

SEMANTIC AND SYNTACTIC ASPECTS
OF ROMANCE SENTENTIAL COMPLEMENTATION

by

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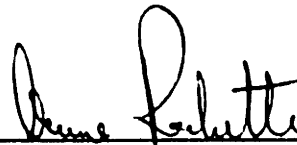
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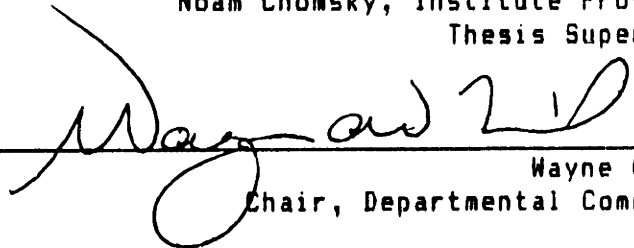


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ABSTRACT

This dissertation is a study of different semantic and syntactic aspects of sentential complementation in the Romance languages. A general theory of sentential complementation is developed to account both for the numerous syntactic differences found among the different types of sentential complements and for the selectional properties of the semantic classes of main predicates that select these complements.

In chapter 1, a semantic classification of main predicates is introduced. Three main classes of predicates are distinguished: *effective*, *emotive* and *propositional* predicates. The major leading hypothesis of this dissertation is also introduced in that chapter. It is argued that the three semantic classes of predicates s-select distinct semantic types of sentential complements which also correspond to distinct structural types of complements.

Chapter 2 is a study of the complements to effective verbs. It is argued that the effective verbs select the semantic type *action* and that the structural realization of *action* is a projection of the category V, usually an infinitival complement in Romance. A good part of the chapter is concerned with the analysis of the so-called restructuring phenomenon. It is argued that the crucial property underlying restructuring is the possibility for certain matrix verbs to not have an E-position in their thematic grids. When these matrix verbs lack an E-position they behave like auxiliary verbs and the matrix INFL can θ -bind the E-position of the embedded predicate. It is also argued that the prepositions that introduce complements to effective verbs should be analyzed as instances of Case spelling rather than as complementizers. With some effective verbs, *action* can also be realized as a projection of the category N. It is shown that these complements are necessarily interpreted as "concealed actions".

Chapter 3 is a study of the complements to emotive verbs. It is argued that the emotive verbs select the semantic type *event* and that the structural realization of *event* is a projection of the category INFL. Depending on the value of the feature (Tense) under INFL, the complement will either appear as a subjunctive complement or as an infinitival complement. Different phenomena characteristic of subjunctive complements are examined, such as the well-known obviative phenomenon and other transparency effects which are analyzed as following from the fact that the head of the complement is INFL. It is also argued that the possible presence of certain types of sentential operators (factivity, modality, etc.) may

create some opacity effects for these subjunctive complements. Certain syntactic constructions that appear to distinguish the complements to emotive verbs from the other types of complements are also studied in that chapter and it is argued in each case that their existence provides further evidence in support of a structural distinction of the complements to emotive verbs.

In chapter 4, the complements to propositional verbs are examined. It is argued that propositional verbs select the semantic type *proposition* and that the structural realization of *proposition* is normally a projection of the category COMP. It is shown that this claim accounts for the Romance infinitival complements to propositional verbs but appears to be contradicted by the behavior of the English infinitival complements which are often analyzed as IP's rather than CP's. An analysis in terms of Case-marking differences between English and the Romance languages is developed to account for this difference.

Thesis Supervisor: Noam Chomsky
Title: Institute Professor

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Chapter 1

INTRODUCTION

The purpose of this thesis is to investigate different syntactic and semantic aspects of sentential complementation, focusing mainly on Romance languages and more particularly on French. This study takes place within the framework of the Government Binding Theory (henceforth GB) as developed primarily in Chomsky (1981) and in more recent work.

The main objective that will be pursued throughout this dissertation is to provide a simpler and more explanatory account of the different phenomena linked to the important part of grammar that is sentential complementation. I will try to develop a general theory of complementation that can account both for the numerous syntactic differences found among different types of sentential complements and for the selectional properties of the semantic classes of main predicates that select these complements.

More particularly, it will be argued that, in the area of sentential complementation, we must distinguish at least three major semantic classes of predicates (*effective*, *emotive* and *propositional*) which select distinct semantic types of complements (*action*, *event* and *proposition*, respectively). It will be also argued that these semantic types have distinct structural realizations. In other words, it will be argued that the different types of sentential complements do not necessarily all have

the same syntactic structure.

I will follow the line of research first developed in Grimshaw (1979, 1981) who argues in favor of a theory of semantic selection. I will further follow Pesetsky (1982) where it is argued that we can dispense with the theory of subcategorization entirely in favor of a simpler theory of semantic selection. I will depart however from the work of Grimshaw and Pesetsky in that I will argue that the Canonical Structural Realization of a semantic type is a lexical category rather than a maximal projection. I will also adopt the proposals of Higginbotham (1985, 1986) regarding the thematic grids associated with each major lexical item and the different modes of discharge of the thematic positions. In particular, I will develop an analysis of the complements to effective and emotive verbs that makes a crucial use of the Event-position of verbs proposed by Higginbotham (following Davidson (1966)).

The first part of this chapter is an introduction to the topic of this dissertation, that is "sentential complementation". I will first introduce the different semantic verb classes that will be investigated in this dissertation. I will then examine some of the main syntactic differences found among sentential complements and show how these appear to correlate with the semantic classes. I will then go on to sketch the theory of semantic selection that will be put forward in this dissertation. Finally, I will discuss the limits of this study and also the possible alternatives that could be explored.

The second part of this chapter is an introduction to the main notions of the GB theory. It is intended only as a survey of the different principles

that will come to play a role in our investigation of sentential complementation. I will therefore assume the reader's familiarity with the theory.

Finally, in the last part of this chapter, I will introduce the remaining chapters of this dissertation.

1.1 Introduction to the Thesis

As mentioned earlier, the main purpose of this thesis is to investigate the different syntactic and semantic aspects of sentential complementation. Different classes of main predicates will be distinguished that will also be shown to more or less correlate with natural semantic classes. Different types of sentential complements will also be distinguished with respect to the different classes of main predicates. It will be argued that by using the notion of "semantic selection" that will be introduced in 1.1.4 below we can arrive at a more explanatory account of the differences that hold between classes of predicates and their complements.

As throughout this thesis, the term "sentential complement" is used here as a cover term for all types of structures that are presently assumed to be sentential in the sense that they crucially involve a predicate and its subject (whether or not the subject is lexically realized). These structures can appear as complements to verbs, nouns or adjectives. But since the verbal system of complementation is in some sense the most basic

one, I will mainly focus my attention on sentential complements to verbs. In (1)-(3), I give some examples of what these sentential complements can look like in a language like French.

- (1) a. Jean veut partir.
 'Jean wants to leave'
- b. Jean pense partir.
 'Jean thinks that he will leave'
- c. Jean a essayé de partir.
 'Jean tried to leave'
- d. Jean pense à partir.
 'Jean is thinking of leaving'
- e. Jean commence à écrire son livre.
 'Jean begins to write his book'
- f. Jean persuade Marie de partir.
 'Jean persuades Marie to leave'
- g. Jean a forcé Marie à partir.
 'Jean forced Marie to leave'
- h. Jean a failli partir.
 'Jean nearly left'
- i. Jean semble être malade.
 'Jean seems to be sick'
- (2) a. Jean veut que Marie parte demain.
 'Jean wants that Marie leave tomorrow'
- b. Jean pense que Marie partira demain.
 'Jean thinks that Marie will leave tomorrow'
- c. Il semble que Jean partira demain.
 'It seems that Jean will leave tomorrow'
- (3) a. Jean semble malade.
 'Jean seems sick'
- b. Jean croyait Marie malade.
 'Jean believed Marie (to be) sick'

Any theory must account for the obvious fact that these complements show up in very different forms as can be seen in (1)-(3) above. In fact, one first distinction that has received much attention in the last decade is that shown in the contrast between the sentential complements found in (1)-(2), which are said to be "full clauses", and the complements found in (3) which are called "small clauses". In this dissertation, I will mostly ignore the "small clause" type of complements. Although these complements should in principle fall under the scope of this study, given the definition

of "sentential complement" assumed above, the proper characterization of "small clause" complements is in itself a whole dissertation topic (see, for instance, Rapoport (1987)) and will thus not really be addressed here (but see the discussion in 4.6 below).

I will rather focus my attention on the sentential complements which are "normally" analyzed as "clausal" in the sense that it is assumed that there is an INFL present in the structure and hence that the maximal projection of the complement must be at least an IP (if not a CP). These "full clauses" can be further subdivided with respect to their tense properties, that is whether they appear with tense and agreement features, as in the subjunctive and the indicative complements of (2), or without tense and agreement features as in the infinitival complements of (1).

These are some first immediate distinctions that any theory must account for. For many linguists, these have also been the sole distinctions that they have been preoccupied with.¹ The facts regarding the system of complementation are however more complex than the short description of the last two paragraphs, as we will see in this dissertation.

One area of investigation that has received little attention is that of the selectional properties of the main predicates taking "sentential complements". It is a well-known fact that the occurrences of the different types of sentential complements depend on the main predicates that select them. In fact, it can be said that in general verbs that belong to a same semantic class will very often select the same type of sentential complements. For instance, a verb like *vouloir* 'want' selects either an infinitival complement or a tensed complement in the subjunctive mood

whereas a verb like *commencer* 'begin' may only select an infinitival complement. In general, other predicates that belong to the class of *vouloir*, like *préférer* 'prefer' for instance, also select either an infinitival complement or a tensed complement in the subjunctive mood. And, similarly, other predicates that belong to the class of *commencer*, like *continuer* 'continue', will also only select an infinitival complement. One therefore needs to develop a theory of selection that can account for the selectional properties of these different classes of matrix verbs.

A short digression is in order here since what I have just said in this last paragraph may already raise some eyebrows. I know that one can probably rather easily find some counter-examples to the claim that verbs semantically related will function similarly syntactically. For instance, N. Chomsky points out to me that English "to hope" does not function like "to want" although these two verbs are clearly related semantically; one can say: *I want John to leave* but not *I hope John to leave*. So there may be apparent counter-examples which I will ignore for the most part (see also section 1.1.5 below on this topic). Another issue raised here is that of what I mean by a natural semantic class. Or to put it differently: How does one determine semantic classes? On what type of criteria? If these classes are to be determined mostly on syntactic criteria and if the classes are then used to account for the syntactic differences, there is a certain amount of circularity involved in a such a study. What would be best, clearly, would be to develop a theory of lexical semantics that is structured enough to be able to avoid any such circularity. I am afraid that this is beyond the scope of this dissertation although I hope that this work will help build such a theory.

Returning now to our topic, I mentioned above that we must account for the fact that the different types (subjunctive, indicative, and infinitive) of sentential complements appear to be dependent upon the types of matrix predicates. It is also a well-known fact that sentential complements behave differently with respect to certain syntactic properties or processes depending not only on the form in which they appear (for instance, inflected or not) but also on the main predicates that select them. The phenomenon of quantifier-movement in French, studied by Kayne (1975) and Pollock (1978), illustrates this point rather nicely. Simplifying somewhat the facts (I will return to this topic in more detail in 3.4.1 below), it appears that a quantifier like *tous* 'all' in French can be "extracted" from an embedded clause if the clause is infinitival or subjunctive but not if it is an indicative clause.

- (4) a. *Jean a tous voulu les lire.*
 'Jean has all wanted to read them'
 b. *?Jean voulait tous que tu les lises.*
 'Jean wanted all that you read them'
 c. **Jean croyait tous que tu les lirais.*
 'Jean believed all that you would read them'

The possibility for the "extraction" of *tous* thus appears to be dependent on the form of the complement. But, in fact, it also appears to be dependent on the matrix predicate that selects the complement since, as was shown by Kayne, the extraction is possible only from the infinitival complements selected by certain matrix verbs. The following ungrammatical instance of quantifier movement contrasts with the grammatical instance found in (4a), although both examples involve infinitival complements.

- (5) **Jean a tous cru les avoir lus.*
 'Jean has all believed to have read them'

Such facts strongly suggest that infinitival complements are probably not

all structurally homogeneous in French and that the appearance of a particular structural type depends on the selectional properties of the main verbs. This is the kind of approach that will be followed in this dissertation, where evidence will be presented that shows that syntactic differences of the type just mentioned for the French quantifier movement phenomenon are always reducible to structural and selectional differences.

Within the framework of the GB theory, it is generally assumed that all "sentential complements", or at least those exemplified in (1)-(2), have a clausal D-structure, whether it is IP (=S) or CP (=S'). Given this assumption, the fact that some complements behave differently is accounted for by having recourse to different mechanisms that either alter the already existing structure or else specify different conditions of application for certain principles. In the light of the present theory, which consists mainly of modules of sub-theories and principles, the existence of such mechanisms is somewhat dubious and cannot be said to achieve much real explanatory adequacy. I will therefore try to dispense with such mechanisms and propose instead that the more "reduced" or "transparent" structures are selected as such. In other words, I will depart from the current assumption that all sentential complements are "full" clauses and I will rather argue in favor of distinguishing structurally the different types of sentential complements.

The remainder of this section is organized as follows. First I will present the main semantic classes of predicates that we will be concerned with in this dissertation. The semantic classification that I will adopt here is that proposed by Lung (1974) in his dissertation entitled *Semantic Verb Classes and their Role in French Predicate Complementation*.

Second I will examine some of the main syntactic differences that seem to support the view that we must structurally distinguish different types of sentential complements.

I will then point out how, even after such a rapid examination of the facts, we can already isolate some correlations between the semantic classes and the syntactic differences just reviewed.

In section 1.1.4, I will present the theory of semantic selection on which the present study of sentential complementation is based. I will first review the theoretical concept of semantic selection proposed by Grimshaw (1979, 1981) and the claim made by Pesetsky (1982) that it is possible to dispense with categorial selection. I will then propose that we should distinguish among the "sentential complements" at least three distinct semantic types rather than the single type *proposition* assumed by Grimshaw and Pesetsky. The three semantic categories that will be introduced are *action*, *event* and *proposition*, which correspond to the effective, the emotive and the propositional classes of predicates, respectively. It will also be proposed that each semantic category corresponds to a distinct structural realization. The semantic category *action* is realized either as a projection of the category V or the category N. The semantic category *event* is realized as a projection of INFL or N. And the semantic category *proposition* is normally realized as a projection of the category COMP. Finally, I will argue that the Canonical Structural Realization (CSR) of a semantic type is always done in terms of the head of a phrase rather than a maximal projection. I will thus propose to replace the CSR by the concept of Canonical Lexical Realization (CLR).

Finally, in 1.1.5, I will point out some of the shortcomings of this thesis and argue that these are inevitable at this point in our study of complementation. I will also briefly discuss one possible alternative to the thesis developed in this dissertation.

1.1.1 Semantic verb classes

The purpose of this section is to review the semantic classification of main predicates proposed by Long (1974).

