Split Noun Phrases and the Theory of Case

by

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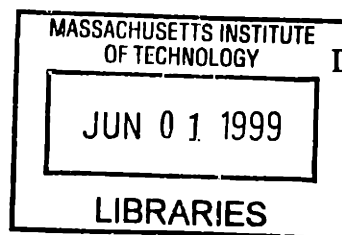<div align="right">

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ABSTRACT

This dissertation is concerned with two puzzles in the syntax of French noun phrases. I first examine the distribution of the subnominal clitic pronoun *en*. I argue that Case theory is the module of the grammar responsible for the well-known contrast in grammaticality between genitive *en* and quantitative *en* when they appear with derived (raised) subjects of unaccusative verbs. I argue that Case is a feature of the nominal head of a DP. Extraction of the nominal head by quantitative *en* creates a DP remnant which is incapable of checking Case, since it lacks the necessary feature. Genitive *en* does not extract the nominal head, and its remnant contains a Case feature. I show that Case theory makes the correct predictions regarding the distribution of genitive *en* and quantitative *en* in a large number of contexts, many of which were problematic for previous accounts in terms of Binding Theory or the Empty Category Principle (ECP). The Case theoretical approach also predicts the Definiteness Restriction on the extraction of quantitative *en*, as well as the obligatory narrow scope of its remnant. The second puzzle is provided by Quantification at a Distance (QAD) in French. I argue that also in this case the subject/object asymmetry observed with remnants is to be explained by Case theory. QAD remnants are deficient noun phrases and are not eligible candidates for Case Checking in the specifier of a functional projection. I show how a Case theoretical approach to QAD predicts the obligatory narrow scope of QAD remnants as well as the fact that only weak determiners are members of the *beaucoup* class. I propose that there are three ways of Checking Case: head movement of N, head movement of D preceded by feature movement of the Case feature to D, and DP movement. Finally I show that the analysis of *en* cliticization and QAD can be used to shed light on the position of subjects in Stylistic Inversion contexts. More generally the thesis is a contribution to the theory of feature checking, and provides a new approach to problems usually attributed to the ECP.

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I would like to dedicate this thesis to the memory of my mother,
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Contents

Chapter 1

Introduction

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1. Key aspects of the dissertation

From an empirical point of view, the thesis is devoted to two cases of split noun phrases observed in the syntax of French. The first is provided by *en*-cliticization, the second by Quantification at a distance. From a theoretical point of view, this thesis is concerned with Case theory, and more generally provides a different approach to phenomena that have traditionally been attributed to the Empty Category Principle.

1.1 Two puzzles with French split noun phrases

The empirical domain of this dissertation is provided by two puzzles found in the syntax of French noun phrases, more specifically split noun phrases created by *en*-cliticization and Quantification at a distance. The two constructions share important key properties and call for a unified solution, which I will argue is to be couched in terms of Case theory.

The first puzzle has been a long-standing problem in French syntax (cf. Ruwet 1972, Kayne 1975), and concerns an asymmetry in the distribution of the clitic *en*. As shown in (1) below, Genitive-*en* and Quantitative *en* are both felicitous with objects. On the other hand only Genitive-*en* can be found with a raised subject, and Q-*en* is not felicitous in this context, as shown by the contrast between (2a) and (2b).

(1) a. Pierre en a lu la préface   G-*en*
         P. of-it has read the preface
         "Pierre read its preface."

     b. Pierre en a lu trois.   Q-*en*
         P. of-them has read three
         "Pierre read three of them."

(2) a. Le premier chapitre en a été publié.   G-*en*
         the preface of-it has been published
         "Its preface has been published."

b. *Trois en ont été publiés   Q-*en*
three of-them have been published
"Three of them have been published."

A subject/object asymmetry similar to the one observed with Q-*en* is found in Quantification at a distance contexts (QAD, cf. Obenauer 1984/85). As was observed by Kayne (1981), QAD is possible from object positions, but is unacceptable with raised subjects, as shown by the contrast between (3a) and (3b) below. On the other hand the full DP counterparts of QAD do not exhibit a subject/object asymmetry, as shown in (4).

(3)   a.   Conan Doyle a beaucoup écrit [*e* de livres].
              Conan Doyle has a-lot written of books
              "Conan Doyle wrote a lot of books./Conan Doyle wrote books a lot."

        b.   *[*e* de livres] ont beaucoup été écrits __ (par Conan Doyle).
              of books have a-lot been written (by C.D.)

(4)   a   Conan Doyle a écrit [beaucoup de livres].
              Conan Doyle has written a-lot of books
              "Conan Doyle wrote a lot of books."

        b   [Beaucoup de livres] ont été écrits (par Conan Doyle).
              A-lot of books have been written (by C.D.)
              "A lot of books have been written (by Conan Doyle)."

The remnants created by Quantitative-*en* cliticization, as well as the remnant left after QAD have the same distribution: they both appear in object positions, but never as raised subjects; they exhibit a subject/object asymmetry. On the other hand the remnants created by Genitive-*en* cliticization and the full counterparts of QAD objects also behave in a parallel fashion: they may be found in either position; they do not exhibit a subject/object asymmetry with unaccusative/passive verbs[1].

Quantitative-*en* remnants and QAD-remnants behave alike in another important respect: both must have narrow scope with respect to another scope bearing element. Their scope is frozen into their base-position. On the other hand G-*en* and the full counterparts of QAD contexts do not present any interpretive restriction: they may have wide or narrow scope with respect to another scope bearing element.

The shared properties of Quantitative-*en* remnants and QAD remnants, as well as the lack of these properties in G-*en* remnants and full counterparts of QAD objects clearly call for a unified solution. The goal of the thesis is to argue that Case is at the heart of the problem in

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[1]. G-*en* remnants may not appear as external arguments, a fact that is discussed in Chapter 2, section 3.2.3.

explaining the subject/object asymmetries found with Q-*en* and QAD, as well as their interpretive properties.

1.2 Case theory and feature checking

Aside from providing a radically different perspective on old problems in the syntax of French, the dissertation is a contribution to the theory of Case. In a nutshell, I argue that Case is a property of nominal heads. The contrast between (2a) and (2b) is attributed to the absence of a Case feature in the remnant of Quantitative-*en*. The Quantitative-*en* remnant is a deficient DP, it lacks a Case feature, and cannot raise to check off the Case feature of T. This is the topic of Chapter 2.

QAD remnants must also be seen as deficient noun phrases. In chapter 3, I argue that, like remnants of Q-*en*, QAD remnants are deficient and cannot check Case. I propose that in order for a DP to check Case by movement to the specifier of a functional projection, it must contain both a D and an N. The presence of D makes the Case feature visible at the DP level, and allows a DP to check Case by movement.

Viewing Case as the crucial property involved in these problems explains the distribution of split and full noun phrases in a large number of contexts, some of which are highly problematic under ECP approaches.

1.3 The Empty category principle

The problems examined in this dissertation have traditionally been considered as following from the ECP. Regarding the specific problems raised by *en*-cliticization and QAD, I argue that Case is to be seen as the property responsible for the distribution of split and full noun phrases. The logic of the argument, however, is independent from Case theory itself and can be applied to other contexts which have been attributed to the ECP[2].

The logic of the argument is that the phrases whose distribution is restricted to certain positions lack a feature that would enable them to enter into relation with some syntactic head in some other position. These phrases are deficient in that sense, and their deficiency limits the positions in which they can appear in the syntactic structure.

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2. Pesetsky and Torrego (1999a, 1999b), building on earlier versions of material presented in this thesis (Boivin 1998, to appear), use the logic of the argument to account for some ECP effects, notably the distribution of infinitives.

2. Outline of the dissertation

Chapter two is devoted to the study of *en*-cliticization, and argues that the locus of the Case feature of a DP is its nominal head N. I first present the aspects of the internal structure of noun phrases that are relevant for the discussion of *en*-cliticization. I then turn to the heart of the matter and present the intriguing puzzle provided by the distribution of Genitive-*en* and Quantitative-*en*, and propose a Case theoretical analysis of these facts. We will see that the Case theoretical analysis naturally explains not only the basic puzzle but also a series of other co xts in which the distribution of Genitive-*en* and Quantitative-*en* is problematic under ECP accounts. In addition I will show that the Case theoretical analysis proposed in the dissertation extends naturally to the distribution of the counterparts of *en* in other Romance languages. Finally I will show how a Case theoretical approach to the puzzle at hand predicts the obligatory narrow scope of Q-*en* remnants as well as the definiteness restriction to which they are subject.

Chapter three is concerned with Quantification at a distance, and extends the Case theoretical account presented in Chapter two to the distribution of QAD-remnants. I begin with a general presentation of the phenomenon of Quantification at a distance and the issues that it raises. I present the standard arguments for movement and base generation analyses of QAD, and present two new arguments in favor of a movement theory. I then proceed to show how Case theory accounts for the distribution of QAD remnants and their full DP counterparts, and predicts the obligatory narrow scope of QAD remnants. Finally I show how the same logic can be applied to negative contexts involving *pas* in French.

Chapter four discusses Stylistic inversion, a well-known but ill-understood construction of French. The goal of the chapter is twofold. First, it is a contribution to the understanding of the position of the subject in Stylistic Inversion contexts. The *en*-cliticization and QAD facts in Stylistic inversion contexts suggest that [Spec, TP] must be involved in all cases of Stylistic inversion, at least as a transitory position for the subject. Furthermore, I show that whatever the precise analysis of Stylistic inversion may be, the ECP accounts of *en*-cliticization do not explain the distribution of *en* in Stylistic inversion contexts, whereas the Case theoretical approach does.

Chapter 2

Case as a property of nominal heads

1. Introduction: the puzzle and the approach

This chapter is mainly devoted to the study of *en*-cliticization in French[1]. The syntax of *en*-cliticization offers a very interesting and well-known puzzle: While genitive-*en* can appear with derived (raised) subjects, Quantitative-*en* cannot. In this chapter I offer an analysis of these facts in terms of Case theory, and I am led to propose that, contrary to what has been assumed, Case must be a feature of the nominal head N of a DP. From a theoretical point of view, the goal of this chapter is to show that N must be the locus of Case. This is a first step however, and will be refined in Chapter 3, where we will see that Structural Case must be a property of both D and N together. For the moment let us proceed with a simplified analysis which shows that Case is a property of N.

The clitic *en* in French stands for a subpart of a noun phrase[2]. At least two *en* can be distinguished: genitive (G-*en*), and quantitative (Q-*en*). They are exemplified in (1a) and (2a) respectively[3]. The baseline sentences, without *en*, are given in (1b) and (2b).

(1)   a. Pierre   **en**   a lu   la préface
           P.   *of-it* *has read*   *the preface*
           "Pierre read its preface."

       b. Pierre   a lu   la préface de ce livre
           P.   *has read*   *the preface of this book*

(2)   a. Pierre   **en**   a acheté   trois
           P.   *of-them* *has bought* *three*
           "Pierre bought three of them."

       b. Pierre   a acheté   trois livres
           P.   *has bought*   *three books*

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[1]. Parts of the material discussed in this chapter have been presented in earlier versions at ConSOLE VI, University of Lisbon, Portugal, (December 1997) and at the 28th Linguistic Symposium on Romance Languages (LSRL), Penn State University, (April 1998). Cf. Boivin (1998) and Boivin (to appear).

[2]. The term *noun phrase* is used throughout as a theory-neutral term to refer to the type of phrase that may appear in argument positions.

[3]. I glossed Q-*en* as *of-them* in (2). It should be clear however that Q-*en* is not referential, i.e. that it does not refer to a particular set of books. It means something like 'of the kind of things that are books'. See section 2 of this chapter for arguments.

As was noted by Ruwet (1972) and Kayne (1975), the syntactic distribution of G-*en* and Q-*en* differs in one important respect: G-*en* is allowed to appear in a sentence with a derived subject, but Q-*en* cannot appear with a derived subject. This contrast is illustrated by (3a) and (4a) and constitutes the basic puzzle of this chapter.

(3) a. La préface   **en**   a été   publiée
         the preface   of-it   has been   published
         "Its preface has been published"

     b. La préface de ce livre   a été   publiée
         the preface of this book has been published

(4) a. *Trois   **en**   ont été publiés
         three   of-them   have been published

     b. Trois livres   ont été publiés
         three books   have been published

As one can see, in (3a) G-*en* appears with a subject (*la préface*) whose origin is the object position of the passive verb (*a été publiée*). On the other hand (4a) shows that this type of context is not felicitous for Q-*en*. Q-*en* cannot appear with the raised subject *trois* in (4a).

In a nutshell, the analysis will be as follows. Case must be a feature of the nominal head N of a DP. The raised subject *la préface* in (3) is able to raise from its object internal position because it contains a nominal head N (*préface*). Raising to [Spec, TP] checks the Case feature of the raised subject. In (4) the raised subject *trois* does not contain a nominal head N. Its nominal head has been extracted by Q-*en* cliticization, and with it the Case feature. As a consequence the subject in (4) cannot raise to [Spec, TP] because no Case Checking can take place, and the sentence is ungrammatical.

As I have already mentioned, the main theoretical result of this chapter is that Case must be considered as a property of the nominal head N of a DP. This chapter is devoted to showing how this hypothesis accounts for a number of facts of French[4].

This chapter is organized as follows. In section 2 I present some background regarding the internal structure of noun phrases in French, focusing on the substructures resumed by the clitic *en*. In section 3 I return to the main topic of this chapter and present in greater detail the analysis of *en*-cliticization that I propose, reviewing the pieces of the basic puzzle. Section 4 shows how the analysis explains not only the basic puzzle but other contexts of *en*-cliticization, and compares the proposal to previous analyses. Section 5 is concerned

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[4]. In chapter 3 (section 3.2.4.2) we will see how the Case feature of N is to be made visible at the DP level for the purpose of Case checking in the specifier of a functional projection.

with the application of the Case theoretical approach to other Romance languages which possess a pronoun like *en*. Section 6 deals with the definiteness restriction (DR) and scope of Q-*en* objects, and shows that the Case theoretical analysis predicts the DR and the narrow scope of Q-*en* objects.

2. Preliminaries: Aspects of the internal structure of noun phrases

In this section I will show that G-*en* and Q-*en* realize different subparts of a noun phrase. G-*en* is the realization of the complement of a head noun, and is itself a DP. Q-*en* on the other hand realizes an NP; crucially it extracts the head noun out of the DP.

In section 2.1 I present the substructures realized by G-*en* and Q-*en* respectively. The following sections provide arguments for the claim that G-*en* and Q-*en* correspond to different subparts of a noun phrase. In section 2.2 we will see that they have different referential properties. Section 2.3 shows that G-*en* and Q-*en* are not subject to the same restrictions with respect to the definiteness of the noun phrase from which they are extracted: there is a definiteness restriction of the extraction of Q-*en*, but no such restriction applies to the extraction of G-*en*. Section 2.4 provides arguments against a parallel analysis of G-*en* and Q-*en* as realizing the complement of a noun. In section 2.5 I present evidence to the effect that there is no partitive *en*, and that the partitive interpretation, if it obtains, is provided by the context of utterance. Finally in section 2.6 I show that *en* can also stand for a full indefinite DP.

2.1 Substructures resumed by Genitive and Quantitative-*en*

Looking at the facts in (1) to (4) from the preceding section, it is easy to observe that, at least at first sight, G-*en* and Q-*en* do not stand for the same subpart of the noun phrase. G-*en* stands for the complement of the head noun of the DP, whereas Q-*en* resumes the head noun of the DP and leaves it without an overt nominal head (cf. among others Milner 1978, Haïk 1982, Pollock 1986, Rizzi 1990).

This difference is illustrated in (5) and (6) below.

(5)   Substructure resumed by G-*en*

```
              DP
           /      \
         D          NP
         la        /    \
                  N        DP
               préface     en        (=de ce livre)
```
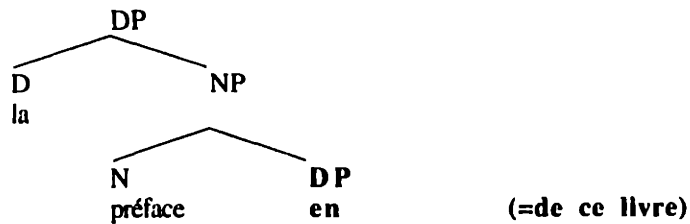
(6)   Substructure resumed by Q-*en*

```
              DP
           /      \
         D          NP
       trois        en         (=livres)
```
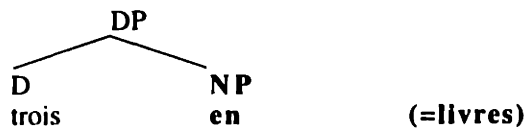
As one can see in (5), G-*en* stands for a DP complement of a head noun[5]. On the other hand Q-*en* resumes the NP (*livres*) in (6). The structures given in (5) and (6) correspond closely to what can be observed on the surface. In the following sections I will give arguments to show that G-*en* and Q-*en* are indeed realizing different subparts of a noun phrase[6].

2.2 Referential properties

In this section we will see that the two *en* clearly exhibit different referential properties. G-*en* always resumes a definite noun phrase, whereas Q-*en* does not. Q-*en* refers to a kind, not to an individual. Furthermore, G-*en* is constrained by an animacy restriction which does not apply to Q-*en*.

G-*en* is always definite; it cannot be used to resume an indefinite. It behaves like ordinary pronouns in that respect. Milner (1978) illustrates this point with the following examples involving left dislocation.

(7)   a.   *Un livre de Zola, je l'ai lu avec plaisir
             a book by Zola, I it have read with pleasure

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[5]. I assume along with Chomsky (1986) that genitive complements are NPs (DPs in this framework), and that *de* is not a preposition but the realization of inherent Case on the DP.

[6]. One of the main arguments usually used to argue for a difference in the substructures realized by G-*en* and Q-*en* is the contrast between the two *en* when they appear with derived subjects (cf. Milner 1978). Since this contrast is the main puzzle to be explained, I only present here independent evidence that points to the same conclusion.

    b. Ce livre de Zola, je l'ai lu avec plaisir.
       this book by Zola, I it have read with pleasure
       "This book by Zola, I read with pleasure"

(8)   a. *Un livre de Zola, j'en ai lu la fin
       a book by Zola, I of-it have read the end

    b. Ce livre de Zola, j'en ai lu la fin.
       this book by Zola, I of-it have read the end
      "This book by Zola, I read the end of it."

The contrast between (7a) and (7b) illustrates that the accusative clitic *le* (it) may only be used to resume a definite noun phrase, and is incompatible with an indefinite noun phrase. The contrast between (8a) and (8b) shows that G-*en* is subject to the same constraint: G-*en* must resume a definite noun phrase and is incompatible with an indefinite[7].

Note that a full genitive complement is not subject to the constraint illustrated by (8a, b). The constraint really is a property of G-*en*. This is illustrated by the absence of contrast between (9a) and (9b), which respectively involve a full indefinite genitive and a full definite genitive.

(9)   a. Hier soir, j'ai lu la fin d'un livre de Conan Doyle.
       yesterday evening, I have read the end of a book by Conan Doyle.
      "Last night, I read the end of a book by Conan Doyle".

    b. Hier soir, j'ai lu la fin de ce livre de Conan Doyle.
       yesterday evening, I have read the end of that book by Conan Doyle.
      "Last night, I read the end of that book by Conan Doyle".

I would like to illustrate the same point with examples which do not involve left dislocation but simply the use of *en* in discourse, as in (10) and (11) below.

(10) Speaker A   a.   Pierre en a lu la préface.
                         P. of-it has read the preface
                         "Pierre read its preface"

      Speaker B   b.   La préface de quoi?
                           The preface of what?

(11) Speaker A: a.   Je te l'ai déjà dit, la préface de ce livre!
                           I have already told you, the preface of this book!

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7. See section 2.5 for a caveat on the use of dislocation as a constituency test.
Milner completes his argument with examples like (i).
(i)   Des livres de Zola, j'en ai lu deux.
According to him (i) shows that Q-*en* may resume an indefinite. Although I believe that (i) indeed is an example of Q-*en*, I do not think that in this instance *en* stands for the indefinite *des livres de Zola*. I will argue for this position in section 2.5.

b.   #Je te l'ai déjà dit, la préface d'un livre!
        I have already told you, the preface of a book!

As the contrast between (11a) and (11b) shows, G-*en* can be used only to resume a definite noun phrase. The occurence of *en* in (10a) cannot be understood as resuming an indefinite, as attested by the fact that (11b) does not constitute an appropriate response to (10b).

Note that this effect is not built into the conversational setting in (10) and (11). One could think that given the way the discourse is structured, it must be the case that a pronoun is definite and only refers to a specific entity previously mentioned in the discourse. The examples in (12) and (13) show that this is not the case. It is possible to refer to a kind by using a pronoun, and this is exactly what Q-*en* does. The conversation setting is the following: Speaker A is talking about a little boy, Pierre, and is amazed at his accomplishments. He is three years old and he has already read three books.

(12)   Speaker A: a.   Notre petit Pierre en a déjà lu trois!
                                Our little P. of-them has already read three
                                "Our little Pierre already read three of them!"

        Speaker B: b.   Pierre a lu trois quoi?
                                P. has read three what?

(13)   Speaker A: Je te l'ai déjà dit, Pierre a déjà lu trois livres!
                                "I have already told you, Pierre already read three
                                books!"

The sentence in (13) constitutes an appropriate answer to the question asked in (12b), and shows that Q-*en* can refer to a kind. It is true that (14) would be another appropriate answer for (12b), and could lead one to conclude that Q-*en* may also resume a partitive (or that there is a partitive *en*).

(14)   Speaker A: Je te l'ai déjà dit, Pierre a déjà lu trois de ces livres.
                                "I have already told you, Pierre already read three of
                                these books."

In section 2.6 I will argue that Q-*en* always refers to a kind, and that the partitive interpretation observed with *en* is a contribution of the discourse, not of the syntactic structure resumed by *en*.

A final argument to show that Q-*en* may indeed refer to a kind and is not referential in the usual sense is provided by the example in (15).

(15)   Jean a volé trois livres à la coop et Pierre en a volé deux chez Barnes & Noble.
        J. has stolen three books at the coop and P. of-them has stolen two at B&N.
        "Jean stole three books from the coop, and Pierre stole two of them from B&N."

The choice of the predicate *voler* (to steal) clearly rules out any partitive interpretation for *en* in the second conjunct of (15), i.e. an interpretation where *en* would refer to a subset of the set denoted by *trois livres* in the first conjunct. The second conjunct means *and Pierre stole two of the kind of things that are books*.

To sum up this section so far, I have shown that G-*en* is referential and must resume a definite noun phrase. Q-*en* is not referential stricto sensu; it refers to a kind. We now turn to another difference in the referential properties of the two *en*, namely the animacy restriction found with G-*en*.

Milner (1978:49) mentions that purists use G-*en* to refer to inanimates only, whereas there is no such restriction on Q-*en*. In my dialect the animacy restriction on G-*en* is fully operative as shown by the examples (16) and (17), which involve an animate genitive complement. The animate genitive complement cannot be resumed by G-*en*.

(16)   a. J'ai vu le frère de Jean.
            I have seen the brother of J.
            "I saw John's brother."

        b. *J'en ai vu le frère __ .
            I of-him have seen the brother

(17)   a. J'ai remarqué l'audace de cette fille.
            I have noticed the audacity of that girl
            "I noticed the audacity of that girl."

        b. *J'en ai remarqué l'audace __ .
            I of-her have noticed the audacity

Note that an animacy distinction is a feature that is common to pronouns, as attested by the difference betwen *s/he* and *it* in English for instance.

Q-*en* is not subject to any animacy restriction, as is attested by the absence of contrast between the examples (18) and (19), respectively involving an inanimate and an animate complement.

(18)   a. J'ai lu trois livres.
            I have read three books
            "I read three books"

   b. J'en ai lu trois.
      I of-them have read three
      "I read three of them."

(19) a. J'ai vu trois étudiants.
      I have seen three students
      "I saw three students."

   b. J'en ai vu trois.
      I of-them have seen three
      "I saw three of them."

The differences in referential properties that I described in this section constitute one piece of evidence in favor of the idea that G-*en* and Q-*en* are indeed different, and realize different subparts of a noun phrase. They also suggest that the structures proposed in (5) and (6) are correct: G-*en* is referential and resumes a DP; Q-*en* is not referential in the same way, it refers to a kind and resumes an NP. This does not mean that all DPs must be definite: I assume that DPs may be definite or indefinite. G-*en* resumes a definite DP, Q-*en* resumes an NP extracted from an indefinite DP.

2.3 Definiteness restriction on Q-*en* extraction

As Milner (1978) points out, Q-*en* can only be extracted from an indefinite noun phrase. Extracting Q-*en* from a definite noun phrase produces an ungrammatical sentence. The contrast between the examples given in (20) and (21) illustrates the definiteness restriction on Q-*en* extraction.

(20) a. Pierre en a lu trois
      P. of-them has read three
      "Pierre read three of them."

   b. Pierre en a lu beaucoup
      P. of-them has read a-lot
      "Pierre read a lot of them."

   c. Pierre en a lu plusieurs
      P. of-them has read many
      "Pierre read many of them."

(21) a. *Pierre en a lu les trois
      P. of-them has read the three
      "Pierre read the three of them."

   b. *Pierre en a lu tous
      P. of-them has read all
      "Pierre read all of them."

c. *Pierre en a lu chaque/chacun
    P. of-them has read each
    "Pierre read each of them".

As the examples in (20) show, the weak determiners (cf. Milsark 1974), such as the cardinal numeral *trois* (three), adnominal *beaucoup*[8] (a lot), and *plusieurs* (many), create a proper context for Q-*en* extraction. On the other hand the definite determiner *les* and the strong determiners *tous* and *chacun* cannot appear with Q-*en*.

The examples in (22) contrast with the examples in (21) and show that G-*en* is not subject to a definiteness restriction. As long as G-*en* stands for a definite noun phrase, it is totally indifferent to the definite/indefinite status of the noun phrase from which it is extracted. This is shown by the absence of contrast between the examples in (22) and (24).

(22) a. Jean en a écrit trois versions différentes.   (en=de cet article)
          J. of it has written three versions different   *en=of this article*
          "Jean wrote three different versions of it."

      b. Jean en a écrit beaucoup de versions.
          J. of-it has written a-lot of versions
          "Jean wrote a lot of versions of it."

      c. Jean en a écrit plusieurs versions.
          J. of it has written many versions
          "Jean wrote many versions of it."

(23) a. Jean en a écrit la préface.   (en=de ce livre)
          J. of-it has written the preface   *en=of this book*
          "Jean wrote its preface."

      b. Jean en a supervisé toutes les étapes.   (en=de ce projet)
          J. of-it has supervised all the stages   *en=of this project*
          "Jean supervised all the stages of it."

      c. Jean en a supervisé chaque étape.
          J. of it has supervised each stage
          "Jean supervised each stage of it."

G-*en* is extracted from indefinites noun phrases in (22), and in (23) it is extracted from noun phrases with a definite determiner or strong determiners. There is no contrast between the examples in (22) and (23): the extraction of G-*en* is felicitous from any type of noun phrase.

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8. See section 2.4 of this chapter for a discussion of the internal structure of noun phrases like *beaucoup de livres*, and section 2.2 of Chapter 3 for an analysis of adnominal *beaucoup* as a determiner.

In section 6 I will show that the analysis that I propose to explain the basic puzzle presented at the outset of this chapter predicts the definiteness restriction observed with Q-*en* extraction as well as the absence of the restriction for G-*en*[9]. The facts themselves however, without any particular analysis, still suggest that G-*en* and Q-*en* are truly different.

2.4 Against a uniform structural analysis for G-*en* and Q-*en*

So far I have presented evidence that G-*en* and Q-*en* must be considered as two different lexical items, standing for different subparts of a noun phrase. In this section I argue against a specific analysis that would treat G-*en* and Q-*en* alike[10]. I will provide evidence to the effect that Q-*en* cannot be analyzed as being strictly parallel to G-*en*: Q-*en* does not resume the complement of a null nominal head. The evidence comes from extraction facts: as Milner (1978) showed, noun phrases from which Q-*en* can be extracted behave as if they contain a single nominal head, and not two, for the purpose of extraction. Furthermore, if Q-*en* were leaving a remnant containing a null nominal head, we would expect this remnant to have the same distribution as other noun phrases containing a null head. I will show that this is not the case: the distribution of the remnant of Q-*en* is not parallel to the distribution of noun phrases containing a null nominal head.

One could think that G-*en* and Q-*en*, despite their differences, stand for similar subconstituents within the noun phrase. Just as G-*en* stands for the complement of a head noun, it could be that Q-*en* stands for the complement of an empty noun. Under this view, G-*en* and Q-*en* would receive a uniform analysis and would be associated with structures like (24) and (25) below.

(24)   [DP la préface [DP en]]

(25)   [DP trois ø [DP en]]

Recall that I have proposed the structure in (26) for Q-*en*.

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[9]. It was pointed out to me by Rose-Marie Déchaine that there seems to be a counterexample to the DR observed with Q-*en*. In (i) below, Q-*en* appears to cooccur with the strong determiner *la plupart* (most).
(i)   J'en ai lu la plupart.
        I of-them have read the-most.
In section 6.3 of this chapter I show that the counterexample is only apparent, and that (i) involves G-*en*.
[10]. Thanks to Noam Chomsky for pointing out the objection to me.

(26) [DP trois [NP en]]

I will refer to (25) as the double-N hypothesis, and to (26) as the single-N hypothesis.

The double-N hypothesis is plausible especially in light of the fact that noun phrases quantified by *beaucoup* (a lot), *trop* (too much), *assez* (enough)[11], etc. exhibit an overt *de* when they appear with a noun, and are perfectly compatible with Q-*en*. This is illustrated by the examples in (27) and (28) below.

(27) a. Charles a dirigé beaucoup de comédiens.
          C. has directed a-lot of comedians
          "Charles has directed a lot of comedians."

      b. Charles en a dirigé beaucoup.
          C. of-them has directed a-lot
          "Charles has directed a lot of them."

(28) a. Jasmine a rencontré trop de garçons.
          J. has met two-much of boys
          "Jasmine met too many boys."

      b. Jasmine en a rencontré trop.
          J. of-them has met too-much
          "Jasmine met too many of them."

The presence of *de* in (27) and (28) and the fact that Q-*en* seems to resume *de comédiens* and *de garçons* in (27) and (28) could be seen as suggesting that Q-*en* indeed stands for the complement of a null nominal head. Furthermore, as Kayne (1975) points out, right dislocation facts suggest that there could be an underlying *de* in noun phrases of the form *trois frères* (three brothers). He gives the example in (29a) below.

(29) a. Il en a trois, de frères.
          He of-them has three, of brothers.
          "He has three, brothers that is."

      b. Il a trois frères.
          He has three brothers

Under the single-N hypothesis, the noun phrases in (27), (28) and (29b) would have the structure given in (30), under the double-N hypothesis, the structure given in (31).

(30) a. [DP beaucoup [NP de comédiens]]
          [DP a-lot   [NP of comedians]]

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[11]. For a list of the members of the *beaucoup*-class and an overview of their properties, see Chapter 3.

b. [DP trop [NP de garçons]]
[DP too-much [NP of boys]]

c. [DP trois [NP (de) frères]]
[DP three [NP brothers]]

(31)   a. [DP beaucoup [NP ∅ [DP de comédiens]]]
[DP a-lot [NP ∅ [DP of comedians]]]

b. [DP trop [NP ∅ [DP de garçons]]]
[DP too-much [NP ∅ [DP of boys]]]

c. [DP trois [NP ∅ [DP (de) frères]]]
[DP three [NP ∅ [DP (of) brothers]]]

De typically appears within the nominal system with genitive complements, as illustrated in (32), and with partitives, as in (33).

(32)   a. La préface de ce livre
the préface of this book

b. La poignée de mon sac
The handle of my bag

(33)   a. Trois de ces livres
Three of these books

b. Plusieurs de ses cousins
Many of her/his cousins

c. Beaucoup de mes amis
A lot of my friends

The structure of the noun phrases in (32) clearly involves two Ns, the second being the complement of the first one, as in (34).

(34)   [DP la [NP poignée [DP de mon sac]]]
the handle   of my bag

Regarding the partitives, there is general agreement to the effect that they must involve a null nominal head (cf. Milner 1978, Cardinaletti and Giusti 1990, Valois 1991). What is subject to debate is whether the *de* constituent is a complement to the null head (as advocated by Milner), or a modifier attached higher in the structure (Cardinaletti and Giusti 1990, Valois 1991), as in (35).

(35)   [[trois $_N\emptyset$] de ces livres]

I will return to this question in section 2.5. For the moment I will show that Q-*en* cannot be considered as originating from a double-N structure, in other words that it does not resume the same subconstituent as G-*en*.

2.4.1 Extraction as a test for the level of embedding

The type of evidence we are looking for are syntactic contexts where single-N structures contrast with double N-structures. If there are syntactic operations which treat the two structures differently, we can test whether the source for Q-*en* behaves like a single-N or a double-N structure, and chose between (30) and (31) as the structure of the source of Q-*en*.

Milner (1978) provides arguments from extraction showing that the source of Q-*en* must be a single-N structure. The possibilities of extraction out of DPs depend on the level of embedding, and follow the format illustrated in (36) and (37).

