overt NP pronoun that is the specific counterpart of this empty pronoun. Therefore, the empty pronoun in (223) does not need to be identified by specificity. This would then explain why indefinite objects are possible in Dutch if the empty noun is licensed by adjectival inflection but not if the empty noun is licensed by a quantifier. Quantifiers can also license the quantitative pronoun *er*. I have suggested that Dutch has two kinds of empty NP pronouns, which are licensed in different ways. In §4.6, I propose that one of the varieties of Italian has also two kinds of empty NP pronouns, which are licensed by two different classes of elements.

²⁶ Whereas Bennis (1987) argues that the quantitative pronoun *er* is base-generated in a position outside the noun phrase, I assume that *er* is base-generated within the noun phrase (cf. Coppen 1991), just like the French quantitative pronoun *en* (cf. Milner 1978; Hulk 1982, 1984; Godard 1988) and the Italian quantitative pronoun *ne* (cf. Rizzi 1979; Belletti & Rizzi 1981; Cardinaletti & Giusti 1991). This is motivated by the licensing restrictions.

14. Summary

In this chapter, I have shown that the analysis which has been proposed by some linguists to account for the noun ellipsis facts in Dutch, German and the Scandinavian languages, i.e. that the empty noun, *pro*, would be licensed by the inflectional part of the adjective, cannot be extended to French, because in French, most adjectives do not license noun ellipsis, even if they are inflected. I claimed that in French, the ellipted noun is licensed by being properly governed by elements with a partitive meaning. I made a distinction between D-partitives (i.e. elements with an inherently partitive meaning) and N-partitives, i.e. some adjectives of quality with highly discriminating force, which are only partitive at a cognitive level, involving familiarity of a superset expressing a kind. Furthermore, I proposed that the empty noun is identified by a specific interpretation, which is needed for the linking of the nounless DP to an antecedent. In the course of this chapter, I extended my analysis of French to several other Romance languages and to English. Finally, I suggested that the difference between the licensing of Germanic and Romance noun ellipsis is the result of a difference in the type of adjectival agreement systems.