Long's dissertation is primarily concerned with the study of the importance of semantically defined verb classes for the syntax of predicate complement constructions in French. He shows that certain apparently arbitrary surface distinctions correspond to more basic distinctions among semantic functions of verbs. In other words, he tries to show how semantically defined verb classes may impose limitations on the possible range of surface forms for sentential complements. He bases his classification of the semantic classes mainly on criteria proposed by Kiparsky and Kiparsky (1970) and Karttunen (1970, 1971a and 1971b).

Long remarks that several criteria could be proposed for distinguishing different semantic classes of matrix verbs. He differentiates two sets of semantic parameters which he shows to correlate with each other. The first set is that of the "logical" relationships between the matrix verbs and the material of following subordinate clauses, with primary attention being given to the truth-values of subordinate and superordinate clauses. The other set is that of the "substantive" relationships between matrix verbs

and their predicate complements. The types of acts (states, processes) described by matrix verbs: speech acts, mental states or processes, etc. constitute substantive categories to which correspond various predicate complement types, such as assertions, commands, promises, etc.

Looking first at the logical relationships, Long reviews the studies of truth-value presuppositions of Kiparsky and Kiparsky (1967, 1970) and of truth-value implications of Karttunen (1970, 1971a and 1971b). These studies involve a formal test of negation where presuppositions and implications are brought out by negating a matrix predicate and by observing the effects upon a complement's truth-value.

Kiparsky and Kiparsky show that in the case of factive predicates, the complements are always presupposed to be true. The complements of these predicates have a property of factivity which is not altered by negation of the matrix predicate, hence they might be said to be insulated against negation.

- (6) a. Je regrette que la porte soit fermée.
 'I'm sorry that the door is shut'
 b. Je ne regrette pas que la porte soit fermée.

Karttunen opposes to the factive class three classes of predicates whose complements are sensitive to the negation of the matrix predicates. The first class he distinguishes is that of "implicative" verbs which are entirely NEG sensitive, in that their affirmation or negation automatically implies the assertion or denial of the following complement.

- (7) a. Hier, Bill a réussi à partir.
 'Yesterday, Bill managed to leave'
 b. Hier, Bill n'a pas réussi à partir.

For Karttunen, this type of implication can be analyzed as the conjunction of

a sufficient condition (*réussir à partir* \supset *partir*) and a necessary condition (*ne pas réussir à partir* \supset *ne pas partir*).

A second class is constituted by verbs which provide only a sufficient condition for the truth-value of their complements. These verbs which he calls IF-verbs, show a truth-value implication for their complement only in the affirmative. Negation of the matrix verb leaves no truth-value implications.

- (8) a. Il m'a forcé à avaler cette grenouille.
 'He forced me to swallow that frog'
 b. Il ne m'a pas forcé à avaler cette grenouille.

The third class shows a reverse type of NEG sensitivity. These verbs, referred to as the ONLY-IF-verbs, show truth-value implications only under negation. So, contrary to the previous class, they can be said to provide necessary, but not sufficient, conditions for their complement events.

- (9) a. Jean ne pouvait pas partir.
 'Jean could not leave'
 b. Jean pouvait partir.

To summarize, Long, following the studies of Kiparsky and Kiparsky and Karttunen, distinguishes two main types of logical relationships: the factive relationship and the implicative relationships. Among the verbs which enter into an implicative relationship with their complement, three classes may be distinguished depending on whether the verb is entirely NEG sensitive ('implicative' verb) or not (IF-verbs and ONLY-IF-verbs). As will become apparent later, the implicative relationships appear to play a role only in further distinguishing among classes of verbs which together constitute the class of effective verbs. Since I will be mainly concerned in this dissertation with the classification based on the substantive relationships, I will not pursue any further here the discussion of

Karttunen's work on implicative relationships. The factive relationship however will play a crucial role in explaining some differences in behavior shown by the subjunctive complements to factive emotive verbs and non-factive emotive verbs.

Turning now to the substantive relationships, Long establishes a first distinction between what he calls "reflective" predicates and "effective" predicates. Reflective predicates are verbs which express a (human) subject's judgments concerning a proposition or event. Effective predicates are verbs which describe a subject's relationship --whether causal, potential, or other-- to the performance of an action. He further distinguishes among the reflective class between judgments of truth value, described by "propositional" verbs and judgments of "personal relevance", expressed by predicates of the "emotive" class.

For Long, the most important opposition between reflective/effective predicates is that between verbs which do and do not represent a grammatical subject's attitude toward an event or proposition. He gives the following examples.

(10) Je regrette que Marie parte demain.
'I'm sorry that Marie is leaving tomorrow'

(11) Le ministère obligera Marie à partir demain.
'The ministry will compel Marie to leave tomorrow'

With the reflective verb *regretter*, the main and subordinate clauses contain logically and temporally independent actions. With the effective verb *obliger*, however, the main and subordinate clauses are very closely associated in both the temporal and the causal senses. *Obliger* is an IF-verb and therefore the main clause's action constitutes a sufficient condition for the truth-value of the subordinate clause. This also entails

a strict sequence of tenses, as shows the following example.

- (12) *D'ici trois semaines, le ministere obligera Marie à partir demain.
'Three weeks from now, the ministry will compel Marie to leave tomorrow'

Furthermore, the complements of a verb like *obliger* are restricted to non-stative verbs as (13) shows.

- (13) *?Le ministère a obligé Marie à mesurer 3 m.
'The ministry compelled Marie to be 3 meters tall'

Verbs like *regretter* are not so restricted and can reflect attitudes toward almost any sort of event or proposition. They require (+Human) subjects which follows from the fact that they describe psychological states or attitudes. In contrast, verbs like *obliger* may allow (-Human) or (-Animate) subjects.

As mentioned earlier, Long distinguishes among the reflective class two different subclasses of verbs: the propositional verbs and the emotive verbs. He gives several tests that can determine membership in the class of propositional verbs. First, adding a tag of the form *mais c'est vrai* 'but it's true' to a sentence in which the matrix verb is negated is perfectly acceptable with propositional verbs while it is highly questionable with emotive verbs, whether they are factive or non-factive.²

- (14) a. Il n'affirme pas que Jean parle français, mais c'est vrai.
'He doesn't state that Jean speaks French, but it's true'
b. Hugues ne croit pas que Jean soit malade, mais c'est vrai.
'Hugues doesn't think that Jean is sick, but it's true'
- (15) a. Il ne regrette pas que la porte soit fermée (??mais c'est vrai).
'He isn't sorry that the door is shut, but it's true'
b. Jean ne veut pas que je parte (*mais c'est vrai).
'Jean doesn't want me to leave, but it's true'

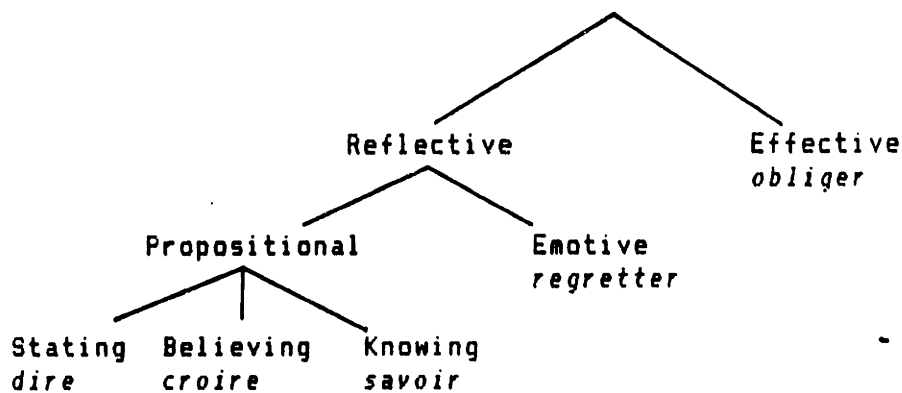
Another characteristic of the propositional class is the fact that it includes all the verbs which may be followed by included questions. Many verbs of that class also have corresponding nominals while these are of low

acceptability with emotive verbs. Also some non-factive propositional verbs allow replacement of their complement by *oui* 'yes' or *non* 'no' while no emotive verbs have this property. Long also reviews some further syntactic tests provided in Hooper (1973) and Hooper and Thompson (1973).

There are three main types of propositional verbs, according to Long. The first type is that of verbs of stating, which includes by far the greatest number of propositional verbs. They are declarative verbs involving external, linguistic assertions (or denials) of truth-value for following propositions. The second type is that of verbs of believing which describe mental processes which are judgments concerning the truth or falsity of the following propositions. The third type is that of verbs of knowing for which the truth or falsity of the following propositions is taken for granted.

The different substantive relationships developed by Long are schematically represented as follows:

(16)



Turning now to the interaction between the two sets of semantic parameters, that is the logical and the substantive categories, Long proposes the following schema of their intersection.

(17)

REFLECTIVE				EFFECTIVE	
Propositional			Emotive		
Stating	Believing	Knowing			
				réussir	IMPL
				obliger	IF
				pouvoir	ONLY IF
		savoir	regretter		FACTIVE
dire	croire		vouloir		OTHER

This will conclude my review of Long's analysis of the different semantic verb classes. As mentioned earlier, my study of sentential complementation will be mainly based on the semantic classes defined on the basis of substantive relationships. We will see that the three main classes that are thus distinguished: *effective*, *emotive* and *propositional*, correlate with the three basic types of complements mentioned at the beginning of this chapter, that is, infinitival, subjunctive and indicative, respectively. We will see further that the class of emotive and propositional verbs, that is, the reflective verbs, share the property of allowing both "tensed" and "untensed" complements compare to the effective verbs which can only appear with infinitival complements.

1.1.2 Syntactic differences among sentential complements

The purpose of this section is to point out some of the most prominent syntactic differences that show up among sentential complements. Many other syntactic differences will be uncovered in the following chapters, as the study of each semantic class of predicates and their complements will be

undertaken.

The major syntactic differences that will be examined in this section already provide some evidence for, at least, questioning the current assumption that all sentential complements should be analyzed as instances of a single categorial type, namely a sentential phrase CP (=S'). In the following discussion, I will refer to this assumption as the "null hypothesis" or the "sentential hypothesis".

At the beginning of this chapter, I gave several examples of sentential complements (cf. (1)-(3), p.12) which already present some interesting syntactic differences with respect to the form in which they appear. We saw that sentential complements in a language like French may appear as infinitival complements, subjunctive complements, indicative complements, or small clause complements. I also pointed out that complements that appear to be instances of the same type (e.g. infinitival) do not necessarily behave in the same manner, so that it would seem that we need to further distinguish different sub-types of sentential complements as well.

In fact, matters become even more complexe when we take into account the selectional properties of the matrix verbs since some of these may appear with several types of sentential complements whereas others may only appear with one or two particular types. For instance, among the matrix verbs exemplified in (1) above, we find verbs that take only infinitival complements. These are *essayer* 'to try', *penser à* 'to think of', *commencer* 'to begin', *forcer* 'to force', *faillir* 'to be on the point of'. We also find a verb like *vouloir* 'to want' which can appear not only with an infinitival complement but also with a subjunctive complement. The verbs

persuader 'to persuade' and *sembler* 'to seem' may appear either with an infinitival complement or with a tensed complement and it seems that the latter can either be in the subjunctive or in the indicative mood. Finally, a verb like *penser* 'to think' may appear with an infinitival complement or an indicative complement.

But again, even once we have for instance isolated the class of matrix predicates that may only appear with infinitival complements, it appears that not all these infinitival complements behave similarly as shown for instance by the fact that only a sub-class of these complements may undergo the process known as "restructuring" in languages like Italian and Spanish.

Such facts would seem to imply that there is no strong one-to-one correspondence between form and functioning in the area of sentential complementation. In this dissertation, I will propose an analysis of the different types of sentential complements that will account for the fact that complements that have identical "surface" forms may behave differently and conversely that complements that have different "surface" forms may behave identically. We will see that one "surface" type of complement, for instance an infinitival complement, can arise in the context of different selectional properties of matrix predicates. These differences in selection will also correspond to structural differences in these complements. In short, it will be argued that some infinitival complements are instances of VP complements while others are IP complements and still others are CP complements. Hence, although these complements appear to be of the same type, they in fact show fairly different structural forms, a fact which will account for their differences in behavior. I will thus depart from the so-called "null hypothesis" that all "sentential complements" should be

analyzed as CP complements but this departure will enable us to maintain a strong one-to-one correspondence between form and functioning.

But let us now turn our attention to some of the syntactic differences that have been the focus of much debate in the recent literature regarding the so-called "null hypothesis".

1.1.2.1 The restructuring construction

One area of Romance sentential complementation that has received a lot of attention is that of the so-called restructuring construction. Restructuring is viewed either as a process or as a property that certain matrix verbs have whereby the embedded infinitival complements that they take appear to form with them some kind of complex predicate, giving rise at S-structure to a monosentential structure of some kind. A typical manifestation of this phenomenon of restructuring is found in the possibility for an embedded pronominal clitic to appear attached to the matrix verb, as shown by the following Spanish examples.

- (18) a. Mario quiere leerlo.
 b. Mario lo quiere leer.
 'Mario wants to read it'

(I will not further examine the manifestations of restructuring here since these will be studied at length in chapter 2 below.)

There have been two basic lines of analysis put forth in the literature with respect to this construction. Under one approach, which I will call the "sentential" approach, it is assumed that the D-structure of a restructuring clause is a bi-sentential structure. But since the main

property of a restructuring clause is its "monosentential" quality, the bi-sentential D-structure must be transformed somehow into a structure that allows the monosentential manifestations of restructuring. Different mechanisms have been proposed to accomplish this task. Rizzi (1978) argues in favor of a rule of restructuring that basically forms a complex predicate from an underlying bi-clausal structure. Burzio (1981, 1986) proposes to account for restructuring by a rule of VP-movement which preposes the embedded infinitival VP and adjoins it to the main predicate. These two proposals have in common that they both alter the underlying structure of these constructions. Also, under the sentential approach, the verbs that can undergo restructuring must be lexically marked as triggering the process of restructuring (whether it is a restructuring rule à la Rizzi or a VP-preposing rule like that proposed by Burzio).

The other approach to this construction favors a "base" analysis of the restructuring complex, arguing that the matrix verbs involved in this construction are associated with two subcategorization frames. When the structure exhibits some manifestation of restructuring, the infinitival complement is not embedded within a clausal structure but is rather generated as a VP or V' complement (cf. Strozer (1976), Zagana (1982), among others). However, when the structure is clearly not an instance of restructuring, the infinitival complement is a sentential complement.

I will not investigate any further here the properties of the restructuring construction since these will be the object of a good part of chapter 2 below. The point that I want to make now is that any account of the restructuring phenomenon must involve at least a monosentential S-structure analysis of this construction, whether this result is obtained

by the application of some rule or by the base-generation of a non-sentential complement. The monosentential character of the restructuring construction can thus be viewed as an instance where the "sentential hypothesis" could arguably be challenged.

It is also interesting to note that there is another reason for challenging the "sentential hypothesis" in the case of the restructuring verbs. The core cases of restructuring appear to involve classes of verbs such as the modals, the aspectuals and the verbs of movement, which also have the property of not taking "tensed complements". Under the "sentential hypothesis", this property of requiring an "untensed" complement will also have to be lexically specified for each matrix predicate. A plausible alternative is to allow for the possibility that some verbs are subcategorized as taking VP complements rather than sentential complements, thus arguing against the "sentential hypothesis".