(36)   a.   [$_{DP1}$ [N1   [$_{DP2}$]]]

       b. [$_{DP2}$] ....   [$_{DP1}$ [N1   __]]

(37)   a.   [$_{DP1}$ [N1   [$_{DP2}$ [N2   [$_{DP3}$]]]]]

       b.*[$_{DP3}$] ....   [$_{DP1}$ [N1   [$_{DP2}$ [N2   __   ]]]]

It is possible to extract the complement of N1, but not the complement of N2. In other word it is impossible to extract the complement of a complement. It is beyond the scope of this thesis to provide an explanation for the contrast between (36) and (37). I will simply use it as a test indicating the level of embedding present in the structure of a noun phrase.

I assume that genitive complements are DPs. In fact this does not matter for the argument since extraction of a PP is possible out of a DP, and extraction out of a PP is impossible. In other words if DP2 in the structures above were a PP, we would observe the same restrictions[12]. The extraction facts presented below follow under either approach and show that Q-*en* is extracted from a single-N structure.

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[12]. Extraction out of PPs is not possible in French:
(i)   a.   J'ai parlé à la soeur de Jean
                I have talked to John's sister.
        b.   *De qui as-tu parlé à la soeur?

Given the extraction possibilities illustrated in (36) and (37), it is clear that the single-N hypothesis and the double-N hypothesis make different predictions with respect to the extraction of a complement of the overt nominal head. If the structure of the source Q-*en* is as in (30), extraction is predicted to be possible: the overt nominal is the only N present in the structure, and there should be no problem in extracting its complement. On the other hand, if the structure of the source of Q-*en* is as in (31), we expect that the null nominal head will be syntactically active and will block the extraction of a complement to the second N. (38) and (39) below illustrate the predictions for extraction for the single-N hypothesis and the double-N hypothesis respectively.

(38) a. [$_{DP1}$ beaucoup [de livres   [$_{DP2}$ de Zola]]]

b. [$_{DP2}$ de Zola] .... [$_{DP1}$beaucoup [de livres   __]

(39) a. [$_{DP1}$ beaucoup ∅ [$_{DP2}$ de livres   [$_{DP3}$de Zola]]]

b.*[$_{DP3}$ de Zola] .... [$_{DP1}$ beaucoup ∅ [$_{DP2}$ de livres   __   ]]

As we will see momentarily the extraction facts confirm the single-N hypothesis. The examples in (40) illustrate the extraction possibilities in cleft constructions.

(40) a. C'est <u>de Zola</u> que j'ai lu [$_{DP1}$ le livre __]
it is by Zola that I have read the book
"It is Zolas's book that I read."

b. *C'est <u>de Zola</u> que j'ai lu [$_{DP1}$ le livre [$_{DP2}$ du frère [__]]]
It is of Zola that I have read the book of the brother
"It is Zola's brother's book that I read."

(From Milner 1978:56)

As we can see in (41), a phrase like *beaucoup de livres* behaves like a single-N structure and allows extraction of the complement of *livres*.

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of who did you talk to the sister
"Whose sister did you talk to?"
Whose sister did you talk to?

(ii) a. J'ai vu la soeur de Jean.
I have seen the sister of John
"I saw John's sister."

b. De qui as-tu vu la soeur?
of who did you see the sister
"Whose sister did you see?"

(41)   C'est [de Zola] que j'ai lu [beaucoup de livres __]
         it is of Zola that I have read a-lot of books
         "Zola is the one that I read a lot of books by."

The same facts can be observed with wh-movement of the complement. (42) illustrates the impossibibilty of extracting the complement of the second N in a double-N structure.

(42)   a.   <u>De qui</u> as tu rencontré la soeur __ ?
            of who did you meet the sister
            "Whose sister did you meet?"

       b.   *De qui as-tu rencontré la soeur du père __ ?
            of who did you meet the sister of the father
            "Whose father's sister did you meet."

Again constituents like *beaucoup de livres, trois frères* etc. behave like single-N structures: the extraction of the complement of the overt N by wh-movement is perfectly fine, as shown by the grammaticality of (43).

(43)   a.   J'ai lu [beaucoup de nouvelles [de Conan Doyle]].
            I have read a-lot of novels by C.D.
            "I read a lot of novels by Conan Doyle".

       b.   <u>De qui</u> as-tu lu beaucoup de nouvelles __ ?
            of who did you read a-lot of novels
            "Who did you read a lot of novels by?"

The same contrast is observed when a genitive complement is extracted in the formation of a relative clause with *dont*, as shown in (44) and (45).

(44)   a.   Je connais bien l'auteur <u>de cet article</u>.
            I know well the author of this article
            "I know the author of this article well."

       b.   C'est un article <u>dont</u> je connais bien l'auteur __.
            this is an article of-which I know well the author
            "This is an article whose author I know well."

(45)   a.   Je connais bien [le père [de l'auteur [de cet article]]].
            I know well the father of the author of this article
            "I know the father of the author of this article well."

       b.   *C'est un article <u>dont</u> je connais bien [le père [de l'auteur __]].
            this is an article of-which I know well the father of the author
            "This is an article whose author's father I know well."

In (44b) the complement of the first N is extracted by *dont*, producing a grammatical result. On the other hand in (45b) the complement of the second N is extracted, yielding an

ungrammatical result. Again, as shown in (46), the extraction of the complement of the overt noun does not yield ungrammaticality with *dont*-extraction, indicating a single-N structure[13].

(46)   a. J'ai lu [beaucoup d'articles [de cet auteur]].
          I have read a-lot of articles of this author
          "I read a lot of articles by this author."

       b. C'est un auteur <u>dont</u> j'ai lu [beaucoup d'articles __].
          This is an author of-which I have read a-lot of articles
          "This is an author by whom I read a lot of articles."

Finally we can use arguments from G-*en* extraction itself. The argument is independent to the extent that it is clear that G-*en* stands for the complement of a head noun. The contrast in extraction depending on the level of embedding obtains for G-*en* extraction as well, as shown by the examples in (47), (48), and (49) below.

(47)   a. J'ai lu [la préface [de ce roman]].
          I have read the preface of this novel
          "I read the preface of this novel."

       b. J'en ai lu [la préface __].
          I of-it read the preface
          "I read its preface."

(48)   a. J'ai lu [la préface [du premier tome [<u>de ce roman</u>]]]
          I have read the preface of the first volume of this novel
          "I read the preface of the first volume of this novel."

       b. *J'en ai lu la préface du premier tome __.
          I of-it have read the preface of the first volume

(49)   a. J'ai lu [beaucoup de traductions [de ce roman]]
          I have read a-lot of translations of this novel
          "I read a lot of translations of this novel."

       b. J'en ai lu [beaucoup de traductions __]
          I of-it read a lot of translations
          "I read a lot of translations of it."

We have seen in this section that the extraction tests indicate that Q-*en* is extracted from single-N structures like (30) above, and not from double-N structures. Q-*en* does not resume the complement of a null head: it stands for an NP within a DP. In the next section I present an ancillary argument to the same effect, based on the distribution of null heads.

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[13]. One could object that *dont*-extraction is not an independent test, since there appears to be a Quantitative-*dont*, parallel to Q-*en*. But *dont* in (46b) is clearly genitive, and can be used as a test for the level of embedding of phrases like *beaucoup de livres*. See section 4.2 of this chapter for a discussion of *dont*.

2.4.2 The distribution of null heads

If Q-*en* were standing for the complement of a null head, we would expect the noun phrases from which it is extracted to have the same distribution as other noun phrases without an overt nominal head. In this section I show that this is not the case, in fact the source of Q-*en* is in complementary distribution with noun phrases with a null head.

As was noted by Pollock (1986), a noun phrase which (arguably) contains a null head can only be found in subject position in French. Such a noun phrase is never possible in object position. This is illustrated by Pollock (1986:212) with the examples in (50a) and (50b).

(50) J'ai acheté quatre bibelots l'autre jour.
      I bought four curios the other day

    a. Trois sont déjà cassés.
        three are already broken

    b. *J'ai déjà cassé trois.
        I have already broken three

As Pollock notes, the distribution of the source of Q-*en* is exactly the opposite: it can be found in object position, as in (51b), but cannot occupy the subject position, as shown in (51a).

(51) a. *Trois en sont déjà cassés.
        three of-them are already broken

    b. J'en ai déjà cassé trois.
        I of-them have already broken three
        "I have already broken three of them."

If Q-*en* were the complement of a null head, the distribution of its source should be parallel to the distribution of other noun phrases with a null head[14]. The fact that this is not the case constitutes another argument against analysing Q-*en* as the complement of a null head.

2.4.3 A note on *de*

As I mentioned in section 2.4, there is a question about the internal structure of noun phrases like (52). The question arises because of the presence of *de* in such noun phrases.

(52) beaucoup de livres
      a-lot of books

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[14]. See section 3.2.4 of this chapter for a discussion of the facts presented in (50) and (51), and a proposal involving a morphological solution. See section 4.2 of this chapter for a discussion of *dont* in relation with the distribution of null heads.

The presence of *de* seems to bring these simple noun phrases in line with genitives or partitives. The evidence provided by the extraction facts in section 2.4.1 however convincingly shows that the level of embedding present in noun phrases such as *beaucoup de livres* is not the same as in genitives or partitives: they really are simple noun phrases, involving a single nominal head.

The question remains, however. Why is it that *de* appears in a simple noun phrase in the context of *beaucoup*? This problem is orthogonal to the main thesis developed here (the crucial point for the analysis being that *livres* in (52) is the nominal head), but I would like to make a few remarks on the topic, without settling the question.

The first observation regarding the presence of *de* in *beaucoup de livres* is that it may be the case that other simple noun phrases do in fact involve an underlying *de*. As mentioned in section 2.4, an argument to that effect is provided by Kayne (1975). I repeat his example in (53a) below.

(53)   a. Il en a trois, de frères.
            He of-them has three, of brothers

       b. Il a trois frères.
            he has three brothers

If one assumes this to be true, the perspective on the question is shifted. The issue is not so much about the presence of *de* in (52), but rather on how to determine when *de* appears or not. If there is an underlying *de* in all simple noun phrases, (52) becomes the unmarked case and (53b) calls for an explanation. Milner (1978) proposes that *de* is deleted in [-number] contexts, *beaucoup* being [-number] and *trois* [+number]. Milner (1978:158-164) observes that *de* confers a certain syntactic autonomy to the noun. In addition to appearing with dislocated nouns, *de* can also be seen, according to Milner, as the element allowing the phenomenon of Quantification at a distance (QAD). Since the noun is (more) autonomous, it can appear in a construction like (54)[15].

(54)   Jean a beaucoup lu de livres.
       J. has a-lot read of books
       "Jean read a lot of books./Jean read books a lot"

We may make a second observation about *de* in simple noun phrases. *De* only occurs with a limited set of determiners, namely the members of the *beaucoup*-class (*beaucoup* (a lot), *trop* (too much), *assez* (enough), etc.). It should be noted that this class of determiner is

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[15]. QAD constructions like (54) are the main topic of Chapter 3.

exactly the class that can appear in the context of mass nouns, as attested by the contrast between the examples in (55) and (56).

(55)   beaucoup/assez/trop **de** crème
       *a-lot/enough/too much **of** cream*
       "A lot of cream./ Enough cream./ Too much cream."

(56)   *plusieurs/deux/quelques (de) crèmes.
       many/two/some   (of)   creams

The distribution of simple noun phrases with an overt *de* is parallel to the distribution of mass nouns, as shown in (57) and (58).

(57)   beaucoup/assez/trop *(de) livres.
       *a-lot/enough/too much *(of) books*

(58)   plusieurs/deux/quelques (*de) livres
       *many/two/some (*of) books*

In other words, any context where a count noun can appear with *de* in a simple noun phrase is also a context where a mass noun can appear. This fact suggests that nouns appearing in the context of *beaucoup* are somehow treated as "mass" nouns by the determiner.

The debate on the nature of *de* is far from being settled, cf. Doetjes (1997) and references therein. Recent work include Hulk 1996 (*de* as a quantificational head), Den Dikken 1995 (*de* as a nominal copula), Kayne 1994 (*de* as a complementizer)). Doetjes (1997) follows Battye (1991) and the traditional view: *de* is a genitive Case marker.

One last point is in order: *de* in (52) does not behave as a preposition. As we have seen in section 2.4.1, complements of *livres* in (52) can be extracted out of the noun phrase. If *de* were a preposition, we would expect it to create an opaque domain for extraction, like other prepositions do.

2.4.4 Animacy restriction

A last argument against a parallel analysis of G-*en* and Q-*en* as instantiating complements is provided by Milner (1978). The point is simple: we have observed in section 2.2 that G-*en* is subject to an animacy restriction. It cannot resume an animate DP. If Q-*en* were just like G-*en*, we would expect to find the same animacy restriction on Q-*en*, contrary to fact.

2.5 Is there a partitive *en*?

It has been proposed that the pronoun *en* can also resume the partitive subpart of a noun phrase (cf. Milner 1978, Haïk 1982). It is true that *en* may have a partitive interpretation. The question with respect to the partitive reading of *en* is whether the reading is a function of the syntactic substructure for which *en* stands, or if it is a contribution of the discourse.

In section 2.5.1 I will review some background regarding partitive noun phrases, and in 2.5.2 I will show that it may not be necessary to posit the existence of a separate partitive-*en*. I will argue that Q-*en* may have a partitive interpretation, and that this interpretation is dependent on the context of utterance. Since Q-*en* may be interpreted as partitive, the evidence presented here shifts the burden of proof: it may be that all instances of a partitive intepretatation in fact involve Q-*en*, and that *en* never resumes the partitive subpart of a noun phrase. Finally in 2.5.3 I will discuss the predicted distribution that a partitive *en* should have.

2.5.1 Partitive noun phrases

Partitive noun phrases are noun phrases which refer to some subset of a set. The examples mentioned in section 2.4 are given again in (59) below.

(59) a. Trois de ces livres
         Three of these books

      b. Plusieurs de ses cousins
         Many of her/his cousins

      c. Beaucoup de mes amis
         A lot of my friends

There is general agreement to the effect that partitive noun phrases are double-N structures: they involve an empty nominal head[16] (Jackendoff 1977, Selkirk 1977, Milner 1978, Cardinaletti and Giusti 1990, Valois 1991). Semantically the null nominal is the head of the construction. Disagreement arises, however, with respect to the internal organization of partitives. One important question is whether the partitive part (i.e. *de ces livres, de mes amis, de ses cousins* in (59)) is a complement of the null head, or an adjunct attached higher in the structure. The two possibilities are illustrated below in (60) and (61).

(60)   [trois ø [de ces livres]]

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[16]. For a recent introduction to partitives, see Hoeksema (1996).

(61)   [[trois ø] de ces livres]

Arguments from extraction show that the partitives do induce the effect that we expect from double-N structures (for the logic of the argument see section 2.4). This is shown by the examples in (62) and (63) below.

(62)   a.   J'ai lu beaucoup de ces livres de Zola.
             I have read a-lot of those books by Zola
             "I read a lot of those books by Zola."

        b.   *C'est de Zola que j'ai lu beaucoup de ces livres __.
             it is of Zola that I have read a-lot of these books

(63)   a.   J'ai visionné trois de ces documentaires de Cousteau.
             I have watched three of those documentaries by Cousteau
             "I watched those of these documentaries by Cousteau."

        b.   *De qui as-tu visionné trois de ces documentaires__?
             of whom have you watched three of these documentaries

The extraction facts above are compatible with a complement analysis or a PP-adjunct analysis for the partitive part, since extraction is blocked from within a PP in French. As Valois (1991) points out, the fact that *en* can strand the partitive is an argument in favor of the PP-adjunct analysis.

(64)   J'en ai lu deux __ de ceux de Zola.
        I of-them have read two of those of Zola

The example in (64) favors an analysis where the partitive *de ceux de Zola* is not the complement of the the head noun: if one assumes that *en* resumes an NP (and not only the head N), it should not be able to strand the complement of N.

The question I want to address at this point is whether *en* ever stands for the partitive subpart within the noun phrase. Can it stand for *de ces livres, de mes amis*, etc. and be extracted from noun phrases like the one in (59)?

2.5.2 Evidence against partitive *en*

Milner (1978) and Haïk (1982) claim that there is a partitive *en*, which resumes the *de* constituent of examples like (59). I present here evidence to the effect that there is no partitive *en*[17], more precisely that the partitive interpretation of *en* is always a contribution

[17]. Although he does not state it explicitely, this also seems to be Valois's (1991) conclusion. Valois considers examples of 'partitive'-*en*, but he mentions the following in connection with his conclusion that partitives are adjunct PPs: "Note that, while the PP in partitives can be right-dislocated, it cannot be cliticized by *en*" (p. 135).

of the discourse, not of the substructure resumed by *en*. Cases where a partitive interpretation obtains for *en* are in fact instances of Q-*en*.

The first fact to take into account is that there are partitives which, contrary to the ones presented in (59), exhibit an overt nominal head, as in (65).

(65)   J'ai lu deux livres de ceux de Pierre.
          I have read two books of those of P.

          (from Valois 1991).

The contrast between (66a) and (66b) provides strong initial evidence to the effect that *en* can pronominalize *livres* in (65), but not the *de*-constituent.

(66)   a. J'en ai lu deux __ de ceux de Pierre.
            I of-them have read two__ of those of P.

        b. *J'en ai lu deux livres__.
            I of-them have read two books

In (66a) *en* stands for *livres*, and strands the partitive subpart. It is clearly an instance of Q-*en*. If there were a partitive *en* in the lexicon of French, we would expect it to appear in (66b) and to yield a grammatical sentence by standing for *de ceux de Pierre*.

One piece of evidence used to argue for a separate partitive *en* is the sentence given in (60). Milner (1978) mentions that the sentence in (67) is ambiguous between a quantitative and a partitive reading[18].

(67)   Ils ont attrapé dix lions mardi; mercredi ils en ont tué cinq.   (Milner (2.11))
          They caught ten lions on Tuesday; on Wednesday they en-killed five

For Milner (1978), the sentence is *structurally ambiguous* between a quantitative and a partitive reading for *en*. Under the partitive reading, the five lions that were killed on Wednesday were part of the set of ten lions that were caught on Tuesday. Under the quantitative reading the five lions are five other lions, i.e. lions that are not part of initial set of ten. According to Milner (who assumes a structure of the type of (60)), this means that *en* in (67) can resume two distinct substructures, the PP [de ces dix lions][19], or the N' *lions* (NP in this account).

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[18]. Milner (1978:52) attributes the sentence to Jean-Roger Vergnaud.
[19]. Milner says (p. 52) that partitive *en* resumes the NP [dix lions] but it seems more precise to say that it resumes the underlying partitive [de ces dix lions], which is for Milner a PP complement (p.120).

As I mentioned, the two interpretations of (67) constitute, under that view, a case of *structural ambiguity*. If *en* were really ambiguous in (67), i.e. realizing different subparts of a nominal structure, we would expect its interpretation to be strictly determined by the substructure for which it stands.

In fact, this is not the case. Although the two interpretations of (67) are available, the sentence does not exclude a third interpretation, where among the five lions killed on Wednesday, some were caught on Tuesday, and some are 'new' lions. This point is shown by the use of a *dont*-relative clause in (68).

(68)   Ils ont attrapé dix lions mardi;   mercredi ils en ont tué cinq,
         They have caught ten lions on Tuesday; on Wednesday they en-killed five

         dont trois avaient été attrapés mardi.
         of-which three had been caught on Tuesday.

         "They caught ten lions on Tuesday; on Wednesday they killed five, three of
         which had been caught on Tuesday."

The acceptability of (68) is totally unexpected if (67) is structurally ambiguous, i.e. if the two interpretations are a function of *en* standing for an N' (NP in our account) or a partitive (PP). If the two interpretations were stricly correlated with the subnominal structure resumed by *en*, it should be impossible to to use *en* in (68) and to simultaneously assert that some lions were part of the initial set of ten lions, whereas others were not. This is exactly what the *dont*-relative does in (68). In other words, if the two readings of (67) were dependent on a structural ambiguity between the partitive and the quantitative reading of *en*, we would expect (68) to be uninterpretable, since the relative clause contradicts both the strict partitive and the strict quantititative reading.

Note that if we replace *en* in (67) with an overt noun, the partitive reading is still possible, provided that *lions* is destressed (for instance when *tué* (killed) is stressed).

(69)   Ils ont attrapé dix lions mardi; mercredi ils ont tué cinq lions.
         They have caught ten lions on Tuesday; on Wednesday they killed five
lions.

The sentence in (69) is perfectly compatible with an interpretation where the five lions that were killed were a a subset of the set of ten lions that vere caught. This fact strongly supports the view that the partitive interpretation of (67) is not contributed by the pronoun *en*.

The conclusion is therefore that *en* in (67) cannot be strictly partitive, and that the partitive interpretation stems from a source other than the syntactic structure. It seems plausible to assume that *en* in (67) and (68) is quantitative, and that the partitive interpretation is provided by the context of utterance. Given the context in (67), it may be that the most natural interpretation is partitive, but the interpretation obtains only to the extent that it is not contradicted by a specific statement. The *dont*-relative in (68) provides an example of such a statement.

Since the partitive interpretation must also be allowed with Q-*en*, it seems unnecessary to posit the existence of a separate *en*, partitive, resuming the partitive subpart of a noun phrase. Moreover we have seen in (66b) that a context where *en* would unmistakebly be partitive is not felicitous for *en* cliticization[20].

The fact that Q-*en* is compatible with a partitive interpretation casts doubt on the validity of the tests that rely on left/right dislocation to argue that *en* may resume a partitive[21] (cf. Milner 1978:69, Haïk 1982). Right or left dislocation is not necessarily indicative of the substructure resumed by *en*; the dislocated element simply has to be compatible with the interpretation of *en*.

Examples such as (70) and (71) should therefore be taken as indicating that *en* is compatible with the interpretation of the dislocated element, but should not be considered as direct probes for the structure resumed by *en*.

(70) J'en ai lu trois,   a.   de livres.
      I of-them have read three   *of books*

      b.   des livres.
            of-the(pl.) books
            "books"

      c.   de ces livres.
            of these books.

Furthermore it seems that left dislocation is subject to constraints of its own, since *de livres* cannot be left-dislocated. Of course this should not be considered as indicating that *en* cannot stand for *de livres*.

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[20]. David Pesetsky points out to me that we could also test whether French has a partitive *en* if we could find a quantifier which lexically requires a partitive. We would expect *en*-cliticization to be ungrammatical with such a quantifier. Milner (1978) argues that *la plupart* (most) is such a quantifier and that it admits *en*. In section 6.4 of this chapter I argue on the basis of agreement that *en* used with *la plupart* is genitive, not quantitative.

[21]. See section 2.5.3 for a discussion of the predicted distribution of a partitive *en*.

(71)   a.   *De livres, j'en ai lu (trois)
            Of books, I of-them have read (three)

       b.   Des livres, j'en ai lu (trois)
            Of-the books, I have of-them read (three)

       c.   *?De ces livres, j'en ai lu trois.
            Of these books, I have read three.

In this section I have discussed the partitive interpretation of *en*. I have shown that it is necessary to say that Q-*en* may have a partitive interpretation, and that this interpretation is contributed by the discourse, and not by the substructure for which Q-*en* stands. It therefore might be that all instances where a partitive interpretation obtains for *en* are in fact instances of Q-*en*, and that *en* never resumes the partitive subpart of a noun phrase.

2.5.3 The predicted distribution of partitive *en*

If it turns out that in some dialect of French, *en* can indeed be shown to stand for the partitive subpart of an DP, we expect to find some contrasts in its distribution. However given that the partitive interpretation is possible with Q-*en*, there are contexts in which a partitive interpretation obtains in the absence of a truly partitive *en*.

The discussion here anticipates the material discussed in section 3 of the present chapter. Partitive *en* should be possible with derived subjects, since null head DPs are found in subject position. I could not reconstruct the full paradigm from the literature: the examples given by Milner (1978) and Haïk (1982) involve raised subjects, as in (64) below, (and are claimed to be grammatical, or more acceptable, as predicted). For the speakers I have consulted, and for myself, examples such as (72) below are unacceptable.

(72)   %De ces pommes, beaucoup en sont gâtées.

Partitive *en* should also in principle be less acceptable with objects, since null head DPs are generally not found in this position. However, the partitive interpretation may arise with objects in the absence of a partitive *en*: as we have seen in 2.5.2, a partitive interpretation is compatible with Q-*en*. Finally, partitive *en* should be unacceptable with thematic subjects, since cliticization will involve downward movement of the clitic. In this case Q-*en* cannot come to the rescue and provide a partitive interpretation: it is excluded in these contexts (cf. section 3).

In this chapter our focus will be on Q-*en*, and the partitive interpretation of *en* will not be discussed any further.

2.6 *En* standing for a DP

There are cases where *en* stands for a full indefinite DP. As indicated by (62b) and (63b) above the interpretation of *en* is compatible with that of a full DP. However as I mentioned this fact is not sufficient to conclude that the full indefinite DP indeed is the portion of structure resumed by *en*. One piece of evidence showing that *en* sometimes stands for a full DP is the presence of agreement on the past participle.

As shown in (64), agreement of the past participle with the object is impossible when *en* leaves a determiner in situ.

(73)   Parlant de nouvelles...
        Talking about short stories

        a.   Jean en a écrit trois.
             J. of-them has written three

        b.   *Jean en a écrites trois.
             J. of-them has written-agr three

However there are cases where *en* does not appear with an overt determiner in situ. In these cases, agreement is optional, as shown in (65).

(74)   Jean en a écrit(es)
            J. of them has written(agr)

The fact that *en* may trigger agreement when there is no determiner left stranded is indicative that the pronoun has the option of standing for a whole DP. I will not discuss the DP-*en* any further in this thesis.

3. Subject/object asymmetries with *en*: a new solution to an old problem

This section is devoted to the study of the basic puzzle presented at the outset of this chapter: the contrast between G-*en* and Q-*en* when they appear with derived subjects. In section 3.1 I present the relevant facts in greater detail, and outline some earlier approaches. In section 3.2 I present the analysis that I propose for the facts, a Case-theoretical analysis, and review the basic pieces of the puzzle. Section 3.3 presents the theoretical conclusions of the analysis.

3.1 An asymmetry in the distribution of G-*en* and Q-*en*

The distribution of G-*en* and Q-*en* is subject to some well-known conditions (cf. Ruwet 1972, Kayne 1975, Couquaux 1979, 1981). Neither G-*en* nor Q-*en* is allowed to appear with a source (the noun phrase from which it is extracted) in a thematic subject position; both G-*en* and Q-*en* are acceptable with a source in object position. Only G-*en* may have a derived subject as its source; Q-*en* is not acceptable with a source in a derived subject position.

Let us first consider the first condition: both G-*en* and Q-*en* are prohibited when their source is a thematic, or underlying, subject. The absolute prohibition against *en* with a thematic subject is illustrated in (75) to (80) below. The (a) examples involve *en*, the (b) examples are the baseline sentences.

(75)   a.   *La première version en a gagné un prix
            the first version of-it has won a prize
            "Its first version won a prize."

        b.   La première version de ce texte a gagné un prix.
            the first version of this text has won a prize
            "The first version of this text won a prize."

(76)   a.   *Le premier chapitre en a fait avancer le mouvement féministe.
            the first chapter of-it has made advance the movement feminist
            "Its first chapter advanced the feminist movement."

        b.   Le premier chapitre de ce livre a fait avancer le movement féministe.
            the first chapter of this book made advance the movement feminst
            "The first chapter of this book advanced the feminist movement."

(77)   a.   *La préface en a aidé plusieurs étudiants.
            the preface of-it has helped many students
            "Its preface helped many students."

        b.   La préface de ce livre a aidé plusieurs étudiants.
            the preface of this book has helped many students.
            "The preface of this book helped many students."

The (a) examples in (75), (76) and (77) show that G-*en* does not accept a thematic subject as its source. The same facts can be observed with Q-*en*, as shown by the examples in (78) to (80) below.

(78)   a.   *Trois en ont gagné ce prix.
            three of-them have won this prize
            "Three of them won this prize."

    b. Trois livres ont gagné ce prix.
three books have won this prize
"Three books won this prize."

(79) a. *Deux en ont fait avancer le mouvement féministe.
two of-them have made advance the movement feminist
"Two of them advanced the feminist movement."

    b. Deux manifestes ont fait avancer le mouvement féministe.
two manifestos have made advance the movement feminist
"Two manifestos advanced the feminist movement."

(80) a. *Beaucoup en ont aidé les étudiants à comprendre ce problème.
a-lot of-them have helped the students to understand this problem
"A lot of them helped the students understand this problem."

    b. Beaucoup d'articles ont aidé les étudiants à comprendre ce problème.
A lot of articles have helped the students to understand this problem
"A lot of articles helped the students understand this problem."

When the source occupies an object position, both G-*en* and Q-*en* are acceptable. This is illustrated by examples (81) and (82) for G-*en* and by the examples in (83) and (84) for Q-*en*.

(81) a. Pierre en a lu la préface
P. of-it has read the preface
"Pierre read its preface."

    b. Pierre a lu la préface de ce livre.
P. has read the preface of this book
"Pierre read the preface of this book."

(82) a. Jean en a cassé l'anse.
J. of-it has broken the handle
"Jean broke its handle."

    b. Jean a cassé l'anse de ma tasse.
J. has broken the handle of my cup
"Jean broke my cup's handle."

(83) a. Pierre en a loué trois.
P. of-them has rented three
"Pierre rented three of them."

    b. Pierre a loué trois films.
P. has rented three movies
"Pierre rented three movies."

(84) a. Jean en a brisé plusieurs.
J. of-them has broken many
"Jean broke many of them."

b. Jean a brisé plusieurs coeurs.
J. has broken many hearts
"Jean broke many hearts."

So far the distribution of G-*en* and Q-*en* is strictly parallel: they both are prohibited with thematic subject sources, and acceptable with object sources. As was noted by Ruwet (1972), Kayne (1975), and Couquaux (1979), their parallel behavior breaks down in contexts when they appear with derived (raised) subjects[22], i.e. subjects originating as objects. G-*en* is perfectly acceptable in such contexts, whereas Q-*en* is not.

The examples in (85) to (87) illustrate the compatibility of G-*en* with derived subjects.

(85) a. Le premier chapitre en a été publié.
the preface of-it has been published
"Its preface has been published."

b. Le premier chapitre de ce livre a été publié.
the preface of this book has been published
"The preface of this book has been published."

(86) a. La préface en est trop flatteuse   (from Ruwet 1972:49)
the preface of-it is too flattering
"Its preface is too flattering."

b. La préface de ce livre est trop flatteuse
the preface of this book is too flattering

(87) a. La porte en semble ouverte.   (from Couquaux 1979:249)
the door of-it seems open
"Its door seems to be open."

b. La porte du garage semble ouverte
the door of the garage seems open
"the door of the garage seems to be open."

The sentence in (85a) involves a passive verb, in (86a) we find the verb *être* (to be), and finally in (87a) the prototypical raising verb *sembler* (to seem). In contexts involving derived subjects Q-*en* is unacceptable, as attested by the examples in (88)-(90), involving the same verbs.

(88) a. *Trois en ont été publiés
three of-them have been published

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22. Given the widely accepted VP-internal subject hypothesis, the term 'derived' or 'raised' subject may become misleading, since even underlying subjects can be seen as derived, their final position (Spec, TP) being different from their original position. I use 'derived' or 'raised' subject throughout in the original sense, i.e., a subject originating from an object position.

b.   Trois livres ont été publiés
three books have been published

(89)   a.   *Deux en sont trop flatteurs
two of-them are too flattering

b.   Deux articles sont trop flatteurs
two articles are too flattering

(90)   a.   *Plusieurs en semblent possibles
many of-them seem possible

b.   Plusieurs solutions semblent possibles
many solutions seem possible

The facts are summarized in (91) below.

(92)   *Distribution of G-en and Q-en with respect to the position of their source*

type of *en*/ source	Thematic subject	Objects	Raised subjects
G-*en*	*	√	√
Q-*en*	*	√	*

Three sets of facts here need some explanation. The first one is the well-known observation that the source of *en* must always be an object and is never a thematic subject (cf. Couquaux 1979, Burzio 1981, 1986). All grammatical occurences of *en* involve an object or a raised subject. Second, it is not sufficient for *en* to have an object as its source: within the cases of object sources, there is a split between the two *en* and the contrast between G-*en* and Q-*en* with raised subjects has to be explained. Third, given the possibility for G-*en* to appear with a raised subject, it also seems necessary to explain its incompatibility with thematic subjects. These three questions are the topic of the next section, with special emphasis on the second question, namely the contrast between G-*en* and Q-*en* with raised subjects.

3.2 A Case-theoretical analysis

The basic problem with which we are concerned is illustrated again in (92).

(92)   a.   La préface en a été publiée.
the preface of-it has been published
"Its preface has been published."

b. *Trois en ont été publiées
three of-them have been published
"Three of them have been published."

The contrast between G-*en* and Q-*en* appearing with a derived subject has so far been considered from the point of view of the relation between the pronoun *en* and its trace left within the source. Two main proposals have been made along these lines in the work of Pollock (1986), and Rizzi (1990). I would like to sketch here their approach to the problem and the type of solution they give. I will then suggest another approach, in which the identification of what is really problematic with (92b) is different. I will propose that the real problem with (92b) does not stem from the relation between *en* and its trace, but from the impoverished structure of the remnant left after *en*-cliticization in (92).

Pollock (1986) proposes an account of the contrast illustrated in (92) in terms of Binding Theory (BT). For Pollock (1986), the trace of *en* is (freely) replaced by PRO in (92a) and (92b). In (92b), PRO stands for the head of the NP and its c-command domain is assumed to be identical to the c-command domain of the whole NP[23]. As a result, the subject in [Spec, TP] in (92b) c-commands the pronoun *en*, in violation of principle B of BT. (*En*, being a pronoun, must be free in its governing category). In (92a) PRO replacing the trace of *en* does not c-command *en*, and no violation of BT arises.

Rizzi (1990) puts forth an alternative account founded on the Empty Category Principle (ECP). His analysis relies on the application of the ECP under reconstruction. Both subjects in (92) will reconstruct into their base positions, as objects. In that configuration, the trace of *en* in (92a) is both antecedent-governed by *en* as a result of reconstruction, and head-governed by the noun *préface* (head-gouvernement here does not result from reconstruction). In (92b) however, whereas the antecedent-government relation obtains between *en* and its trace under reconstruction, the head-gouvernement relation does not. Rizzi proposes that the head-government requirement of the ECP cannot be satisfied under reconstruction. There is no head noun to govern the trace of *en* within the noun phrase, and the verb cannot act as a head-governor because the relation is established under reconstruction. Note that it is crucial for Rizzi (1990) that the configuration be established under reconstruction. In identical configurations that do no stem from reconstruction the trace of Q-*en* must be head-governed. This is illustrated by the examples in (93) and (94) below[24].

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[23]. The analysis preceded the development of the DP hypothesis (cf. Abney 1987).
[24]. Examples like (93) and (94) will be seen to follow naturally from the Case theoretical analysis advocated in this thesis. Cf. sections 3.2.1 and 3.2.2 of this chapter.

(93)   Il en a été publié trois t
        expl. of-them has been published three
        "There have been three of them published."

(94)   Jean en a publié trois t
        J. of-them has published three
        "Jean published three of them."

As one can see, both accounts have in common a certain approach to the problem at hand: the underlying idea in both cases is that there is some failure in the relation between *en* and its trace, or in licensing the trace of *en*. I would like to propose a radically new perspective and claim that the crucial part of the problem is not the licensing of the trace of *en*, or the relation between *en* and its trace in (92b). The ungrammaticality of (92b) is not due to a violation of BT or of the ECP. What is at the heart of the problem, in my view, is the deficient structure of the raised subject in (92b). The remnant of Q-*en* extraction cannot enter into a checking relation with the tense head T, and this is the reason for the ungrammaticality of (92b). More specifically the Q-*en*-remnant is deprived of Case features and cannot check Case in [Spec, TP].

This section provides an answer to the three questions outlined at the end of section 2 of this chapter, and is organized as follows. I first present, in section 3.2.1, the idea, the approach that I think should be responsible for the basic contrast regarding G-*en* and Q-*en* with raised subjects. We will see in that section that the nominal head N of a DP should be seen as the locus of the Case feature of the DP. In section 3.2.2 I examine the uniform behavior of *en* with objects. In section 3.2.3 I explain the absolute prohibition against *en* with thematic subjects and presents more specifically the mechanics of *en*-cliticization. In section 3.2.4 I argue that Q-*en* is itself a Case-checking mechanism. The following section concludes with the theoretical conclusions: Case is a feature of N.

3.2.1 N as the locus of Case features and the contrast observed with raised subjects.

Let us take a closer look at the structures of the raised subjects in (92a) and (92b), repeated here again for convenience.

(92)   a.   La préface en a été publiée.
          the preface of-it has been published
          "Its preface has been published."

       b.   *Trois en ont été publiées
          three of-them have been published
          "Three of them have been published."

I have argued in section 2 of this chapter that *en* in (92a) and (92b) stands for different substructures within the noun phrase. In (92a) G-*en* stands for the complement of the noun *préface*, in (92b) Q-*en* stands for the NP *livres*. The structures associated with the remnants of *en*-cliticization are thus as in (95) for the remnant of G-*en*, and (96) for the remnant of Q-*en*. (I will assume from the start that *en*-cliticization takes place prior to XP movement, a position that will be motivated in the discussion of example (101) below).

(95)   Remnant of G-*en*

```
        DP
       /  \
      D    NP
      la   / \
          N   DP
       préface  t
```

(96)   Remnant of Q-*en*

```
        DP
       /  \
      D    NP
     trois  t
```
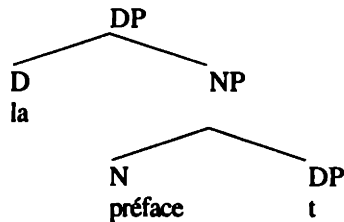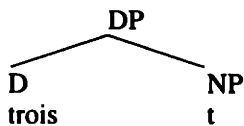
The general approach I am pursuing here is that it is the difference in the structure of the remnants that explains the contrast seen in (92). More specifically I will claim that the remnant of Q-*en* extraction lacks the N feature necessary for Case Checking. The remnant of G-*en* cliticization, on the other hand, is a full DP; it contains the N feature necessary for checking Case.

Why is it that the remnant of Q-*en* lacks a Case feature? It is possible that Q-*en* cliticization is itself a Case-checking operation. The Case Features of the DP, located in N, are checked when the clitic moves to the verb. The operation does not check Nominative or Accusative Case, but it checks some Case (possibly partitive, cf. Belletti 1988, Vainikka and Maling 1996) which is sufficient for the whole argument. In section 3.2.4 I propose that Q-*en* cliticization is an alternative Case-checking operation. Another possibility is that Q-*en* has Case. Its movement is solely motivated by a morphological requirement on clitics. In any event, the remnant DP lacks a Case feature. This view crucially implies that the locus of the Case feature of a DP must be the nominal head N[25].

---

[25]. Section 3.2.4 of chapter 3 discusses the visibility problem raised by this view.

Case features are features of the nominal head N. When Q-*en* cliticizes, it carries away the Case feature of the noun phrase and as a result the remnant of G-*en*-cliticization contains only a determiner and the trace of the moved NP; it contains no Case feature. If this view is correct, there is now a straightforward explanation for the ungrammaticality observed when the remnant of Q-*en* raises: it simply does not contain the feature relevant for raising; it does not have a Case feature. If one adopts the Attract version of movement (cf. Chomsky 1995), it could be that T simply cannot attract an object that lacks Case. Raising of a Q-*en* remnant is not motivated. However it is possible that T still can attract the remnant because the remnant contains a D feature that will satisfy the EPP requirement of T. Under that view raising itself is not unmotivated, but there will be a failure in Case checking when the remnant raises. The matrix tense (T) contains a Case feature that must be checked off by being associated with a noun phrase containing a Case feature. This association is realized by overt movement of the noun phrase to [Spec, TP]. In the case of Q-*en*-remants, moving the noun phrase to [Spec, TP] will not allow the Case feature of T to be checked off: the moved DP does not contain the relevant feature.

Q-*en* remnants do not contain a Case feature, and this is the reason why they cannot function as raised subjects. It does not matter for the analysis presented here whether they can never reach the [Spec, TP] position because they fail to be attracted at all by T, or whether they may licitly reach [Spec, TP] but cannot check Case in that position. Under either view, T will remain with an unchecked uninterpretable feature, its Case feature

Let us see how the proposal works in the crucial cases at hand. The ungrammatical (92b) can be associated with the derivation in (97).

(97) a. ont été publiés [trois en]
      b. en ont été publiés [trois t]
      c. [trois t] en ont été publiés

(97a) represents the derivation after Merge is completed, and (97b) illustrates *en*-cliticization. If the Case features of a DP are located in the nominal head N, as I claim, the Case feature of the whole DP has been checked (via *en*-cliticization itself), and the remnant [trois t] has no Case feature to check.

As a consequence, the remnant cannot raise to [Spec, TP] and the derivation is unsuccessful if such a movement takes place, as in (97c). Raising the remnant to [Spec, TP] is unmotivated from the point of view of the remnant, since it does not contain a feature that needs to be checked off, namely a Case feature. If raising does occur, as in

(97c), the moved remnant cannot enter into a Case Checking relation with T. The Case feature of T remains unchecked, hence the ungrammaticality of (92b).

Since the Q-*en* remnant in (92b) contains D features, its raising to [Spec, TP] would presumably satisfy the Extended Projection Principle (EPP), or more technically check off the EPP feature of T. The ungrammaticality of (92b) is thus explained by a failure of checking Case in [Spec, TP], not by a failure in checking the EPP.

This explanation of the ungrammaticality of (92b) sheds light on another contrast[26]. The sentence given in (98) below is even worse than (92b).

(98)   **en ont été publié(s) trois.
        of-them have been published

If we adopt the analysis that I have been developing so far, the explanation for the contrast between (92b) and (98) is very natural. The sentence in (98) involves a double failure in feature checking. First, in the absence of any subject, the EPP is not satisfied (T remains with an unchecked EPP feature). Second, and again as a result of the absence of any subject, the Case feature of T is not checked off either. In (92b) on the other hand, there is a subject, although deficient, in [Spec, TP]. The Q-*en* remnant contains a D feature and can satisfy the EPP. On the other hand it does not contain a Case feature and the Case feature of T remains unchecked. As one would expect, the sentence in (98), which involves two failures in feature checking, is worse than the sentence (92b), which involves only one failure in feature checking[27].

Note that if an expletive is inserted in the subject position of (98), as in (99), the sentence is perfectly grammatical.

(99)   Il   en   a été   publié [trois t]
        Expl. of-them   has been   published three

The example in (98) is perfect because all the requirements of T are satisfied. The expletive *il* checks off both the EPP and the Case feature of T. The Q-*en* remnant remains in situ, it is not responsible for any Case checking operation.

Another derivation exists which could in principle yield the ungrammatical (92b), namely the derivation given in (100).

---

[26]. Thanks to Jean-Yves Pollock for pointing out this contrast to me.

[27]. As Alec Marantz points out to me, it could be that an EPP failure is independently stronger than a failure in Case checking.

(100) a. ont été publiés [trois en]
   b. [trois en] ont été publiés
   c. [trois t] en ont été publiés

In (100) Raising of the object to subject position precedes *en*-cliticization. (100a) represents the derivation after Merge. In (100b), the internal argument raises as a whole to [Spec, TP]. This movement is perfectly licit: the Case feature of the head noun is present and Case can be checked via Raising to [Spec, TP]. Both the DP and T can check off their Case features through this operation. However the following step in the derivation, illustrated in (100c), is lethal: the clitic moves downwards to a position where it does not c-command its trace. Note that I do not assume that traces must be c-commanded at all stages of the derivation (cf. the analysis of G-*en* below), but rather that movement must proceed upward, with the effect that at the step immediately following movement, the moved element c-commands its trace.

Turning now to (92a), it is easy to see that the remnant of G-*en*, whose structure was given in (95), contains a Case feature under the analysis given here. G-*en* cliticization does not extract the head N from within the DP, it only extracts its complement. In consequence, the remnant of G-*en* can and must move up to [Spec, TP]. The derivation associated with (92a) is given in (101).

(101) a.   a été publiée [la préface en]
   b.   en a été publiée [la préface t]
   c.   [la préface t] en a été publiée

The derivation after Merge is given in (101a). The step illustrated in (101b) is G-*en*-cliticization. The Case features of the head noun of the remnant [la préface t] have not been checked: the remnant raises to subject and checks its Case feature as illustrated in (101c). This movement also checks off the Case feature of T, and satisfies the EPP.

Note that it is essential to allow *en*-cliticization to be followed by raising to subject, in other words to allow remnant movement in (101). In the absence of remnant movement, the explanation for the contrast between (92a) and (75a) from section 3.1 is lost.

(75a) *La première version en a gagné un prix.
   the first version of-it has won a prize

Overlooking some complexities, the explanation for the ungrammaticality of (75a) is that the clitic has to move downward (the problem raised by the VP-internal hypothesis is discussed in section 3.2.3). It is therefore essential for the step of the derivation illustrated

in (101b) to apply before raising (101c). Otherwise the sentence is predicted to be ungrammatical. I am not saying here that the derivation in (101) must be the only derivation associated with (92a), but it is crucial for the derivation in (101) to be allowed by the system. It is crucial to allow the type of remnant movement depicted in (101).

3.2.2 Objects of transitive verbs

The solution that I have proposed in the previous section in order to explain the asymmetry between G-*en* and Q-*en* with derived subjects forces a parallel analysis regarding the Case of G-*en* and Q-*en* remnants in object positions. Recall that I have said that G-*en* remnants, by virtue of possessing a Case feature, can and must raise to a Case checking position, namely [Spec, TP] in the case of unaccusative and passive verbs. On the other hand Q-*en* remnants do not possess a Case feature, and as a consequence they cannot raise to a Case checking position. With G-*en* or Q-*en* remnants in the object position of transitive verbs, the same logic must apply. As we will see momentarily, G-*en* remnants move out of the VP (covertly) to check Case, but Q-*en* remnants do not move out of the VP since they lack a Case feature.

The remnant of G-*en* in object position has a Case feature that must be checked. As shown in (102), it moves covertly to the specifier of some functional projection outside of VP (AgrO or small *v*) in order to check Case at LF.

(102)   Pierre en_i lit   [_{vP} [la préface t_i]_k [_{vP} t(Pierre) v [_{VP} V t_k]]]
         Pierre of-it   is reading   the preface

On the other hand, the remnant of Q-*en* in object position does not contain a Case feature. Just as it could not move from the object position of a passive or unaccusative verb to [Spec, TP], it cannot move to the specifier position of the functional projection where objects check Case. In other words, because its lacks Case, the remnant of Q-*en* cannot move to [Spec, AgrO] or to the outer [Spec, *v*].

(103)   Pierre en   achète   [_{VP}   [trois t]]
         Pierre of-books   is buying   three

According to my analysis, the remnant in (103) stays, as far as Case is concerned, inside the VP. I will show in section 6 of this chapter that this may be the key to the explanation of the definiteness restriction observed with Q-*en* extraction, as well as the obligatory narrow scope of Q-*en* remnants.

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(102)   Pierre en$_i$ lit $[_{vP}$ [la préface $t_i]_k$ $[_{vP}$ t(Pierre) v $[_{VP}$ V t_k]]]
         Pierre of-it   is reading   the preface

On the other hand, the remnant of Q-*en* in object position does not contain a Case feature. Just as it could not move from the object position of a passive or unaccusative verb to [Spec, TP], it cannot move to the specifier position of the functional projection where objects check Case. In other words, because its lacks Case, the remnant of Q-*en* cannot move to [Spec, AgrO] or to the outer [Spec, *v*].

(103)   Pierre en   achète $[_{VP}$ [trois t]]
         Pierre of-books   is buying   three

According to my analysis, the remnant in (103) stays, as far as Case is concerned, inside the VP. I will show in section 6 of this chapter that this may be the key to the explanation of the definiteness restriction observed with Q-*en* extraction, as well as the obligatory narrow scope of Q-*en* remnants.

3.2.3 Thematic subjects, the VP-internal subject hypothesis and the mechanics of *en*-cliticization

Regarding the prohibition against any type of *en*-cliticization with thematic subjects, at least two approaches are possible (a lexical and a syntactic approach), and nothing so far bears on the choice between them. The relevant facts are given again in (104).

(104) a. *La préface en a gagné un prix.
           the preface of-it has won a prize

      b. *Trois en ont gagné un prix.
           three of-them have won a prize

The first possibility is to follow Pollock (1986) and Chomsky (1982:96): *en* must originate from a position directly (and not compositionally) theta-marked by the verb, namely from an internal argument. Under this view, the restriction on the origin of *en* is a lexical property of the pronoun.

Another possibility is to follow Rizzi (1990). According to Rizzi, the clitic *en* cannot originate from a subject position because it cannot, from its landing site, c-command its trace left in subject position (Rizzi does not assume the VP-internal subject hypothesis). This view is the most interesting line of research, since it reduces the prohibition on extraction from subject to an independent constraint on movement.

However, it is immediately obvious that under Rizzi's analysis of the facts, as well as under the analysis proposed above in this thesis, a problem arises if one assumes the VP-internal subject hypothesis (Koopman & Sportiche 1991, among others). Under the VP-internal subject hypothesis, all arguments are projected within the verb phrase, crucially the subject is not directly projected into [Spec, TP]. I will assume here Chomsky's (1995) implementation of the hypothesis, and will refer to it as the vP-internal subject hypothesis. The prediction made by the vP-internal subject hypothesis regarding *en*-cliticization is that subjects should function just like objects do, and although we expect the cooccurence of Q-*en* with a thematic subject to be ungrammatical, we predict that G-*en* should be allowed to cooccur with a thematic subject. The structures associated with the ungrammatical (104a) and (104b) under the VP-internal subject hypothesis are given in (105).

(105) a. [TP [la préface t] en a [vP ~~la préface t~~ v [VP gagné un prix]]]

      b. [TP [trois t] en ont [vP ~~trois t~~ v [VP gagné un prix]]]

Presumably for Rizzi the thematic subject would reconstruct into its vP internal position, just like "derived" subjects do. In that configuration, the trace within the reconstructed G-

en remnant in (105a) is antecedent-governed by *en* and head-governed by the head noun. We thus expect the sentence to be grammatical, contrary to fact. The trace within the reconstructed Q-*en* remnant is antecedent-governed by *en* but not head-governed under reconstruction, and (104b) is correctly predicted to be grammatical.

The analysis presented in this thesis also seems to make the incorrect prediction if subjects are generated vP-internally, but for different reasons. If we suppose that *en*-cliticization proceeds first, and moves the clitic to T (a point to which I will return momentarily), we predict that the G-*en* remnant [la préface t] in (105a) should be able to raise to [Spec, TP], contrary to fact. The remnant of G-*en* cliticization contains a Case feature and should be able to check off both the Case and the EPP feature of T. On the other hand, the analysis correctly predicts that the subject in (105b) cannot raise to [Spec, TP], since it lacks a Case feature.

Can the analysis that I have proposed be made compatible with the widely accepted vP-internal hypothesis? I believe it can, if one assumes that *en* does not directly move to T, but rather to the verb itself, as a first step, and then moves to T. If we suppose that *en* first moves to the verb, the problem raised by the vP-internal subject hypothesis vanishes. From its vP-internal position in (105), the clitic would move downwards, an operation which is independently ruled out. The sentences given in (104a) and (104b) would then be excluded, as desired. On the other hand *en* originating from an object position will be allowed to move *up* to the verb, as required. Assuming that *en* cliticizes on the verb, two options are possible: *en* cliticizes to V or *en* cliticizes to *v*. (We will return momentarily to the fact that *en*, like other clitics, always ends up on T.)

There are three arguments in favor of treating V as the host of the clitic *en*. First, as we have amply shown, *en* may appear with passives and unaccusative verbs, which, lacking an external argument, presumably do not project a small *v* (cf. Chomsky 1995). In the same vein, *en* may appear in expletive constructions, again with verbs that presumably do not involve small *v*. The latter is shown in (106a) for G-*en*, and in (106b) for Q-*en*.

(106) a. Il y en a une première version dans ce livre.
           expl. there of-it have a first version in this book
           "There is a first version of it in this book".

       b. Il y en a trois sur la table.
           expl. there of-them have three on the table
           "There are three (of them) on the table"[28]

---

[28]. Again the interpretation of *en* here is not partitive, and the sentence means 'there are three things of this kind on the table", cf. section 2 of the present chapter. Just like English, French

Second, the hypothesis that *en*, contrary to other clitics, has V as its host, accounts directly for the fact that *en* is always the most embedded clitic in a clitic cluster.

Third, as I already mentioned, it could be that the movement of Q-*en* to the verb checks some Case, possibly partitive Case. If we assume with Belletti (1988) that partitive Case is a case assigned by V, we may have an explanation for the obligatory movement of Q-*en* to V. This hypothesis however, does not carry over to G-*en*, and the locus of cliticization remains a stipulation in this case.

The alternative hypothesis is to assume, following Pollock (1998) that *en* cliticizes on small v[29]. Under this view *en* is also correctly prevented from occurring with thematic subjects. The fact that *en* is always the innermost clitic is also derived, if we assume that the other clitics have T as their host. However it is not immediately clear how to account for the fact that *en* is perfectly grammatical with passives, unaccusatives, and in expletive constructions. As I have mentioned earlier, these verbs are assumed to lack a small v. There is evidence, however, to the effect that all verbs do indeed involve a small v (cf. Marantz (1999), Pylkkänen (1998), Arad (1999)). The small v head found with unaccusative and passive verbs is not, in Marantz terms, the "Burzio" head, i.e. the head that ensures the presence of an external argument and the assignment of Accusative Case.

The main problems with the view that *en* must first move to the verb (v or V) is to explain why this should be so, and also why, like other clitics, *en* always ends up on T. In the presence of an auxiliary, *en* will appear on the auxiliary, not on the past participle. Regarding the first question, the Case-theoretical analysis advocated in this thesis provides the first half of the answer: Q-*en* checks Case on the verb, and must enter into relation with it. As mentioned above, the fact that G-*en* must also be forced to first move to v remains a stipulation[30], it must be a property of *en*. As for the final position of *en*, namely T, this must be seen as a purely morphological property of the clitic.

We have seen in this section that, under the vP-internal subject hypothesis, *en* cannot be allowed to move directly to T. It must first transit through the verb (either v or V)[31].

---

does not accept partitives in expletive constructions, cf. *?*Il y a trois·de ces livres sur la table* (there are three of these books on the table).

[29]. Pollock (1997/98) extends the hypothesis to all clitics in Romance. For my purpose it suffices to say that *en* cliticizes on v, the other clitics having T as their host.

[30]. It could be that G-*en*, contrary to its full counterpart (PP/DP), needs to check Case. Thanks to Alec Marantz for this suggestion.

[31]. An ancillary problem is the fact that adjunction to either v or V will force excorporation of the clitic when the verb does not raise to T. One could think that the clitic adjoins as a maximal projection to v/V and then head moved to T. Thanks to Noam Chomsky for

I will assume that *en* cliticiz s on *v*. I have discussed above the problem raised by the presence of an auxiliary. In the absence of an auxiliary, the verb moves to *v*, then to T, deriving the correct result. Finally I will assume, following Marantz (1999), Pylkkänen (1998), and Arad (1999) that small *v* comes "in different flavors", i.e. that all verb types involve *v*.

3.2.4 Q-*en* checks Case

The proposal depends crucially on the idea that Q-*en*-cliticization has the effect of depriving the noun phrase of its Case features. As already mentioned, it could be that Q-*en*-cliticization is itself a Case-checking operation. Alternatively, Q-*en*-cliticization is motivated solely by a morphological requirement on the clitic, but since *en* stands for the nominal head, locus of the Case features, the remnant is deprived of Case-Features as a result. In this section I present arguments in favor of the hypothesis that Q-*en* checks Case, and pursuing the hypothesis that it does we discuss how this may be done.

The issue here is to distinguish between a strong hypothesis —Q-*en* checks (some) Case— and a weaker hypothesis —Q-*en* deprives the noun phrase of its Case features by standing for the nominal head. Both views yield the same result from the point of view of the remnant: it does not have Case features. A first piece of evidence in favor of the Case checking hypothesis comes from a contrast between Q-*dont* extraction and Q-*en* extraction[32], illustrated by (107) and (108).

(107)   *Les livres, dont j'ai lu trois
         the books, of which I have read three
         "The books, three of which I have read"

         (from Valois 1991)

(108)   J'en ai lu trois.
         I of-them have read three

The derivation for the ungrammatical (107) is given in (109).

---

pointing this out to me. The problem with XP movement followed by X° movement is that the account of *dont*-extraction (cf. section 4.2 of this chapter) becomes stipulative. The idea is that Q-*dont*, contrary to *en*, cannot check Case because it is not a clitic and does not move to the verb. If *en* adjoins to the verb as an XP, there is no obvious reason why *dont* should not do the same.
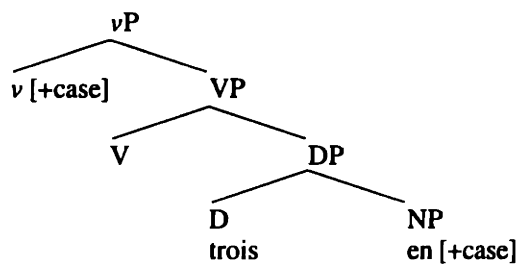
[32]. For a more complete discussion of *dont*, see section 4.2 of this chapter.

(109) a. j'ai lu [trois dont]

     b. *dontᵢ j'ai lu [trois tᵢ]

The licensing of the trace of *en* or *dont* cannot sensibly be invoked to explain the difference in grammaticality between (107) and (108). The contrast follows if *en* is capable of checking Case for the internal argument, whereas *dont* cannot perform the operation.

As mentioned in section 3.2.3, the unaceptability of any type of *en* with underlying subjects follows if *en* must cliticze on *v*. I will further propose that Q-*en*, when it moves to *v*, checks Case. This is illustrated in (110) and (111) below.

(110)

```
                vP
          _____/_____
       v [+case]        VP
          |         ____/\____
          V        V          DP
                   |      ____/\____
                   D            NP
                  trois       en [+case]
```

The tree in (110) illustrates the properties of the NP *en* and *v*. *En* contains the Case feature of the DP (this is represented by [+case] in the structure). Small *v* is the head against which an object checks Case.

When *en* moves to *v*, the relation between the Case checking head and the Case feature of the object is established. Q-*en* checks Case in the configuration illustrated in (111) below.

(111)

```
                vP
          _____/_____
       v [+case]        VP
        __/\__       ___/\___
  en [+case]  v    V         DP
                   |     ___/\___
                   D           NP
                  trois         t
```
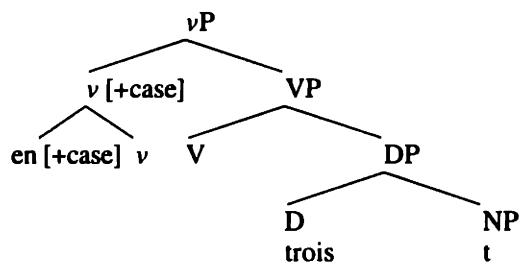
As a result of Q-*en* cliticization, Case is checked off for the whole DP, as well as for *v*, as illustrated in (112).

(112)

```
                    vP
            _____/_____
       v [-case]              VP
      ___/\___         _____/_____
en [-case]   v    V                  DP
                              _____/_____
                             D              NP
                           trois¨        t [-case]
```
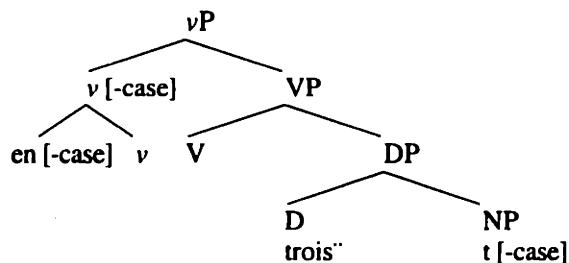
The Case checking relation is established between *v* and the object by Q-*en* cliticization. Case is not checked in this instance by XP movement into a specifier, but rather by head-movement of the clitic. Since the Case features of both *v* and the object are in a local relation, Case is checked.

Note futhermore that Case can be checked this way in environments where the verb presumably does not assign a theta-role to the object. This is illustrated by the behavior of Q-*en* in complements of perception verbs, as in (113).

(113) a. J'ai vu trois enfants partir.
           I have seen three children leave

       b. J'en ai vu trois partir
           I of-them have seen three leave

In (113b) the subject of the embedded clause bears no thematic relationship to the perception verb. Nevertheless *en* moves up to the verb and checks Case in that configuration. This state of affairs indicates that Q-*en* cliticization does not necessarily check an inherent Case (cf. Belletti 1988's partitive Case)[33].

Furthermore, these facts militate against an alternative implementation of the logic presented in this chapter, and proposed by Pesetsky and Torrego (1999). For them, noun phrases such as [trois enfants] are QPs, not DPs. QPs are "outside the Case system", they do not need or check Case. As a consequence they are invisible for A-movement. The verbs used in (7) are unaccusative, and the underlying object raises to the embedded subject position in order to enter into a Case checking relation with the matrix verb. Syntactically this position behaves as an object position. Under the QP hypothesis, one expects the object to remain in situ, since it is outside the Case system.

---

[33]. This does not mean that Q-*en* does not check "partitive" Case. See Vainikka and Maling for arguments to the effect that partitive Case is structural.

As we have seen in section 2.4.2, Q-*en* is in complementary distribution with DPs containing a null head[34]. The relevant facts are presented again below (the (b) and (c) examples are from Pollock 1986:212).

(114) J'ai acheté quatre bibelots l'autre jour.
I have bought four curios the other day
"I bought four curios the other day."

    a. Trois ont fait jaser mes voisins.
       three have made gossip my neighbors
       "Three made my neigbors gossip."

    b. Trois sont déjà cassés.
       three are already broken

    c. *J'ai déjà cassé trois.
       I have already broken three

(115) a. *Trois en ont fait jaser mes voisins
       three of them have made gossip my neighbors
       "Three of them made my neighbors gossip."

    b. *Trois en sont déjà cassés.
       three of-them are already broken

    c. J'en ai déjà cassé trois.
       I of-them have already broken three
       "I have already broken three of them."

I will first describe the facts illustrated in (114) and (115). Whenever a null head is possible, as in (114a, b), Q-*en* is impossible (as illustrated by (115a, b). On the other hand if Q-*en* is possible, as in (115c), it must appear, as attested by the ungrammaticality of (114c). In other words, Q-*en* and null heads are in complementary distribution. One way to account for the contrast between (114a, b) and (114c) would be to say that null heads can check Nominative but not Accusative Case in French, or that in the case of a null head, Case must be checked overtly. But this type of approach is obviously highly stipulative, and it does not relate the contrast between (114a, b) and (114c) to the contrast between (115a, b) and (115c).

Let us take the complementary distribution of Q-*en* and null heads seriously[35].

The idea is that *en* and the null head are one and the same thing, an NP, with two different morphological realizations (*en*, ø). The morphological realization of the NP is a function of

the constraint on cliticization to which *en* is subject, namely that it must cliticize on *v* and, crucially, cannot move downward. Whenever it can appear, *en* must appear. Whenever *en* cannot appear, the NP is realized as ø.

If we apply this idea to the paradigm at hand, the facts follow in a natural way. In (114a), the NP cannot be realized as a clitic, because it would have to move downward (cf. 115a). It is thus realized as ø. In (114b), if the NP is realized as *en*, the remnant cannot raise to check Case (cf. 115b). If the NP is ø, the full DP can raise and check Case. On the other hand the context of (115c) is a context in which the NP can cliticize, therefore it must appear as *en*.

3.3 Theoretical conclusions

From a theoretical point of view, the goal of this section was to establish that the locus of the Case features of a DP must be the nominal head N. We have seen that this hypothesis accounts directly and elegantly for the basic distribution of G-*en* and Q-*en*, in particular for their contrastive behavior with raised subjects. More specifically I have argued that Q-*en* extracts the Case feature out of the DP, and that the remnant left after extraction is incapable of checking off the Case feature of T.

In the next section I will show how the analysis extends to other contexts of *en*-cliticization in French, indicating as we go along problematic cases for the Binding/ECP approaches.

4. Other contexts of *en*-cliticization in the syntax of French

The preceding section was devoted to showing that the Case theoretical analysis of *en*-cliticization provides an elegant explanation for the basic puzzle raised by the distribution of the clitic *en* in French. In this section we will see how the analysis extends to some other contexts of *en*-cliticization in French.

In this section I will show how the proposal presented in section 3 can derive the facts regarding *en*-cliticization in the context of wh-movement of a subpart of the noun phrase. It will be shown in section 4.1 that the analysis accounts for the distribution of Q-*en* and G-*en* with wh-movement of *combien* (how many), a context which was problematic for the Binding/ECP approaches. Furthermore, we will see in section 4 that the approach advocated in this thesis is able to explain the surprising distribution of *dont* (of which), in particular the fact that it can be extracted from subjects but not from objects. In section 4.3 I show discuss past participle agreement.

4.1 *En*-cliticization and Wh-movement: *combien*

Let us first look at the way *combien* interacts with *en* cliticization. The first point to note is that the contrast between G-*en* and Q-*en* with derived subjects is maintained in the context of wh-movement of *combien*. This is illustrated by the examples in (116) and (117), respectively involving G-*en* and Q-*en*.

(116) Combien de versions en ont été publiées?
how-many of versions of-it have been published
"How many versions of it have been published?"

(117) *Combien en ont été publié(s)?
how many of-them have been published

Note in addition that (117) becomes grammatical if an expletive is inserted in subject position, as in (118)[36].

(118) Combien en a-t-il été publié?
how many of-them have expl. been published
"How many of them were published?"

The contrasts between (116) and (117) on the one hand, and between (117) and (118) on the other hand, strongly indicate in my view that the problem with (117) is that there is no phrase that can function as a subject, more specifically that no phrase can check off the Case feature of T. I will consider here derivations involving both remnant movement of [*combien* t] and independent movement of *combien*[37]. It is crucial to note that the analysis presented here explains the facts in either case.

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[36]. The interaction of *en*-cliticization with agreement in wh-movement contexts is discussed in section 4.3.