1.1.2.2 Verbs of obligatory control

There is a certain class of verbs which induce "obligatory control" of their complement's subject. The controller is an argument of the matrix predicate, either the subject, the direct object or the indirect object.

- (19) a. Jean commence à manger.
 'Jean begins to eat'
 b. Jean force Murielle à manger.
 'Jean forces Murielle to eat'
 c. Jean permet à Murielle de manger.
 'Jean allows Murielle to eat'

In many cases, these verbs may only take an infinitival complement.

Compare the following examples to (19).

- (20) a. *Jean commence (à ce) qu'il mange.
b. ?*Jean force Murielle à ce qu'elle mange.
c. ?Jean permet à Murielle qu'elle mange.

The last example is not as bad as the other two and may actually be improved by a different choice of lexical items and/or tenses. But in the case of (20a), for instance, there is no way that a tensed complement may be felt grammatical, even marginally so.

These facts may seem at first to be highly idiosyncratic. Upon closer consideration however, it seems that there must be some rationale behind these restrictions since we find 1) that other verbs, closely related semantically to the ones given above, will tend to pattern similarly, as shown in (21), and 2) that these restrictions appear to hold quite generally cross-linguistically.

- (21) a. *Jean continue (à ce) qu'il mange.
 'Jean continues that he eats'
b. ?*Jean oblige Murielle à ce qu'elle mange.
 'Jean compels Murielle that she eats'
c. ?Jean ordonne à Murielle qu'elle mange.
 'Jean orders to Murielle that she eats'

It is possible that for some speakers the above judgments of grammaticality are too severe in the cases of the examples involving *forcer*, *permettre*, *obliger*, *ordonner*. It is also worth noting that the grammaticality of the examples with *permettre* and *ordonner* improves greatly when we omit the indirect object.

- (22) a. Jean permet qu'elle mange.
b. Jean ordonne qu'elle mange.

The point that I want to make here is that with certain matrix predicates an infinitival complement seems to be favored over a tensed one (e.g.

forcer, obliger, permettre, ordonner) and that, furthermore, with some matrix verbs an infinitival complement is the only possible outcome (e.g. *commencer, continuer, ?forcer, ?obliger*). In fact there are many verbs that seem to require that their sentential complement be an infinitival complement. For instance, there are the three classes of verbs mentioned in the previous section in connection with the restructuring phenomenon, that is the modals (e.g. *pouvoir* 'can') the aspectuals (e.g. *commencer* 'to begin') and the verbs of movement (e.g. *aller* 'to go'). We also find verbs like the following: *essayer* 'to try', *réussir* 'to succeed', *oser* 'to dare', etc. It seems that the verbs that absolutely require infinitival complements are more often subject control verbs, although the converse is not true, i.e. that all subject control verbs require infinitival complements, as the following sentences demonstrate.

- (23) a. *Jean voulait manger.*
 'Jean wanted to eat'
 b. *Jean voulait que Murielle mange.*
 'Jean wanted Murielle to eat'

We must therefore account for these "selectional restrictions". Under the "sentential" hypothesis, it will have to be specified somehow in the lexical entry of verbs like *commencer* that their sentential complement must obligatorily be "untensed". A plausible alternative that has been pursued by several linguists is to assume that these verbs are subcategorized for something else than a sentential complement, namely a VP complement.

Again, whatever approach one adopts, it appears that some verbs select "sentential" complements that have quite different properties than the sentential complements of the other verbs.

1.1.2.3 Subjunctive vs. indicative

Another important aspect of sentential complementation is that of the mood of tensed complements. A tensed complement may appear in the subjunctive or in the indicative mood depending upon the matrix predicate that selects it. We can readily distinguish two classes of verbs; verbs that behave like *vouloir* 'to want' and that select the subjunctive and verbs that behave like *croire* 'to believe' and that normally select the indicative.

- (24) a. Murielle voudrait que Jean dorme.
 'Murielle wants Jean to sleep'
 b. Murielle croit que Jean dort.
 'Murielle believes that Jean sleeps'

It must then be the case that a verb like *vouloir* will be lexically specified as taking a subjunctive sentential complement whereas a verb like *croire* will be lexically specified as taking an indicative sentential complement. That lexical specification could simply be done in terms of some feature specification on the head COMP of the sentential complement.

We will see however in chapter 3 that the mood distinction observed here also entails many other properties that appear to suggest that there is some kind of structural distinction as well between these two types of tensed complements. The subjunctive complements of verbs like *vouloir* appear to have a more transparent character than the indicative complements, as evidenced by such phenomena as the obligatory disjoint reference effect for the embedded subject or the possibility of extracting the quantifier *tous* (cf. the examples in (4) given at the beginning of this chapter).

Here again we see that under the "sentential hypothesis", the verbs that

take a subjunctive complement will have to be specified as taking a S complement which will also have to be further specified as to its mood property. Moreover, the differences in behavior shown by the subjunctive complements will have to be handled somehow in terms of the fact that the complement appears in the subjunctive mood.

1.1.2.4 Exceptional Case Marking

Another difference that exists among (infinitival) sentential complements and that also depends on the main predicate selecting the complement has to do with whether or not the sentential complement is a CP or an IP at S-structure. There are two types of main predicates that seem to require that their complement be analyzed as an IP. These are the Raising predicates and the so-called Exceptional Case Marking (ECM) verbs. The following English examples illustrate these two cases.

(25) John seems to be happy.

(26) I believe John to be happy.

In (25), it is assumed that *John* has raised from the embedded subject position and that this movement is only allowed when there is no CP intervening. In the case of (26), it is assumed that *John* is in the subject position of the embedded infinitival clause but that it receives its case from the matrix verb, this Exceptional Case Marking phenomenon being allowed only when there is no CP intervening.

There have been two main approaches to the CP/IP status of these complements. Under one approach, the complement is generated as a CP at

D-structure but the main predicate that selects the complement is marked as triggering a process referred to as CP-deletion (more well-known under the label "S'-deletion") whereby the embedded clause becomes an IP, thus allowing Subject Raising or ECM to take place.

The other more recent approach is to assume that these main predicates *sim*, *select* an IP complement. This approach stems from the current assumption that IP is the maximal projection of INFL, and that predicates can select either a CP or an IP.

I will not investigate any further here the properties of the complements of Raising predicates or ECM verbs. These will be studied in much greater detail in chapter 2 and chapter 4. The point made here is simply that there is some evidence that some complements are more transparent than others and that this has been accounted for essentially in terms of a reduced structure. Thus there is already some agreement that "sentential complements" can be either IPs or CPs.

1.1.3 The syntactic differences correlate with semantic classes

The syntactic differences among sentential complements pointed out in the previous section appear to correlate with the semantic classes of main predicates proposed in 1.1.1.

The core class of restructuring verbs, which will be further studied in chapter 2 below, appears to constitute a subclass of the semantic class of effective verbs as it was defined in 1.1.1. Recall that Long defines the

effective predicates as verbs which describe a subject's relationship to the performance of an action. The aspectuals, the modals and the movement verbs that enter into the restructuring construction clearly conform to that definition.

The verbs that require that their complement be an infinitival complement also belong to the effective class. Thus, verbs like *commencer*, *continuer*, *forcer* and *obliger* are effective verbs according to the definition given above and their complements must be obligatorily "controlled", whether the controller is the subject of the main verb as in the case of *commencer* and *continuer* or the object of the main verb as in the case of *forcer* and *obliger*.

Verbs like *ordonner* and *permettre* on the other hand belong to the emotive class. With these verbs, a tensed complement (in the subjunctive mood) is allowed although it appears to be favored when the indirect object is not realized. When the indirect object is realized, a control structure appears to be more appropriate. Moreover, the emotive verbs show the peculiarity of requiring an infinitival complement when the subject of the embedded verb is coreferential with the subject of the matrix verb (this is a result of the obligatory disjoint reference effect mentioned above in 1.1.2.3 for subjunctives).

It also appears that the subjunctive complements that show a more transparent character than the indicative complements are selected by the verbs of the emotive class. Indicative complements on the other hand are characteristic of the class of propositional verbs.

Finally, the verbs that appear to take IP complements, that is the ECM

verbs, also belong to the propositional class.

Thus, by examining only some of the most apparent differences among sentential complements, we see that these differences can all be traced back to the semantic class to which a matrix verb belongs. Such correlations provide further evidence in favor of distinguishing the three semantic classes proposed above. They also suggest that a possible solution to the problem of accounting for the syntactic differences pointed out above could be given in terms of the semantic selection of the complements. The different classes of main predicates would semantically select distinct semantic types of complements and the syntactic differences could be seen to follow from the semantic differences among these complements. This is the approach that will be pursued in this dissertation. In the following section, I will introduce the theory of semantic selection and the different semantic categories selected by the three classes of main predicates.

1.1.4 The theory of semantic selection

In the previous sections of this chapter, several facts regarding the syntax and semantics of French or Romance predicate complementation have been brought up to light. The main proposal of this dissertation is to analyze the syntactic and semantic differences observed above (and many others to be brought up in the following chapters) as following from the fact that the predicates that take "sentential" complements do not all select the same semantic type of complement. Three major semantic types of complements will be distinguished on the basis of the three major semantic classes of predicates that were proposed in 1.1.1.

But before proceeding any further, I would first like to review the theoretical concept of semantic selection upon which my proposal to distinguish different semantic types is based. This concept of semantic selection is first proposed by Grimshaw (1979, 1981). Pesetsky (1982), adopting Grimshaw's proposal, further argues that it is actually possible to dispense with the concept of subcategorization (c-selection). I will briefly review their studies in 1.1.4.1. In 1.1.4.2, I will introduce the three semantic types, *action*, *event* and *proposition*, corresponding to the three major classes of predicates, *effective*, *emotive* and *propositional*. Finally, in 1.1.4.3, I will discuss the concept of "Canonical Structural Realization" proposed by Grimshaw and argue that it may be more appropriate to view the mapping between semantic categories and syntactic categories in terms of a mapping of semantic categories onto lexical/functional categories. I will thus introduce the concept of "Canonical Lexical Realization".

1.1.4.1 S-selection and c-selection

Grimshaw (1979) argues that predicates must bear features which select for the "semantic type" of their complements in addition to their subcategorizational features. Her argument for a theory of semantic selection (s-selection) is based on the study of complements interpreted as "questions", "exclamations" and "propositions". It appears that particular semantic types are not necessarily in one-to-one correspondence with some particular syntactic categories. For instance, Grimshaw shows that verbs taking "questions" may appear not only with an S' complement, as shown in (27a), but also with an NP complement, as a concealed question, as shown in

(27b), or with no complement at all, as in null complement anaphora, as shown in (27c).

- (27) a. Bill asked me what the time was.
b. Bill asked me the time.
c. Bill wanted to know what the time was, so I asked.

From her study of such examples, Grimshaw concludes that there must be a theory of s-selection independent from the theory of subcategorization. also needed in her approach to account for the fact that some predicates that s-select "questions", "exclamations" or "propositions" do not allow their complement to range over both NP and S'. For instance, verbs like *wonder* and *inquire* which both s-select a "question" do not allow their complement to be realized as an NP, that is, as a concealed question.

- (28) a. I wonder what^t answer he gave.
b. *I wonder the answer he gave.
- (29) a. John inquired what the number of students in the class was.
b. *John inquired the number of students in the class.

According to Grimshaw, the difference between verbs like *ask* and *inquire* must be attributed to their subcategorizational features. Both verbs s-select a "question" but *ask* is subcategorized both for S' and NP while *inquire* is only subcategorized for S'. Grimshaw thus argues for the autonomy of s-selection and subcategorization.

Grimshaw's view of s-selection and subcategorization as autonomous subsystems of grammar raises a problem with respect to some of the predictions that it implies, as she notices herself. The problem is that if s-selection and subcategorization are independent subsystems, then we should expect to find predicates which will s-select a "question", for instance, but which will only allow their complement to appear as an NP and not as a

S'. But there are no such predicates, as Grimshaw points out.

Grimshaw (1981) accounts for this gap in the following manner. She proposes that semantic (cognitive) categories have a Canonical Structural Realization (CSR) which is in effect a function mapping semantic categories onto syntactic categories. A semantico-cognitive category like "object", for instance, will have a $CSR(object) = N$. It is then possible to assume that the Language Acquisition Device (LAD) will employ a CSR principle stating that: "... a word belongs to its CSR, unless there is evidence to the contrary". Grimshaw also assumes that the child's LAD can deduce the s-selectional properties of a predicate without hearing the CSR for a given semantic type. She proposes that there must be a principle, which she calls the Context Principle, which states that "...if a predicate selects a semantic type, it is subcategorized for the CSR of that type".

In the case of the semantic categories "question", "exclamation" and "proposition", Grimshaw assumes that the correct CSR for all three types is S'.

To illustrate how the Context Principle operates, Grimshaw considers the case where LAD receives evidence that a predicate takes NP questions (i.e. concealed questions) but no evidence that it takes *wh* questions. Thus, a sentence like (27b) would be in the data base but not a sentence like (27a). In such a case, LAD will posit that the verb *ask* is subcategorized for an NP and if the expression *the time* is also assigned the appropriate semantic representation of "question", *ask* will also be associated with the semantic type "question" in its lexical entry. But, given the Context Principle, LAD will also add S' to the subcategorization of *ask* since LAD knows that

CSR(question) is S'.

In the case where the data base would consist only of sentences like (28a) however, LAD could not posit the subcategorization for NP since the CSR of "question" is only S'. Thus, the CSR of "question" together with the Context Principle predict that there should be predicates that take only *wh* questions but that there should not be any predicates that take only NP questions.

Pesetsky (1982) offers a different explanation for the absence of predicates selecting only "concealed questions". Pesetsky is concerned with the fact that the primitives involved in subcategorization or categorial selection (c-selection) do not appear to meet the criterion of epistemological priority. If this is the case, then it should be that the theory of c-selection derives from some other theory whose primitives meet the criterion of epistemological priority. Such a theory, Pesetsky suggests, could be the theory of semantic selection elaborated by Grimshaw.

Grimshaw's theory however assumes the existence of both s-selection and c-selection as we just saw. Recall that the motivation for the autonomy of the two theories comes from the fact that some predicates do not allow "concealed questions" as their complements.

As Pesetsky points out, Grimshaw's Context Principle actually raises important doubts about the theory of c-selection. The Context Principle implies that in the unmarked case the mapping from s-selectional features to c-selectional features is trivial. In the case of a verb like *ask*, for instance, the Context principle will tell us to add S' to the subcategorization of the verb. But this is in effect adding redundant

information to the lexical entry of the verb since the s-selectional properties of *ask* with the Context Principle already tells us that this verb takes an S'. So, in fact, the theory of subcategorization is needed here only in order to determine whether a predicate may take an NP complement. As Pesetsky points out, maintaining a separate theory of subcategorization or c-selection only for NPs would clearly only obfuscate the essential problem.

Pesetsky shows how the theory of c-selection becomes in fact superfluous, once the theory of s-selection is embedded in a general framework that includes Case theory. In short, Pesetsky shows that the difference between verbs like *ask* and *wonder* with respect to the possible occurrence of concealed questions can simply be explained by the fact that *ask* assigns objective Case to its complement whereas *wonder* does not. It is therefore possible to simply state that the CSR of the semantic type "question" is either S' or NP and that the Case assigning properties of the verbs that s-select a "question" will be responsible for the occurrence or non-occurrence of an NP complement. As for the gap noticed by Grimshaw, namely that there are no verbs that take only concealed questions, it now follows from the fact that S' and NP are always a priori available. Case theory will determine whether an NP will be allowed with any particular verb but S' will always be allowed according to Pesetsky since S' does not require Case (cf. Stowell (1981)).

It thus appears that the lexical entry of a predicate need only contain information with respect to the semantic selection properties of the predicate and with respect to its Case assigning properties. The information that used to be encoded in terms of subcategorization frames

will now follow from the CSR of the semantic type selected by the predicate³ together with its Case assigning properties.

1.1.4.2 *Actions, events and propositions*

In 1.1.3 above, we saw that the different types of sentential complements distinguished in 1.1.2 appear to correspond to the different semantic classes of predicates proposed in 1.1.1. In the context of the theory of semantic selection just outlined, the next question to ask is whether these different types of complements can themselves be identified as distinct semantic entities. By asking such a question, however, we now enter into a somewhat fuzzy area of linguistics since there does not seem to be much solid groundwork on which to base any such enquiries. Various linguists have proposed to distinguish various semantic types of entities such as "assertions", "commands", "desires", "actions", to name but a few. But these different entities are seldom well-defined and their relevance to linguistic theory (i.e. whether they are linguistically significant) is also seldom well-established. I am afraid that the present study will also suffer with respect to the exact definition of the semantic categories that will be proposed. As for their relevance to linguistic theory, however, it will be argued at length in the following chapters that positing these categories enables us to explain most of the facts relative to sentential complementation, without having recourse to any special mechanisms or conditions, thus simplifying the grammar to a large extent, certainly an essential goal of linguistic theory.

The proposal to distinguish different semantic entities that is being put forward here is certainly not a counter-intuitive one. Compare for instance the following sentences which represent the case of a complement to an effective verb, an emotive verb and a propositional verb, respectively.

- (30) a. Sarah commence à manger. .
 'Sarah begins to eat'
 b. Danielle préfère que Sarah mange à l'heure.
 'Danielle prefers that Sarah eats on time'
 c. Danielle pense que la fête était réussie.
 'Danielle thinks that the party was successful'

Clearly, the semantic type *proposition* is appropriate to describe the complement of a propositional verb like *penser* 'to think', but can it be said to be meaningful in the context of *commencer* 'to begin' or *préférer* 'to prefer'? Obviously, we do not understand the meaning of a verb like *commencer* as involving the beginning of a "proposition". Similarly, we do not understand the meaning of *préférer* as involving the preference for a "proposition".

In fact, it seems to be more appropriate to describe a verb like *commencer* as indicating the beginning of an "action" and a verb like *préférer* as indicating the preference for an "event".

These semantic categories reflect the semantic classification of predicates proposed by Long. Recall that Long defines the effective predicates as predicates which describe a subject's relationship --whether causal, potential, or other-- to the performance of an action. He also contrasts the effective predicates with the reflective predicates, the latter comprising both the emotive and the propositional predicates. The reflective predicates are predicates which express a (human) subject's judgments concerning a proposition or event. Among the reflective class, he

distinguishes between judgments of truth value, described by propositional predicates, and judgments of "personal relevance", expressed by emotive predicates.

The proposal that will be put forward in this dissertation is that effective verbs like *commencer* s-select an "action" (\underline{A}), emotive verbs like *préférer* s-select an "event" (\underline{E}) and propositional verbs like *penser* s-select a "proposition" (\underline{P}).

We have already seen that the "sentential" complements to the effective verbs may only appear as infinitival complements in a language like French and never as tensed complements. I propose that this follows from the fact that these verbs s-select \underline{A} whose Canonical Lexical Realization (CLR) is a verb. The complement may thus be a projection of the category V but not a projection of the categories INFL or COMP. In Chapter 2 below, we will see that the CLR of \underline{A} may also be a noun.

The "sentential" complements to the emotive verbs may normally appear either as infinitival complements or as subjunctive complements. I propose that the emotive verbs s-select \underline{E} whose CLR is INFL (the category that realizes the E-position of the verb). The complement may thus be a projection of the category INFL but not of the category COMP. In Chapter 3, we will see that the CLR of \underline{E} may also be N.

Finally, the complements to the propositional verbs appear either as infinitival complements or as indicative complements. I propose that the propositional verbs s-select \underline{P} whose CLR is COMP (the category that binds the "event" denoted by its complement IP, turning this "event" into a "proposition"). The complement is thus a projection of the category COMP.

The semantic categories *action*, *event* and *proposition* may be seen to form a kind of continuum or to be hierarchically organized in the following manner. An "action" is in some sense a "reduced event" in that it denotes an "event" by virtue of the fact that all verbs have an E-position in their thematic-grids (see Higginbotham (1985)) but this "event" cannot occur independently of another "action-event" (that represented by the matrix verb that selects the "action" complement). An "event" will always comprise an "action" (in the very loose sense of the word "action" adopted in this dissertation, see 2.6 below) and is thus an "action" realized as an independent "event". A "proposition" is an "event" whose truth-value is being asserted. Thus, most simple declarative sentences are "propositions" as well as the complements to verbs of assertion, belief and knowing (the propositional verbs). In chapters 3 and 4 below, we will see that this hierarchy may explain some cases of "mixed" predicates, that is of predicates that appear to belong to more than one semantic class.

1.1.4.3 The canonical lexical realization

In 1.4.1.1 above, the concept of Canonical Structural Realization (CSR) proposed by Grimshaw (1981) was introduced. CSR is a function mapping semantic categories onto syntactic categories. The CSR of the semantic category "question", for instance, is either NP or S'. It thus appears that the mapping mediated by the CSR is seen as one that is done in terms of maximal projections.

There are however some reasons to believe that the mapping should be done

in terms of lexical categories rather than syntactic categories. I therefore propose that the CSR should more appropriately be viewed as a function mapping semantic categories onto lexical/functional categories and should more accurately be termed the Canonical Lexical Realization (CLR).

The motivation for this departure from Grimshaw's proposal is of two kinds, theoretical and empirical. From a theoretical point of view, recent work in the GB framework suggests that syntactic categories are to be generated as projections from the lexicon, that is from the lexical/functional items that constitute the heads of each syntactic category. The work of Speas (1986) is particularly illustrative of such an approach. Speas develops a theory of projection of syntactic configurations from the lexicon and argues that the restrictions encoded in the X-bar schema are derivable from general principles. If her approach is correct, then we have a strong motivation for the CLR over the CSR.

Another possible theoretical motivation for the CLR comes from the fact that in certain cases the head of a complement may require the presence of some additional structure over the expected maximal projection, or to put it differently, that we need in certain cases to base-generate non-maximal structures, as we will see in chapters 2 and 3, where certain "VP complements" will be analyzed as "I' complements" and certain "IP complements" will be analyzed as "C' complements", although in both cases the selected head will remain V and INFL, respectively.

From an empirical point of view, the CLR appears to capture cross-linguistic variation in the surface syntactic realization of a given semantic type more adequately. As an example, we will see in chapter 2 that

the semantic type "action" selected by the effective verbs is usually realized as an infinitival complement in Rorance. I will propose that the CLR of "action" is the lexical category V. We will see however that Rumanian does not normally realize these complements as infinitival complements but uses rather the subjunctive to realize the semantic type "action". But the CLR, compare to the CSR, makes it possible to maintain that the Rumanian subjunctive complements to effective verbs are also instances of projections of the category V, a claim which will account for the particular behavior and structure of these subjunctive complements compare to those that are selected by emotive predicates.

1.1.5 The limits of this study

The present dissertation suffers from two major types of shortcomings: empirical and theoretical shortcomings.

The empirical shortcomings of this dissertation will be obvious to anyone familiar with the area of complementation and especially to anyone familiar with the broader studies of Gross (1968, 1975), for instance.

The main purpose of this dissertation is to arrive at a better understanding of the differences that are found in the area of sentential complementation. I chose to treat some of these differences, the major ones I assume, in terms of differences in the s-selection and categorial realization of the complements. Some other differences found in the behavior of closely related predicates will be accounted for in terms of some other factors interacting with the selection of the complements. This

is an expected consequence of the modular approach of GB. Thus, for instance, some differences may be due to differences in Case marking possibilities. Finally, some more idiosyncratic differences, sometimes seen as "semantic", will not really be studied here. I believe, however, that most of these more idiosyncratic differences should be handled in terms of selectional restrictions imposed on the selected head of the complement. For instance, some effective verbs require that the verbs of their complements be non-stative or that they do not appear with an aspectual auxiliary. Such facts strongly suggest that these matrix verbs are capable of selecting for particular features imposed on the head of their complements. Such selectional restrictions are perfectly compatible with the framework developed in this dissertation. I will return to this issue briefly in 2.6 below.

Hence, this dissertation will not uncover all the differences found among sentential complements but only some of the most salient ones which are also often best understood. Most of the more highly idiosyncratic differences will not be explored here. In some sense I will assume an "idealized" world of semantic classes of predicates; idealized enough so that I can distinguish only three main types of complements, *action*, *event* and *proposition*.

A complete study of complementation should of course involve a detailed examination of the behavior of each single predicate. Obviously this task is quite beyond the scope of this thesis. Furthermore I believe that it would not even be appropriate at this point to try to resolve all aspects of complementation including the idiosyncratic ones. Although that ought to be our ultimate goal, setting it as an immediate goal would probably make it

impossible to accomplish any fruitful theoretical understanding of complementation. Hence, contrary to the claims of Gross (1979) who sees the failure of generative grammar in the fact that it cannot account for the numerous differences that a taxonomic model could well incorporate, I believe that the only way we will arrive at an explanatory (not only descriptively adequate) model of complementation is by first researching the tools that we are still lacking to this end. The new emphasis on the aspect of grammar covered by "lexical semantics" is not so surprising since we have now arrived at an understanding of syntactic structures that is refined enough that we can begin to tackle the link between meaning and form. But that can only be done as first approximations at this point. Such an approximation is one aim pursued here.

This discussion brings us to the second type of shortcomings to be found in this dissertation: the theoretical shortcomings. These are due to a combination of two factors. One is the scope of the research project undertaken here. After struggling for many years with the mass of facts relative to complementation, I conclude that it must be a lifetime project more than a dissertation project. Thus, as I will not uncover all lexical items and particular structures, I will also not be able to study all the relevant theoretical aspects of complementation.

The second factor is one that is characteristic of most recent work in the framework of GB. The actual intricacy of the theory, largely due to the modular approach characteristic of GB, makes any attempt to change one aspect of it more and more complicated as time goes by. The changes that I will propose here in terms of categorial realization of complements will necessarily have a certain impact on the other modules of the grammar which

are constructed partly on certain assumptions regarding the form of sentential complements. In particular, in the light of the recent focus on bounding theory (cf. Chomsky (1986b)), my proposals may entail a revision of the determination of what counts as a barrier. Also, the binding theory as it is formulated in Chomsky (1986a) makes use of the notion "complete functional complex". If I am right in assuming, as I will in chapter 2, that some verbs take VP complements, with no syntactically realized embedded subject position, then the question will have to be asked as to what constitutes a "complete functional complex" in such constructions. These are some of the questions that my view of complementation will bring forward. There will be many however that will be ignored here and that will have to await some further study.

To conclude this discussion, there is still another way in which this study is limited and thus incomplete, which is that I will not specifically argue against concurrent proposals within or outside GB regarding the constructions studied here. Even when I will point out what I believe to be inadequacies in some previous proposals, I will not expect my criticisms to be without solution and hence I will not normally regard the criticisms I make as strong ultimate arguments favoring my approach. Perhaps any comparison between the different approaches to sentential complements should only be done in terms of the overall system rather than particular points within.

Before concluding this section, I would like to point out a possible alternative to the proposals that will be put forward in this dissertation regarding the structural realizations of the sentential complements. In the following chapters, I will present an analysis of sentential complementation

that crucially assumes that there can be VP, IP and CP complements. I will also assume that VP complements may be structurally realized as I' complements and similarly that IP complements may be realized as C' complements, in some instances. (The motivation for these structures will become apparent when these are properly introduced.)

A possible alternative (often suggested to me by Ken Hale) to the theory of complementation that is developed in this thesis would be to assume that all complements are always structurally CP complements but that the syntactic differences observed among the complements follow from the fact that the (selected, semantic) head of the complement will vary according to the semantic type that the complement represents.⁴

Although such an approach is not unfeasible, it would nevertheless require that we define which structural nodes count (for binding, bounding, landing site purposes, etc.) in a complement in terms of which lexical category happens to be the selected head. It seems to me that such an approach would actually miss some important generalizations and I will not explore it any further here.

1.2 Introduction to the Theoretical Framework

This study takes place within the framework of the Government Binding theory (GB) as developed in Chomsky (1981) and in more recent work. I will assume, in particular, the version of the theory presented in Chomsky

(1986a, 1986b).

I will not present an extensive review of the different modules, principles and sub-theories of the GB framework. These, I assume, must already be familiar to the reader. Here, I will simply introduce some of the main concepts that will be relevant in the study of sentential complementation that will be put forward in this dissertation.

In the framework adopted here, the lexicon is seen to play a major role in that it is the lexical entries of heads of constructions which provide the essential information that used to be (partly) encoded in the phrase structure rules of earlier syntactic theories.

The lexical entry of a major lexical item will, among other types of information, contain the different semantic properties associated with that item. The most significant of these, for our purposes, are the selectional properties. It will be assumed here (cf. 1.4 above) that the selectional properties of heads are encoded in terms of the semantic selection of their complements. A verb like *kiss*, for instance, will specify that its complement has the semantic role of recipient of action (patient) and that its subject has the semantic role of agent. The semantic categories are mapped onto structural categories by means of a set of general redundancy rules, referred to as the Canonical Structural Realization, or following the proposal put forward in 1.4 above, the Canonical Lexical Realization (CLR).

I will assume following Higginbotham (1985, 1986) that each lexical item of the major lexical categories has a thematic grid (θ -grid) associated with it. The θ -grid of a verb like *kiss* is represented as follows.

(31) *kiss*, +V-N <1,2,E> Agent(1), Patient(2)

The numbers notating roles to be assigned are referred to as "positions" in the θ -grid. The *E*-position is the *Event*-position assumed by Higginbotham following work by Davidson (1966).

Complex syntactic structures receive their interpretations through the application of a restricted set of operations which result in the *discharge* of the positions in the θ -grids of each word that appears in these structures. For Higginbotham, *discharge* is defined as the elimination of open thematic positions in lexical items and in complex phrases. He argues that there are four basic modes of discharge, all taking place in the configuration of government.