[37]. The motivation for considering independent movement of *combien* is the existence of sentences like (i), where *combien* appears to be moving independently of the rest of the noun phrase (without pied-piping).
(i)   Combien Jean a-t-il lu de livres?
how-many J. has he read of books
"How many books did John read?"
I give the derivations involving remnant movement of [*combien* t], even though the movement is an instance of A-bar movement from a Caseless position (cf. section 6 of this chapter). There are two reasons for this choice. First, we know that *combien* is somehow exceptional from the facts given above in (i), and it is unclear to what extent it is exceptional. Second, there are "exceptions" to the observation that wh-movement must proceed from a Case position. The idea raises problems in other cases, such as expletive constructions (wh-movement of the associate). The crucial point is that under the analysis proposed here, the ungrammaticality of (117) and the minimal contrast it presents with (118) follow, no matter whether *combien* carries along the trace or not.

4.1.1 Remnant movement of [*combien t*]

Let us look more closely at the derivations involved for (117) in contrast with (116) and (118). Let us first consider the two derivations involving remnant movement of [*combien* t], starting with (119) below.

(119) a. [CP [TP *e* ont été publié(s)   [combien en]]]

      b. [CP [TP *e* en$_i$ ont été publié(s)   [combien t$_i$]]]

      c. [CP   [combien t$_i$]$_j$ [TP *e* en$_i$ ont été publié(s) t$_j$]   (*)

The derivation given in (119) involves *en*-cliticization followed by wh-movement of [combien t] directly to [Spec, CP]. The derivation is unsucessful because neither the EPP nor the Case feature of T is checked off. There is no XP movement to [Spec, TP].

The second possible derivation for the ungrammatical (117) involves remnant movement via [Spec, TP] and is given in (120) below.

(120) a. [CP [TP *e* ont été publié(s)   [combien en]]]

      b. [CP [TP *e* en$_i$ ont été publié(s)   [combien t$_i$]]]

      c. [CP [TP [combien t$_i$]$_j$ en$_i$ ont été publié(s) t$_j$]]

      d. [CP   [combien t$_i$]$_j$ [TP t'$_j$ en$_i$ ont été publié(s) t$_j$]

The derivation given in (120) differs from the derivation in (119) in that [*combien* t] transits through [Spec, TP] before moving to [Spec, CP], as illustrated in (120c). But even in this case the requirements of T are not satisfied. The remnant [combien t] is a Q-*en* remnant. It has the same properties as the remnant [trois t] discussed in section 3, and in particular it does not contain a Case feature. When it lands in [Spec, TP], it cannot check off the Case feature of T, and this is the explanation for the ungrammaticality of (117).

Note in passing that given the availaibility of two derivations for (117) we expect the maximally convergent derivation, i.e. (120), to indicate the status of acceptability of (117). In (120), the Case of T is unchecked, but the EPP is presumably checked at the step shown in (120c). As in the case of (92b) and (98) from section 3.2.1, a sentence where the EPP, in addition to Case, is not checked, is worse than (117)[38]. The relevant contrast is illustrated in (121).

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[38]. But see fn. 27.

(121) a. *Je me demande combien en ont été publiés.
I wonder   how-many of-them have been published

b. **Je me demande si en ont été publiés (trois).
I wonder   whether of-them have been published (three)

Let us now compare the derivation given in (120) for the ungrammatical (117) with the derivations associated with the grammatical (116), which involves G-*en*. The example in (116) may be associated with the convergent derivation given in (122), which is strictly parallel to (120) above.

(122) a. [CP ['TP *e* ont été publiées   [combien de versions en]]]

b. [CP [TP *e* en$_i$ ont été publiées   [combien de versions t$_i$]]]

c. [CP [TP [combien de versions t$_i$]$_j$ en$_i$ ont été publiées t$_j$]]

d. [CP   [combien de versions t$_i$]$_j$ [TP t'$_j$ en$_i$ ont été publiées t$_j$]

The derivation proceeds as follows. The first step involves *en* cliticization, as shown in (122b). The object then proceeds to raise to [Spec, TP], as illustrated in (122c). In that position, the G-*en* remnant [combien de versions t] checks off the Case feature of T (as well as the EPP). Recall that G-*en* remnants differ from Q-*en* in that only the former contain a Case feature. Once the requirements of T are satisfied, the G-*en* remnant wh-moves up to [Spec, CP], as shown in (122d).

The crucial distinction between the derivation given in (122) for the grammatical (116) and the one given in (120) for the ungrammatical (117) arises at the step depicted in (122c). In (122c), the G-*en* remnant, which contains a Case feature, raises to [Spec, TP] and checks Case as well as the EPP. On the other hand in (120c), the Q-*en* remnant, lacking a Case feature, could not check Case in [Spec, TP].

4.1.2 Independent movement of *combien*

As was noted by many authors (among others Obenauer 1976, 1984, 1994, and Rizzi 1990), the wh-word *combien* (how many) can move independently of the rest of the noun phrase in French, i.e. without pied-piping the rest of the structure. This is shown by the grammaticality of sentences like (123) below[39].

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[39]. The sentence (7) cannot be analysed as involving extraposition of *de livres* from the [Spec, CP] position, cf. Obenauer (1984/85).

(123) Combien as-tu lu [t de livres]?
how-many have you read of books
"How many books have you read?"

The existence of (123) thus forces us to consider the availability of another set of derivations for (117) and (118), namely derivations involving independent movement of *combien*. It is easy to see, however, that the reasoning will remain the same. If *combien* can move independently, without even carrying the trace of *en*, we do not expect it to be able to check the Case feature of T. When it moves independently, *combien* does not contain a nominal head, hence does not contain a Case feature and should not, according to our proposal, be able to check Case in [Spec, TP]. Again if the expletive *il* is present, it will take care of the Case (and EPP) feature of T. I give the relevant derivations in (124) and (125).

(124) a. [CP [TP *e* ont été publié(s)   [combien en]]]

    b. [CP [TP *e* en$_i$ ont été publié(s)   [combien t$_i$]]]

    c. [CP [TP combien$_j$ en$_i$ ont été publié(s)   [t$_j$ t$_i$]]]

    d. [CP combien$_j$ [TP t'$_j$ en$_i$ ont été publié(s)   [t$_j$ t$_i$]]]

The derivation given in (124) is problematic at the step illustrated in (124c). The moved *combien* does not contain an N, it does not possess a Case feature, and it cannot check Case in [Spec, TP]. The alternative derivation where *combien* does not transit through [Spec, TP] is also ruled out for the reasons discussed in relation with (119) above.

In the presence of an expletive, the derivation proceeds as in (125) below.

(125) a. [CP [TP il a été publié   [combien en]]]

    b. [CP [TP il en$_i$ a été publié   [combien t$_i$]]]

    c. [CP combien$_j$ [TP il en$_i$ a été publié [t$_j$ t$_i$]]]

The derivation in (125) yields a grammatical sentence since *il* checks Case and the EPP in [Spec, TP].

4.1.3 The problems for the Binding/ECP approaches

How can a Binding/ECP approach account for the fact that (117) is ungrammatical whereas (116) and (118) are not? Recall that it is crucial for Rizzi (1990) to force reconstruction of the raised subjects to account for the distinction betwen G-*en* and Q-*en* in contexts involving raised subjects. However, it is also crucial for Rizzi (1990:12-15) that *combien*

does not reconstruct into its base position when it is wh-moved. I will consider the cases of remnant movement and independent movement of *combien* in turn.

It is clear that if *combien* is allowed to raise as a remnant of the form [combien t], an ECP approach will not capture the contrast between (116) and (117), whose final representations are given in (126) and (127) respectively.

(126) [CP [combien de versions t_i]$_j$ [TP t'$_j$ en$_i$ ont été publiées t_j] (=116)

(127) *[CP [combien t_i]$_j$ [TP t'$_j$ en$_i$ ont été publié(s) t_j]   (=117)

Recall that the explanation for the ungrammaticality of Q-*en* with raised subjects is the hypothesis that the trace of *en* (t_i) is not head governed under reconstruction. Here if reconstruction cannot apply, (127) will be ill-formed for two reasons (absence of head-governement and absence of antecedent-government). However we expect (126) to be ill-formed as well (and (116) to be ungrammatical, contrary to fact), since the trace of *en* is not antecedent-governed in the [Spec, CP] position.

Furthermore under an ECP approach the contrast between (117) and (118) becomes extremely difficult to explain. The only difference between (117) and (118) is the presence of an expletive in subject position (overlooking the agreement facts for the moment). The final representation of (118) is given in (128) below.

(128) [CP [combien t_i]$_j$ [TP il en$_i$ a été publié t_j] (=118)

Now compare (127) with (128). The only difference in the structure is that in (128) [Spec, TP] is occupied by the expletive *il* whereas in (127) it contains the trace of [combien t]. Besides the existence of an intermediate trace t'$_j$ in (127), the relations between the traces and their antecedents are identical in (127) and (128). It is unclear how the requirements of the trace can be met in (128) but not in (127).

Under the analysis advocated in this thesis, the contrasts follow naturally. The difference between (126) and (127) is explained by the hypothesis that the G-*en* remnant in (126) can check Case in [Spec, TP], whereas the Q-*en* remnant in (127) cannot. The contrast between (127) and (128) also follows: if Case (and the EPP) are checked by the expletive *il*, as in (128), the Q-*en* remnant can move directly to [Spec, TP].

Finally, if *combien* moves without pied-piping the rest of the noun phrase, the final representations for (117) and (118) are as in (129) and (130) below.

(129) *[CP combien_j [TP (t'_j) en_i ont été publié(s) [t_j t_i]]]   (=*117)

(130) [CP combien_j [TP il en_i a été publié [t_j t_i]]]   (=118)

Apart from the (optional) intermediate trace in [Spec, TP], the relation between the traces and their antecedents are identical, and the reason for the ill-formedness of (129) cannot be attributed to a failure in licensing the trace of *en*. One has to appeal to the EPP and to Case Theory in order to reject (129), and again this crucially implies that *combien* cannot satisfy the requirements of T.

For Pollock's (1986) Binding approach, the representations in (129) vs. (130) also constitute a problem. Recall that Pollock's proposal was that *en* must be free in its governing category. When the Q-*en* remnant raises to subject position, the trace of *en*, being the head of the NP, can bind the pronoun, in violation of BT (cf. section 3.1). If *combien* is allowed to move independently, there is no reason why (117), associated with (129), should ˈ ˈ ruled out. There is no trace of *en* in the [Spec, CP] in (129), and the pronoun *en* is free.

Note once again that it is not sufficient, in order to rule out an ungrammatical sentence, to exclude one derivation associated with it. It is essential that no derivation yields the ungrammatical sentence. For grammatical sentences, only one of the derivations has to converge.

4.1.4 *En*-cliticization and wh-movement of *combien* in other contexts

For the sake of completeness, I will present here briefly the other contexts of *en*-cliticization and wh-movement of *combien*. As we will see, they are unproblematic for the analysis presented here, as well as for other approaches.

As shown by the examples in (131) and (132) above, both G-*en* and Q-*en* are ungrammatical when *combien* is extracted from a thematic subject. Their ungrammaticality is explained exactly in the same way as the ungrammaticality of (104a) and (104b) from section 3.2.3 of the present chapter.

(131) *Combien de versions en ont gagné un prix?
       how-many of version of-it have won a prize
       "How many versions of it won a prize?"

(132) *Combien en ont gagné un prix?
       how-many of-them have won a prize
       "How many of them won a prize?"

Both (131) and (132) are excluded because they require downward movement of the clitic to small v (cf. section 3.2.3).

As expected, wh-movement of *combien* is allowed with transitive verbs, as shown by (133) and (134) below.

(133) Combien Jean en a-t-il lu de versions?
       how many J of-it have him head of versions
       "How many versions of it did Jean read?"

(134) Combien Jean en a-t-il lu(s)?
       how many J. of-them have him read
       "How many of them did Jean read?"

In (133) and (134) *combien* moves directly to [Spec, CP]. No problem arises with Case Checking in the subject position since [Spec, TP] is occupied by a thematic subject. We return to the optionality of agreement in (134) in section 4.3.

4.2 The wh-counterpart of *en*: *dont*

The "relative pronoun" *dont* (of which) is, at least at first sight, the wh-counterpart of *en*. It is generally assumed (cf. Couquaux 1979, 1981, Pollock 1986, Valois 1991, Jones 1996) that *dont* can, like *en*, be either genitive (henceforth G-*dont*) or quantitive (Q-*dont*). (We will discuss in section 4.2.2 the hypothesis, advocated by Milner (1978), that Q-*dont* is in fact always structurally partitive. For the moment I will continue referring to the second *dont* as Q-*dont*). The distribution of the two *dont* is as follows. First, it is possible to extract G-*dont* from an object, but Q-*dont* cannot be extracted in that context. This first contrast is illustrated by the examples given in (135) and (136).

(135)   Ce roman, dont j'ai dévoré le premier chapitre, a gagné un prix.
        this novel, of-which I have devoured the first chapter, has won a prize

(136)   *Les/ces livres, dont j'ai lu trois, ont gagné un prix.
        the/these books, of which I have read three, have won a prize
        (adapted from Valois 1991)

The context of subject extraction exhibits the following surprising facts: it is possible to extract any type of *dont* from any type of subject. As noted by Eliott (1985), this state of affairs constitutes a notable exception to the Condition on Extraction Domains (Huang 1982). The example in (137) below shows extraction of G-*dont* from a thematic subject, and (138) from a raised subject.

(137) Ce roman, dont le premier chapitre a reçu une critique favorable, ...
       this novel, of-which the first chapter has received a good review, ...

(138) Ce roman, dont la première version a été publiée en tchèque, a recu un prix.
       this novel, of-which the first version has been published in Czech, has received
       a prize

The same distribution is found for Q-*dont*: it can appear with a thematic subject, as in (139), and with a raised subject, as in (140)[40].

(139) Plusieurs livres, dont trois ont ont gagné un prix, ont reçu une critique
       favorable.
       Many books, of which three have won a prize, have received a good review

(140) Plusieurs livres, dont trois ont déjà été publiés, ont reçu une critique favorable.
       Many books, of which three have already appeared, received a good review

It is clear that it would be preferable to account for the distribution of *dont* by using the same principles as those used in explaining the distribution of *en*. Note first that for any analysis couched in terms of licensing of the trace of *en/dont*, the facts presented in (135) to (140) constitute a real challenge. First, as illustrated in (135) and (136), there is an asymmetry between objects that was not found with *en*. It is unclear how a licensing approach can explain why the trace in (135) is legitimate, whereas the trace in (136) is not. I give the relevant representations for (135) and (136) below in (141) and (142).

(141)   Ce roman, **dont**$_i$ j'ai dévoré [le premier chapitre t$_i$], a gagné un prix.
           this novel, of-which I have devoured the first chapter, has won a prize

(142)   *Les/ces livres, **dont**$_i$ j'ai lu [trois t$_i$], ont gagné un prix.
           the/these books, of which I have read three, have won a prize

As we can see from the representations above, *dont* seems to stand in the proper relation to its trace, just as *en* did in examples such as (143) and (144) below.

(143)   J'**en**$_i$ ai devoré [le premier chapitre t$_i$]
           I of-it have devoured the first chapter

(144)   J'**en**$_i$ ai lu [trois t$_i$]
           I of-them have read three

Furthermore, it is clearly difficult under an ECP/Binding approach to exclude (142) while accounting for the grammaticality of (140). Appealing to the greater distance between *dont* and its trace in (142), as in Eliott (1985), forces one to stipulate a solution for (141), where the trace of *en* is even more deeply embedded.

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[40]. Examples (139) and (140) are adapted from Valois (1991).

The Case theoretical analysis proposed in this thesis is able to account for the facts in a very natural way. In section 4.2.1, we will first follow the hypothesis of most of the researchers on this topic, and assume that the non-genitive *dont* is really the counterpart of Q-*en*, and that it stands for the same substructure as Q-*en* (cf. section 2). In section 4.2.2 we will explore an alternative hypothesis for this type of *dont*, namely that it is always a structural partitive, as proposed by Milner (1978).

4.2.1 A case-theoretical analysis for the extraction of *dont*

The facts presented in (135) to (140) follow directly from our proposal if we assume that *Q-dont*, contrary to *Q-en*, cannot check off the Case feature of the noun phrase Recall from section 3.2.4 that I have proposed that Q-*en*, by virtue of being hosted by v, can check off its Case feature in that position. Q-*dont*, just like Q-*en*, is the locus of Case, but since it is not a clitic, it cannot land on v and check off its Case feature. Keeping this important difference in mind, let us look at the derivations for the crucial examples given above.

The most striking contrast is between (136) on the one hand, and (139) and (140) on the other. The derivation for the ungrammatical (136) is given in (145) below.

(145) a. [$_{CP}$ [$_{TP}$ j'ai [$_{vP}$ [$_{VP}$ lu [trois dont]]]]]

      b. *[$_{CP}$ dont$_i$ [$_{TP}$ j'ai [$_{vP}$ [$_{VP}$ lu [trois t$_i$]]]]]

In (145), *dont* is extracted from the object and moved directly to [Spec, CP]. There is no point in the derivation where *dont* can check off its Case feature. Contrary to Q-*en*, Q-*dont* does not land on v.

Under this view, *dont* extraction from subjects, thematic or derived, becomes transparent. Consider the derivation of (140), illustrated in (146). (I illustrate only the relevant part, i.e., the relative clause).

(146) a. [$_{CP}$ [$_{TP}$ ont été [$_{VP}$ publiés [trois dont]]]]

      b. [$_{CP}$ [$_{TP}$ [trois dont]$_j$ ont été [$_{VP}$ publiés t$_j$]]]

      c. [$_{CP}$ dont$_i$ [$_{TP}$ [trois t$_i$]$_j$ ont été [$_{VP}$ publiés t$_j$]]]

In (146b) the whole argument [trois dont] raises from the object position to [Spec, TP]. Since it contains a nominal head, namely *dont*, with a Case feature, it can check Case in the [Spec, TP] position. The next step involves wh-movement of *dont* to [Spec, CP]. It is because the raised subject contains a nominal head with an unchecked Case feature that the

derivation is sucessful. (Recall that Q-*en* extraction necessitates extraction of the clitic prior to the movement of the remnant, as discussed in section 3.2).

The derivation of (139) is parallel to the derivation of (140), with the exception that the subject starts out in [Spec, *v*P]. This is illustrated in (147).

(147) a. [$_{CP}$ [$_{TP}$ ont [$_{vP}$ [trois dont] [$_{VP}$ gagné un prix]]]]

     b. [$_{CP}$ [$_{TP}$ [trois dont]$_j$ ont [$_{vP}$ t$_j$ [$_{VP}$ gagné un prix]]]]

     c. [$_{CP}$ dont$_i$ [$_{TP}$ [trois t$_i$]$_j$ ont [$_{vP}$ t$_j$ [$_{VP}$ gagné un prix]]]]

Similarly to what is observed in (146), the subject [dont trois] in (147) raises to [Spec, TP] and checks Case. At this point in the derivation (147b), the subject contains an unchecked Case feature. Wh-movement of *dont* proceeds as in (147c).

As for G-*dont*, it is easy to see why it can be extracted from all positions. G-*dont* is like G-*en* in that it does not stand for the head noun of the noun phrase but for its complement. In all instances of G-*dont* extraction, the remnant is identical to a G-*en* remnant, and contains a Case feature. G-*dont* differs from G-*en* in one important respect: the landing site of G-*dont* is [Spec, CP], which is higher than the subject position, whereas the landing site of G-*en* is *v*, which is lower than the subject position. Extraction of *G-dont* is thus possible from any type of subject because upward movement is possible in all cases. For the sake of completeness I give the (relevant parts of the) derivations for G-*dont* extraction associated with (135), (137), and (138) in (29), (30) and (31) respectively.

(148) a. [$_{CP}$ [$_{TP}$ j'ai [$_{VP}$ dévoré [le premier chapitre dont]]]]

     b. [$_{CP}$ dont$_i$ [$_{TP}$ j'ai [$_{VP}$ dévoré [le premier chapitre t$_i$]]]]

(149) a. [$_{CP}$ [$_{TP}$ a [$_{vP}$ [le premier chapitre dont] [$_{VP}$ reçu une critique favorable]]]]

     b. [$_{CP}$ [$_{TP}$ [le premier chapitre dont]$_j$ a [$_{vP}$ t$_j$ [$_{VP}$ reçu une critique favorable]]]]

     c. [$_{CP}$ dont$_i$ [$_{TP}$ [le premier chapitre t$_i$]$_j$ a [$_{vP}$ t$_j$ [$_{VP}$ reçu une critique favorable]]]]

(150) a. [$_{CP}$ [$_{TP}$ a été [$_{VP}$ publiée [la première version dont]]]]

     b. [$_{CP}$ [$_{TP}$ [la première version dont]$_j$ a été [$_{VP}$ publiée t$_j$]]]

     c. [$_{CP}$ dont$_i$ [$_{TP}$ [la première version t$_i$]$_j$ a été [$_{VP}$ publiée t$_j$]]]

Note that in both (149) and (150), the subject can check Case in [Spec, TP] by virtue of containing a nominal head (*chapitre, préface*) which contains unchecked Case features. In both cases, *dont* can wh-move up to [Spec, CP]. The crucial difference in the derivation of

similar sentences involving G-*en* is that G-*en* has no higher landing site when it originates from a thematic subject, but it does when it originates from an object[41].

4.2.2 Milner (1978): *Q-dont* as a partitive

Milner (1978:76-80) presents arguments to the effect that what looks like Q-*dont* in fact stands for the partitive subpart of an noun phrase, i.e. for the subconstituent *de ces livres* (of these books) in (151) below.

(151) a. Trois de ces livres
           three of these books

Recall from section 2.5 above that noun phrases like (151) involve a null nominal head. Milner's arguments for considering *dont* as structurally representing a partitive are as follows. First, he notes the difference in distribution between Q-*en* and *dont* with objects. Whereas Q-*en* may be extraced from objects, *dont* cannot, as we have shown in the examples given in (144) and (136), repeated below as (152a) and (152b).

(152) a. J'en ai lu trois
           I of-them have read three

       b. *Ces livres, dont j'ai lu trois, ont gagné un prix.
           these books, of which I have read three, have won a prize.

We may add to Milner's observation that, if his view is correct, the ungrammaticality of (152b) is strictly parallel to the ungrammaticality of (153). In both contexts a null nominal head is found in object position, and this state of affairs seems to be the source of the ungrammaticality of the sentence.

(153) J'ai acheté quatre statues l'autre jour.   *J'ai déjà cassé trois.
       I have bought three statues the other day   *I have already broken three*

A second argument given by Milner is the interpretation of the analog of (67) from section 2.5. With *dont*, only a partitive interpretation obtains for (154).

(154) Ils ont attrapé dix lions, dont ils ont tué certains/plusieurs/un grand nombre le
       lendemain.
       *they have caught ten lions, of-which they killed some/many/a great number the
       day after*
       *"They caught ten lions, some/many/a great number of which they killed the day
       after."*

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[41]. *En* must be subject to a locality condition: it is clause-bound, and cannot move accross a CP (the cases of clitic climbing involve reduced complements).

Contrary to what is observed with Q-*en*, the presence of *dont* in (154) seems to force an interpretation in which the set of lions that were killed is a subset of the set of ten lions that were caught[42], i.e., a partitive interpretation.

One additional argument may be provided by the contrast between (155) and (156) below.

(155)   J'en ai lu trois __ de ceux de Zola.
        I of-them have read three __ of those of Zola.

(156)   Ces livres, dont trois (??de ceux de Zola) ont gagné un prix, ...
        these books, of which three (??of those of Zola) have won a prize

The example in (155) shows that the partitive subpart of a noun phrase may be stranded by *en*. I have used the example in (155) in section 2.5.2 to argue for the existence of Q-*en* and against partitive *en*. It is striking however that *dont* does not strictly parallel *en* in this case, as shown by (6). This could indicate that *dont* is really partitive. On the other hand if *dont* were strictly partitive, we would expect it to cooccur with Q-*en* like the partitive in (155). As (157) below illustrates, *dont* does not cooccur with Q-*en*.

(157)   *Ces livres, dont j'en ai lu trois.
        these books, of-which I of-them have read three

4.2.3 Conclusion

The paradox can be resolved if we adopt the following idea. Partitive noun phrases can be attached in two different ways in the structure: as complement of a noun, or as adjuncts (cf. section 2.5 of the present chapter). Q-*en* does not have an inherent partitive interpretation and always stands for an NP within a DP: it may strand an adjunct partitive. The so-called Q-*dont* has an inherent partitive interpretation and must stand for an NP and its partitive complement. As a consequence, it cannot strand a partitive noun phrase. The distribution of Q-*dont* is thus explained as in 4.2.1, modulo the following difference: Q-*en* stands for a DP-internal NP and its partitive complement.

4.3 *En*-cliticization and past participle agreement

Let us first observe that there can be no past participle agreement with Q-*en*, as attested by the contrast between (158b) and (158c).

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[42]. The grammaticality (154) also seems to indicate that the determiners *plusieurs* and *certains* do not leave a null nominal head in situ, suggesting that they can be interpreted as determiners or as noun phrases, on a par with *un grand nombre* (a great number). This option is not available for other determiners, such as *beaucoup* or *trois*. Cf. section 6.4 on *la plupart*.

(158) a. J'ai écrit deux lettres.
I have written two letters

b. J'en ai écrit deux.
I of-letters have written two

c. *J'en ai écrites deux.
I of-them have written-agr two

As far as agreement is concerned, the sentence involving Q-*en* in (158b) behaves just like its counterpart in (158a), where the object remains in situ.

If we take overt morphological agreement on the past participle to indicate that the object has overtly moved to the specifier position of a functional projection higher than the verb, the ungrammaticality of (158c) indicates that Q-*en* never "travels" through the specifier of such a projection. If it did, we would expect it to trigger agreement. The absence of agreement thus confirms our analysis of *en*-cliticization as adjunction of the clitic to *v*.

With overt wh-movement of *combien*, agreement is optional, as shown in (159). Agreement is prohibited if *combien* remains in situ, as in (160).

(159) Combien en as-tu écrit(es)?
How many of-them have you written(agr)

(160) Tu en as écrit(*es) combien?
You of-them have written how many

Assuming that past participle agreement in French is triggered by the overt movement of the object through the specifier of a functional projection such as the Participial Phrase (PartP), we are led to the following conclusions. First, there are two possible derivations for (160), one with overt movement through PartP, and another without such movement. Second, agreement is not with *en*, but with *combien* or possibly *combien t*, as shown by the contrast between (159) and (160).

(161) illustrates the first possible derivation for (159), without agreement. (Carrying along the trace of *en* is optional for *combien*[43], and does not influence the account given here).

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[43]. Cf. section 4.1, fn. 37.

(161) a. [CP [TP tu as écrit   [combien en]]]

     b. [CP [TP tu en$_i$ as écrit   [combien t$_i$]]]

     c. [CP [combien t$_i$]$_j$ [TP tu en$_i$ as écrit t$_j$]]

I assume that the absence of agreement indicates that there is no movement of the object through PartP. (161a) represents the derivation after Merge, (161b) shows *en*-cliticization and (161c) wh-movement directly to [Spec, CP].

Conversely, the presence of agreement indicates that there is movement of [combien (t)] through PartP. This movement is optional and is not triggered by Case Checking requirements. (162) is the second possible derivation for (159).

(162) a. [CP [TP tu as écrit   [combien en]]]

     b. [CP [TP tu en$_i$ as écrit   [combien t$_i$]]]

     c. [CP [TP tu en$_i$ as [combien t$_i$] écrites]]

     d. [CP [combien t$_i$]$_j$ [TP tu en$_i$ as t'$_j$ écrites t$_j$]]

Movement of the remnant of *en*-cliticization [combien t]—or of *combien* itself—through PartP is possible only if the phrase is otherwise attracted to a higher position (in this case by wh-movement). As is well known, French does not allow any overt material in this position. This is the reason for the contrast between (158b) and (158c). Since [*deux t*] is forced to remain in situ (i.e., cannot move to PartP because nothing attracts it higher), there can be no agreement.

The derivation for (160) involves no movement through PartP. The remnant of *en*-cliticiatiu.i [combien t] remains in situ and the derivation stops at the step depicted in (162b). No agreement is triggered.

5. A natural extension to other Romance languages

There exist counterparts to French *en* in other Romance languages: Italian *ne* and Catalan *en*. Their distribution is similar to that of French *en*, with the notable exception of derived subjects: both Genitive and Quantitative *en/ne* are ungrammatical with derived subjects.

As we can see from the examples in (163) to (166) below, Italian and Catalan *ne/en* do not exhibit the asymmetry found in French with derived subjects. No type of *en* is allowed to appear with a source in derived subject position. (163) and (164) illustrate the impossibility

of finding the Genitive pronoun in the context of a raised subject; (165) and (166) show that the quantitative version of the pronoun is ungrammatical as well in that context[44].

(163)   *Molti capitoli ne appariranno   G-*ne*, Italian
         many chapters of-it appeared

(164)   *Tres volums en seran editats   G-*en*, Catalan
         three volumes of-it will be edited

(165)   ?* Tre ne sono stati pubblicati   Q-*ne*, Italian
         three of-them have been published

(166)   ?* Tres n'han estat publicats   ;   Q-*en*, Catalan
         three of them have been published   *i*

Recall from section 3 of this chapter that the French equivalent of (163) and (164) is perfectly grammatical, whereas the counterpart of (165) and (166) is not. For the sake of convenience I give the French examples once again in (167) and (168).

(167)   La préface en a été publiée.
         the preface of-it has been published

(168)   *Trois en ont été publiées
         three of-them have been published

Again these facts pose a serious challenge for ECP/Binding approaches. If the ECP/Binding explanation for the ungrammaticality of French Q-*en* in (168) may carry over to the ungrammaticality of Q-*ne/en* in (165) and (166), it is unclear how to reconcile the grammaticality of French G-*en* in (167) with the ungrammaticality of G-*ne/en* in (163) and (164). For instance, for Rizzi (1990), the key to the contrast in between (167) and (168) is the hypothesis that the trace of *en* is not head-governed in (168) when the subject reconstructs into its base position, whereas it is head-governed in (167). A possibility would be to bar reconstruction in (163) and (164), a solution that does not seem to be otherwise motivated. The same kind of reasoning holds for a Binding approach to these problems. Belletti and Rizzi (1981) concentrate on Italian Q-*ne* and propose that the ungrammaticality of (165) results from the absence of binding of the trace of *en*. The same solution could be applied to (163), but again this approach runs into problems given the behavior of French *en* in (167).

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[44]. The judgements indicate a slight difference in acceptability between (163) and (164) on the one hand, and (165) and (166) on the other hand. I will not provide an explanation for this difference, and the discussion abstracts away from it. Thanks to Michela Ippolito (for Italian) and Isabel Oltra Massuet (for Catalan) for their judgments.

In other words, the behavior of Italian *ne* and Catalan *en* with derived subjects, compared to the behavior of French *en* with derived subjects, creates a paradox for the ECP/Binding approaches. Any explanation for (163) and (164) will create problems for (167), and vice versa. It seems very difficult to get out of the paradox without a stipulative solution.

The remainder of this section is devoted to explaining how the Case theoretical approach explains the facts given in (163) to (168). The Case theoretical analysis advocated in this thesis explains the contrast between Catalan and Italian on the one hand and French on the other hand by appealing to an independent property that distinguishes the former from the latter: Italian and Catalan are Null Subject Languages (NSLs) whereas French is not. Note furthermore that not only is the NSL property (*pro*-drop) an independently established distinction between Italian/Catalan and French, but also if the proper account of en-cliticization really involves Case theory, *pro*-drop is exactly the property one would expect to be involved in explaining the contrast between NSLs and French.

The ungrammaticality of (163) and (164), compared to the grammaticality of (167), is very difficult to explain under the standard view that NSLs' preverbal subjects occupy [Spec, TP] (cf. Rizzi 1990, Burzio 1986, Belletti 1990 among others). However it has been argued by Barbosa (1995), (1997), and Contreras (1991) that preverbal subjects in (the Romance) NSLs are not in [Spec, TP]. If their view is correct, the whole set of facts observed in (163)-(168) follows, as I will show momentarily. I will first present Barbosa (1995) & (1997)'s view of preverbal subjects in NSLs.

For Barbosa, pre-verbal subjects may appear in two distinct configurations, illustrated in (169a) and (169b).

(169) *pre-verbal subjects in NSLs (Barbosa 1997)*

    a. [$_{TP}$ 'subject$_i$' [$_{TP}$ *pro$_i$* [$_{VP}$ V]]]

    b. [$_{CP}$ 'subject$_i$' [$_{TP}$ *pro* [$_{VP}$ t$_i$ V]]]

In the configuration depicted in (169a), the subject is adjoined to TP, and coindexed with the real argument of the verb, *pro* in [Spec, TP]. This is the configuration for non-focused pre-verbal subjects. In the structure given in (169b), the subject is base-generated VP internally and Focus-moved to [Spec, CP]. An expletive *pro* occupies [Spec, TP]. Pre-verbal subjects appearing in a structure like (169b) have a focused interpretation.

The crucial point for us is that no preverbal subject ever appears in [Spec, TP] in NSLs. From a Case theoretical point of view, this means that *pro*, be it argumental or expletive, is

the noun phrase that checks off the Case feature of T. With this in mind, we can return to the explanation of the examples presented at the outset of this section.

If *pro* occupies the Case position [Spec, TP], it is impossible for any subject to reach that position. As a consequence it is impossible for a remnant of any type (Q-*en* or G-*en*) to raise from its VP-internal position to [Spec, TP]. The absence of contrast between G-*en/ne* and Q-*en/ne* with raised subjects follows in a straightforward fashion.