(32) Basic modes of discharge:

- (a) Theta-marking, exemplified by pairs consisting of a predicate and one of its arguments;
- (b) Theta-binding, exemplified by determiners or measure-words and their nominals, as in 'every dog', interpreted as 'for every x such that $\text{dog}(x)$ ';
- (c) Theta-identification, exemplified in simple adjectival modification, as in 'white wall' interpreted as ' $\text{white}(x)$ and $\text{wall}(x)$ ';
- (d) autonomous theta-marking, where the value assigned to the open position in the theta-marker is the attribute given its sister constituent.

Higginbotham (1986:14)

I will also adopt Higginbotham's version of the θ -Criterion which is formulated in terms of discharge of positions in the θ -grid:

(33) Theta-Criterion:

- a) Every thematic position is discharged.
- b) If X discharges a thematic role in Y , then it discharges only one.

Higginbotham (1985:561)

I will adopt the restricted version of X-bar Theory assumed by Chomsky (1986b). In particular, I will assume the following X-bar schemata:

$$\begin{aligned} (34) \quad X'' &= X'' * X' \\ X' &= X \quad X'' * \end{aligned}$$

I will also assume that the non-lexical categories INFL and COMP project to the X' level, yielding the maximal projections IP and CP, respectively.

I will assume a notion of government that allows for the government of both the head and the specifier of a maximal projection, following, among others, Belletti and Rizzi (1981) and Chomsky (1986a).

- (35) A category α governs a maximal projection X'' if α and X'' c-command each other; and if α governs X'' in this sense, then α governs the specifier and the head X of X'' .

Chomsky (1986a:162)

I will also assume the definition of government in terms of "barriers" proposed by Chomsky (1986b).

(36) Government

α governs β iff α m-commands β and there is no γ , γ a barrier for β , such that γ excludes α .

Chomsky (1986b:9)

The concept of exclusion is particularly relevant in the cases of adjunction structures. In a structure like (37), for instance, γ crucially does not exclude α , given the following definition of exclusion.

$$(37) \quad \dots \delta \dots [\gamma \alpha [\gamma \dots \beta \dots]]$$

- (38) α excludes β if no segment of α dominates β .

Chomsky (1986b:9)

The notion of c-command may be understood in a general way as follows:

(39) C-Command

α c-commands β iff α does not dominate β
and every γ that dominates α dominates β .

Chomsky (1986b:8)

In this definition γ can be understood either as any branching category (the relevant notion for binding theory) or as restricted to maximal projections. In which case, we will refer to the notion as *m-command*, following Chomsky (1986b).

The definitions of *Barriers*, *Blocking Categories*, *L-Marking* and *Direct Theta-Marking* are taken from Chomsky (1986b):

(40) Barrier

γ is a barrier for β iff (a) or (b):
a. γ immediately dominates δ , δ a BC for β ;
b. γ is a BC for β , $\gamma \neq \text{IP}$.

Chomsky (1986b:14)

(41) Blocking Category

γ is a blocking category (BC) for β iff γ is not L-marked and γ dominates β .

Chomsky (1986b:14)

(42) L-Marking

Where α is a lexical category, α L-marks β iff β agrees with the head of γ that is θ -governed by α .

Chomsky (1986b:24)

(43) Theta-Government

α θ -governs β iff α is a zero-level category that θ -marks β , and α , β are sisters.

Chomsky (1986b:15)

The Empty Category Principle (ECP) requires that every trace be properly governed. *Proper Government* is defined as follows:

(44) Proper Government

α properly governs β iff α θ -governs or antecedent-governs β .

Chomsky (1986b:17)

Chomsky (1986b) refines further the notion of proper government stated above by proposing that proper government be reduced to antecedent-government, a position which I will also adopt in this dissertation.

The Minimality Condition proposed by Chomsky (1986b) prevents certain unwanted government relations that would otherwise obtained under a "barriers" approach.

(45) The Minimality Condition

In ... α ... [γ ... δ ... β ...]

α does not govern β if γ is a projection of δ excluding α .

Chomsky (1986b:42)

The version of Binding Theory that I will adopt here is that proposed by Chomsky (1986a). The binding conditions are stated in terms of a "local domain" which is defined in terms of maximal projections and grammatical functions. (Actually, Chomsky (1986a) refines further this version of Binding Theory but the version given here will be sufficient for our purposes.)

(46) Binding Principles

- (A) An anaphor is bound in a local domain
- (B) A pronominal is free in a local domain
- (C) An r-expression is A-free (in the domain of the head of its chain)

Chomsky (1986a:166)

(47) Local Domain

...the local domain for an anaphor or pronominal α ... [is] the minimal governing category of α , where a governing category is a maximal projection containing both a subject and a lexical category governing α (hence, containing α). A governing category is a "complete functional complex" (CFC) in the sense that all grammatical functions compatible with its head are realized in it -- the complements necessarily, by the projection principle, and the subject, which is optional unless required to license a predicate, by definition.

Chomsky (1986a:169)

This will conclude my review of the main concepts and definitions that will be assumed throughout this study. Other more specific aspects of the theory will be discussed in the course of the thesis as they become relevant.

1.3 The thesis in a nutshell

The following chapters of this dissertation will each be devoted to a semantic class of main predicates and to the analysis of their complements.

The second chapter of this dissertation focuses on the study of the complements to the effective verbs, with some special emphasis on the complements of the modals, the aspectuals and the verbs of movement. I will argue that these verbs s-select the semantic category "action" A whose CLR is either V or N. Some of the matrix verbs belonging to the effective class have the particularity that they may not have an E-position as part of their thematic-grid. This is characteristic of the so-called restructuring verbs which behave as "semi-auxiliary" verbs. The restructuring phenomenon will be shown to follow from the fact that when a main verb functions as a

semi-auxiliary, the matrix INFL can θ -bind the E -position of the embedded verb. Other semantic and syntactic aspects of the complements to effective verbs will also be studied in that chapter, such as the possibility for some of these verbs to appear with NP complements which denote some concealed actions, the status of the prepositions introducing some of the infinitival complements found with these verbs and the Rumanian subjunctive complements to effective verbs.

The third chapter of this dissertation focuses on the complements to the emotive verbs. It will be argued that these verbs s-select an "event" ξ whose CLR is either INFL or N. It will be further argued that the fact that the CLR of ξ may be a non lexical category such as INFL comes from the fact that INFL is the category that discharges the E -position which is the head of an ξ -complement. The obviative phenomenon found in the subjunctive complements to emotive verbs will be analyzed as following from the fact that the embedded subject position of these subjunctive complements is governed by the matrix verb. It will also be argued that the factive-emotive predicates in addition to s-selecting ξ also specify their complement as [+definite], following in essence a proposal of Melvold (1986), and that this feature is instantiated through an operator in COMP. The presence of that operator will account for the fact that the subjunctive clause appears to form a more opaque domain. Several other syntactic phenomena will be examined which show that the complements to emotive verbs must be distinguished structurally from the complements to propositional verbs.

The fourth chapter of this dissertation will be devoted to the study of the complements to the propositional verbs. These verbs s-select a

"proposition" \bar{P} whose CLR is usually COMP. This follows from the fact that COMP is seen as the locus of different types of operators such as the Tense operator. The apparent abnormal structures of these complements in English and the proper treatment of small clauses will also be discussed in that chapter.

Notes to Chapter 1

1. In fact there seems to have been more work done on sentential complementation in the early days of generative grammar; let's say from the time of Rosenbaum's (1967) influential study until the beginning of the Extended Standard Theory, at which point the focus of research became more centered around notions like Trace Theory and other related matters.

To cite a few among the studies that have probably greatly influenced my thinking: Rosenbaum (1967), Emonds (1976), Kiparsky and Kiparsky (1970), Bresnan (1972), Ronat (1974), Burdellois (1974) and especially Long (1974) as will become apparent below. In recent years, some valuable studies in the area of Romance have been concerned with explaining the distribution of certain types of "sentential" complements, for instance Rizzi (1982) and Raposo (1987).

2. The fact that the tag appears to be somewhat acceptable in the case of (15a) may be explainable in terms of the analysis of the factive emotive verbs (like *regretter*) which will be proposed below in 3.5.

3. Abney (1985) raises some interesting problems concerning Pesetsky's claim that we can dispense with the theory of subcategorization. I will not address these issues here.

4. Emonds (1985), for instance, proposes that certain verbs, like *try*, are subcategorized for a VP although the complement is realized as a sentential complement (S or S') syntactically, a result that follows from his Revised θ -criterion.

Chapter 2

EFFECTIVE VERBS

2.1 Introduction

This chapter is concerned with the proper syntactic and semantic characterization of the complements to effective verbs in the Romance languages.

However, since the class of effective verbs is fairly large and since the study of each verb would be rather unfeasible for me at this point, I will mainly focus my attention on the subclasses of verbs that show restructuring effects in most Romance languages, that is, the modals, the aspectuals and the movement verbs.¹

The effective verbs share several interesting properties that set them apart from other classes of verbs both semantically and syntactically. I will mainly examine their syntactic properties although it will also be argued that these syntactic properties reflect the selectional properties of this semantic class of main predicates. (A partial list of verbs belonging to the effective class can be found in the Appendix to this chapter.)

Certainly the most striking syntactic property of this class of verbs is the well-known but poorly-accounted-for fact that their "sentential"

seventies, this property was accounted for by assuming that these verbs were lexically marked as obligatorily undergoing either the rule of Equi-NP-deletion (Equi) or the rule of Subject Raising (cf. for instance for French, Ruwet (1972), Kayne (1975)). Some of these main verbs share a number of syntactic properties that were identified as diagnostic of Raising structures. The Equi rule was responsible for deriving all other infinitival structures from underlying full clauses with an embedded NP subject coreferential to some other NP of the matrix clause. In the case of the verbs under consideration here these two rules were obligatory and therefore the ungrammatical structures of the examples above could never surface. Actually, to be more accurate, an aspectual verb like *commencer* 'to begin' when analyzed as a raising predicate was specified as undergoing Subject Raising obligatorily, contrary to the raising verb *sembler* 'to seem' for instance. The same verb *commencer* when analyzed as a control predicate was specified as requiring obligatorily the coreferentiality of the embedded subject and the matrix subject. This coreferentiality was in turn responsible for the "obligatory" application of Equi. A verb like *vouloir* 'to want' did not impose such a constraint on the reference of the embedded subject but whenever the embedded subject was coreferential with the matrix subject, Equi had to apply. When the rules of Subject Raising and Equi were not applied some subsequent rules introduced complementizers, tense morphology, etc. It was therefore assumed that both tensed and tenseless complements originated from similar deep structures and the impossibility of tensed complements with some matrix verbs could be captured through the means just described here.

Further development of the theory (Extended Standard Theory) has shown

that the Equi rule was inadequate and that infinitival complements should be generated with an embedded empty subject PRO whose reference would follow from some interpretive mechanism, also referred to as Control. In this framework, infinitival complements still show sentential structure in the sense that a subject position is always generated. In the case of control verbs the embedded subject position must be realized as PRO. In the case of raising verbs the embedded subject position is lexically filled at D-structure but at S-structure a NP trace occupies the position vacated by the raising of the embedded subject to the matrix subject position. Since Subject Raising is seen as an instance of Move- α , it does not have the status of an independent syntactic rule anymore nor does of course the interpretive rule for the control structures. Therefore, in this framework, the obligatoriness of tenseless complements with some verbs must be captured by some other means than those proposed earlier. These verbs must specify somehow in their subcategorization properties that they disallow tensed complements.

The Government and Binding (GB) theory which stems from the Extended Standard Theory has basically left unchanged the "sentential" hypothesis just described in the previous paragraph. It is therefore assumed that the verbs under investigation here must be specified somehow, probably in their lexical entry, as not taking tensed complements.

Under the sentential hypothesis, these verbs would probably be subcategorized for CP complements and the restriction against the tensed version of CP could either be specified negatively (i.e. $*[+tense]$) or positively, marking the verb as taking specifically an untensed complement (i.e. $+[-tense]$).

The first alternative is very doubtful from a language acquisition point of view since the relevant data for the internalization of such a constraint would seem to require exposure to some negative evidence of a kind that is very unlikely to occur.

The second alternative could be pursued more easily, perhaps by arguing that the unmarked case of complementation is an infinitival clause. A child would assume a [+tense] complement only under positive evidence which would never arise in the case of these verbs, therefore accounting for the non-occurrence of tensed complements. Also the second alternative can be technically implemented in a more straightforward manner, probably by means of selection for [-tense] as a feature of the head of CP, which would then transmit this specification to the head INFL of its IP complement. There remain some technicalities such as how to correctly distinguish infinitives from subjunctives, but we may suppose that these could be resolved.

As mentioned in 1.1.5 above, I do not intend to try to prove the sentential hypothesis wrong. I believe that such a goal is somewhat absurd since there would probably always be some way around the arguments or criticisms. But the fact that one could find ways to maintain the sentential hypothesis does not prove that hypothesis right either. In fact, the best way to evaluate the sentential hypothesis is to confront it with another analysis of the same data within the same general theoretical framework. Providing such an analysis is the main goal of this chapter.

Returning to the fact that we want to account for the impossibility of tensed complements with the effective verbs, it seems to me that what we want to capture is the fact that the semantics of these verbs is such that

any speaker will know that the complement must be untensed. In 1.1.1 above, effective verbs were characterized, following Long (1974), as verbs which describe a subject's relationship -- whether causal, potential, or other -- to the performance of an action. It thus seems that verbs which describe a relationship to the performance of an action cannot appear with a tensed complement. This restriction could be seen to follow from the fact that tensed complements (at least in Romance) constitute some kind of opaque domain with respect to the possibility of relating the events they describe to some other action. In other words, the relationship between an effective verb and its complement requires a certain degree of closeness which cannot be realized with a tensed complement.

Since tensed complements are analyzed as full clauses, an obvious solution that suggests itself is to assume that the infinitival complements of the effective verbs are not full clauses but that they should rather be analyzed as some projection of the category V. I propose that the effective verbs s-select the semantic type A for "action", "activity", and that the Canonical Lexical Realization (CLR) of that semantic type A is a verb (although we will see below in 2.6 that it can also be realized as a noun in some cases).² The fact that in languages like French, the complement is realized syntactically as a VP, that is as the maximal projection of V, follows from the fact that V will itself select its own internal arguments. In some other languages, as we will see in 2.7 for Rumanian, the syntactic structural realization of the semantic type A may be different although my claim is that it will always be a projection of V and that it will therefore lack certain properties characteristic of projections of other categories such as INFL or COMP. I will return below in section 2.6 to the s-selection

properties of the effective verbs.

As mentioned in chapter 1, I adopt the view that restrictions on complements can only be the result of restrictions imposed on the head of the complements. In fact, what this amounts to say, given the notion of Canonical Lexical Realization put forth in 1.1.4, is that these restrictions can only be mediated through selection of the head of the complement. In the system developed in this dissertation, a VP complement, being the projection of the selected head V, will not be able to realize the Tense or Agr features characteristic of full clauses. I assume that these features are normally available only when INFL is selected. I therefore assume that in the absence of Tense or Agr features, a verbal complement is realized as an infinitival complement in Romance (although we will see in 2.7 below that some languages like Rumanian are exceptional with respect to the tenseness of these complements).