If we adopt the specifics of Barbosa's proposal given in (169), we can make the following predictions with respect to the structures in which *en* should appear. A structure of the type of (169a) is not available for any type of *en*. In (169a), the subject is base-generated in a position adjoined to TP. Recall from section 3.2.3 that *en* cliticizes to *v*. From the TP adjoined position in (169a), cliticization would involve downward movement of the clitic; (169a) is thus not a possible structure for *en*-cliticization.

The only option available is for the remnants to be moved from the object position to the Focus position, i.e. to [Spec, CP]. The Focus position is not a Case position, and this movement should not be constrained in the same way as movement to [Spec, TP] is in French. As a consequence we expect both the remnants of G-*en/ne* and Q-*en/ne* to be allowed to be focus moved (an instance of A-bar movement)[45]. The prediction is borne out, as shown in (170) to (173).

(170)   L'AUTORE ne conoscevo (non l'editore)!   G-*ne*, Italian
       THE AUTHOR of-it know-1sg (not the editor)

(171)   TRES CAPITOLS en vaig llegir (i no pas quatre)! G-*en*, Catalan
       THREE CHAPTERS of-it have read (and not NEG four)

(172)   CINQUE ne sono stati pubblicati!   Q-*ne*, Italian
       FIVE of-them have been published (not three!)

(173)   CINC n'han estat publicats, no tres!   Q-*en*, Catalan
       FIVE of-them have been published (not three!)

I have shown in this section that a Case theoretical analysis of *en*-cliticization extends quite naturally to Catalan and Italian, and resolves the paradox faced by the ECP/Binding approaches.

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[45]. This may raise a problem since one of the characteristics of Q-*en* remnants in French is that they cannot be raised by QR, another case of A'-movement. In section 6 of this chapter I suggest that this property may be due to the fact that Q-*en* remnants never reach a Structural Case position. However if it is true that (169b) is an expletive construction, the problem raised by the possibility of A'-movement in (170)-(173) boils down to the general problem of A'-movement (notably wh-movement) of the associate in expletive constructions.

6. The interpretation of Q-*en* remnants: scope and definiteness restriction

The semantic properties of Q-*en* remnants contrast sharply with those of G-*en* remnants. As we have briefly seen in section 2.3, Q-*en* extraction is subject to a definiteness restriction, whereas no such restriction holds of G-*en* extraction. These facts have been noticed (cf. Milner 1978) but they have not received a lot of attention in the literature, and have not, to my knowledge, been given a satisfactory explanation. In addition to the definiteness restriction, the Q-*en* remnants exhibit another interesting semantic property that is not shared by G-*en* remnants: Q-*en* remnants must have narrow scope with respect to another scope bearing element. While the scope of G-*en* remnants is free, the scope of Q-*en* remnants is fixed. In this section I will present these two semantic properties of Q-*en* remnants, and show that a Case theoretical approach to *en*-cliticization makes the correct predictions for these contexts. More specifically I will argue that since G-*en* remnants never move out of the VP for the purpose of Structural Case checking (cf. section 3.2.2), they are always interpreted in their VP-internal position, and this forces them to have narrow scope. Section 6.1 is devoted to the presentation of the scopal interpretation of the remnants, and section 6.2 proposes an explanation for these facts. The Definiteness Restriction (DR) is discussed in 6.3. Section 6.4 discusses an apparent counterexample to the DR found with *la plupart* (most), and shows that *en* in this instance is genitive, not quantitative.

6.1 Narrow Scope for Q-*en* remnants: the facts

The scopal properties of Q-*en* and G-*en* remants can be described with the descriptive generalization given in (174).

(174)   G-*en* remnants have free scope. Q-*en* remnants have narrow scope only.

Before we look at the examples, a word of caution is in order. Indefinite noun phrases generally prefer to take narrow scope with respect to another scope bearing element. In order to show that some noun phrase (here Q-*en* remnants) cannot take wide scope, we have to construct contexts in which the wide scope interpretation is favored. In such contexts, a noun phrase which can take wide scope should be acceptable, although we may expect some 'noise' from the fact that it otherwise prefers to have narrow scope. A sentence containing a noun phrase that cannot take wide scope should be semantically odd in contexts that favor wide scope readings. Furthermore, since the descriptive generalization (174) regarding the scope of G-*en* and Q-*en* remnants is, to my knowledge,

a fact that has not been noticed before[46], I will go over the data in detail. With these two caveats in mind, we can turn to the relevant examples.

Let us consider the meaning of the examples in (175) and (176) in the following context. Suppose that Jean has cleaned a dress on which there were many stains. He has cleaned it fairly well, but he has missed one stain. In this context, (175) is fine, but (176) is not.

(175)   Jean n'a pas vu une tache.
         J. has not seen one stain.
         "Jean didn't see one stain."

(176)   # (Parlant de taches), Jean n'en a pas vu une.
         (Speaking of stains), J. of-them has not seen one.
         "Speaking of stains, Jean did not see one of them."

The context provided for the interpretation of (175) and (176) favors a wide scope interpretation for the object (*une tache*) over negation, i.e. the interpretation given in (177a). The narrow scope interpretation of the object with respect to negation, given in (177b), is incompatible with the context presented above, since we know that Jean has seen many stains on the dress.

(177)   a. There is one stain that Jean has not seen.

         b. It is not the case that John saw one stain. (John did not see any stain).

In other words, whereas (175) may be associated with a wide scope reading for the object, (176) cannot. The Q-*en* remnant in (176) only has narrow scope with respect to negation.

For the sake of completeness, let us see that the interpretation given in (177b)—the narrow scope interpretation for the object—is available in a context that does not presuppose the existence of many stains. Suppose that I gave my dress to Jean for him to clean off the stains off, but that in fact the dress is perfectly clean already. In that context, use either (178) or (179) is fine.

(178)   Jean n'a pas vu une tache sur ma robe.
         J. has not seen one stain on my dress
         "Jean did not see one stain on my dress."

(179)   (Parlant de taches), Jean n'en a pas vu une sur ta robe.
         (Speaking of stains), J. of-them have not seen one on my dress
         "(Speaking of stains), Jean did not see one of them on my dress."

The sentence in (178), as well as the sentence in (179), will be interpreted as in (177b) in that context. The objects in (178) and (179) take narrow scope with respect to negation.

To sum up so far, I have shown that Q-*en* remnants, contrary to their 'full' counterparts, must take narrow scope with respect to negation, another scope bearing element. The sentence given in (176) is unambiguous; it only has the interpretation given in (177b). On the other hand, full objects may take wide or narrow scope.

Let us now contrast the interpretation of Q-*en* remnants with the interpretation of G-*en* remnants. I will introduce here two different contexts, and show that the interpretation of a G-*en* remnant is free: it may take either wide or narrow scope. Context I involves a zealous student who presents almost every version of the chapters of his dissertation to his advisor. Context II involves an incorrigible procrastinator who generally writes one version of his chapters, the final one. A few weeks before the dissertation is due, the advisor can use (180b), in which *en* is genitive, in either context. (180a serves as a baseline).

(180)   a.   Je n'ai pas vu une version de ce chapitre.
            I have not seen one version of this chapter
            "I did not see one version of this chapter."

        b.   Je n'en ai pas vu une version.
            I have of-it not seen one version
            "I did not see one version of it."

The sentence in (180b) is ambiguous between a narrow scope reading and a wide scope reading for the object [*une version en*] with respect to negation. This is shown by the fact that (180b) can be used by the advisor in Context I or in Context II. Context I favors a wide scope reading for (180b), this reading is paraphrased in (181a). Context II favors the narrow scope reading of (180b), which is paraphrased in (181b).

(181)   a.   There is a version of it which I haven't seen.

        b.   It is not the case that I have seen a version of it.
            (I haven't seen any version of it).

This state of affairs clearly shows that, contrary to Q-*en* remnants, G-*en* remnants may take wide or narrow scope with respect to another scope bearing element. The sentence given in (182b), which contain Q-*en*, is unambiguous and may only be used in Context II.

(182)   a.   Je n'ai pas vu une version de ce chapitre.
            I have not seen one version of this chapter.
            "I did not see one version of this chapter."

b. Je n'en ai pas vu une.
   I of-them have not seen one.

The Q-*en* remnant in (182b) only has the narrow scope reading paraphrased in (181b).

We have seen so far that G-*en* has free scope with respect to negation, whereas Q-*en* must take narrow scope. In order to show that the observation holds more generally, I will present here, somewhat more briefly, other contexts which show that G-*en* remnants exhibit a scopal ambiguity whereas Q-*en* remnants do not.

With respect to the frequency adverbial *souvent* (often) the same scope facts obtain: G-*en* remnants may have wide or narrow scope, Q-*en* remnants must have narrow scope. This is shown by the interpretations available for the sentences given in (184a) and (184b) below, (183) being the baseline.

(183)   Nicolas a souvent lu trois chapitres de ce livre avant de s'endormir.
         N. has often read three chapters of this book before falling asleep
         "Nicolas often read three chapters of this book before falling asleep."

(184) a. Nicolas en a souvent lu [trois chapitres t] avant de s'endormir.
          N. of-it has often read three chapters before falling asleep
          "Nicolas often read three chapters of it before falling asleep."

       b. Nicolas en a souvent lu [trois t] avant de s'endormir.
          N. of-them have often read three before falling asleep.
          "Nicolas often read three of them before falling asleep."

In (184a), G-*en* resumes the complement of *chapitres*. The sentence is ambiguous and the object may have wide or narrow scope with respect to *souvent*, i.e. the two readings paraphrased in (185a) and (185b) respectively. One the other hand (184b), in which Q-*en* resumes the head noun (and its complement), is unambiguous. The object can only be interpreted as having narrow scope; the only interpretation available for (184b) is (185b).

(185) a. There are three chapters of it which Nicolas has often read.

       b. It has often been the case that Nicolas read three chapters of this book.

Another test for the scope of G-*en* and Q-*en* remnants is provided by verbs like *décider* (to decide). Let us assume the following context[47]. Maxime wants to familiarize herself with a certain topic, and buys a huge book which contains 12 chapters. After looking at the table of contents, she makes the following decision: she will read 4 chapters that really interest her, namely chapters 2-5; and she will also read two other chapters for a total of 6. In that

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[47]. The logic of the test is borrowed from Fox (1998: 146-147)

context, we get the results in (186) and (187) for G-*en* remnants and Q-*en* remnants respectively.

(186) a. ?Maxime a décidé d'en lire [quatre chapitres t].
M. has decided to of-it read 4 chapters
"Maxime decided to read four chapters of it."

b. Maxime a décidé d'en lire [six chapitres t].
M. has decided to of-it read 6 chapters.
"Maxime decided to read six chapters of it."

(187) a. #Maxime a décidé d'en lire [quatre t].
M. has decided to of-them read four
"Maxime decided to read four of them."

b. Maxime a décidé d'en lire [six t].
M. has decided to of-them read six
"Maxime decided to read six of them."

The interpretation paraphrased in (188a) corresponds to a wide scope reading for the object over *décider*. The interpretation given in (188b) corresponds to a narrow scope reading for the object.

(188) a. There are four chapters which Maxime has decided to read.

b. Maxime has decided to read a certain number of chapters. This number is 6.

As we can see, (187a), with Q-*en*, is uninterpretable since *quatre* can only point to the wide scope reading given in (188a), a reading that is not available for Q-*en* remnants. This fact shows once again that Q-*en* remnants must take narrow scope. On the other hand (186a) and (186b) are both acceptable, (186a) corresponding to the wide scope reading[48] and (186b) to the narrow scope reading.

I have shown in this section that G-*en* and Q-*en* remnants radically differ in their scopal properties. Whereas G-*en* remnants behave like any otherquantified noun phrase in being free in thier scope taking, Q-*en* remnants have a fixed, obligatorily narrow scope. In the next section I show how the analysis developed here predicts the fixed scope of Q-*en* remnants.

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48. Regarding the (?) associated with (186a), it could be attributed to the fact that indefinite noun phrases prefer to take narrow scope. I suspect that it might also be related to a pragmatic factor. Since (186a) is ambiguous between a wide and a narrow scope reading for the object [quatre chapitres t], it also conveys the information that Maxime has decided on a certain number of chapters that she wants to read, i.e. four chapters (the narrow scope reading of (186a)). Although under that reading the sentence is strictly speaking true, it does not convey all the information relevant in the context of utterance. It thus violates Grice's maxim of Quantity.

6.2 A contrast predicted by the Case-theoretical analysis

In this section I will show that the contrast in the scope properties of G-*en* remnants and Q-*en* remnants is in fact predicted, under fairly standard assumptions, by the Case theoretical analysis developed in this thesis. I will show that, as a consequence of the proposal made in section 3, Q-*en* remnants do not move out of the VP for Case checking. I will argue that this state of affairs makes them 'invisible' to QR. As a result they will be interpreted in situ, and have narrowest scope.
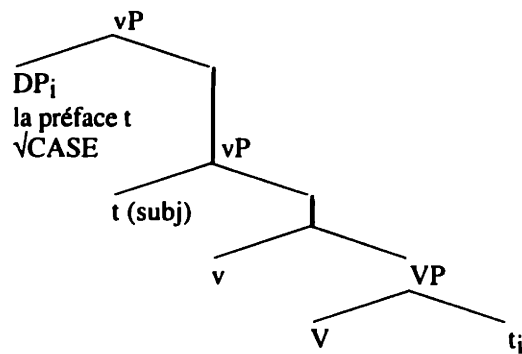
In section 3.2.2 I have briefly presented the consequences of a Case checking approach to *en*-cliticization for the objects of transitive verbs. The proposal put forth in section 3 to explain the contrast between G-*en* and Q-*en* with raised subjects was that G-*en* remnants contain a Case feature, whereas Q-*en* remnants do not. As a consequence G-*en* remnants can and must raise to [Spec, TP] as derived subjects, but Q-*en* remnants cannot raise to [Spec, TP] as derived subjects. They lack a Case feature and Case checking cannot take place.

The proposal forces a strictly parallel treatment of G-*en* remnants and Q-*en* remnants when they appear as objects. The Case of objects is usually assumed to be checked outside VP in the Specifier of a functional projection (AgrO, or small *v*). For concreteness I will assume that structural Case is checked in the outer specifier of small *v*. Given the different Case properties of G-*en* remnants and Q-*en* remnants, the following situation obtains. G-*en* remnants, having a Case feature, move out of the VP and check Case in [Spec, *v*P] at LF. On the other hand Q-*en* remnants, lacking a Case feature, do not move out of the VP for the purpose of Case checking. As far as Case is concerned, Q-*en* remnants are trapped within the VP.

I will illustrate the LF configurations associated with G-*en* remnants and Q-*en* remnants for the sentences in (189) and (190) below.

(189)   Jean en a lu [la préface t]   (G-*en*)
        J. of-it has read the preface
        "Jean read its preface."

(190)   Jean en a lu [trois t]   (Q-*en*)
        J. of-them has read three
        "Jean read three of them."

The (relevant part of the) LF configuration in which G-*en* remnants are found is given in (191).

(191) G-*en* remnant at LF

```
                vP
        _____|____
      DPᵢ           |
      la préface t  |
      √CASE        vP
              _____|_____
           t (subj)        |
                    _____|_____
                   v              VP
                         _____|_____
                        V                  tᵢ
```
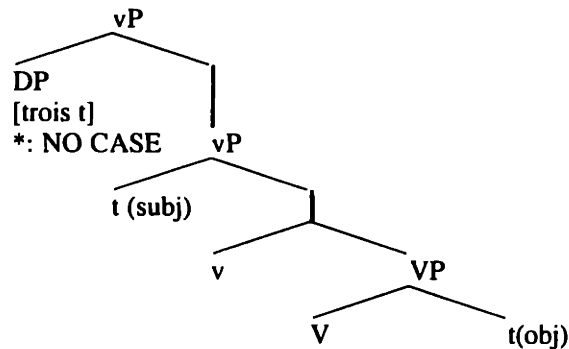
As illustrated in (191), the Q-*en* remnant [la préface t] moves out of the VP at LF. It contains a Case feature, and it must check Case against *v*. This operation is performed via covert movement of the remnant (and represented by √CASE in the structure).

The structure in (192) below illustrates the configuration in which Q-*en* remnants appear at LF.

(192) G-*en* remnant at LF

```
              vP
       _____|____
     t(subj)      |
             _____|_____
            v            VP
                   _____|_____
                  V              DP
                              [trois t]
```
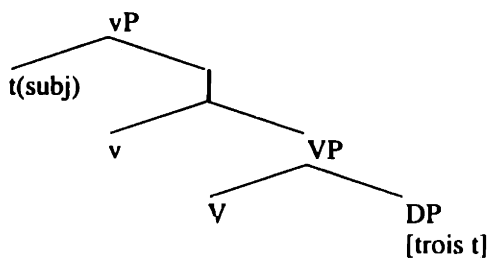
Contrary to G-*en* remnants, Q-*en* remnants do not contain a Case feature. They do not move out of the VP to check Case, and they never reach [Spec, *v*P]. Recall from section 3.2.4 that the case of Q-*en* remnants is checked via adjunction of the clitic to *v*. Raising the remnant to [Spec, *v*P] is unmotivated, the remnant lacks Case and no Case can be checked in this position. The Case feature of *v* and the Case feature of the object have already been checked via Q-*en* cliticization. The structure given in (193) below, which is parallel to the structure associated with G-*en* remnants at LF, is thus ill-formed for Q-*en* remnants. Again, such remnants cannot reach the [Spec, *v*P] position.

(193) Ill-formed LF for Q-*en* remnants.

```
            vP
         ___/\
     DP          |
   [trois t]      |
   *: NO CASE    vP
            ___/\
        t (subj)    |
            __/\
          v      VP
            __/\
          V      t(obj)
```

In (193) the Q-*en* remnant has moved out of the VP to [Spec, *v*P]. But this movement is totally unmotivated: neither the remnant nor *v* has Case features. No checking operation can take place in this configuration.

Is it possible to derive the different scopal properties of Q-*en* remnants and G-*en* remnants from the LF given above in (191) and (192)? There are two approaches to scope that could equally derive these facts, the QR approach (May 1977, 1985), and Hornstein (1995)'s Case approach.

The scope ambiguities of noun phrases is usually attributed to an LF "rule" of Quantifier Raising, (QR, cf. May 1977). QR covertly assigns relative scope to noun phrases by moving them and adjoining them to TP. QR is an instance of A-bar movement, and as such is assumed to proceed from a Case position (Chomsky 1981, Chomsky and Lasnik 1993). In a model in which Case is not assigned but checked, and in which Case features are deleted upon checking, it may be more difficult to identify what a 'Case position' is. Moreover, Case is checked for both G-*en* and Q-*en* objects, but only G-*en* remnants check Case by movement to the Specifier of a functional projection. It is that latter position that we want to identify as the Case position from which QR can proceed. The position of G-*en* remnants is a Case position in the relevant sense, whereas the position of Q-*en* remnants, i.e. their VP-internal base position, is not a Case position for the purpose of QR[49]. If this is so, G-*en* remnants are visible to QR, but Q-*en* remnants are 'invisible' to QR. They are not in a position from which QR can proceed. As a result, they are not subject to the rule,

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[49]. As far as QR is concerned, the hypothesis that A-bar movement targets a noun phrase in a Case position correctly derives the scope facts. However, it is too strong in the case of *combien* movement without pied-piping, but this is an independent problem. It is also too strong in the case of Focus movement of Q-*ne/en* movement in Italian and Catalan in expletive constructions, as discussed in section 5 and footnote 37. I will not try to solve this problem here. Other instances of A-bar movement do not seem to necessarily target a DP in a Case position, but QR must do so.

they will be interpreted in situ, and will have narrow scope with respect to another scope bearing element.

Another approach to the scopal interpretation of noun phrases has been put forth by Hornstein (1995). Hornstein proposes to dispense with the QR rule altogether. He proposes instead that the positions in which a quantified noun phrase can be interpreted correspond to the positions that it occupies in an A-chain. Consider the sentence given in (194).

(194)   Someone attended every seminar.   (Hornstein 1995:155)

The sentence in (194) is associated with the LF representation given in (195), (in which I used copies instead of traces, for ease of exposition).

(195)   [TP someone [vP every seminar [vP someone [VP attended every seminar]]]]

As Hornstein points out, there are in principle four possibilities for the interpretation of the LF in (195). I give them below in (196). The boldface indicates the position in which the noun phrase is interpreted.

(196)   a.[TP **someone** [vP **every seminar** [vP someone [VP attended every seminar]]]]

　　　　b. [TP **someone** [vP every seminar [vP someone [VP attended **every seminar**]]]]

　　　　c. [TP someone [vP every seminar [vP **someone** [VP attended **every seminar**]]]]

　　　　d. [TP someone [vP **every seminar** [vP **someone** [VP attended every seminar]]]]

(196a) is the interpretation in which *someone* has scope over *every seminar*. (196d) is the interpretation in which *every seminar* has scope over *someone*. The representations in (196b) and (196c) are excluded independently: the universally quantified noun phrase *every seminar* cannot be interpreted inside the VP, under Diesing (1992)'s Mapping Hypothesis.

If we apply Hornstein's proposal to the facts at hand, the correct results obtain in a straightforward fashion. Q-*en* remnants, according to our proposal, never move out of the VP: they are still in their base position at LF. Consequently, this position is the only position in which they can be interpreted, and this forces them to have narrow scope.

In this section, I have shown that the restricted scopal properties of Q-*en* remnants follow from the proposal made in this thesis. Q-*en* do not move out of the VP to check Case, they stay in their base position. I have presented two approaches to the treatment of the scopal properties of noun phrases (May 1977/Chomsky 1981, Hornstein 1995), and I have

shown that under either approach, the restricted scope of Q-*en* remnants follows. If one adopts Chomsky (1981)'s condition on A-bar movement, Q-*en* remnants do no undergo QR because they do not occupy a Case position. If one adopts Hornstein's Case theoretical approach, Q-*en* remnants never have wide scope since they never leave the VP. There is only one position where they can be interpreted in an A-chain: their base position.

In the next section we will see how the same kind of reasoning derives the Definiteness Restriction on Q-*en* cliticization.

6.3 Definiteness Restriction

As I have already mentioned in section 2.3, Q-*en* extraction is subject to a definiteness restriction (DR) which does not hold of G-*en* extraction. In this section the DR observed with Q-*en* extraction will be shown to follow from the Case theoretical analysis of Q-*en* extraction proposed in this thesis.

As has been seen before, G-*en* extraction is perfect from a definite noun phrase, whereas Q*en* extraction is not. This is shown for Q-*en* by the contrast between (197) and (198) below.

(197)   a.   Pierre en a lu trois
             P. of-them has read three
             "Pierre read three of them."

        b.   Pierre en a lu beaucoup
             P. of-them has read a-lot
             "Pierre read a lot of them."

        c.   Pierre en a lu plusieurs
             P. of-them has read many
             "Pierre read many of them."

(198)   a.   *Pierre en a lu les trois
             P. of-them has read the three
             "Pierre read the three of them."

        b.   *Pierre en a lu tous
             P. of-them has read all
             "Pierre read all of them."

        c.   *Pierre en a lu chaque/chacun
             P. of-them has read each
             "Pierre read each of them".

For G-*en* no such contrast holds, and G-*en* extraction is felicitous from both definite and indefinte noun phrases. This is shown in (199) and (200) below.

(199) a. Jean en a écrit trois versions différentes.   (en=de cet article)
          J. of it has written three version different   *en=of this article*
          "Jean wrote three different versions of it."

      b. Jean en a écrit beaucoup de versions.
          J. of-it has written a-lot of versions
          "Jean wrote a lot of versions of it."

      c. Jean en a écrit plusieurs versions.
          J. of it has written many versions
          "Jean wrote many versions of it."

(200) a. Jean en a écrit la préface.   (en=de ce livre)
          J. of-it has written the preface   *en=of this book*
          "Jean wrote its preface."

      b. Jean en a supervisé toutes les étapes.   (en=de ce projet)
          J. of-it has supervised all the stages   *en=of this project*
          "Jean supervised all the stages of it."

      c. Jean en a supervisé chaque étape.
          J. of it has supervised each stage
          "Jean supervised each stage of it."

The observation here is thus that Q-*en* presents a strong definiteness restriction, whereas G-*en* does not. Can we explain the DR observed with Q-*en* ?

The case theoretical analysis derives the DR observed with Q-*en* in the following way. Q-*en* remnants do no move out of the VP, as I have amply discussed in the previous sections. They occupy their base position at LF and are interpreted in that position. If we assume, with Diesing (1992), that strong determiners (such as the definite *les*, the universal quantifier *tous*, etc.) can only be interpreted in a VP-external position, the DR observed with Q-*en* extraction follows. Q-*en* objects must be interpreted in situ. As a consequence, Q-*en* can only appear with determiners that are interpretable in that position, namely the weak determiners. Q-*en* cannot appear with strong determiners because it forces the determiners to be interpreted VP internally, a position in which strong determiners are not interpretable.

G-*en* extraction on the other hand is not subject to a Definiteness Restriction. This is predicted by the analysis: G-*en* remnants check Case out of the VP (as in (191). G-*en* remants do not force the determiner to be interpreted in the base position and are compatible with any determiner.

6.4 An apparent counter-example to the DR: *la plupart*

There exists an (apparent) counterexample[50] to the observation that Q-*en* can be extracted only from indefinite noun phrases (201).

(201) a. J'ai lu la plupart de ces livres.
         I have read the most-part of these books
         "I read most of these books"

   b. ?J'en ai lu la plupart.
         I of them have read the most-part
         "I read most of them."

Here the determiner used is *la plupart* (most), which is a strong determiner. The analysis predicts that such a determiner cannot be stranded by Q-*en*: the only determiners that can be stranded by Q-*en* are the so-called weak determiners, because they can be interpreted without being moved out of the VP.

I will show that (201b) is not a counterexample for the analysis; rather, (201b) is an instance of G-*en*, and not Q-*en*, and the determiner *la plupart* in (201b) is reanalyzed by the speakers as involving a nominal head.

The morphology of *la plupart* is still transparent to the speakers of French: the determiner is made up of the definite article *la*, the comparative morpheme *plus* and the noun *part*. Although *la plupart* is used as a determiner, and not as a noun, the marginal acceptability of (201b) seems to be attributable to a reanalysis of the determiner into its component parts: *la plus (grande) part* ("the most part/the biggest part"). If this is so, the remnant is analysed as being not a stranded determiner, but rather a determiner and a modified head noun (namely *part*). as a consequence, the *en* in (201b) is an instance of G-*en*, and it leaves a head noun in the remnant. The head noun can move out of the VP (covertly in this case) and check its Case features against a functional projection above VP.

One independent argument supporting the view that (201b) is not a counterexample but rather an instance of G-*en* comes from the agreement patterns observed with *la plupart*. First, *la plupart* when used as a determiner does not trigger agreement with the tensed verb; it is the head noun within the whole phrase that triggers agreement, as shown in (202).

(202)   La plupart de ces livres sont/*est intéressants.
         *the most-part of these books are/*is interesting*

"Most of these books are interesting."

Like with other quantifiers, it is possible to omit the head noun in subject position (203), but not in object position (204)[51].

(203) a. La plupart sont intéressants
           Most are interesting

       b. Seulement trois sont intéressants
           Only three are interesting

       c. Beaucoup sont intéressants
           Many are interesting

(204) a. *J'ai lu la plupart
           I have read the mostpart

       b. *J'ai lu trois
           I have read three

       c. *J'ai lu beaucoup[52]
           I have read a-lot

La plupart is therefore on a par with other determiners with respect to the subject/object asymmetry and with respect to agreement. Agreement on the tensed verb is determined by the elided noun.

How does the remnant behave when *en* is extracted? If the hypothesis that the determiner is reanalyzed as a head noun is correct, it should be able to raise (although we expect that the sentence may be degraded), and agreement should be with the head noun *part*. On the other hand, if *la plupart* is a determiner, it shouldn't be allowed to raise, and if for some reason it does, agreement should be with the elided noun. The facts support the idea that *la plupart* is reanalysed as involving a head noun. It is allowed (although marginally) to raise, as shown by (205c), and agreement must be with the noun *part*, not with the elided noun, as attested by the contrast between (205c) and (205d). (205a serves as a baseline).

(205) a. Jean a publié la plupart de ces manuscrits.
           J. has published the most-part of these manuscripts
           "Jean published most of these manuscripts."

       b. ?Jean en a publié la plupart
           J. of-them has published the most part
           "Jean published most of them."

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[51]. Cf. section 2.4.2 and 3.2.4.

[52]. Where *beaucoup* is the determiner, not the adverb. Cf. chapter 3.

c. ??La plupart en a été publiée.
   the most-part of-them have-sing been published-fem-sing

d. *La plupart en ont été publiés.
   the most-part of them have-pl been published-masc-pl

The contrast between (205c) and (205d) shows that when *en* is extracted from a noun phrase introduced by *la plupart*, subject agreement is with the 'determiner', thereby showing that it is reanalysed as a head noun.

If we replace *la plupart* with a true noun phrase (such as *la plus grande partie*), we get exactly the pattern of G-*en*: *en* can be extracted, the remant can raise and agreement is with the head noun:

(206) a. La plus grande partie de ces manuscrits a été publiée.
          The most big part of these manuscripts have-sing been published-fem-sing
          "The major part of these manuscripts have been published."

       b. La plus grande partie en a été publiée.
          the most big part of-them have-sing been published-fem-sing

       c. *La plus grande partie en ont été publiés.
          the most big part of-them have-pl been published-masc.pl

We can therefore conclude that the counter-example to the definiteness restriction on Q-*en* extraction is only apparent. When *en* is extracted and strands *la plupart*, the determiner is reanalysed a a noun phrase. *En* extraction in that case is thus an instance of G-*en*, and it exhibits the properties of G-*en* extraction: it is not subject to the DR.

Chapter 3

Quantification at a distance and Case

1. Introduction

In the previous chapter we have seen that French possesses a construction which extracts the head noun of a DP, namely Q-*en* cliticization. We have seen that sentences with Q-*en* cliticization exhibit two important properties. First, the remnant DP left in object position is frozen with respect to A-movement. In contrast to G-*en*, Q-*en* is never found with a raised subject. Second, the scope of the remnant is frozen as well. The remnant of Q-*en* cliticization cannot take wide scope over another scope bearing element. Its scope is limited to its base position.

I have proposed an explanation for these facts: the head noun of the DP is the locus of Case features. When Q-*en* is extracted, it carries away the Case feature of the DP and the remnant is left without a Case feature. The absence of a Case feature in the remnant renders it inactive for the purpose of A-movement. The scope of the DP is fixed in its base position because it never leaves the VP for the purpose of Case checking.

The topic of this chapter is a different case of DP-splitting: Quantification at a distance[1]. The phenomenon of Q-*en* extraction discussed in the previous chapter raises an empirical question. If it is possible to split a DP by extracting its nominal head, is it possible to split it the other way around? Is it possible to extract a determiner from a noun phrase and if so, do we find similar consequences with respect to A-movement and interpretation? I will argue that the Quantification at a distance (QAD) construction in French is exactly a case of this type. It involves movement of a determiner, and the remnant of QAD exhibits the two key properties we have identified for Q-*en* extraction. As was noted by Kayne (1975), (1981), the remnant cannot raise to an A-position (there is a subject/object asymmetry). Furthermore, as was noted by Haïk (1982), the scope of the remnant is limited to its base

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[1]. An earlier version of the material presented in this chapter was presented at the 29th Linguistic Symposium on Romance Languages (LSRL 29), at the University of Michigan, Ann Arbor (April 1999). See Boivin (1999).

position. Given that Q-*en* remnants and QAD remnants have the same key properties, it seems desirable to provide a unified analysis of the two phenomena in terms of Case.

Regarding QAD, I will propose an analysis along the following lines: the determiner of the internal argument moves out independently of the rest of the DP, and lands in the vicinity of the (non-finite) verb. As a result the object in QAD has an deficient structure: $[_{DP} \ t \ [_{NP} \ N \ ]]^2$.

I will propose in this chapter that in order for a DP to check Case by movement to the specifier of a functional projection, the DP must be a "full DP". It must contain both a determiner and a noun. If a DP lacks either D or N, it is deficient and cannot check Case by movement to the specifier of a functional projection. We will see that this hypothesis explains the subject/object asymmetries observed in QAD, and accounts for some facts that are problematic for ECP treatments. I will also show that the hypothesis explains the obligatory narrow scope for the object. The analysis is a refinement of the Case-theoretical analysis presented in chapter 2 for *en*-cliticization, and it unifies the two phenomena.

This chapter is organized as follows. I present in section 2 the basic facts and problems raised by Quantification at a distance in French. Section 3 is devoted to Case checking: I develop the idea that a DP must be "full" in order to check Case, propose a specific technical implementation of the idea and explain how it applies to the facts at hand. Finally in section 4 I show that the Case-theoretical approach predicts, just as was the case with Q-*en* remants, the obligatory narrow scope of QAD-objects.

2. A preliminary detour: the abc's of QAD.

The example in (1b) illustrates the well known Quantification at a distance construction in French (QAD, cf. Obenauer 1984/85).

(1) a. Jean a lu beaucoup de livres.
   J. has read a-lot of books
   "Jean read a lot of books."

  b. Jean a beaucoup lu de livres.
   J. has a-lot read of books
   "Jean read a lot of books/Jean read books a lot."