To sum up, I propose that there exists a certain class of verbs, the effective verbs, which s-select the semantic type "action", *A*, whose primary CLR is a verb. The complements to the effective verbs will therefore be syntactically realized as a projection of V.

I follow Higginbotham (1985) in assuming that verbs normally have an E-position in their θ -grid (see 1.2 above) and that this E-position must somehow be discharged. As a concrete example let us examine what the partial lexical entry of the Italian modal verb *volere* would be like.

(6) VOLERE: < 1 , 2 , E >
 |
 Action

As indicated in the θ -grid of *volere*, this verb has three thematic

positions which must be discharged. The first position (which still needs to be assigned some appropriate thematic role) corresponds to the external argument. The second position is linked to the semantic type "action" whose CLR is a verb. The third position *E* corresponds to the hidden argument place for events (see Higginbotham (1985)).

Under the formulation of the θ -Criterion that is adopted in this dissertation (cf. 1.2 above), every thematic position represented in (6) must be discharged. The first two positions will be discharged by θ -marking. According to Higginbotham, the *E*-position will be discharged at the point where VP meets INFL. This is a form of θ -binding.

Returning to the semantic type "action", I propose that its CLR is normally a verb. Given that verbs are assumed to have an *E*-position in their θ -grid, we must conclude that there will have to be a syntactic position which will discharge the *E*-position of this embedded verb. This requirement follows from the fact that an argument must be saturated, which in turn entails that every role in its associated grid must be discharged. It therefore follows that the infinitival complement of the effective verbs will need to be associated to some kind of INFL node.

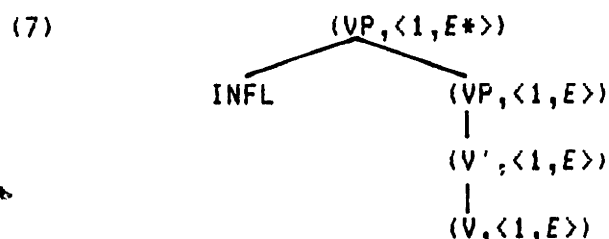
As mentioned earlier, Higginbotham views the discharging of the *E*-position as a case of θ -binding, comparable to the θ -binding by Spec of the open place found in a simple noun (cf. 1.2 above). Assuming that the θ -binding of the *E*-position by INFL must take place even in the case of infinitival complements, one question that arises is that of the status of that INFL node.

I assume that INFL usually θ -binds only one *E*-position. In the case of

an embedded VP complement, the matrix INFL will θ -bind the *E*-position of the matrix verb and will therefore not be able to also θ -bind the *E*-position of the embedded verb. The embedded verb, however, still needs to have its *E*-position discharged. I propose that in such cases, an embedded INFL node will be generated (perhaps as a projection of the *Event* role of the θ -grid of the verb). The generation of this INFL node can thus be seen as following from the θ -Criterion.

One question that arises however under such an hypothesis is that of the categorial status of the projection of INFL-VP when the head of VP is in fact the selected head of a complement.

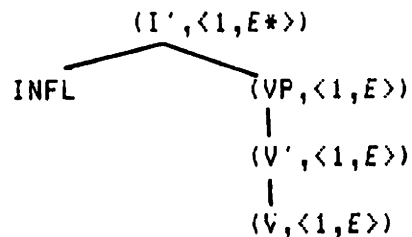
Two alternatives readily present themselves. One is to assume that since the verb is the selected head, the projection will have to be a projection of that head, as shown in (7), which would represent the case of an embedded intransitive verb phrase.



This amounts to proposing the existence of base-generated adjunction structures where the adjoined element is an X^0 rather than a maximal projection, a novelty within GB, and a clear violation of the version of X-bar Theory that I have been assuming thus far (cf. 1.2 above).

The other alternative is to assume that the projection follows X-bar Theory and is thus INFL', but that it does not project to the maximal projection IP since the (structural) head of I' is not selected.

(8)



I will assume here the latter alternative. And I will further assume that in a structure like (8), the verb will be analyzed, for most purposes, as the head of the I'. I will keep referring to these complements as VP complements rather than I' complements, as this terminology captures more effectively the fact that the verb is the selected head of the complement.

The proposal to analyze the tenseless complements of the effective verbs as VPs has some immediate desirable consequences for the simplicity of the grammars of some well-known languages such as Italian and Spanish since it will enable us to provide a simpler solution to the problem of accounting for the restructuring phenomenon as we shall see below.

The restructuring phenomenon is basically accounted for by the advocates of the "sentential" hypothesis by assuming that something happens prior to S-structure in order to transform a bi-clausal D-structure into a mono-clausal S-structure. It is interesting to note that this phenomenon affects essentially the verbs for which there is already some reason to question the full clause status of the infinitival complements, given the impossibility of any tensed complements.³

The remainder of this chapter will be organized as follows. In the second section, I will examine the restructuring phenomenon found in Romance languages such as Spanish, Catalan and Italian. It will be proposed that the restructuring phenomenon amounts to the fact that some matrix effective

verbs may not have an *E*-position in their θ -grid, not unlike auxiliary verbs for instance. When a matrix verb does not have an *E*-position to discharge, the matrix INFL node must θ -bind the *E*-position of the embedded infinitival. In such cases, there will be no embedded INFL node generated and these constructions will present the different manifestations characteristic of restructuring. I shall thus argue that the phenomenon of restructuring is in fact structurally sensitive to the presence or absence of an embedded INFL node. I will propose that the θ -binding by a matrix INFL of the *E*-position of an embedded verb has also the effect of coindexing the matrix and the embedded verbs, that is of triggering head-head agreement between those verbs. The different manifestations of restructuring will be accounted for in terms of this head-head agreement that characterizes restructuring constructions.

In the third section, it will be claimed that the equivalent French verbs do not differ from those of the other Romance languages with respect to their selectional or thematic properties. Thus, the French modals, aspectuals and movement verbs also select the semantic type "action" and may also behave as auxiliary verbs. In order to account for the absence of "restructuring" in Modern French, I will take up an investigation of several properties that hold both of Old French and of the other Romance languages, which all share the phenomenon of restructuring. I will argue that it is possible to reduce the phenomena of restructuring, pro-drop and clitic placement to a single parameter which will be called the "Pronominal INFL Parameter". The change from Old French to Modern French will be accounted for in terms of a change in the value of this parameter whose first effect was a gradual loss of the null subject properties and whose ultimate effect

was a reanalysis of the clitic system whereby the clitics are now generated under VP rather than under INFL.

In the fourth section, I will examine the theoretical consequences of the analysis proposed here with respect to the Extended Projection Principle and the θ -Criterion (Case theory will be examined in section 5). I will also examine in some detail the raising and control properties of the matrix verbs under investigation in this chapter. We will see that the raising/control distinction is far from being a clear-cut distinction. I will review the study of Zubizarreta (1983) who argues that the verbs divide up into different subtypes depending on the type of external θ -role that they assign (argument θ -role or adjunct θ -role) and depending also on whether this θ -role assignment is obligatory or optional. In discussing these different types, I will examine whether some of these types could not be reduced to the two prototypical types of true control and true raising verbs, in effect eliminating the need for having recourse to the notion of adjunct θ -role.

In the fifth section, I will take up the problem of the status of the prepositions introducing some of the infinitival complements examined in this chapter. It will be shown that the presence of these prepositions is directly linked to the Case assigning properties of the main predicates. It will be argued that the prepositions found with the infinitival complements of the effective verbs function as Case-spelling elements rather than as Case-assigning ones. I will also examine the distribution and the behavior of the prepositions found with the complements to the other classes of verbs, namely the emotive and the propositional verbs.

In the sixth section, I will examine in more detail the selectional properties of the effective verbs. It will be shown that many of the effective verbs impose "selectional" restrictions on their complements. I will also examine the cases of "concealed actions" found with several of the effective verbs and argue that the CLR of \bar{A} can also be N.

In section 2.7, I will briefly examine the complements to effective verbs in Rumanian. Rumanian differs from the other Romance languages in that the complements to the effective verbs in that language appear as subjunctive complements. We will see however that these subjunctive complements differ in many respects from those found with emotive verbs and that it is possible to maintain the claim that the realization of \bar{A} in Rumanian is also a projection of V.

In section 2.8, I will return to the distinction restructuring / non-restructuring. It will be argued that the variation found among speakers as to which verbs can enter into the restructuring construction follows from our assumption that restructuring depends on the possibility of interpreting a main verb as an auxiliary. I will also briefly outline a possible analysis of causative verbs which, I argue, belong also to the effective class. The proposal that will be put forward is that a causative verb like *faire* is in fact a complex predicate "*faire* - CAUSE" and that the abstract verb CAUSE is realized syntactically as an empty V node to which the embedded verb must raise in order for the embedded subject to be properly Case-marked. Finally, I will examine the different classes of verbs that show "object control" properties and I will propose an analysis of these structures whereby control can be reduced to a simple predication relation.

2.2 The Complements to "Restructuring" Verbs

The restructuring phenomenon has been the focus of much research in Romance syntax in the last decade.⁴ The purpose of this section is to argue that the restructuring phenomenon constitutes a type of evidence in favor of the analysis put forward in this chapter. The investigation of the restructuring phenomenon that will be presented here relies on many studies which I will not be able to review and which, clearly, have influenced me more than will be acknowledged here. In particular, the studies of Strozer (1976, 1981), Zagana (1982) and Picallo (1985) played a significant role in the development of the analysis to be proposed here.

As mentioned above, I propose to analyze the complements of the effective "restructuring" verbs, that is the modals, the aspectuals and the movement verbs, as VP complements (or, to be more accurate, as projections of V).

Similar proposals can be found in Strozer (1976, 1981), Fresina (1982), Zagana (1982), Manzini (1983) and Picallo (1985).⁵ However, except for Picallo, these authors assume that in the constructions where there is no manifestation of restructuring, the complements are sentential. Thus, they argue that the "restructuring" verbs enter into double subcategorization frames.⁶

I disagree with this proposal that the "restructuring" verbs may be subcategorized for two different types of complements (S' and VP). I will rather argue that these verbs always select the same semantic type of

complement but that they may (for most verbs optionally) not have an \bar{E} -position as part of their θ -grid.

I propose that certain effective verbs, mainly the subclasses of modals, aspectuals and movement verbs, have two distinct θ -grids associated with them, depending on whether they behave and are understood as "main" verbs or as "auxiliaries". I propose that the crucial difference between a main verb and an auxiliary reduces to whether or not the verb has an \bar{E} -position in its θ -grid. A main verb will always have an \bar{E} -position whereas an auxiliary verb will characteristically not have an \bar{E} -position. Thus, when an "auxiliary" verb appears in a clause, INFL will θ -bind the \bar{E} -position of the main verb (with a "true" auxiliary, the past participle, and with a restructuring verb, the infinitival verb).

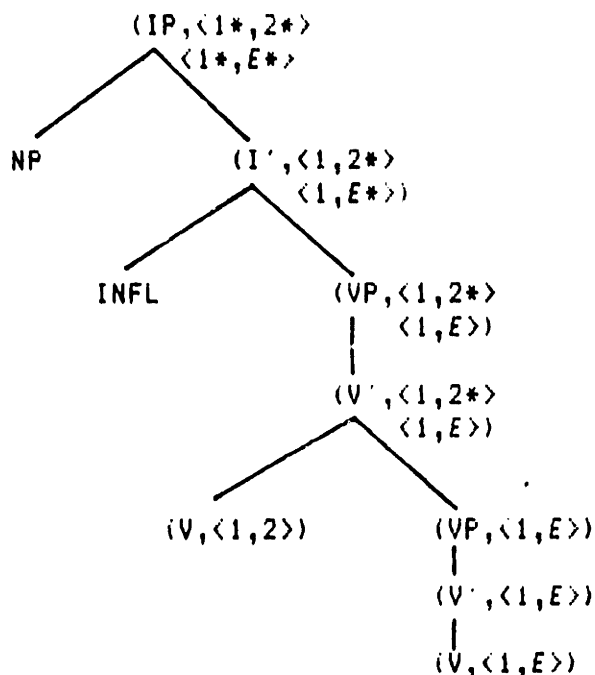
Thus a restructuring modal verb like Italian *volere* will, apart from the θ -grid given in (6) above, also be associated with the following θ -grid.

(9) VOLERE: < 1, 2 >
 |
 Action

As it was mentioned in the preceding section, I assume that the existence of the node INFL in any structure depends on the existence of an open \bar{E} -position in the θ -grid of some predicate. In other words, an INFL node must necessarily θ -bind an open \bar{E} -position of some verb. Therefore, in a structure that exhibits some kind of auxiliary verb, the matrix INFL will θ -bind the \bar{E} -position of the embedded verb.

The proper mechanism to account for such structures is through the decomposition and percolation of the θ -grids associated with both the auxiliary and the embedded infinitival verb. This is illustrated in (10).

(10)



The restructuring clause (or the auxiliary + verb clause) illustrated above is saturated, since all the thematic roles associated with the θ -grids of its constituents are discharged. (I am ignoring here the internal θ -grid of the subject NP.)

In a "control" structure like (10), the subject NP receives two θ -roles, one from the matrix verb and one from the embedded verb. I suggest that this is possible only under such percolations of θ -grids and that the two θ -roles must further share an appropriate degree of "compatibility" (although this remains to be specifically studied). In a "raising" structure, the surface subject will originate in the specifier position of the embedded VP and will thus only receive a θ -role from the embedded verb (see footnote 31 below).

To sum up, I propose that some matrix verbs of the effective class may lack an E -position in their θ -grid, in which case they behave and are understood as auxiliaries and they form with their infinitival complement

what has often been termed a "complex predicate". The remainder of this section is devoted to an analysis of the restructuring phenomenon in Romance, based on the hypothesis just outlined.

2.2.1 The restructuring construction

Let us first briefly examine the three syntactic properties that underly the existence of a restructuring process for certain classes of matrix verbs and their infinitival complements in Romance. Following Burzio (1986), I will refer to these three phenomena, exemplified in (11b), (12b) and (13b), as "Clitic Climbing (Cl-CI)", "Long Object Preposing (Long OP)", and "Change of Auxiliary (CA)", respectively.

- (11) a. Mario vuole leggerlo.
 Mario wants to read-it
 b. Mario lo vuole leggere.
 Mario it wants to read
 'Mario wants to read it'
- (12) a. Si voleva proprio leggere questi libri.
 SI wanted really to read these books
 b. Questi libri si volevano proprio leggere.
 These books SI wanted really to read
 'We really wanted to read these books.'
- (13) a. Mario avrebbe proprio voluto andare a casa.
 Mario would have really wanted to go home
 b. Mario sarebbe proprio voluto andare a casa.
 Mario would be really wanted to go home
 'Mario would have really wanted to go home'

The first pair of examples illustrates the possibility of Cl-CI with the main Italian "restructuring" verb *volere* 'to want'. Normally, pronominal clitics in the Romance languages appear attached to the verb that they complement. In other words, the binding relation between a pronominal

Similarly, the phenomenon of Long OP in impersonal SI-constructions, exemplified in (12), is normally restricted to simple sentences ("short" OP) as shown by the following paradigm.