---

2. For the analysis presented in section 3 of this chapter, it is not necessary that the deficient object be created by *movement* of the determiner. It could also be base-generated, as long as it is "deficient" in the sense of section 3. As I show in section 2.3 of this chapter, a movement analysis of QAD is independently motivated.

There is general agreement (cf. Kayne 1975, 1981, Obenauer 1984/84, 1994, Rizzi 1990, Doetjes 1997) to the effect that the object (henceforth the QAD object) in (1b) contains an empty element and must minimally be associated with a structure like (2).

(2)   [e de livres]

One question regarding (2) is whether it is base-generated or created as a result of the movement of *beaucoup*. I will discuss this question in the next sections, and present new facts supporting a movement analysis of QAD. However a movement analysis for QAD is not crucial for the proposal developed in section 3 of this chapter. What is crucial for the analysis is that (2) is a deficient structure. More specifically I will argue in section 3 that noun phrases of the form given in (2) cannot check Case by movement to the Specifier of a functional projection: the extraction of their determiner renders such noun phrases deficient and unable to check Case[3].

Before we turn to the heart of this chapter, I will present in section 2.1 the basic facts regarding QAD as well as some of the issues that it raises. In section 2.2 I motivate the existence of adverbial and adnominal *beaucoup*. In section 2.3 I present the standard arguments for movement and base-generation analyses of QAD, as well as two new arguments in favor of a movement analysis of QAD. Again, the movement analysis seems to be independently motivated for QAD, but it is not crucial to assume a movement analysis in order to apply the logic of this thesis to the distribution of QAD objects.

2.1. An introduction to QAD: Basic facts and issues

Examples like (3) are called Quantification at a distance (QAD) constructions, a term due to Obenauer (1984/85).

(3)   Jean a beaucoup lu de livres
           J. has a-lot read of books
           "Jean read books a lot/Jean has read a lot of books"[4]

Alongside (3) is the example in (4), where *beaucoup* appears in a prenominal position. I will refer to *beaucoup* in (4) as adnominal *beaucoup*.

(4)   Jean a lu beaucoup de livres
           J. has read a-lot of books
           "Jean read a lot of books"

---

[3]. The technical implementation of the idea is presented in section 3.2.4 of this chapter.

[4]. The exact meaning of (3) is a matter of debate (cf. for instance Obenauer 1984/85, Obenauer 1994, Doetjes 1997, and §2.3.3.1 of the present chapter). The translations given for (3) should be considered as an approximation of the meaning of the sentence.

The availability of (3) and (4) poses an immediate question: are the two sentences related one to the other by movement of *beaucoup*? The question is raised in view of the existence of sentences like (5), in which *beaucoup* seems to function as an adverb, and not as a determiner.

(5)   Jean a beaucoup ri
        J. has a-lot laughed
        "Jean laughed a lot"

The QAD construction illustrated in (3) exhibits properties of both (4) and (5). The position of *beaucoup* in (3) is preverbal, just like in (5). On the other hand *beaucoup* in (3) seems to range over books, bringing (3) in line with (4). Adnominal and adverbial *beaucoup* are presented and distinguished in section 2.2.

Since Kayne (1975), it is generally assumed that there is an empty category inside the object of a QAD construction (cf. Kayne 1975, 1981, Obenauer 1984/84, 1994, Rizzi 1990, Doetjes 1997). Kayne's argument to that effect was the following: the detachment construction illustrated in (6) exhibits an overt *de* whereas the corresponding noun phrase *trois frères* in (7) does not.

(6)   Il en a trois, de frères.
        He of-them has three, of brothers
        "He has three (of them), brothers that is."

        (Kayne 1975:30 (61)).

(7)   Il a trois frères.
        "He has three brothers".

The detachment construction in (6) is taken as evidence for the presence of an underlying *de* in *trois frères*[5], the underlying phrase being *trois de frères*. By analogy there might be an underlying empty element of the type of *trois* in phrases with an overt *de*, like *de livres* in (3). The sentence in (3) would therefore minimally be associated with the (partial) representation in (8).

(8)   Jean a beaucoup lu [*e* de livres]
        Jean has a-lot read [*e* of books]

If one assumes the presence of an empty category within the object, two analyses of (3) suggest themselves: a movement analysis and a base-generation analysis. Under a movement analysis, the empty category in (8) is a trace left by the movement of adnominal

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[5]. Kayne attributes the argument to Gross (1968) and Langacker (1966).

beaucoup[6]. Under the base-generation analysis, the empty category is generated from the start inside the noun phrase, and it is bound by adverbial *beaucoup*, itself base-generated in an adverbial position. The comparison between movement and base-generation approache to QAD constitutes the topic of section 2.3.

The phenomenon of quantification at a distance is not limited to *beaucoup*, but extends to a whole class of lexical items. A partial list of the members of the *beaucoup*-class is given in (9).

(9)   The *beaucoup*-class (partial list)

beaucoup (a lot/many), *assez* (enough), *trop* (too much), *peu* (little), *autant* (as many/much), *à peine* (hardly), *davantage* (more), *énormément* (enormously), etc.

Examples are given in (10) and (11) to illustrate the distribution of some members of the *beaucoup*-class other than *beaucoup*. The elements of the *beaucoup*-class have the same distribution as *beaucoup*: they may be adnominal (a), appear in QAD constructions (b) or be used as adverbs (c).

(10)   a.   Conan Doyle a écrit énormément de nouvelles.
             C. D. has written enormously of short-stories
             "Conan Doyle wrote a tremendous number of short stories."

        b.   Conan Doyle a énormément écrit de nouvelles
             C.D. has enormously written of short-storie

        c.   Conan Doyle a énormément écrit.
             C.D. has enormously written
             "Conan Doyle wrote an enormous amount."

(11)   a.   Pierre a mangé trop de cornichons
             P. has eaten too-many of pickles
             "Pierre ate too many pickles"

        b.   Pierre a trop mangé de cornichons.
             P. has too-much eaten of pickles

---

[6]. Note that under a movement analysis one does not have to accept the validity of the hypothesis underlying the argument given by Kayne in favor of an empty category in (1), i.e. the idea that noun phrases like *trois frères* contain an underlying *de* (trois de frères). A theory-internal argument in favor of an empty category in (1) comes from the fact that positing this empty category allows one to derive the distribution of noun phrases like *de livres* by using the ECP (cf. Kayne 1981, Gorgi and Longobardi 1991 for ECP accounts, and Obenauer 1984/85 for a 'binding' approach). The ECP analyses will be discussed in section 3.2.1 and 3.2.2.

c. Pierre a trop mangé.
P. has too-much eaten
"Pierre ate too much"

Following the usage of the literature on this topic, I will use *beaucoup* as the representative of its class, but everything that is said of *beaucoup* holds of the other members of the class.

2.2 Adverbial and adnominal *beaucoup*

In this section we will review the arguments that justify positing an adverbial and an adnominal *beaucoup*. I will conclude this section by presenting my proposal regarding the structure of DPs containing adnominal *beaucoup*.

I have assumed in the previous section that *beaucoup* and members of its class can function adnominally and adverbially. In this section I will briefly justify this position (although it may seem obvious) and show that we do indeed need to assume two uses of *beaucoup*, one adnominal and the other adverbial.

One could think that *beaucoup* in (12) below is an adverb following the verb and preceding the object, a possible word order in French[7].

(12)   J'ai lu beaucoup de livres
        I have read a-lot of books
        "I read a lot of books."

(13)   J'ai trouvé facilement la solution.
        I have found easily the solution
        "I easily found the solution."

If *beaucoup* were an adverb in (12), we would expect it to be optional. As shown in (14) *beaucoup* is not optional in a sentence like (12) and *de livres* is not licensed in the absence of *beaucoup*. *Facilement* on the other hand is optional in a sentence like (13), as shown by the grammaticality of (15).

(14)   *J'ai lu de livres.
        I have read of books

(15)   J'ai trouvé la solution.
        I have found the solution
        "I found the solution."

---

7. Cf. for instance Rochette (1990, 1991). The adverb may also appear VP-finally (*J'ai trouvé la solution facilement*), and before the past participle (*J'ai facilement trouvé la solution*).

It thus seems clear that *beaucoup* in (12) functions as a determiner, in the sense that it allows an NP to become the argument of the verb. Moreover *beaucoup de livres* behaves as a constituent: as shown in (16) it can raise to subject position, which is not the case of *facilement la solution* (pronounced without a pause between *facilement* and *la solution*), as is attested by (17).

(16)   Beaucoup de livres ont été vendus cette semaine.
a-lot of books have been sold this week
"A lot of books were sold this week."

(17)   *Facilement la solution a été trouvée.
easily the solution was found

Beaucoup in (12) is therefore clearly in relation with a noun, and not with a verb. It functions as a determiner and turns an NP into an argument. We can thus conclude from the preceding discussion that there must be an adnominal *beaucoup* in the lexicon of French.

We now turn to evidence that an adverb is independently needed. We have established that there is an adnominal *beaucoup*, and we know from the existence of QAD that at least apparently adnominal *beaucoup* can appear pre-verbally. It could therefore be that all occurences of *beaucoup* involve adnominal *beaucoup* and that whenever *beaucoup* appears to be an adverb, it is in fact extracted from an object.

The examples in (18) and (19) constitute prima facie evidence against the idea that *beaucoup* and the members of its class are always adnominal.

(18)   a.   Jean a beaucoup ri
J. has a-lot laughed
"Jean laughed a lot."

          b.   Jean a ri beaucoup
J. has laughed a lot
"Jean laughed a lot."

(19)   a.   Jean a beaucoup marché
J. has a-lot walked
"Jean walked a lot."

          b.   Jean a marché beaucoup
J. has walked a lot.
"Jean walked a lot."

The verbs used in (18) and (19) are intransitive (unergative): they only have an external argument. Given the grammaticality of (18) and (19), it is already more difficult to argue

that *beaucoup* always originates from the object position of the verb. However, as Doetjes (1997) points out, if one follows Hale and Keyser's (1993) theory of argument structure it could still be possible to maintain that *beaucoup* always originates from an object . Hale and Keyser (1993) argue that unergative verbs such as *laugh* or *walk* are derived by incorporation of the head of their object into a verbal head. Under this view, examples like (18) and (19) could be derived as in (20).

(20)   Jean a riv_{+Ni} [beaucoup [$_{NP}$ t_i]]

In (20) the verb is created by movement of the nominal head into a verbal head. The verb thus has an object, and one could argue that the *beaucoup* is generated within this object.

A second argument in favor of a purely adverbial *beaucoup* comes from the paradigm given in (21)[8].

(21)   a.   Jean a beaucoup vu Marie ces derniers temps.
            J. has a-lot seen M. these last times
            "Jean saw Marie a lot lately."

       b.   ? Jean a vu beaucoup Marie ces derniers temps.
            J. has seen a-lot M. these last times
            "Jean saw Marie a lot lately."

       c.   *Beaucoup Marie a été vue.
            a-lot Marie has been seen

As shown by the ungrammaticality of (21c), there is no possible nominal source for *beaucoup* in (21a).

Furthermore, as Doetjes (1997) points out, there are verbs which cannot possibly be analyzed as involving a nominal complement and which nevertheless allow *beaucoup*. An example in given in (22).

(22)   Jean est beaucoup à la maison
         J. is a lot at home
   *"Jean is at home a lot"*

         (Doetjes 1997:117)

In the absence of a nominal source for *beaucoup* in (21) and (22), we are led to conclude that there exists an adverbial *beaucoup* in French, in addition to adnominal *beaucoup* whose existence has already been established.

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[8]. Thanks to Michel DeGraff for pointing this out to me.

I will propose for adnominal *beaucoup* the structure given in (23)[9].

(23)   adnominal *beaucoup*

```
          DP
        /    \
       D      NP
    beaucoup  de livres
```
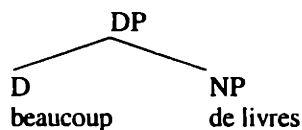
Recall from chapter 2 (section 2.4) that *de* does not function as a preposition and that *livres* really is the nominal head of the DP. As we have seen above, *beaucoup* functions as a determiner. Furthermore, it never co-occurs with an overt determiner, as attested by the ungrammaticality of (24)[10].

(24)   *beaucoup les (de) livres
            the a-lot of books

The structure given in (23) is different from the structure proposed by Valois (1991), and from the structure proposed by Doetjes (1997). For Valois, *beaucoup* is the head of a QP. As a lexical property, it selects an empty determiner, and *de livres* is a DP. Valois (1991) proposes the structure illustrated in (25).

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[9]. Noam Chomsky points out to me that despite the evidence presented here, it is not entirely clear that *beaucoup* or *trois* are determiners, i.e. D°s. They could be XPs, not X°s. One argument to that effect is provided by Doetjes (1997). She argues that since the wh-phrase *combien* corresponds to *beaucoup*, and since wh-movement is phrasal movement, *beaucoup* should be considered as an XP. (Note in passing that the argument extends to *trois*). Furthermore, *beaucoup* and *trois* do not always exhibit the behavior of determiners. For instance, members of the *beaucoup* class can be combined, as in *beaucoup trop de livres* ("way too many books"). Note that the meaning is composed by combining *beaucoup* and *trop* together, and then combining the two with *de livres*. As for cardinal numerals like *trois*, they can be preceded by the definite determiner *les*, as in *les trois amis* ("the three friends"). For the moment I assume that *trois* is ambiguous between an adjective and a determiner, and that members of the *beaucoup*-class can form complex determiners. I leave the exploration of the consequences of the alternative for future research.

[10]. The partitive construction *beaucoup des livres* (a lot of the books) involves, as we have seen in Chapter 2 (section 2.5), a null nominal head whose complement is *des livres*. This is not a case where *beaucoup* co-occurs with an overt determiner.

(25)   adnominal *beaucoup*   (from Valois 1991)

```
          QP
        /    |
      Q      |
   beaucoup (de) DP
            /      \
           D        NP
           ∅        livres
```
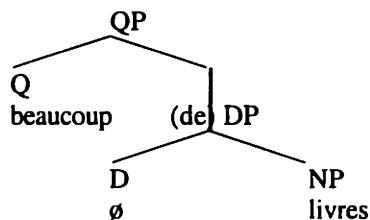
As Valois (1991) points out, one of the main advantages of (25) is that it explains the fact that noun phrases like *beaucoup de livres* and *tous les livres* (all the books) are parallel in some respects (notably as quantified noun phrases they cannot be left-dislocated). However it raises some problems as well. First, unlike other DPs, and notably unlike *les livres* in *tous les livres*, the QP-internal DP in (25) cannot appear by itself as an argument. It also has to be stipulated that the determiner in (25) must be empty. With *beaucoup* as a determiner, the complementary distribution of *beaucoup* and other determiners follows directly, and so does the absence of *de livres* as an argument. However, the analysis in (23) has the disadvantage that one cannot appeal to the structure in order to explain the cases where *beaucoup* patterns with *tous*[11].

For Doetjes (1997), *beaucoup* adjoins to the NP, as illustrated in (26).

(26)   adnominal *beaucoup*   (from Doetjes 1997)

```
          NP
        /    \
      QP      NP
   beaucoup  de livres
```
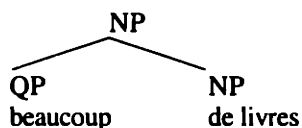
This structure is intended to account for the fact that *beaucoup* unlike *plusieurs* (many), does not seem to select a syntactic category. Beaucoup is also found in the context of VPs, and it combines with VPs in exactly the same fashion as it does with NPs: by adjunction. The problem here is also to explain why *de livres* as an NP cannot appear as an argument, whereas a phrase of the same category, namely the NP *beaucoup de livres* in (26) can appear as an argument. The structure given in (23) directly accounts for these facts.

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[11]. But note that *beaucoup* and *tous* are not parallel in all respects. Notably, unlike what can be observed with *tous*, there is no Quantifier float (from subject) with *beaucoup* (cf. Kayne 1975).

To sum up, I have argued in this section that there is an adnominal and an adverbial *beaucoup* in the lexicon of French. I also have motivated the structure in (23), where adnominal *beaucoup* is a determiner.

2.3 Movement vs. base generation

One of the issues raised by QAD is whether the construction is produced by movement of *beaucoup* or if *beaucoup* is base-generated pre-verbally. Most of the work on this topic remains agnostic with respect to this question (cf. Milner 1978, Kayne 1981, Obenauer 1984/1985, Obenauer 1994, Rizzi 1990). In section 2.3.1 I review the standard arguments for a movement analysis, and in section 2.3.2 the standard arguments for a base-generation analysis. In section 2.3.3 I present two new arguments which support a movement analysis of QAD.

2.3.1 Standard arguments for movement

Surprisingly enough, the movement analysis of QAD does not have many advocates[12], despite some clear advantages. Let us review the main arguments that militate in favor of moving *beaucoup* from a DP-internal position to a preverbal position. The exact landing site of *beaucoup* is immaterial for the moment, but it is important to note that there exist two options. It could be that *beaucoup* lands in an adverbial position (this is what has been tacitly assumed in the literature, and the standard arguments against movement crucially rely on this assumption). It could also be that QAD involves adjunction of *beaucoup* not to the VP but to the verbal head, a hypothesis for which there is some evidence, as we will see in section 2.3.3.

First, as Kayne (1975) notes, objects of the form *de livres* do not occur freely. They must (by and large) appear in the environment of a member of the *beaucoup*-class[13].

(27)   *J'ai lu de livres.
         I have read of books

A movement analysis straightforwardly accounts for the ungrammaticality of (27). *De livres* is not licensed in the syntactic structure by itself, because it lacks a determiner. It

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[12]. Battye (1995) implicitly assumes a movement analysis. Rowlett (1996 §2.3.4) proposes a movement analysis for QAD, which he extends to *pas*. Valois (1991) proposes a mixed account: *beaucoup* is base-generated pre-verbally, but there is movement of an empty operator from a QP-internal position to the Specifier of *beaucoup*.

[13]. There are exceptions to this generalization, cf. section 2.3.2. Since negation is one of the elements which license phrases like 'de livres', it could be analysed as a member of the *beaucoup*-class, cf. Rowlett (1996), and section 5 of this chapter.

cannot function as the argument of a verb. On the other hand *beaucoup de livres* is licensed as a full DP, independently of QAD.

Second, assuming that there is an empty category inside the constituent associated with *beaucoup*, the relationship between preverbal *beaucoup* and the empty category is subject to the same constraints as those independently established for movement from within such constituents.

(28)   a.   Elle a participé à beaucoup d'émissions.
             she has participated in a-lot of shows.
             "She participated in a lot of shows."

        b.   *Elle a beaucoup participé[à *e* d'émissions].
             she has a-lot participated to shows

(29)   a.   Il a écrit sur trop de sujets.
             he has written on too-much of topics
             "He wrote on too many topics"

        b.   *Il a trop écrit [sur *e* de sujets].
             he has too-much written on of topics.

(from Obenauer 1984/5, fn 7).

(30)   a.   *J'ai beaucoup parlé [à *e* d'enfants]
             I have a lot talked to of children

        b.   *J'ai beaucoup dormi [pour guérir *e* de petits maux]
             I have a-lot slept in order to heal of little aches

        c.   *J'ai beaucoup considéré [t_k intelligents [*e* d'étudiants]$_k$]
             I have a-lot considered intelligent of studetns

        d.   *J'ai beaucoup regardé [la photo [(de) *e* d'enfants]]
             I have a-lot looked-at the picture (of) of children

(from Valois 1991: 139 (65)).

The baseline sentences for the examples in (30) are given in (31) below.

(31)   a.   J'ai parlé [à beaucoup d'enfants]
             I have talked to a-lot of children
             "I talked to a lot of children."

        b.   J'ai dormi [pour guérir beaucoup de petits maux]
             I have slept in order to heal a-lot of little aches
             "I slept in order to heal a lot of little aches."

c. ?J'ai considéré [t$_k$ intelligents [beaucoup d'étudiants]$_k$]^{14}
   I have considered intelligent a lot of srudents.
   "I considered a lot of students intelligent."

d. J'ai regardé [la photo [de beaucoup d'enfants]]
   I have looked at the picture of a lot of children.
   "I looked at the picture of a lot of children."

The ungrammaticality of the examples given in (28)-(30) above can be explained by invoking well-established constraints on movement. The ungrammaticality of (28b), (29b) and (30a) could be seen as cases of preposition stranding, an option not allowed by the syntax of French. Alternatively it could be attributed to the general prohibition on the extraction out of PPs^{15}. The example in (30b) is a case of extraction out of an adjunct, (30c) out of an inverted subject, and (30d) could be seen as extraction crossing two NP/DP nodes (cf. Chapter 2, section 2.4.1).

2.3.2 Standard arguments for base generation

A strong argument for considering QAD as involving base generation of *beaucoup* in an adverbial position in QAD was given by Kayne (1975): the lexical items that appear preverbally in QAD are all independently licensed in that position as adverbs, and only those items that are licensed as adverbs can appear in a QAD construction. For instance, the cardinal numerals appear adnominally, as in (32) but can absolutely not appear in QAD, as illustrated in (33).

(32)   J'ai lu deux livres.
       I have read two books
       "I read two books."

(33)   *J'ai deux lu (de) livres.
       I have two read (of) books

---

^{14}. In (30c) *beaucoup* is extracted from an inverted subject. It is not so clear that the baseline for (30c) is a fully acceptable sentence, but there is a contrast between (30c) and (31c).

^{15}. Recall from chapter 2 (section 2.4.1) that extraction out of PPs is not possible in French:

(i)   a.   J'ai parlé à la soeur de Jean
             I have talked to John's sister.
       b.   *De qui as-tu parlé à la soeur?
             of who did you talk to the sister
             "Whose sister did you talk to?"
(ii)   a.   J'ai vu la soeur de Jean.
             I have seen the sister of John
             "I saw John's sister."
       b.   De qui as-tu vu la soeur?
             of who did you see the sister
             "Whose sister did you see?"

In other words, a movement analysis of QAD has to stipulate which determiners are allowed to move out of the noun phrases. Another argument against movement, pointed out by Valois (1991), is the locality of the relation between *beaucoup* and its associated argument. If *beaucoup* is moving, there is no obvious reason why its movement should be clause-bound[16]. The locality restriction is exemplified in (34).

(34)   *J'ai beaucoup dit que Louise avait lu [e de livres].
         I have a-lot said that L. had read of books

A final argument, put forth by Kayne (1975), is that constituents like *de livres* can (marginally) appear in the absence of a member of the *beaucoup*-class, as exemplified in (35).

(35)   Il n'aurait osé offrir d'alcool très fort qu'à un ami.

         Kayne (1975)

This type of example does not rule out a movement account of QAD, but reduces its explanatory power. If it is true that such examples cannot be explained with a movement account, the movement account of QAD explains the distribution of constituents like *de livres* only to a certain extent[17].

2.3.3 Two new arguments for movement in QAD

I will present in this section two new arguments which support a movement account of QAD. The first argument concerns a class of non-QAD verbs identified by Obenauer (1984/85). As will be shown in section 2.3.3.1, this class of verbs is perfectly compatible with adverbial *beaucoup*, but does not allow QAD. The existence of this class of verbs thus weakens the base-generation analysis. The second argument, presented in section 2.3.3.2, shows that there is no QAD with a raised verb (a fact that has been tacitly taken for granted in the literature). Under a base-generation hypothesis, the fact that verb movement cannot strand adverbial *beaucoup* in its VP adjoined position is left unexplained.

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[16]. The hypothesis that *beaucoup* adjoins to the verbal head V would account for the ungrammaticality of (34) as a case of excorporation, cf. section 2.3.3.2.

[17]. Examples like (35) should be considered along with examples like (i), where a *de phrase* seems to be licensed by the (non-c-commanding) *personne* (nobody).
(i) Lucie ne donne de réceptions pour personne.
    L. ne gives of receptions for nobody.
Moritz and Valois (1994) use (i) to argue for LF-movement of the constituent containing *personne*. I will not attempt to analyse these facts here. See Moritz and Valois (1994) and Rowlett (1996) for discussion.

2.3.3.1 Non-QAD verbs and the absence of multiple-event readings in QAD

The structure of the argument presented in this section is as follows. There is a class of verbs which are incompatible with QAD but perfectly compatible with adverbial *beaucoup*, under its manner reading (*much*). It has been claimed that QAD constructions always have a multiple-event reading (cf. Obenauer 1984/85); it was shown by Doetjes (1997) that the multiple-event reading, although frequent, is not really a characteristic of QAD. In consequence, the existence of this class of non-QAD verbs and their compatibility with adverbial *beaucoup* seriously weakens the base-generation hypothesis.

Sentences with QAD always have a non-QAD correlate. For each QAD construction like (36), there exists a non-QAD counterpart in which *beaucoup* occurs within the nominal phrase, as in (37). Both examples are repeated below for convenience.

(36)   J'ai beaucoup lu [e de livres].
         I have a-lot read of books

(37)   J'ai lu [beaucoup de livres].
         I have read a lot of books

The reverse is not true. Some non-QAD sentences do not have a QAD counterpart. Obenauer (1984/85) and Obenauer (1994) identify a (quite heterogeneous) class of verbs which are perfectly compatible with an object quantified by *beaucoup*, but do not allow QAD. As we can see in (38), verbs like *apprécier* (to appreciate) and *accélérer* (to accelerate) may take an object containing adnominal *beaucoup*, but yield an ungrammatical sentence in a QAD configuration, as attested by the examples given in (39).

(38)   a.   Le critique a apprécié [peu de films].
             the critic has appreciated little of movies
             "The critic appreciated few movies"

        b.   La réorganisation a accéléré [beaucoup de procédures].
             the reorganization has accelerated a-lot of procedures.
             "The reorganization speeded up a lot of procedures."

(39)   a.   *Le critique a peu apprécié [e de films].
             the critic has little appreciated of movies

        b.   *La réorganisation a beaucoup accéléré [e de procédures]
             the reorganization has a-lot accelerated of procedures.

        ((38) and (39) from Obenauer (1984/85): 158)

The *apprécier*-class also includes *impressionner* (to impress), *inquiéter* (to worry), *regretter* (to regret). I will refer to these verbs as non-QAD verbs, or verbs of the

apprécier-class.[18]. The facts presented in (38) and (39) do not as such militate in favor or against either approach to QAD. Both the movement approach and the base-generation approach would have to say 'something extra' to explain the ungrammaticality of the examples given in (39).

The facts presented above begin to weaken the base-generation analysis when one considers two more facts in light of the motivation for the base-generation analysis of QAD. The main motivation for the base-generation analysis is that the members of the *beaucoup* class appearing in QAD constructions are independently generated in a preverbal adverbial position. Generating them as adverbs in QAD itself is therefore 'costless'[19]. Furthermore, as we have seen in section 2.3.2, only the determiners that can also be used as adverbs are allowed to appear in QAD constructions. The base-generation hypothesis thus avoids stipulating which determiners can move in QAD.

The first fact to take into consideration is that non-QAD verbs are perfectly compatible with adverbial *beaucoup*, as shown by (40).

(40)   a. J'ai beaucoup apprécié ses conseils.
         I have a-lot appreciated his advice-pl
         "I have appreciated his advice a lot."

       b. L'application de la nouvelle loi a beaucoup accéléré ce procès.
         The application of the new law has a-lot accelerated this trial.
         "The application of the new law speeded up this trial a lot."

The compatibility of the non-QAD verbs with adverbial *beaucoup* already weakens the base-generation analysis, whose main advantage is the independent generation of the adverb in a preverbal position. The examples in (40) show that adverbial *beaucoup* can be independently generated with non-QAD verbs, and yet QAD is not possible with this class of verbs, as shown by the examples in (39) above.

One could object that *beaucoup* in (40) is not the same *beaucoup* as in QAD, and that the fact that it can be generated there does not undermine the base-generation approach. It is

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[18]. At first sight, the class is far from being homogeneous. For instance it includes both subject experiencer psych-verbs (*apprécier*), object experiencer psych-verbs (*impressionner, inquiéter*), and a factive verb (*regretter*). Doetjes (1997) proposes that the unifying property of the *apprécier*-class is their individual-level character. For her, the ungrammaticality of (39) is due to the fact that the selectional properties of *beaucoup* are not met in (39): individual-level verbs do not contain a "scalar q position" (and do not select a resultative small clause, which she assumes is the structure in which the object appears in QAD).

[19]. One strong argument against the base-generation analysis would be to show that *beaucoup* in QAD is not in an adverbial position. (For a piece of evidence to that effect, see section 2.3.3.2).

true that *beaucoup* in (40) is understood as a manner adverbial, with the meaning of 'much', and cannot mean 'many times'. This fact was noted by Obenauer (1984/85, 1994): verbs of the *apprécier*-class force a manner adverbial reading on *beaucoup*, and prohibit a 'multiple-event' reading. Obenauer used this fact to argue that QAD constructions always involve a multiple-event reading. Since verbs of the *apprécier*-class do not allow a multiple-event reading when they are used with adverbial *beaucoup* and are incompatible with QAD, QAD must have a multiple-event reading.

Although Obenauer's argument in favor of a multiple-event reading for QAD seems very convincing, additional evidence shows that the multiple-event reading, even though possible and frequent, is in fact not a characteristic feature of QAD constructions.

A first argument is provided by examples like (41b), which involves a QAD construction with a mass noun in object position.

(41)   a.   J'ai pris trop de crème.
               I have taken too-much of cream
               "I took too much cream"

      b.   J'ai trop pris [t de crème]
               I have too much taken of cream

The example given in (41b) is perfectly grammatical and its most natural reading involves a single event. (41b) therefore constitutes prima facie evidence against a 'multiple-event' reading for QAD constructions.

Doetjes (1997) convincingly argues that the multiple-event reading observed in QAD is not a property of the construction itself, but is dependent on the predicate used in the sentence. For her, degree quantifiers (DQs) such as *beaucoup* are not inherent iterators, i.e. they do not impose, by a lexical property, a multiple-event reading on the predicate with which they combine. The multiple-event reading often observed with *beaucoup* (in QAD or in purely adverbial contexts) is in fact the contribution of the semantic properties of the predicate used in the sentence. If *beaucoup* is associated with a 'count' predicate, a multiple-event interpretation obtains. If *beaucoup* is associated with a 'mass' predicate, there is no multiple-event interpretation. Examples of the contrast between a count predicate and a mass predicate used with *beaucoup* are given in (42) for adverbial *beaucoup* and in (43) for QAD[20].

---

[20]. Examples (42a, b) and (43b) are from Doetjes 1997:257

(42)   a.   Jean est be.:.icoup allé au cinéma.
            J. is a-lot gone to-the cinema
            "Jean went to the movies a lot"

       b.   Jean a beaucoup travaillé.
            J. has a-lot worked.
            "Jean worked a lot"

(43)   a.   Jean a beaucoup lu de livres.
            J. has a-lot read of books

       b.   Pendant ces dix minutes, la fontaine a beaucoup craché d'eau
            During those ten minutes, the fountain has a-lot spouted of-water

In (42a) and (43a), *beaucoup* combines with a count predicate, and the multiple-event reading obtains. (42a) implies that Jean went to the movies many times, and (43a) that Jean was involved in many events of book-reading. The natural interpretation of the (b) examples above does not involve a multiple-event reading. The sentence in (42b) means that Jean worked a lot, or did a lot of work, but does not imply that there were many events of working. Similarly, in (43b) the natural interpretation is that we are talking about one event of water-spouting by the fountain, and not many single events. Because one could argue that (43b) in fact involves a series of 'micro-events', I would like to adduce one last piece of evidence to show that QAD does not obligatorily involve a multiple-event reading. Consider the example in (44).

(44)   J'ai trop avalé d'eau d'un coup.
            I have too-much swallowed of water at once.

The sentence in (44) is a QAD construction. The modifier *d'un coup* (at once) forces a single-event reading, and the predicate *avaler* (to swallow) cannot reasonably be argued to be decomposable into micro-events (unlike *to spout water* in (43b)).

I will therefore conclude with Doetjes (1997) that QAD is not inherently associated with a multiple-event reading, and that such a reading obtains when a count predicate appears in a QAD construction. The multiple-event reading often observed in QAD is the result of the contribution of the predicate, not of the QAD construction itself.

Returning now to the class of non-QAD verbs, we have seen that they are perfectly compatible with an adverbial *beaucoup*. We have also established that the multiple-event reading is not a hallmark of QAD, in other words that *beaucoup* in QAD is not an inherent iterator. In consequence, the absence of QAD with the verbs of the *apprécier*-class constitutes an argument against a base-generation analysis since it undermines its main

advantage, namely the fact that the adverb can be independently generated in the preverbal position. The adverb can be generated with verbs of the *apprécier*-class, and there is no reason why this adverb should not produce a valid QAD sentence[21].

2.3.3.2 The restriction of QAD to past participles and the landing site of *beaucoup*: an unexpected contrast.

This section establishes a syntactic fact about QAD, namely that is impossible with raised verbs. Although it is what is usually assumed, this fact has not, to my knowledge, been demonstrated before. As we will see, the contrast that demonstrates the absence of QAD with raised verbs is very difficult to explain under a base-generation hypothesis, since verbs move over adverbs in French. The facts presented in this section constitute a piece of evidence in favor of the hypothesis that *beaucoup* in QAD moves out of the DP and adjoins to the verbal head V.

QAD can be directly observed if there is a past participle in the sentence, as in (45) below.

(45)   Jean a beaucoup lu de livres.
         J. has a-lot read of books

In (45) *beaucoup* appears before the past participle. Given that the finite verb in French overtly raises from V to T, the question arises as to whether there is QAD when the verb has overtly raised. The linear order of the sentence in (46) is compatible with two structures, one without QAD and the other with QAD. These two structures are given in (47).

(46)   Jean étudie beaucoup de leçons.
         J. is-studying a lot of lessons.

(47)   a.   [TP Jean étudie [VP V [DP beaucoup de leçons]]]

         b.   [TP Jean étudie [VP beaucoup V [DP e de leçons]]]

In order to determine whether (47b) is a possible structure for (46), we need to find a lexical item that appears very close to the left of the verb and can be stranded by V to T movement. A good candidate is the manner adverbial *bien* (well).

As can be seen in (48b), *bien* can be left stranded by V to T movement.

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[21]. This is not to say that the movement analysis has an obvious explanation for the absence of QAD with verbs of the *apprécier*-class, but at least it has the beginning of an answer. While adverbial *beaucoup* will correctly be generated with non-QAD verbs, movement of *beaucoup* has to be prohibited with these verbs. The reason for the absence of movement remains to be investigated.

(48)　a.　Jean a bien étudié ses leçons.
　　　　　J. has well studied his lessons
　　　　　"Jean studied his lessons well."

　　　　b.　Jean étudie bien ses leçons.
　　　　　J. studies well his lessons
　　　　　"Jean studies his lessons well."

Let us first observe that *bien* can modify a predicate that takes an object quantified with *beaucoup*, as in shown by (49)[22].

(49)　　　Jean a bien étudié beaucoup de leçons.
　　　　　J. has well studied a lot of lessons
　　　　　"Jean studied a lot of lessons well."

QAD is marginally possible over *bien*, as exemplified in (50).

(50)　　　??Jean a beaucoup bien étudié de leçons.
　　　　　J. has a-lot well studies of lessons

The sentence in (50) is degraded, but as we will see it still offers a sharp contrast with (51) below. *Beaucoup* definitely cannot appear before *bien* when the verb has raised, as in (51).

(51)　　　**Jean étudie beaucoup bien de leçons.
　　　　　J. studies a-lot well of lessons

Again, the sentence in (50) is far from being perfect, but the sentence in (51) is completely ungrammatical. The base-generation hypothesis for QAD does not predict any contrast between (50) and (51). Both should have the same status, since verbs raise from V to T over adverbs in French (cf. Pollock 1989).

The contrast between (50) and (51) constitutes an important piece of evidence showing that QAD is possible only when the verb has not raised to T. The structure given in (47b) is thus not a possible structure for (46). The base-generation hypothesis predicts that (47b) is a possible structure for (46). A head-movement analysis explains the strong ungrammaticality of (51): it results from excorporation of *beaucoup*[23].

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[22]. There is another reading for (49), in which *bien* is understood as marking the assertion. The sentence under that reading means "J. has really/veritably studied many lessons". This reading is not relevant to our discussion.
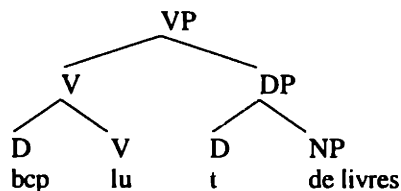
[23]. The adjunction analysis does not explain, however, why *beaucoup* cannot raise with the verb up to T, yielding the ungrammatical (i).

(i).　　*Jean beaucoup étudie de leçons.

Why is (50) degraded? The degraded status of (50) may have to do with the landing site of *beaucoup* movement in QAD. If *beaucoup* has to adjoin to V in QAD, we expect that its preceding the manner adverbial in (50) would yield a degraded sentence.

2.3.4 A movement analysis for QAD and the structure of QAD remnants

To conclude this section, I will propose the following structure for QAD constructions.

(52)   Structure of QAD

```
                    VP
                  /    \
                V        DP
              /  \      /  \
            D     V    D    NP
           bcp    lu   t    de livres
```

As I mentioned before, this view of QAD is motivated by the evidence presented in section 2. However, a movement analysis of QAD is not crucial for the application of the analysis that I will present in section 3. What is crucial is that the determiner of QAD objects is deficient in some respect, as will be discussed in the following section.

3. Checking Case: subject/object asymmetries in QAD

I mentioned at the outset of this chapter that QAD-remnants share two important properties with Q-*en* remnants studied in the previous chapter. Both types of remnants exhibit a subject/object asymmetry, and both must have narrowest scope. In view of these facts, it seems desirable to give them a unified account in terms of Case-checking. This is the goal of this section, which is organized in the following way. I will first present, in section 3.1, the subject/object asymmetries observed with QAD-remnants, and briefly sketch the previous ECP accounts of these facts. In section 3.2 I will propose that Case checked by XP movement to the specifier of a functional projection requires a full DP. I will show how the idea accounts for the facts, and present a more specific technical implementation of the idea, involving movement of the Case feature from N to D.

3.1 Subject/object asymmetries in QAD

Let us first observe that there is no subject/object asymmetry with noun phrases containing adnominal *beaucoup*. This is illustrated by the sentences in (53) and (54).

(53)   a.   Conan Doyle a écrit [beaucoup de livres].
             Conan Doyle has written a-lot of books
             "Conan Doyle wrote a lot of books."

b. Il est arrivé [trop de malheurs].
   Expl. is occured too-many of tragedies
   "There occurred too many tragedies."

c. Il s'est passé [beaucoup de choses]
   Expl. imp.se be-past taken-place a-lot of things
   "There occurred a lot of things"/"A lot of things took place"

(54) a. [Beaucoup de livres] ont été écrits (par Conan Doyle).
   A-lot of books have been written (by C.D.)
   "A lot of books were written (by Conan Doyle)."

b. [Trop de malheurs] sont arrivés.
   Too-much of tragedies be-aux occurred
   "Too many tragedies occurred."

c. [Beaucoup de choses] se sont passées
   A-lot of things imp.se be-aux took-place
   "A lot of things took place."

On the other hand, as was noted by Kayne (1975, 1981), while QAD is possible from an object position, it is impossible with raised subjects. In other words, it is impossible to raise a QAD remnant. The contrast is shown by the examples in (55) and (56), involving the same verbs as in (53) and (54).

(55) a. Conan Doyle a beaucoup écrit [*e* de livres].
   Conan Doyle has a-lot written of books

b. Il est trop arrivé [*e* de malheurs].
   Expl. is too-many arrived of tragedies

c. Il s'est beaucoup passé [*e* de choses]
   Expl. imp.se be-past a-lot taken-place of things

(56) a. *[*e* de livres] ont beaucoup été écrits __ (par Conan Doyle).
   of books have a-lot been written (by C.D.)

b. *[*e* de malheurs] sont trop arrivés __.
   of tragedies are too-much happened

c. *[*e* de choses] se sont beaucoup passées __.
   of things imp.se be-past too-much took-place

The contrast between (55) and (56) is a typical subject/object asymmetry and has been explained in terms of the ECP (Kayne 1981, Giorgi and Longobardi 1991). The accounts differ depending on the version of the ECP that is utilized, but the idea is of course that the empty category in (56) is not properly governed (it is neither antecedent-governed nor lexically governed).

In the following section I would like to take a fresh look at this subject/object asymmetry. In light of the fact that QAD remnants share key properties with Q-*en* remnants, I will propose a Case-theoretical approach to the problem at hand. I will first give an informal condition on Case checked by XP movement, and then propose a possible technical implementation of the intuition.

3.2 Checking Case

I will present in this section the idea that Case checked by XP movement to the specifier of a functional projection is a property of full DPs. It requires the presence of both D and N within the DP. I will propose that the QAD-remnants are deficient, the extraction of the determiner has impoverished them and as a result they cannot check Case by XP movement. I will first present the idea in section 3.2.1 and show how it accounts for the subject/object asymmetry observed with QAD. I will then show in section 3.2.2 that the Case-checking proposal makes the correct predictions in some cases that are problematic for the ECP. In section 3.3 we will see that the proposal still handles the *en*-cliticization facts, Q-*en* remnants being the mirror image of QAD-remnants. The *en*-cliticization facts also support the idea that the proper account of QAD must involve Case, and not the ECP[24]. In section 3.2.4 I discuss the specific technical implementations of the idea, and section 3.2.5 summarizes the different ways of checking Case.

3.2.1 The idea and the explanation of the subject/object asymmetries

I would like to propose that Case checked by movement to the specifier of a functional projection is a property of "full noun phrases". In order for Structural Case to be checked by movement of an XP to the specifier of some functional projection, the descriptive condition stated in (57) must be met.

(57)   *Condition on Case checked by XP movement*
       Case checked by movement to the specifier of a functional projection requires a DP
       which contains both a D and an N.

The descriptive condition in (57) is simply a statement of the intuition that in order for Case checking to be felicitous when done through XP movement to the specifier of some functional projection, a full DP must be moved. A possible technical implementation is given in section 3.2.4, but for the moment we will proceed with the informal condition presented in (57).

---

[24]. The scope facts presented in section 4 also support the Case approach over and EPP approach.

Case checked in the specifier of a functional projection requires the following configuration.

(58)

```
                        FP
              _____/    _____
         DP           F            ...
       /    \
      D      NP
            /   \
           N     ...
```
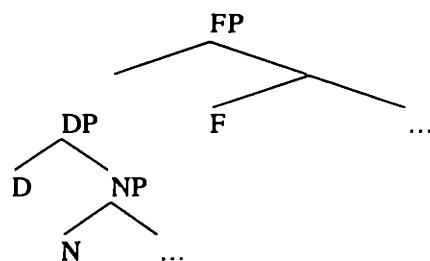
Movement of either subpart of the DP destroys the configuration required for checking Case in [Spec, FP]. The functional head F must "see" both D and N in the structure. (In section 3.2.4 I turn to the visibility problem raised by the idea).

As a consequence of (57), the only possible candidate for A-movement is a full DP. Remnants created by the extraction of D or NP do not qualify as candidates for Case checking in [Spec, FP]. Their structure has been impoverished in a way that makes it impossible for the functional head to "see" both the D and N features of the DP. Similarly, it is impossible to move a subpart of a DP (such as D or NP) to a Structural Case position.

It is easy to see how the descriptive condition proposed in (57) will account for the subject/object asymmetry observed with QAD. The structure of DPs containing adr.ominal *beaucoup* is as in (59), and the structure associated with QAD-remnants is as in (60).

(59)   Adnominal *beaucoup*

```
              DP
         ___/    \___
        D            NP
     beaucoup      de livres
```
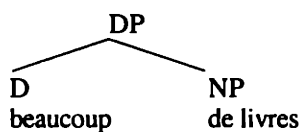
Recall from section 2.4.1 of chapter 2 that in (59) *livres* is the head noun, and *de livres* is not the complement of an empty head, (cf. Milner 1978's evidence from extraction).

(60)   QAD-remnant

```
              DP
         ___/    \___
        D            NP
        t           de livres
```
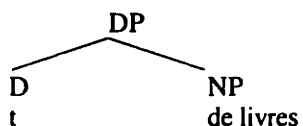
The QAD-remnant has the structure proposed in section 2.3.4 above.

Returning to the subject/object asymmetry found with QAD, I repeat the basic contrast below for convenience.

(61)   Conan Doyle a beaucoup écrit [e de livres].
         Conan Doyle has a-lot written of books

(62)   *[e de livres] ont beaucoup été écrit(s) __ (par cet auteur).
         A-lot of books have been written by this author

The ungrammatical (62) is associated with the following derivation.

(63)   a.   [TP __ ont été écrit(s) [beaucoup de livres]]

         b.   [TP __ ont beaucoup été écrit(s) [t de livres]]   QAD

         c.   [TP [t$_i$ de livres]$_k$ ont beaucoup$_i$ été écrit(s) t$_k$]   *: CASE NOT CHECKED

After QAD has applied, as in (63b), the DP in object position is a QAD-remnant. It does not have the D required by the condition stated in (57). Its raising to [Spec, TP] is unsuccessful because it is unable to check Case in that position. The functional head T does not see in the remnant the features necessary for Case checking.

It is the deficient structure of the QAD-remnant [t de livres] that prevents it from raising successfully to subject position in (62). The QAD-remnant is not a 'full noun phrase' for the purpose of Case Checking in [Spec, TP].

There exists an alternative derivation for the ungrammatical (62) in which Case is checked. It is given in (64).

(64)   a.   [TP __ ont été écrit(s) [beaucoup de livres]]

         b.   [TP [beaucoup de livres]$_k$ ont été écrit(s) t$_k$]   CASE CHECKED

         c.   [TP [t$_i$ de livres]$_k$ ont été beaucoup$_i$ écrit(s) t$_k$]   *: DOWNWARD MVT

Case is checked by movement of the whole DP in (64b). The derivation is independently ruled out because it involves downward movement of *beaucoup*.

In this section I have proposed that Case checked by DP movement to the specifier of a functional projection requires both D and N present within the DP. It cannot be checked by QAD-remnants because they lack a D. I have shown that this proposal accounts for the subject/object asymmetries found in QAD-constructions. In the next section, we turn to some predictions made by the condition in (57).

3.2.2 Two predictions

In this section I turn to two sets of facts that are directly predicted by the condition stated in (57). The first has to do with the impossibility of raising the NP subpart of a DP to [Spec, TP] while leaving *beaucoup* in situ (section 3.2.2.1). The second concerns the distribution of *beaucoup* as a subject (section 3.2.2.2).

3.2.2.1 *Beaucoup* in situ

The condition on Case given in (57) predicts the ungrammaticality of (65) below.

(65) *De livres ont été écrit(s) [DP beaucoup t]
       Of books have been written a-lot

The constituent raised to [Spec, TP] is an NP, not a DP (the determiner is left stranded in situ). The NP lacks the D necessary for Case Checking in the specifier of a functional projection; it moves in violation of (57).

The problem with (65) is not that *beaucoup* cannot be stranded in its base position by movement of the NP. Movement of an NP from a DP-internal position is not prohibited per se. As we have amply seen in chapter 2, Q-*en* extracts the NP and leaves the determiner in situ, as shown in (66).

(66)   Conan Doyle en a écrit [DP beaucoup t]
        C.D. of-them has written a-lot
        "Conan Doyle wrote a lot of them" (them=books)

In (66) the NP *en* has a perfectly legitimate landing site. In (65) on the other hand, the NP cannot land in [Spec, TP]: it does not possess the D necessary to check Structural Case in that position.

Furthermore *beaucoup* in (65) is really a determiner and not an adverb: it has the same distribution as *trois*, which never occurs as an adverb. This has been discussed in chapter 2, and the relevant example is given in (67).

(67)   Jean en a écrit [DP trois t]
        J. of-them has written three

Under an ECP approach, (65) is predicted to be grammatical just like (66) is, since the only moved element is the NP and it binds its trace. (Given (66) and (67), it is impossible to say that the trace in (65) is not head-governed).

3.2.2.2 *Beaucoup* as a subject

The condition in (57) also predicts the ungrammaticality of (68).

(68)   *Beaucoup ont été écrits [t de livres].
          A-lot have been written   of books

In (68) *beaucoup* is moved from its DP internal position to [Spec, TP], stranding the NP. *Beaucoup* in (68) does not contain an N and cannot check Case in accordance with (57). As we have seen there is nothing wrong with stranding *de livres*, the problem with (68) is the landing site of *beaucoup*. (68) must be distinguished from (69) below, in which no NP is stranded.

(69)   Parlant de lettres,   [beaucoup ø] sont arrivées ce matin.
           Speaking of letters   *a-lot arrived this morning*
           "Speaking of letters,   *a lot arrived this morning"*

In (69) *beaucoup* does not strand an NP; the subject contains a determiner and a null nominal head. As a full DP, [beaucoup ø] can check Case in accordance with (57)[25].

3.2.3 Q-*en*-cliticization: the mirror image of QAD

Let us now return briefly to *en*-cliticization and verify that condition (57) still covers the facts discussed in chapter 2. As the reader will remember, the basic puzzle of the preceding chapter was the grammaticality of (70), in contrast with the ungrammaticality of (71).

(70)   La préface en a été publiée__.
        the preface of-it has been published

(71)   *Deux en ont été publiés__.
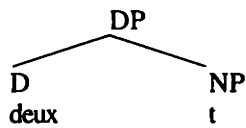   *deux of-them have been published.*

The structure of the raised subjects in (70) and (71) are as in (72) and (73) respectively.

(72)   Remnant of G-*en*

---
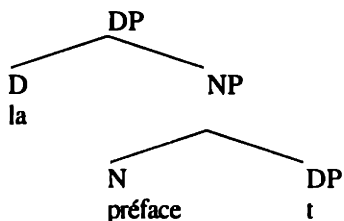
[25]. Cf. chapter 2, section 3.2.4 for an account of the distribution of null heads.

(73) Remnant of Q-*en*

```
        DP
      /    \
    D       NP
   deux      t
```

The raised subject in (70) is a G-*en* remnant; it has the structure given in (72). It is a full DP, containing both a D and an N. It therefore can raise to [Spec, TP] and check off the Case feature of T. On the other hand the raised subject in (71) is a Q-*en* remnant, with the structure of (73). This type of structure is deficient, and lacks the N necessary for checking Case in accordance with (57). The remnant in (71) is unable to check off the Case feature of T, hence the ungrammaticality of (71).

Note that the remnant of Q-*en* is the mirror image of QAD-remnants. Q-*en*-remnants lack an N and cannot check Structural Case, whereas QAD remannts lack a D and cannot check Case. The condition proposed in (57) accounts for the parallel behavior of the two types of remnants with respect to A-movement (and with respect to scope, as discussed in section 4).

Note also that a uniform treatment of Q-*en* remnants and QAD-remnants militates in favor of a Case-theoretical approach over an ECP approach. Q-*en*-remnants do contain the D required by the EPP. A stronger argument for a Case-theoretical approach over an EPP approach of QAD is provided by the fact that Q-*en* remnants and QAD remnants share the same scopal properties (obligatory narrow scope), as we will see in section 4.

For the moment let us discuss the technical implementation of the idea presented in this section.

3.2.4 Technical implementation: the visibility problem

The analysis of Q-*en* cliticization as well as the analysis of QAD crucially relies on the idea that Q-*en* remnants and QAD-remnants are associated with deficient structures. Q-*en* remnants, as well as QAD-remnants, are not objects that can check Structural Case. When they move to the specifier position of a functional projection, the functional projection does not "see" the features relevant for Case Checking, and as a consequence Case cannot be checked.

Intuitively, the idea seems attractive, and I have shown in chapter 2 and in the previous sections of this chapter that adopting the view that such remnants are indeed prohibited

from checking Case yields interesting results. It explains the subject/object asymmetries observed with both Q-*en* remnants and QAD remnants, as well as their obligatory narrow scope.

However the idea raises a problem with respect to its technical implementation. How does one ensure that the movement of *beaucoup* or the movement of Q-*en* will indeed have the effect of preventing the remnant from checking Case? How does the functional projection "see" whether the relevant feature is present or not? If Case is a feature of N, as I argued in chapter 2, it is unclear how the Case feature in N will be visible at the DP level: there seems to be a visibility problem. I will discuss two approaches to the problem: N to D movement (section 2.3.4.1) and overt feature-movement of the N features to D (section 2.3.4.2). I will adopt the second approach.
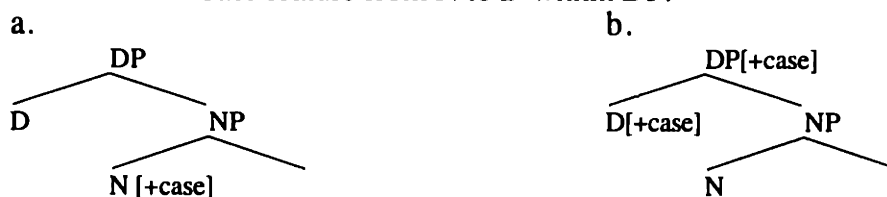
3.2.4.1 N to D movement: the ordering problem

A first approach that would solve the visibility problem is to assume that there is N to D movement within the DP. However N to D movement presumably applies at LF, and only at LF will the Case features become visible. This approach runs into an ordering problem: a DP which moves overtly to check Case does not yet have its Case feature visible. N to D movement therefore does not solve the visibility problem.

3.2.4.2 A relation between D and N: Feature movement

Recall the intuition behind the analysis: Case checked in the specifier of a functional projection is a property of full DPs, which contain both an overt D and an overt N. We could implement this intuition in the following way: in order for Case to be checked under the above circumstances, there must be an active relation between D and N within the DP. Movement of either D or N destroys the relation, and Case cannot be checked by the DP. Whether D is in a proper relation with N within the DP is seen at the DP level. The idea could be implemented more precisely in the following way. The relation between D and N is established by feature movement: the Case feature of N overtly moves to D. As a result, the Case feature becomes visible at the DP level. D itself does not have a Case feature: its contribution is to host the Case feature of N and make it visible at the DP level. D is therefore required in order for a DP to check Case, as desired. Movement of the Case feature of N to D is illustrated in (74) below.

(74)   Movement of Case feature from N to D within DP.

a.

```
              DP
          ___/  \___
         D          NP
                ___/  \___
              N [+case]
```

b.

```
              DP[+case]
          ___/   \___
       D[+case]      NP
                ___/  \___
               N
```

Recall from chapter 2 (section 3.2.4) that Q-*en* cliticization is a Case-checking operation. Movement of the Case feature of N to D cannot take place prior to Q-*en*-cliticization: if it does, the clitic will not check off the Case feature of *v*. Feature movement of the Case feature of N to D within the DP is optional. If it applies, the DP may check Case as a whole via movement.
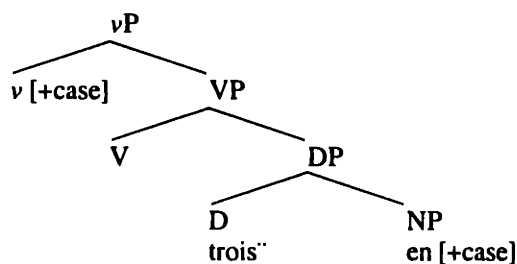
3.2.5 Ways of Case Checking

Let me now summarize the different ways in which Case can be checked according to the proposal made in this thesis, and more specifically given the technical implementation of the idea proposed in section 3.2.4.

The result of the proposal made in this dissertation is that there are three ways for the Case feature of a DP to be checked. The first one involves head movement of N to *v* and is exemplified by *en*-cliticization. The second involves feature movement of N to D, followed by extraction of the determiner. This is the way Case is checked in the context of QAD. Finally, the familiar way of Case checking requires movement of a full DP within which the Case feature of N has moved to D. I will illustrate each of them in turn.

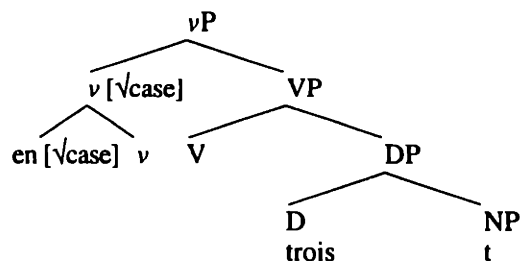#### 3.2.5.1 Case checked by head movement of N: Q-*en* cliticization

Q-*en* checks Case as a clitic on *v*. Cliticization must proceed from a structure like (74a), in which N to D movement has not applied. The initial configuration is given in (75) below.

(75)

```
              vP
          ___/  \___
      v [+case]     VP
                ___/  \___
               V          DP
                      ___/  \___
                     D         NP
                    trois"    en [+case]
```

(76) below illustrates how Case is checked by Q-*en*. Both N and *v* check off their Case feature.

(76)

```
              vP
           ___/  \___
       v [√case]      VP
        /  \        __/  \__
  en [√case]  v    V         DP
                          __/  \__
                         D        NP
                        trois      t
```
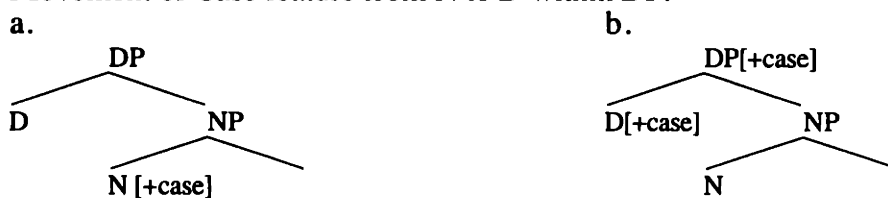
The result of the Case-checking operation in (76) is that Case cannot be checked by the Q-*en* remnant [trois t]. The DP now lacks a Case feature.

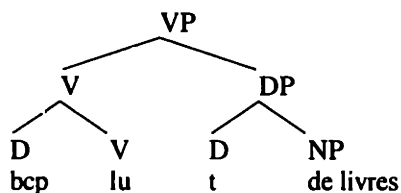### 3.2.5.2 Feature movement to D movement and extraction of D

Recall that if movement of the Case feature of N to D applies, the result is a DP of the form given in (74b).

(74)   Movement of Case feature from N to D within DP.

a.

```
         DP
       _/  \_
      D      NP
           _/  \_
      N [+case]
```

b.

```
           DP[+case]
         _/      \_
     D[+case]      NP
                 _/  \_
                N
```

From a structure like (74b), two ways of Checking Case are possible. If the determiner is of the proper type (i.e. a member of the beaucoup-class), Case can be checked via QAD. The other option is for the DP to check Case by movement (as we will see in section 3.2.5.3).

(77)   Case checking by extraction of the determiner

```
                 VP
              __/  \__
           V          DP
          / \        /  \
         D   V      D     NP
        bcp  lu     t   de livres
```

The movement of D checks off the Case feature of the DP. The result is a Caseless QAD remnant, illustrated in (78). Since the QAD remnant is caseless, it therefore has the same properties as a Q-*en* remnant, as desired.

(78) Caseless QAD remnant

```
            DP[-case]
           /        \
        D[-case]      NP
        t           /    \
              N
```
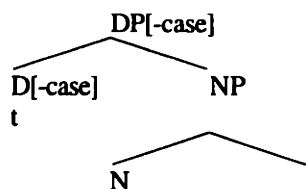
3.2.5.3 Feature movement to D movement and DP movement

Finally, once the Case feature of N has moved to D, the whole DP can check Case in the familiar fashion, by movement to the specifier of a functional projection. The Case feature is now visible at the DP level.

Note that we now have an explanation for the optionality of QAD: QAD proceeds from a structure like (74b). Case can be checked either by movement of the determiner or by movement of the whole DP.

4. Scope of QAD objects

This section concerns the scope of QAD-remnants. In section 4.1 I show that these objects obligatorily take narrow scope with respect to another scope-bearing element, and in section 4.2 I explain how this is predicted by the Case-theoretical approach. In section 4.3 I show that the properties of the class of determiners which allow QAD can be derived from the Case-theoretical approach as well.

4.1 Obligatory narrow scope for QAD-remnants

Although this fact has not received much attention in the generative literature, it was noted by Haïk (1982) that, contrary to their full counterparts, the objects in QAD constructions must take narrow scope. This property is also suggested by Dobrovie-Sorin's (1994) observation that objects in QAD constructions have an *amount interpretation*.

The relevant facts can be summarized by the descriptive generalization in (79).

(79)   QAD-remnants have narrow scope only. Their full counterparts have free scope.

We will look in some detail at exemples showing that the generalization stated in (79) holds.

A first case is provided by the contrast in interpretation between (80a) and (80b). While the object in (80a) may have wide or narrow scope with respect to negation, the object in (80b) only has narrow scope.

(80)   a. Jean n'a pas lu [beaucoup de livres]   (81a, b)
            Jean has not read a-lot of books

        b. Jean n'a pas beaucoup lu [t de livres]   (81a)
            Jean has not a-lot read of books

(80a), which contains the full DP [beaucoup de livres] as an object, is ambiguous between the two interpretations paraphrased in (81a) and (81b). (81a) corresponds to the narrow scope interpretation of the object with respect to negation. (81b) corresponds to the wide scope interpretation of the object with respect to negation. The QAD-remnant in (80b) can only be associated with the narrow scope interpretation given in (81a). A wide scope interpretation is completely excluded for (80b).

(81)   a. It is not the case that John read a lot of books.

        b. There are a lot of books that John hasn't read.

Similar facts obtain with a frequency adverbial: full DPs containing adnominal *beaucoup* may take wide or narrow scope, while QAD-remnants must take narrow scope. This is shown by the contrast in the interpretation of (82a) and (82b).

(82)   a. J'ai **souvent** lu [beaucoup d'articles] avant de commencer à écrire.   (83a, b)
            I have ˀften read a-lot of articles before to start to write
            "I often read many articles before starting to write"

        b J'ai **souvent** beaucoup lu [t d'articles] avant de commencer à écrire. (83a)
            I have often a-lot read   of articles

(83)   a. It was often the case that I read a lot of articles before starting to write.

        b. There are a lot of articles that I read often before starting to write.

The full DP in (82a) may take wide or narrow scope with respect to the frequency adverbial *souvent* (often). The sentence is thus ambiguous between the two interpretations given in (83a) and (83b). (83a) paraphrases the meaning of the sentence when the object takes narrow scope. It could be used by a writer who generally goes over the whole literature on a topic before starting to write. It does not mean that the articles were each read many times. (83b) corresponds to the wide scope reading for the object. It could be used by a writer who needs to go over a large number of articles over and over again before starting to write. In this case each article was read many times. The QAD-remnant in (82b) may

only have narrow scope with respect to *souvent*; the interpretation of (82b) is limited to the paraphrase given in (83a).

The contrast in interpretation between full DPs and QAD-remnants can also be observed with the modal verb *devoir* (must). The relevant examples are given in (84a) and (84b).

(84)   a.   Jean doit avoir lu beaucoup de livres d'ici la fin du semestre.
             J. must have read a-lot of books before the end of the semester

       b.   Jean doit avoir beaucoup lu de livres d'ici la fin du semestre.
             J. must have a-lot read of books before the end of the semester

Only (84a) is ambiguous between a wide scope and a narrow scope reading for the object with respect to the modal verb. (I only consider here the deontic interpretation of *devoir*, and ignore its epistemic interpretation, which seems to involve widest scope for the verb, cf. Boivin 1994). (85a) is a paraphrase of the sentence with narrow scope for the object; (85b) paraphrases the meaning of the sentence with wide scope for the object.

(85)   a.   John's obligation is to read a large number of books before the end of the
             semester.

       b.   There are many books that John has the obligation to read before the end of the
             semester.

(84b) is not ambiguous. It can only have the reading paraphrased by (85a), which involves narrow scope for the object.

4.2 Case and the interpretation of QAD-remnants

The goal of this section is to show that the scopal interpretation of QAD-remnants, as opposed to full DPs containing adnominal *beaucoup*, can be derived from the Case-theoretical approach developed in this thesis. The reasoning applied here is strictly parallel to the reasoning used in section 6.2 of chapter 2 regarding the scopal interpretation of Q-*en* remnants (as opposed to G-*en* remnants).

The Case-theoretical approach to the subject/object asymmetries found with QAD forces a similar treatment of these objects when they appear with transitive verbs. QAD-remnants, as deficient DPs, are unable to check Structural Case in the specifier of a functional projection. As objects of transitive verbs, they cannot move out of the VP for Case checking. Full DPs containing adnominal *beaucoup* on the other hand are able to check Structural Case, and therefore will move out of the VP to the outer [Spec, *v*] to check Case at LF. The two types of objects are thus associated with different representations at LF. Let
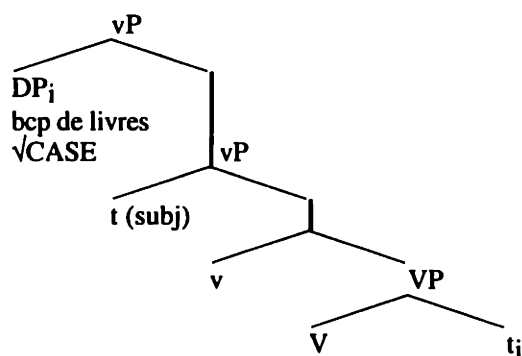
us consider the (relevant parts of the) LF representations for the sentences in (86) and (87) below.

(86) Jean a lu [beaucoup de livres].
      J. has read a-lot of books

(87) Jean a beaucoup lu [t de livres].
      J. has a-lot read of books

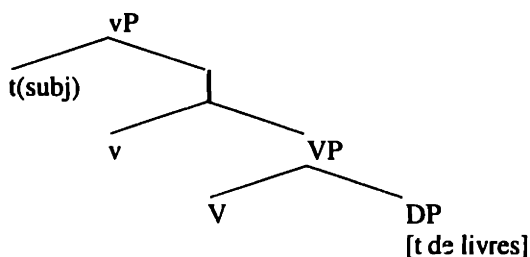The DP in (86), which contains adnominal *beaucoup*, appears in the LF configuration given in (88).