- (16) a. Si leggerà volentieri alcuni articoli.
SI will read(sg) willingly a few articles
'We will be eager to read a few articles.'
- b. Alcuni articoli si leggeranno volentieri.
a few articles one will read(pl) willingly
'A few articles will be read eagerly.'
- (17) a. Si odiava proprio leggere questi libri.
SI hated really to read these books
- b. *Questi libri si odiavano proprio leggere.
these books SI hated really to read
'We really hated to read these books'

The contrast in grammaticality between (16b) and (17b) shows that OP is normally restricted to simple sentences. But the example given in (12b) above shows that Long OP is possible under a "restructuring" verb.

In analyzing the so-called impersonal SI-construction, I will adopt the position defended by Belletti (1982) and Manzini (1983), among others, that SI is generated directly under INFL. I will thus depart from Burzio who argues that SI is cliticized from subject position. The fact that SI is base-generated under INFL implies that there is an empty category present in subject position, not an unexpected fact given the pro-drop nature of the languages that exhibit the impersonal SI-construction.

The examples in (16) show that in such a construction, the direct object can optionally move into subject position, a movement comparable to that of passive structures. This well-known parallel between the impersonal SI-construction and passive is exploited in Belletti's account of the construction. I will return below in 2.2.2.2 to the phenomenon of Long OP.

As for the third manifestation of restructuring, the CA, it must first be noticed that it occurs only in Italian, this fact simply being a reflex of the fact that the other languages do not use their two auxiliaries in the same manner as Italian. The example given in (13b) where the auxiliary *essere* appears with the main verb *volere*, which normally takes *avere*, is analyzed as following from the fact that it is the embedded infinitival that selects the auxiliary. The selection of the main auxiliary by the embedded infinitival is restricted to structures that exhibit main verbs of the same restructuring type than those that also allow Cl-Cl and Long OP. Again, I will return below in 2.2.2.4 to the specifics of the CA phenomenon and to the analysis proposed by Burzio.

The three manifestations of restructuring and the fact that they are restricted to a well-defined class of verbs provide strong evidence that the structures that exhibit these manifestations must be mono-clausal at some level, contrary to those that do not allow them. However, many of the analyses proposed to account for this phenomenon assume a bi-clausal D-structure for the constructions exemplified in (11b), (12b) and (13b). In other words, the infinitival complements found in these constructions are sentential complements, at least at the level of D-structure, according to Rizzi (1978) and Burzio (1981, 1986). Rizzi argues that a restructuring rule takes place in order to create a complex predicate. Burzio argues that both restructuring and the *faire*-construction involve a VP-preposing rule that extracts the lower VP out of its clause and adjoins it to the higher verb. These two analyses are both based on the assumption, which I share, that the restructuring verbs do not subcategorize for two different types of complements. Since the behavior of these verbs and their infinitival

complements in the non-restructuring cases exemplified in (11a), (12a) and (13a) must be accounted for, Rizzi and Burzio both assume that such structures must be analyzed as bi-clausal. Therefore they must also assume that the constructions exhibiting manifestations of restructuring are derived from bi-clausal ones. I will return below to the different manifestations of the "non-restructuring" constructions and argue that they can all be handled under a "mono-clausal" analysis.⁹

Within the GB framework, Zagana (1982) and Picallo (1985) argue for a base mono-clausal analysis of the restructuring construction. They give several empirical as well as theoretical arguments that support their claim that the complements of the restructuring construction are best analyzed as non-clausal complements. Picallo's analysis differs from that put forth by Zagana in that she proposes that the "restructuring" verbs are always generated in mono-clausal structures (but see footnote 6). I basically agree with this proposal but I believe that it is still necessary to distinguish restructuring structures from the non-restructuring ones for reasons to be brought up and fully examined below. But before doing so, I would like to briefly discuss what I believe to be the major shortcoming of the two main types of restructuring analyses put forth in the last decade.

One major striking property of the restructuring phenomenon that has received very little attention so far is that it is restricted, in the core cases¹⁰, to certain particular verb classes which share the property that they only take tenseless complements, as already mentioned above. These classes of verbs are the modals, the aspectuals and certain verbs of movement.¹¹ Under a restructuring analysis, the fact that the construction is restricted to such a well-defined class of verbs receives no

explanation. In fact, under the "sentential" hypothesis, not only must each of these verbs be lexically marked as undergoing the rule of restructuring but they must also be marked as not taking tensed complements. If there is a correlation between these two properties, as I believe that there is, it is certainly not brought up to light under the "sentential" hypothesis.

The problem of accounting for the lack of tensed complements with these verbs does not seem to be resolved either under the double subcategorization frame hypothesis. Although the analyses put forth by Strozer, Fresina and Zagana can account for the restructuring construction without having recourse to an actual rule of restructuring, they still argue that the non-restructured construction (cf. (11a) for instance) exhibits a full sentential complement. Hence they account for restructuring but not for the impossibility of tensed complements.

Under the analysis developed in this chapter, the two properties — (restructuring and lack of tensed complements) are related since the restructuring construction is viewed as a particular subcase of the type of complementation found with the effective verbs.

2.2.2 Restructuring is the absence of an embedded INFL

If the so-called restructuring classes of verbs uniformly select a projection of V as their complement, as it is argued here, then the question arises as to what constitutes restructuring itself. As mentioned earlier, it seems to still be necessary to distinguish restructuring structures from non-restructuring ones. Consider the following examples taken from Rizzi

(1978).

- (18) a. Piero voleva darmelo.
'Piero wanted to give it to me'
b. Piero me lo voleva dare.
c. *Piero lo voleva darmi.
d. *Piero mi voleva darlo.

These examples show that when one clitic of the embedded infinitival complement appears attached to the matrix verb, all other complement clitics must also appear attached to the matrix verb.

In fact, as Rizzi and Burzio both note, the different syntactic manifestations of restructuring appear to interact directly. For instance, the phenomenon of Long OP in (19) will not occur with "restructuring" verbs if Cl-Cl has failed to take place as in (20a).

- (19) a. Si vuole vendere queste case a caro prezzo.
b. Queste case si vogliono vendere a caro prezzo.
'SI wants to sell these houses at a high price'
(20) a. *Questi libri si vorrebbero proprio dargli.
b. Questi libri gli si vorrebbero proprio dare.
'These books SI would really like to give to him'

Similarly, Cl-Cl will not occur if the CA has failed to take place (in a language like Italian). A main (restructuring) verb generally taking the auxiliary *avere* takes the auxiliary *essere* if the embedded verb is an *essere* verb, as shown in (21). As (22a) shows, Cl-Cl is impossible in a structure like (21a) where the auxiliary is selected by the main verb *volere*.¹²

- (21) a. Mario avrebbe già voluto venire.
b. Mario sarebbe già voluto venire.
'Mario would have already wanted to come'
(22) a. *Mario ci avrebbe già voluto venire.
b. Mario ci sarebbe già voluto venire.
'Mario would have already wanted to come there'

These facts show that it is necessary to distinguish two types of

constructions with these verbs: a "restructuring" construction and a "non-restructuring" construction. Another motivation for that distinction comes from the fact that we must also account for the behavior of the effective verbs that are not restructuring verbs, since under the proposal put forth in this chapter these verbs select the same type of complement as the restructuring verbs.

As mentioned earlier, the analysis of restructuring that will be defended here is articulated in terms of the presence or absence of an embedded INFL node. I propose that the different manifestations of restructuring happen only when the VP complement lacks an INFL of its own. Recall that the absence of an embedded INFL follows from the fact that the higher verb does not have an *E*-position to be discharged. In such circumstances, the *E*-position of the embedded verb will be discharged by the matrix INFL and no embedded INFL node will be generated.

This proposal is different from those that argue for double subcategorization frames for the restructuring verbs since it is argued here that the selection of the infinitival complement always remains the same. Hence, even when there is an embedded INFL present, the "restructuring" verb does not select an IP or a CP complement, in particular it does not select a projection of INFL where INFL would be the head of the maximal projection IP.

When INFL is the head of some complement, it must be a "full" INFL, specified for Tense and AGR as the INFL of a matrix clause. Following a suggestion by K. Hale (p.c.), I will call the INFL that is not selected by the main verb, that is the INFL that can appear with complements to

effective verbs, a "degenerate" INFL. A "degenerate" INFL is an INFL that has no Tense nor AGR specifications. It is simply a syntactic node where certain elements (other than the Tense and AGR features) may appear.

The approach to restructuring just outlined receives confirmation both on syntactic and on semantic grounds. In the remainder of this section I will examine the syntactic evidence which consists mainly of showing how the approach accounts for the different phenomena related to restructuring. In 2.2.2.1, I will examine some syntactic evidence which could be seen to favor the assumption that these complements may be accompanied by an INFL node only in the non-restructured constructions. I will also point out that when INFL is present, it can only be "degenerate", that is that there exists no embedded Tense or AGR associated with this embedded INFL. In the following sections, I will examine the different manifestations of restructuring and argue that they all crucially depend on the absence of an embedded INFL node. My analysis will rely essentially on the assumption that when the *E*-position of the embedded infinitival verb is discharged by the matrix INFL, head-head agreement obtains between the restructuring verb and the head of its complement, thereby accounting for the manifestations of restructuring. When there is an embedded INFL discharging the *E*-position of the embedded verb, no head-head agreement is possible between the main verb and the infinitival verb, and the different manifestations of restructuring are ruled out.

In section 2.2.3, I will examine some semantic evidence, provided in Napoli (1981), which appears to favor the analysis of restructuring proposed in this section. It will be argued that the semantic interpretation of the restructuring construction provides further evidence that there is a unique

E-position associated with these so-called "complex predicates".

2.2.2.1 Manifestations of INFL

In this section, I will examine some possible syntactic evidence that could be adduced in support of the claim that a "degenerate" INFL is possible only when restructuring does not occur. This section, however, is of a much speculative nature as it will become apparent shortly. The evidence that will be advanced here is of a rather complex nature in that it involves alleged facts (which I have not further tested myself) concerning the possible occurrence of elements such as adverbials, auxiliaries and negation markers in the restructuring constructions. A proper analysis of these facts would require a thorough comparative analysis of the auxiliary and adverbial systems of languages such as Spanish and Italian, which is quite beyond the scope of this dissertation. It seems to me, however, that the "freer" occurrence of such elements when restructuring does not occur indicates a structural difference that may well involve the presence of INFL, as it will be argued here.

There appear to exist some severe limitations on the occurrence of restructuring. As noted in Zagana (1962) from which I draw the following examples, the infinitival complement of the restructuring construction may not be independently negated or show perfective structure. This last restriction seems to be particular to Spanish and not to Italian. I will return to this difference shortly.

- (23) a. **Maria la quiere no escribir.*
b. *Maria quiere no escribir*la.
'Maria wants not to write it'

- (24) a. *Maria la quiere haber escrito.
 b. Maria quiere haberla escrito.
 'Maria wants to have written it'
- (25) Maria la quiere escribir.
 'Maria wants to write it'

A comparison of the examples in (23a) and (24a) with the perfectly grammatical (25) leads us to conclude that it is the presence of *no* in (23) and *haber* in (24) that blocks clitic-climbing.

A possible analysis of negation could be to assume that NEG is generated under the INFL node. Although I do not know of any direct evidence for this analysis in Spanish or Italian, a language like French shows some phenomena that can be easily accounted for under the assumption that NEG is under INFL (cf. the analysis in Emonds (1978) to which I will return in 2.3.1.2 below). The lack of direct evidence in languages like Spanish and Italian does not, to my mind, disfavor the hypothesis that NEG would be under INFL in these languages as well, which actually would seem to be the null hypothesis if we want to maintain some unity of treatment for these closely related languages. Therefore, we could take the presence of the negation marker *no* in (23) as an indication that an INFL node is present in that structure. As it will be shown below in 2.2.2.3, sentence (23a) will be ruled out as an illicit case of Cl-CI, that is as an instance of Cl-CI in the absence of head-head agreement between the matrix and the embedded verbs.

It is less clear that perfective tense also involves the presence of INFL. However, as mentioned above, this blocking effect of perfective tense seems to be restricted to Spanish since we find Italian sentences where Cl-CI has applied and where there is an auxiliary present between the two verbs, as

shown in (26).

- (26) *Li vorrei aver già letti.*
them (1)-would want to have already read
'I would want to have already read them'

I will assume, although without further justification here, that the presence of perfective tense in Spanish implies the presence of INFL. Under this assumption then, the auxiliary *haber* in (24) signals the presence of an embedded INFL. Since Italian does not seem to show the same restriction against the presence of a perfective auxiliary, it should be concluded that the presence of an auxiliary in Italian does not entail the presence of INFL. One possibility would be to assume that perfective auxiliaries are generated under a V node in Italian but under INFL in Spanish. In (26) then, the infinitive auxiliary *avere* would be generated under VP and would not raise to INFL since there is no INFL present in this (restructuring) structure. But in (24a'), the Spanish auxiliary *haber* would be generated under INFL and the sentence would be ruled out as an illicit case of C1-C1 in the presence of an embedded INFL (see 2.2.2.3 below). The fact that Spanish uses only the auxiliary *haber* for perfective tenses might have some bearing on this issue, although an investigation of this matter will not be pursued here. Obviously, the hypothesis just outlined is based on a very far-reaching assumption regarding the nature of the auxiliary systems of Italian and Spanish, with many consequences that may well prove it wrong.

There exists another, possibly related, interesting difference between Italian and Spanish with respect to what can block restructuring. It seems that Italian allows the presence of adverbs in restructuring structures while Spanish prohibits them. Rizzi notices that the presence of adverbs in Italian does not prevent restructuring.

- (27) a. Lo verro subito a scrivere.
 it (I)-will come at once to write
 'I will come at once to write it'
 b. Gli stessi errori si continuato stupidamente a commettere.
 'The same errors SI continue stupidly to do'
 c. Maria e dovuta immediatamente tornare a casa.
 'Maria "is" had immediately to come back home'
- (28) a. Ho subito scritto a Francesco.
 'I have immediately written to Francesco'
 b. Maria e immediatamente tornata a casa.
 'Maria "is" immediately come back home'

As (28) shows, adverbs in Italian can occur between the auxiliary and the past participle. I will assume that the auxiliary is generated under VP, but in this case it will raise under INFL since INFL is necessarily present in a tensed clause. The adverbs in Italian would be generated in the specifier position of the VP. In (28) therefore, the adverbs would be in SPEC-VP and the auxiliaries would have raised under INFL.

As for the restructuring examples of (27), it is not immediately obvious whether the adverb should be analyzed as belonging to the higher or to the lower VP. If the adverb is taken to modify the main verb, then it can either be that the adverb is in SPEC-VP and the main verb (without an auxiliary) has raised to INFL, or that the adverb has been displaced after the verb (this analysis would be required when there is an auxiliary present as in (27c)). If the adverb is taken to modify the embedded verb, then it most probably is in SPEC-VP, although in a sentence like (26) above, the adverb appears again to have been displaced between the auxiliary and the past participle which would both be under VP, given the fact that Cl-Cl has applied.

Spanish adverbs, however, block restructuring as illustrated in (29). (The examples are from Zagana (1982).)