(88) DP containing adnominal *beaucoup* at LF

```
            vP
        ___/  \
   DPᵢ          \
   bcp de livres  |
   √CASE          | vP
              ___/  \
        t (subj)     |
              __/ \__|___
             v        VP
                  ___/  \___
                 V          tᵢ
```

DPs like *beaucoup de livres* are full DPs. They contain both a D and an N feature and are able to check Case in accordance with condition (57). They move out of the VP to [Spec, v] at LF for Case checking.
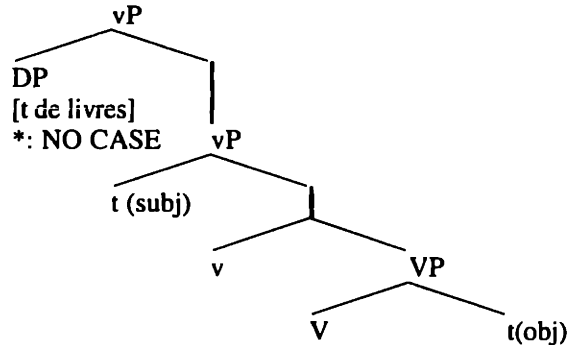
QAD-remnants appear in the LF configuration given in (89).

(89) QAD-remnant at LF

```
            vP
        ___/  \
   t(subj)      |
         ___/ \_|__
        v          VP
              __/  \___
             V         DP
                       [t de livres]
```

QAD-remnants are deficient. They lack the D feature necessary to check Case given condition (57). They do not move out of the VP for Case-checking at LF. They cannot appear in the LF given in (90) below.

(90) Ill-formed LF for QAD-remnants.

```
            vP
       ___/  \___
   DP           |
[t de livres]    |
*: NO CASE      vP
           ___/  \___
      t (subj)         |
               ___/  \___
              v           VP
                      ___/  \___
                     V          t(obj)
```

The two approaches to scope that were presented in chapter 2 will equally well derive the facts.

Under the view that QR, as an instance of A-bar movement, must proceed from a Case position, the object in (88), but not the object in (89), is a possible candidate for QR. The full DP object in (88) occupies a Case position and is "visible" for QR. The deficient QAD-remnant in (89) never reaches a Case position: it is invisible for QR.

For Hornstein (1995), there is no QR. The scopal interpretation of noun phrases is a function of the positions that they occupy in an A-chain. Under this view, only the full DP in (88) can take wide scope. The QAD-remnant is trapped in its base position. As a consequence, its scope is fixed in this position.

4.3 The beaucoup class: weak determiners

This section completes the parallel established between QAD and Q-en extraction. Recall from Chapter 2 that Q-en extraction exhibits a definiteness restriction. Q-en can only strand weak determiners, such as trois, beaucoup, etc. It cannot strand strong determiners. I have proposed an explanation for that fact. The idea was that since the object from which Q-en is extracted can only be interpreted in its base position within the VP, Q-en can appear only with determiners that are interpretable in that position.

With this in mind, let us take a look at the determiners that participate in the QAD construction, i.e. the members of the beaucoup-class.

(91) the beaucoup-class (indicative list)

beaucoup (a lot/many), assez (enough), trop (too much), peu (little), autant (as many/much), davantage (more), énormément (enormously), etc.

These determiners share the property of being weak. For instance they all can appear in an expletive construction.

(92)   Il est arrivé beaucoup/assez/davantage d'étudiants.
        expl. is arrived a-lot/enough/more of students
        "There arrived a lot of students/enough students/ more students."

Just as the definiteness restriction on Q-*en* is explained by the fact that the object must be interpreted within the VP, the fact that the members of the *beaucoup*-class share the property of being weak determiners is explained in the same way. The members of the *beaucoup*-class are all weak determiners because when they appear in QAD they must be interpreted VP-internally.

5. Negation

As is well known, the QAD facts are replicated in negative contexts (cf. Kayne 1981, Rowlett 1996, among many others). Negation (*pas*) in French licenses objects of the form *de livres*. Such phrases cannot appear as subjects in a negative context and obligatorily have narrow scope. These properties are illustrated in (93) to (95) below.

(93)   Jean n'a pas vendu de livres aujourd'hui.
           J. did not sell of books today

(94)   *De livres n'ont pas été vendus aujourd'hui.
           of books were not sold today

(95)   Jean a décidé de (ne) pas acheter de livres.
           J. has decided to not buy of books
           "J. decided not to buy books"

The sentence in (95) is unambiguous and can only be paraphrased as in (4a), and not as in (4b) or (4c). The object only has narrow scope with respect to the verb *décider*.

(4)   a.   Jean's decision is to buy no book.

       b.   There is no book that Jean decided to buy.

       c.   There are books that Jean decided not to buy

These properties are strictly similar to the properties of QAD. Rowlett (1996) argues that in fact *pas* is a member of the *beaucoup*-class, and that sentences like (93) are derived via movement of *pas* from a position internal to the noun phrase. I will not take a stand on this question, but see Rowlett (1996) and Hirshbühler and Labelle (1993) for discussion of the similarity and differences between negation and QAD. I will suggest, however, that the *de-*

objects found with negation have the same structure as the QAD remnants. As a result, the facts regarding their distribution and their interpretation follow.

Chapter 4

French Stylistic Inversion

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1. Introduction

The goal of this chapter is to show that the analysis of *en* cliticization and Quantification at a distance has some interesting consequences for the understanding of Stylistic Inversion (henceforth S-inversion) in French. The contrast observed between Q-*en* and G-*en* with raised subjects, as well as the contrast between QAD-remnants and their full counterparts with derived subjects, holds in S-inversion contexts. This fact strongly suggests that [Spec, TP], a Case position, must be involved in S-inversion. The goal here is not to solve the complex problems raised by S-inversion, but to emphasize the contribution of this thesis to their futher study. I will also note in passing the problems faced by ECP approches to *en*-cliticization and QAD in the context of S-inversion.

Although its subjects are generally preverbal, French accepts post-verbc: subjects in some contexts. These contexts are illustrated in the examples below: wh-questions (1)[1], subjunctive (2), *ne...que* constructions (3), and locative inversion (4)[2].

(1)   a.   Quand partira ton ami?
          When leave-fut. your friend
          "When will your friend leave?"

      b.   Avec qui jouaient tes enfants?
          With whom were playing your children   (Kayne and Pollock 1978:595)
          "With whom were your children playing?"

(2)   a.   Je veux que parte Paul.
          I want that leave-subj. Paul
          "I want Paul to leave."

---

[1]. Note with Kayne and Pollock (1978) that S-inversion is not triggered by any wh-context but by overt wh-movement, as shown by(i) and (ii).
(i)   *Partira ton ami quand?
          Will-leave your friend when?
(ii)   *Partira ton ami?
          Will-leave your friend?
[2]. As Alec Marantz pointed out to me, contexts such as (1), (2) and (4) allow Stylistic Inversion, whereas there is no other option in (3): no preverbal position is available for the subject in *ne...que* constructions. *Ne...que* forces S-inversion.

b. J'exige que soit eliminée cette solution.
I demand that be-subj. eliminated that solution
"I demand that that solution be eliminated."

<div align="right">(Kayne and Pollock 1978:602)</div>

(3)   Ne viendront que quelques touristes.
           NE[3] will-come only a few tourists
           "Only a few tourists will come."

(4)   Dans ce grenier couraient des milliers de souris.   (from Pollock 1986)
           In this attic were running thousands of mice

As we will see in detail in the next section, Stylistic Inversion is a context in which the contrast between G-*en* and Q-*en* holds: G-*en* is acceptable with an inverted subject, whereas Q-*en* is not. Furthermore the contrast between QAD-remnants and their full counterparts holds as well with S-inversion: QAD-remnants are not acceptable as inverted subjects, but their full counterparts are. Given the proposal made in this thesis, the presence of this contrast in S-inversion sentences strongly suggests that the 'inverted subject' must at least reach [Spec, TP]. The subjects in S-inversion must check Case in [Spec, TP]: if this is so the relevant contrasts between Q-*en* and G-*en*, as well as the QAD contrasts, are explained in a straighforward way.

2. Stylistic Inversion, *en*, and QAD

2.1 S-inversion and *en*-cliticization

Let us first observe that the contrast between G-*en* and Q-*en* with passive/unaccusative verbs (i.e. with raised subjects) holds in S-inversion contexts. The (b) examples in (5)-(8) below show that Q-*en* does not appear with inverted subjects in any of the four contexts for S-inversion[4]. (I use "inverted subject" as a descriptive term, a short-hand for 'subject in stylistic inversion'. It does not have any theoretical import). The facts presented in (5) to (8) below were noted by Pollock (1986) and the examples are his, with minor adaptations.

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[3]. *Ne* is not negation, and it does not seem to have an English equivalent. In fact *ne...que* seems to be a discontinuous *only*.

[4]. I am not using transitive verbs since we have established that *en*-cliticization is prohibited from underlying subjects because it involves downward movement of the clitic onto *v* (chapter 2, section 3.2.3). It is worth noting that the stylistic inversion facts confirm that hypothesis: with underlying subjects, any type of *en* is excluded, as shown by the absence of contrast between (i) and (ii), illustrating Q-*en* and G-*en* respectively.

(i)   a. Où lisaient trois étudiants?   b.*Où en lisaient trois.
          Where were-reading three students

(ii)   a. Qu'a fait progresser la préface de ce livre? b.*Qu'en a fait progresser la préface
          What have made progress the preface of this book

We will return to these facts with regard to the specific analyses of S-inversion presented in this chapter, particularly in relation to the expletive construction account.

(5)   a. Où ont été exécutés trois innocents?
Where have been executed three innocents?
"Where were three innocents executed?"

       b. *Où en ont été exécutés trois?
Where of-them have been executed three?
"Where were three of them executed?"

(6)   a. Qu'aient été exécutés trois innocents, ça te laisse indifférent?
That have been executed three innocents, this leaves you indifferent?
"That three innocents were executed leaves you indifferent??"

       b. *Qu'en aient été exécutés trois, ça te laisse indifférent?
That of-them have been executed three, this leaves you indifferent?

(7)   a. Ne seront exécutés que trois innocents.
Ne will-be executed only three innocents
"Only three innocents will be executed."

       b. *N'en seront exécutés que trois.
Ne of-them will-be executed only three

(8)   a. Dans cette prison ont été exécutés deux innocents.
In that prison have been executed two innocents
"In that prison were executed two innocents."

       b. *Dans cette prison en ont été exécutés deux.
In that prison of-them have been executed two

G-*en* does not present the contrast seen above. G-*en* is perfectly compatible with inverted subjects in any context of S-inversion. This is shown in the examples in (9)-(12) below.

(9)   a. Où a été publiée la préface de ce livre?
Where has been published the preface of that book
"Where has the preface of that book been published?

       b. Où en a été publiée la préface?
Where of-it has been published the preface
"Where has its preface been published?"

(10)   a. Qu'aient été publiées trois versions différentes de ce livre est étonnant.
That have been published three different versions of this book is surprising

       b. Qu'en ait été publiées trois versions différentes est étonnant.
That of-it have been published three different versions is surprising

(11)   a. Ne sera publiée que la première version de ce manuscrit.
Ne will-be published only the first version of that manuscript
"Only the first version of that manuscript will be published."

       b. N'en sera publiée que la première version.
ne of-it will-be published only the first version
"Only the first version of it will be published."

(12)   a.   Dans cet affreux building a été conçue la première version du radar.
            In that ugly building has been conceived the first version of the radar
            "In that ugly building was conceived the first version of radar."

       h.   Dans cet affreux building en a été concue la première version.
            In that ugly building of-it has been conceived the first version
            "In that ugly building the first version of it was conceived."

Recall from chapter two that I have proposed that the contrast between G-*en* and Q-*en* with derived subjects must be attributed to Case theory. More specifically I have proposed that G-*en* remnants can and must raise to [Spec, TP] to check Case, whereas Q-*en* remnants lack a Case feature and cannot raise to [Spec, TP]. The presence of the very same contrast in Stylistic Inversion contexts strongly suggests that the same forces are in action to prevent the occurrence of Q-*en*, i.e. that inverted subjects must at least reach the [Spec, TP] position. An inverted subject is a subject that checks Case in [Spec, TP]. As a consequence, G-*en* is allowed, because its remnant can check Case. Q-*en* is disallowed because its remnant can never reach [Spec, TP]. It lacks the Case feature necessary to enable it to do so.

2.2 S-inversion and QAD

Let us now turn to QAD and observe that the contrast between QAD-remnants and their full counterparts, observed with raised subjects in chapter 3, holds in S-inversion contexts as well[5]. Examples (13) to (16) below illustrate that QAD is impossible with Stylistic inversion, in the four familiar contexts[6] (again I use unaccusative/passive verbs, since under the analysis that I proposed in the preceding chapter QAD is prohibited with thematic subjects for independent reasons[7]).

---

5. This fact is noted by Kayne and Pollock (1998, 1999) for S-inversion contexts triggered by wh-movement. Note that, as they mention and as we expect from the discussion in section 5 of chapter 3, it also holds of negative contexts:
(i)   *Le jour où n'ont pas téléphoné de linguistes. (K&P99, see fn. 7).
         the day where have not called of linguists
         "The day where no linguist called."
(ii)   *Le jour où ne sont pas venus de linguistes
         the day where are not come-past of linguists
         "The day where no linguists came."
6. As Kayne and Pollock point out, there is a preference for a definite noun phrase in S-inversion triggered by wh-movement, but the contrast still holds between (13) in the text and the two examples below.
(i)   ?Où ont été envoyés beaucoup de livres
(ii)   Ou ont été envoyés ces livres?
7. Unergatives are expected to yield ungrammaticality under any account: *beaucoup* moves down, or the subject *de N* contains an unbound empty category, cf. (i).
(i)   *de linguistes ont beaucoup téléphoné.

(13) a. *Où ont beaucoup été envoyés de livres?
Where have a-lot been sent of books

b. ?Où ont été envoyés beaucoup de livres?
Where have been sent a-lot of books
"Where were a lot of books sent?"

(14) a. *Qu'aient été beaucoup envoyé(s) de livres est étonnant.
That have been a-lot sent of books is surprising.

b. ?Qu'aient été envoyés beaucoup de livres est étonnant.
That have been sent a-lot of books is surprising
"That a lot of books were sent is surprising."

(15) a. *Ne seront que peu envoyé(s) de livres.
ne will-be that little sent of books

b. Ne seront envoyés que peu de livres.
ne will-be sent that little of books
"Only a few books will be sent."

(16) a. *Dans ce pays du tiers monde ont été beaucoup envoyés de livres.
In that third world country were a-lot sent of books

b. ?Dans ce pays du tiers monde ont été envoyés beaucoup de livres.
In that third world country have been sent a-lot of books
"To that third world country were sent a lot of books."

Again the contrast observed with raised subjects is replicated: there is a clear contrast between full DPs containing adnominal *beaucoup* as inverted subjects and QAD-remnants as inverted subjects. Full DPs may be inverted subjects, QAD-remnants may not.

2.3 Conclusion: Stylistic inversion must involve [Spec, TP]

If the proposal made in this thesis is essentially correct, these facts indicate that all subjects in S-inversion contexts must minimally reach [Spec, TP]. (It does not mean that the subject is occupying [Spec, TP] as its final position, but, if it is elsewhere, it must at least have passed through [Spec, TP]).

3. Analyses of S-inversion and ECP accounts of *en* and QAD

In this section I will go over the main analyses of Stylistic Inversion. From our standpoint, there are two types of S-inversion analyses. The first type is exemplified by Kayne and

Pollock (1978)'s seminal paper on the topic[8], in which they propose that the subject in stylistic inversion is rightward moved from its subject position to a post verbal position. The second type of analysis proposes that inverted subjects are VP-internal, more specifically that S-inversion contexts are a kind of expletive construction. We will see that from the point of view of the facts that we have been concerned with in this thesis, the second type of analysis is untenable. As should be clear from the discussion in chapter two and three, VP-internal arguments, in particular VP-internal objects (and expletive constructions), are perfectly compatible with both Q-*en* and QAD. These facts seem to defy (even a pre-theoretical) explanation if S-inversion involves an expletive[9].

3.1 The [Spec, TP] accounts: Kayne and Pollock (1978, 1998/99)

Let us first look at Kayne and Pollock (1978)'s original proposal for the structure of S-inversion. For them, S-inversion moves the subject from [Spec, TP] to a post-verbal position (presumably a VP-adjoined position in current terms). The structure of S-inversion (at least for wh-contexts, since these are the contexts studied by K&P78), is as follows:

(17)   [CP wh [TP t [VP V] subject]]

From our point of view, the contrast exhibited by Q-*en* and G-*en*, as well as the contrast exhibited in QAD contexts, follows: the subject in S-inversion has to first move to [Spec, TP] and from there it is lowered to an VP adjoined position. This means that Q-*en* remnants, just like QAD-remnants, will never reach the [Spec, TP] position, and, as a consequence, will not undergo stylistic inversion. From an ECP point of view on *en*-cliticization, these facts may be problematic if the post-verbal position is considered to be governed by the verb. If this is so, there should be no contrast between G-*en* and Q-*en* in

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The fact that the contrast is replicated in S-inversion contexts supports the analysis given in the preceding chapter. We will return to this point in the discussion of specific accounts of S-inversion.

8. One of Kayne and Pollock's contributions in this paper is to provide a clear empirical argument for successive cyclicity in wh-movement. Subjects can be inverted as long as a wh-phrase has moved through [Spec, CP]:
(i) ? Avec qui a pretendu Marie que sortirait Jean?
   with whom has pretended M. that will-go-out J.?
   "With whom did Marie pretend that Jean will go out?"
(ii) * A quoi voit Luc qu'est venu Jean.
   to what sees L. that is came J.

9. This is not to say that the expletive accounts are unmotivated. The main motivation for such an account was given by Pollock (1986): a sub-class of S-inversion contexts (i.e. all non-wh contexts) do not allow control into an adjunct clause. If these contexts of S-inversion are analysed as some kind of expletive construction, the control facts follow: the expletive in [Spec, TP] cannot control into the adjunct, cf. section 3.2. However the control facts are in plain contradiction with the *en* and QAD facts, which suggest that all S-inversion contexts should involve [Spec, TP]. See section 4 of this chapter for some conjectures.

S-inversion contexts. The ungrammaticality of QAD-remnants on the other hand could be explained if the subject adjoins higher than the position of the member of the beaucoup-class.

Kayne and Pollock's new thoughts (1998, 1999) on stylistic inversion also involve [Spec, TP] as a landing site for the subject in S-inversion (for wh-triggers). The crucial steps of this account are illustrated, for the sentence in (18), by the derivation in (19) below.

(18)   Où va Jean?
       where goes J.
       "Where is Jean going?"

(19)   a.   [$_{TP}$ Jean va [où]]
       b.   [$_{CP}$ Jean [$_{TP}$ t va [où]]
       c.   [$_{CP}$ où [$_{CP}$ Jean [$_{TP}$ t va]
       d.   [$_{CP}$ où [$_{TP}$ t va] [$_{CP}$ Jean t]]

The steps of the derivation deserve some explanation. First, the subject *Jean* moves out of the TP to the (inner layer of) the CP field, as shown in (19b). The wh-phrase moves out to the (outer) CP field[10], as in (19c). After movement of the subject and wh-movement, the remnant TP tucks in between the two layers of the CP field, as in (19d), deriving the correct word order.

Under this analysis, (if its spirit were to be applied to all instances of S-inversion[11]), the contrasts illustrated in section 2.2 follow. The subject in S-inversion must pass through [Spec, TP]. This means, under our account, that G-*en* remnants will be felicitous as inverted subjects, since they can raise to [Spec, TP] and check Case. Q-*en* remnants will not be felicitous as inverted subjects: they lack a Case feature and cannot raise to [Spec, TP]. Likewise, QAD remnants will not be proper inverted subjects, but their full counterparts will be.

Kayne and Pollock (1998, 1999) point out that their proposal accounts for the absence of Q-*en* cliticization and QAD in S-inversion under an ECP approach to the problem: *en* (which is within the tucked in TP) does not c-command its trace in the subject (which is in the CP field), and *beaucoup* does not c-command its trace within the subject either. If the

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[10]. Since the wh-phrase is in fact the trigger, it would be preferable to have wh-movement first, accounting for the fact that no movement of the subject into the CP field takes place unless there is previous movement of the wh-phrase.

[11]. K&P (1999) explicitly restrict it to the wh-triggered contexts, presumably in view of the control facts, which I will present and discuss in section 3.2.2.

ECP were at the heart of the solution here, we would expect no contrast betwen G-*en* and Q-*en*: just as the trace of Q-*en* is not governed by the pronoun, the trace of G-*en* in the inverted subject position will not be antecedent governed by *en* either. I will give the representations for the sentences in (20) and (21) below, which illustrate again the contrast between G-*en* and Q-*en* in Stylistic Inversion contexts.

(20) Où en a été lue la préface?
where of-it has been read the preface
"Where has its preface been read?"

(21) *Où en ont été lus trois?
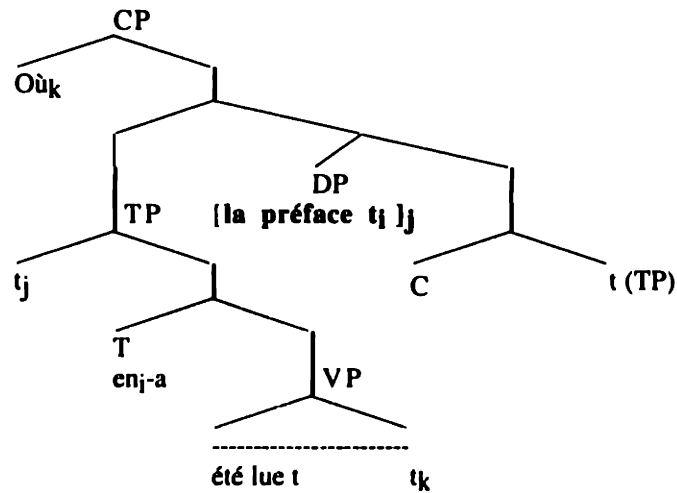*where of-them have been read three*

The tree given in (22) illustrates the first steps of the derivation of (20). (I only indicate the final position of *en*, namely on T. See chapter 2, section 3.2.3 for discussion).
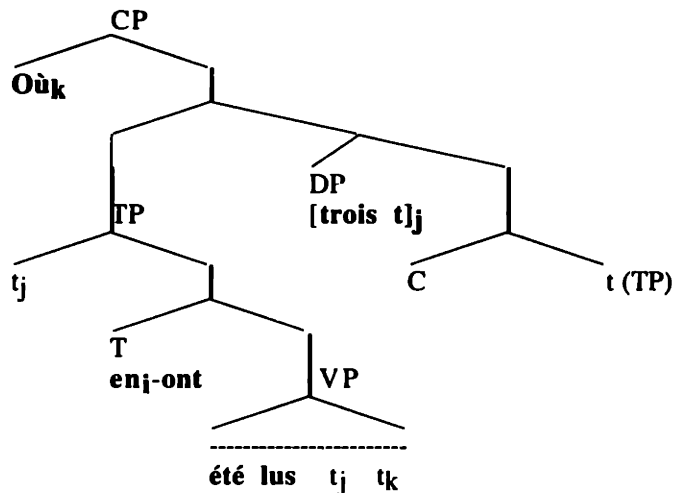
(22)
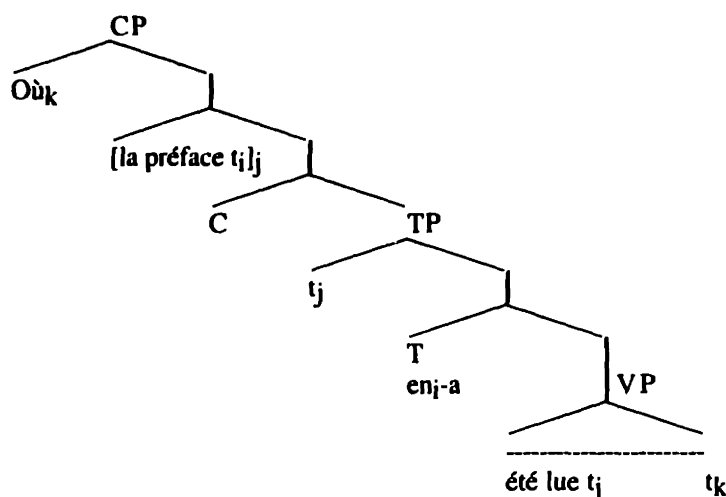
In (22) above are illustrated *en*-cliticization, subject raising and subject extraction into the CP field. Also illustrated is wh-movement of *où* (where). Now here is how S-inversion comes about. The whole TP is moved between the wh-phrase and the subject, within the CP-field. This is illustrated in (23) below.

(23)

```
                        CP
           _____/  \
        Oùk              \
          \               _____
           \              |           \
            \            DP            \
          TP  [la  préface  tj ]j       \
            \                  _____ \
            |                   |       \  \
           tj                   C      t (TP)
            _____
            |          \
            T           \
          enj-a          VP
            _____/  \
            |--------------|
            été lue t      tk
```

As I previously mentioned, this analysis, along with the proposal made in this thesis, since it crucially involves [Spec,TP] as a landing site for inverted subjects, directly accounts for the contrast between G-*en* and Q-*en* with inverted subjects. The representation of (21), which involves an inverted subject with Q-*en*, is as follows in (24).

(24)

```
                        CP
           _____/  \
        Oùk              \
          \               _____
           \              |           \
            \            DP            \
          TP  [trois  t]j              \
            \                  _____ \
            |                   |       \  \
           tj                   C      t (TP)
            _____
            |          \
            T           \
          enj-ont        VP
            _____/  \
            |--------------|
            été lus   tj   tk
```

Again, from our point of view the ungrammaticality of (21) follows: the remnant [trois t] can never reach [Spec, TP] and a fortiori cannot be extracted from a [Spec, TP] position. For ECP accounts of *en*-cliticization, the S-inversion facts are problematic: *en* does not c-command its trace in either (23) or (24), and the grammaticality of (20), whose final representation is as in (23), is unexpected.

3.2 S-inversion as an expletive construction

The other class of analyses of S-inversion assigns to S-inversion sentences a structure comparable to that of expletive constructions. This is what has been proposed by Pollock

(1986) for the contexts in which the inverted subject does not control into an adjunct (non-wh-contexts), and by Déprez (1988), Valois and Dupuis (1992), and Friedemann (1997)[12].

3.2.1 The proposal

The idea put forth by these analyses is that the inverted subject in S-inversion sentences is in fact in its base position within the VP. A null expletive *pro* occupies [Spec, TP]. The essential features of these proposals are illustrated in (25) below.

(25)   S-inversion as an expletive construction
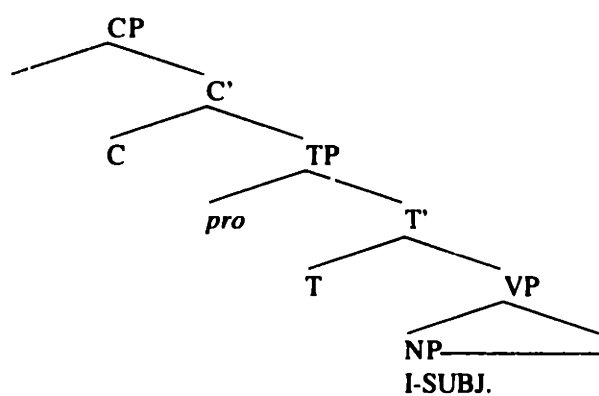
3.2.2 Adequacy of the proposal

The main advantage of an analysis of the type illustrated in (25) is that it accounts for the fact that, in non-wh contexts[13], the inverted subject does not control into an adjunct clause, a property that is shared by other expletive constructions in French. This is illustrated by the examples in (26) and (27) below.

(26)   *Sur cette bibliothèque trônaient ces bibelots de prix avant de tomber par terre.
         On that bookshelf were-sitting those curios   before falling down

(27)   *Il trônait des bibelots de prix sur cette bibliothèque avant de tomber par terre.
         there were curios   on this bookshelf   before falling down

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[12]. For Friedemann (1997) the internal subject is post-verbal, i.e. [Spec, VP] is underlyingly right-branching in French. This point does not matter for our discussion.

[13]. As Pollock notes, in wh-contexts the inverted subject may control the subject in an adjunct. (i) below contrasts minimally with (26).
(i)   Où trônaient ces bibelots avant de tomber par terre?
       Where were sitting those curios before falling down

3.2.3 The problems

Considering S-inversion as an expletive construction in French encounters certain problems as well. First, although (some cases of) S-inversion share the control property with expletive constructions, S-inversion does not exhibit any other typical properties of expletive constructions in French. In S-inversion sentences, the verb (and the past participle, if the i-subject is an underlying object) agrees with the subject. In expletive constructions, the verb agrees with the expletive and there is no past participle agreement:

(30)   Sur cette bibliothèque ont trôné des bibelots de prix.
        on this bookshelf have-pl been sitting curios
        "On this bookshelf were sitting some curios."

(31)   Il a trôné des bibelots de prix sur cette bibliothèque.
        there has sit curios   on this bookshelf
        "There were curios sitting on this bookshelf."

Furthermore, there is no Definiteness Restriction in S-inversion sentences, whereas expletive constructions do exhibit a DR.

Finally, and more importantly, the *en*-cliticzation facts and the QAD facts remain unexplained if (some cases of) S-inversion involve an expletive. Recall that G-*en* is allowed in all instances of S-inversion, whereas Q-*en* is not, as was shown in the examples (5) to (12) above. QAD is not allowed with S-inverted subjects, as attested by (13) to (16) above. These facts cannot be explained if the inverted subject is in its base-position: Q-*en* and QAD are perfectly compatible with expletive constructions.

(32)   Il en est entré trois
        expl. of-them is arrived three
        "There arrived three of them."

(33)   Il est beaucoup entré d'étudiants d'un seul coup.
        expl. of-them is a-lot enterd at once
        "There entered a lot of students at once."

4. Conjectures and conclusion

We are facing here what seems to be contradictory evidence. The *en*-cliticization facts and the QAD facts suggest that the inverted subject must reach [Spec, TP]. The agreement facts and the absence of DR on S-inversion also converge in suggesting that there is a real subject in [Spec, TP] in these contexts. The control facts on the other hand suggest that in non-wh contexts the subject position is not filled with an element that can control into an adjunct.

Is there a way to resolve this paradox? Can we reconcile the *en/*QAD and agreement facts with the control facts? Here is a speculation. It could be that the subject in non-wh-contexts obligatorily reconstructs into its base-position: it reaches [Spec, TP], triggering all the effects associated with that position: no Q-*en*, no QAD, agreement, absence of DR. However it is completely deleted from that position and pronounced in its base position. The subject must be deleted from [Spec, TP]: this is what will ensure the absence of control in non-wh contexts. This type of deletion is independently needed for at least one type of construction: Antedecent Contained Deletion (ACD). In ACD sentences, the object must QR in order to solve the infinite regress problem faced by copying the content of the elided VP. What is left by QR is a VP of the form [V t], but the trace there cannot have the same content as the moved DP. The content of the moved DP must be deleted.

I hope to have shown in this chapter that the analyses of QAD and *en*-cliticization presented in this thesis shed light on one aspect of the very complex problems raised by S-inversion, namely on the position of the subject. The subject in all instances of S-inversion should at least reach [Spec, TP].

Chapter 5

Conclusion

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1. Summary of the dissertation

I have examined in this dissertation two puzzles provided by the syntax of French noun phrases, more specifically split noun phrases such as the ones created by *en*-cliticization and Quantification at a distance. I have proposed that Case is a feature of the nominal head N of a DP, and that a more articulated theory of Case checking accounts for the distribution of G-*en* and Q-*en* remnants, as well as QAD remnants and their non-QAD counterparts. I have shown that Case theory predicts the obligatory narrow scope of Q-*en* remnants and QAD remnants, and the Definiteness Restriction observed in these contexts. The thesis is a contribution to the theory of Case and more generally to the theory of feature checking, and it provides a new approach to problems that have traditionally been attributed to the ECP.

Chapter two was devoted to the study of *en*-cliticization in French. After presenting some key aspects of the internal structure of noun phrases, I argued that the contrast between G-*en* and Q-*en* when they appear with raised subjects is best analyzed as following from Case theory than from the ECP or BT. In addition we have seen that the Case theoretical approach to the puzzle extends naturally to the distribution of the counterparts of *en* in Italian and Catalan. Finally I have shown that the Case theoretical approach predicts the fact that Q-*en* remnants obligatorily have narrow scope, as well as the Definiteness Restriction on Q-*en* extraction.

Chapter three was a study of Quantification at a distance (QAD). I extended the Case theoretical approach to the distribution of QAD remnants. After presenting the phenomenon, I reviewed the standard arguments for movement and base-generation analyses of QAD. I then argued that given the parallel behavior of QAD remnants and Q-*en* remnants, it is desirable to provide an explanation of QAD in terms of Case. I showed how Case theory predicts the obligatory narrow scope of QAD remnants, and the fact that only weak determiners are members of the *beaucoup*-class.

Stylistic Inversion was the topic of Chapter four. The goal of the chapter was to show how the analysis of *en* and QAD can shed light on the position of the subject in S-inversion contexts. The facts suggest that [Spec, TP] must be involved in all instances of S-inversion. Furthermore, the distribution of *en* and QAD in S-inversion contexts is problematic for ECP accounts under any analysis of S-inversion, whereas it follows from the Case theoretical analysis.

2. Avenues for future research

The approach advocated in this dissertation may advance the understanding of other phenomena involving split noun phrases, and more generally of ECP effects. Given the limits of this dissertation, I have not examined a number of constructions which share some or all of the key properties of Q-*en* cliticization and QAD, such as the Genitive of negation in Russian, German Split Topicalization, *was für* split in German, *wat voor* split in Dutch, and bare noun phrases in the Romance languages.

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