- (29) a. Quisiera mucho verte.
 b. *Te quisiera mucho ver.
 c. Te quisiera ver mucho.
 'I would like very much to see you'

As (30) shows however, adverbs in Spanish cannot intervene between an auxiliary and the main verb.

- (30) *Juan ha frecuentemente estudiado la lección.
 'Juan has frequently studied the lesson'

Zagona also points out that adverbs are VP-final in the unmarked case (although they may also appear between a verb and its object). The fact that adverbs are normally VP final in Spanish could be taken as meaning that SPEC is VP final in that language. Then the impossibility of intervening adverbs in auxiliary + past participle constructions could be analyzed as following from that fact, as would also the impossibility of intervening adverbs with restructuring.

Given these assumptions then, what these limitations would seem to indicate is that the presence of an INFL node or of elements in INFL suffices to block the possibility of restructuring. However, more work obviously needs to be done on this topic before we can arrive at a very conclusive argument.

If we now turn to the type of INFL that can appear in these constructions, we see that there does not seem to be any Tense or AGR specifications possible. First, if we consider AGR, it must be remarked that the "restructuring" verbs form a subclass of the class of verbs which do not allow for embedded complements with an "unlike" (understood) subject so that if AGR would be specified, it would necessarily have to be coindexed with that of the matrix clause. I will rather assume here that this property

reflects the lack of AGR specifications altogether.

Second, when we examine the TENSE properties of the infinitival complements of these verbs, it is also noticeable that they lack TENSE entirely, at least in the case of the aspectual and movement verbs.¹⁴ This can be seen by trying to use different time adverbials with the embedded complement. For instance, a sentence like (31a) in Italian where we find the aspectual *cominciare* 'to begin' in the present tense and the time adverbial *domani* 'tomorrow' cannot mean that "Mario begins today to type it tomorrow", rather the presence of *domani* forces a future interpretation of the main verb. The future interpretation is of course impossible if the main verb is in the past tense, as shown in (31b).

- (31) a. Mario comincia a batterla a macchina domani.
'Mario will start typing it tomorrow'
b. *Mario ha cominciato a batterla a macchina domani.
'Mario has started typing it tomorrow'

These examples contrast significantly with the following sentences where the main verbs do not select VP complements.

- (32) a. Mario ha promesso di batterla a macchina domani.
'Mario has promised to type it tomorrow'
b. Mario affermava di batterla a macchina domani.
'Mario stated to type it tomorrow'
'Mario stated he will type it tomorrow'

To summarize, I argued in this section that there are reasons to believe (apart from the θ -binding of the E-position) that the infinitival complements of the "restructuring" verbs may have their own INFL node. Such a node however is "degenerate" in that it will not be specified for Tense or AGR features. My claim is that such specifications can only arise under head selection of INFL. It was also pointed out that there is some good evidence that when restructuring takes place there is no embedded INFL node,

even a degenerate one, present.

In the following sections I will provide an analysis of the three manifestations of restructuring based on the hypothesis that the absence or presence of an embedded INFL is crucial in determining the well-formedness of a restructuring structure. I will first examine the phenomenon of Long OP. Section 2.2.2.3 will be devoted to the Cl-CI facts while the CA phenomenon will be examined in 2.2.2.4.

2.2.2.2 Object preposing

Under the hypothesis put forward in the preceding sections, the occurrence of Long OP exemplified in sentence (12b) above, repeated here as (33b), should follow from the absence of an embedded INFL. The purpose of this section here is to propose a theoretical explanation that accounts for this fact.

- (33) a. *Si voleva proprio leggere questi libri.*
 SI wanted really to read these books
 b. *Questi libri si volevano proprio leggere.*
 These books SI wanted really to read

Long OP is naturally analyzed as an instance of NP-movement, similar to that found in passive structures. This suggests that the illicit cases of Long OP will probably be due either to a violation of the ECP, that is to a failure of antecedent-government to take place, or to a violation of Principle A of the Binding Theory. It will be argued here that the ungrammatical instances of Long OP are to be accounted for in terms of the ECP.

Let us consider the D-structure and S-structure representations of

sentence (33b), given here in (34a) and (34b) respectively. (I will represent the main verb under its infinitival form, thus omitting the inflectional endings.)

- (34) a. [e [SI [proprio volere [leggere [questi libri]]]]]
 IP I' VP VP NP
- b. [questi libri [SI volere [proprio t [leggere t]]]]
 IP i I' VP j VP i

I will follow Belletti (1982) in assuming that the impersonal *SI* is generated under INFL. In the D-structure (34a), the subject position is therefore empty, just as in a passive structure, and the embedded direct object NP may move to that position. But here, in contrast to a passive structure, the direct object NP does not have to move to the subject position since its occurrence in object position is correctly licensed by the embedded verb which assigns it accusative Case, as in (33a).

After NP-movement, the trace t_i of (34b) must obey the ECP as A-bound traces must normally do. Depending upon the version of the ECP that we adopt, this will mean either 1) that the trace of *questi libri* must be either θ -governed or antecedent-governed by a coindexed element or 2) that it must only be antecedent-governed (Chomsky (1986b)). I will assume here the more restrictive theory of Chomsky (1986b), that is that for A-bound traces, proper government reduces to antecedent government, θ -government being excluded.

Before showing how antecedent government obtains in (34b), let us first examine how the passive case of NP-movement is analyzed by Chomsky (1986b). Consider the following sentence and its corresponding S-structure representation, where after V-raising, q has the index j and heads the chain (q, t_j) .

(35) a. John was killed.

b. John [be-I] [t [killed t]]
 i j VP' j VP i

According to Chomsky, there are two possible ways in which the trace t_i of John can be correctly antecedent-governed. The first analysis proposed by Chomsky relies on the assumption that the VP' substructure of (35b) is analyzed as a case of adjunction. Given the fact that α_j in (35b) has the index i of the subject John by virtue of SPEC-head agreement, it follows that $j=i$ (recall that α_j already has the index j by virtue of V-raising). Chomsky argues that in such "adjunction structures" t_j will govern t_i since t_j is not excluded by the verb phrase with the segments (VP', VP). Therefore, proper government of t_i in the extended chain (be, t_j , t_i) obtains since there is coindexing ($j=i$). Crucial to this analysis is the assumption that the VP' substructure is a case of adjunction, otherwise t_j could not govern t_i because of the Minimality Condition (see chapter 1 above).

The other possible way for t_i to be properly governed is, according to Chomsky, by head-head agreement (index sharing) of be-I and killed, in which case killed is now coindexed with t_i and t_i will be antecedent-governed by the trivial chain (killed). As Chomsky points out, his assumption regarding the head-head agreement between I and the verb in the VP seems to be required in the case where I is a modal, for instance, as in the following example.

(36) John will be killed.

In such a structure, we know that be does not raise to INFL, given the presence of the modal. Recall that in (35b) be is assumed to share the index i of the subject by virtue of SPEC-head agreement. In (36) however,

SPEC-head agreement will involve the modal *will* and not *be* since only the former is under INFL. But we know that *will* cannot properly govern the trace of *John*. In order to allow *be* to still be able to antecedent-govern the trace, Chomsky assumes that there is head-head agreement, independent of raising, between *I* and the aspectual verbs in VP. There will thus be (indirect) agreement between the subject and each aspectual verb of VP. As Chomsky points out, if we extend the relation of head-head agreement to all verbs in VP (not only the aspectual verbs but also the main verb), then we may account for the proper-government of t_i in (35b) simply by assuming that *killed* shares the index of *be*. Under this assumption, t_i will be antecedent-governed by the trivial chain (*killed*) and we will not need to appeal to the adjunction argument (the first analysis above).

Let us now examine how these two possible analyses can handle the Long OP facts that we are concerned with here. As mentioned previously, Long OP is in many respects similar to passive. Both constructions are basically instances of NP-movement of a direct object NP into the subject position. The question to be asked at this point is why it should be the case that the trace of *questi libri* is correctly antecedent-governed in (34b) but not in the following "non-restructured" S-structure.

(37) [t_i *questi libri* [t_j *si* *volere* [t_k *proprio* t_i [*leggere* [t_i t_j]]]]]
 IP i I' VP j I' k VP k i

Let us first consider the case of (34b). There, the trace t_i of *questi libri* can be, as in the passive example, antecedent-governed in one of two ways. Assuming that the VP complement can be analyzed as a segment of the higher verb phrase, therefore not excluding t_j , we can say that t_i is properly governed in the extended chain (*volere*, t_j , t_i). (Recall that *volere* also shares the index of the subject by virtue of SPEC-head

agreement, so that there is coindexing.)

The other possibility is to assume that there is head-head agreement of *volere* and *leggere* in which case the trivial chain (*leggere*) will antecedent-govern t_i . The head-head agreement of *volere* and *leggere* in a structure like (34b) is not a counter-intuitive assumption given the "complex predicate" status of such constructions. In fact the head-head agreement of the matrix and the embedded verbs could be seen as a direct consequence of the fact that in these structures there is only one *E*-position discharged onto the matrix INFL, namely that of the embedded infinitival which thus behaves as the semantic head although the main "semi-auxiliary" verb is the syntactic head. I will thus assume that head-head agreement is a function of the percolation of the *E*-position of the embedded verb through the θ -grid of the matrix verb, as it was illustrated at the beginning of 2.2 above.

Turning now to the illicit case of Long OP illustrated in (37), I am assuming here that the infinitival verb raises to the degenerate embedded INFL node, although the reasoning that follows would apply even if V-raising did not take place. Here again, SPEC-head agreement will ensure that there is coindexing ($j=i$). But the trace t_j of *volere* cannot properly govern t_i since government of t_i by t_j is prevented in this case by the Minimality Condition. The structure is therefore correctly ruled out. We may now ask the question of whether the head-head agreement hypothesis will also correctly rule out this structure. If I am right in assuming that head-head agreement occurs only in the case where there is a single *E*-position associated with the two verbs, then in a structure like (37) where both *volere* and *leggere* have their own *E*-position, head-head agreement will not

take place, therefore precluding antecedent-government of *t_i* by *leagere*.

It thus seems that the phenomenon of Long OP can be correctly accounted for without having recourse to any special mechanisms. In what follows, I will assume that the relevant conditioning factor for the antecedent government of the trace of Long OP is that the embedded verb be coindexed with the matrix as a result of head-head agreement.

Let us now turn our attention to the Cl-Cl phenomenon.

2.2.2.3 Clitic-climbing

As mentioned above, Cl-Cl seems to be sensitive to the same conditions as the phenomenon of Long OP, namely, in my analysis, the presence or absence of an embedded INFL. There is a major difference however between the two phenomena which is that Cl-Cl is necessarily obligatory in a "restructured" construction whereas Long OP always remains optional. As it will be argued shortly, the obligatoriness of Cl-Cl seems to provide some further evidence in favor of my hypothesis that restructuring happens when there is no embedded INFL.

In contrast to the phenomenon of Long OP just examined above, the phenomenon of Cl-Cl raises a number of questions concerning the status of clitics in the Romance languages. One major issue regarding the syntax of clitics is that of whether or not there is movement of the clitic from an argument position onto the verb. Actually, the question is not so much one of determining whether there is actual "movement" but is rather more connected with determining what type of empty category (in the argument position) the clitic is coindexed with. The recent literature on clitics

(within GB) provides the most extraordinary array of proposals regarding this issue. Some authors argue that the empty category is a NP-trace (whether there is actual movement or not). Others argue that the empty category is *pro*. Still, others argue that it is a variable. Although a complete study of the syntax of clitics is clearly beyond the scope of this dissertation, I will try to show here that the Cl-Cl phenomenon may at least clarify certain aspects of the syntax of clitics. In particular, it will be argued that the obligatoriness of Cl-Cl under restructuring indicates that the clitics must be under INFL at least at S-structure in Romance.

At the beginning of 2.2.2 above, it was briefly mentioned that the different manifestations of restructuring appear to interact directly. For instance, once Long OP has applied to a structure, there may not be any clitics attached onto the embedded verb. The examples in (20), repeated here as (38), illustrate the point.

- (38) a. *Questi libri si vorrebbero proprio dargli.
b. Questi libri gli si vorrebbero proprio dare.
'These books SI would really like to give to him'

The ungrammaticality of sentence (38a), or for that matter of (18c-d) above, strongly suggests that clitics are not simply attached to a verb (either as a result of movement or of base-generation) since it would be hard to imagine what principle of the grammar would then rule out the occurrence of *gli* attached onto *dare* in that sentence.

Under the analysis of the Long OP phenomenon put forth in the preceding section, both sentences in (38) would lack an embedded INFL since Long OP has taken place. An obvious solution to the ungrammaticality of (38a) now comes up to mind, namely that the occurrence of the clitic there is illicit

because the presence of clitics is determined by the presence of an INFL node. In other words, we may hypothesize that a property of clitics is that they must appear under INFL at S-structure.

Interestingly, this requirement that the clitics in Romance be under INFL at S-structure receives some further support from the facts relative to the placement or positioning of the clitics with respect to the verb. The Romance languages that exhibit restructuring also show the interesting property that their clitics attach either to the left or to the right of the first verbal element depending on whether this verbal element is tensed or
16
untensed. The following Spanish examples, taken from Strozer (1976), illustrate this property.

(39) Tensed verbs:

- a. Pepe la hace/*hacela.
'Pepe does it (FEM)'
- b. Pepe la ha hecho/*ha hechola/*ha la hecho.
'Pepe has done it'

Untensed verbs:

- c. Pepe quiere hacerla/*la hacer bien.
'Pepe wants to do it well'
- d. Hacerla/*la hacer bien no es facil para Pepe.
'To do it well is not easy for Pepe'
- e. Haciendola/*la haciendo con cuidado siempre sale bien.
'Doing it carefully it always turns out well'

The foregoing paradigm of clitic placement can be accounted for very nicely under the following scenario. Let us assume that clitics are always generated under (or moved to) INFL and that they will attach to the verbal element raised to INFL. With non-inflected forms clitics are attached to the right of the verb. I will thus assume that this is the "normal" place for a clitic to attach. The fact that the clitics do not attach to the right of an inflected verbal form can be accounted for by assuming that the presence of the agreement markers on the verb prevents this attachment. This

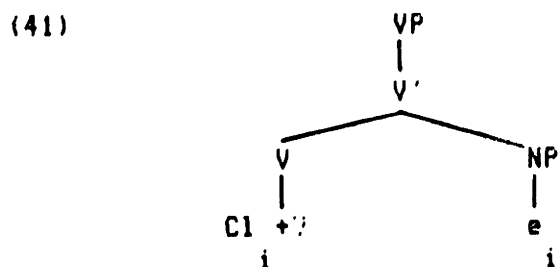
proposal is in accordance with the relativized notion of head of DiSciullo and Williams (1987) whereby the inflection on the verb is seen as being the head.

This is the general case in the modern spoken languages. However, according to Rivas (1977), in literary and journalistic Spanish, we can still find some instances of clitics attaching to the right of an inflected verb. He gives the following example involving the reflexive verb *reunirse*:

- (40) Reuniose el presidente con los ministros.
 Met-REFL. the president with the secretaries
 'The president met with the secretaries'

In European Portuguese there are even instances of encliticization with certain tenses. These facts can be accounted for under our analysis since it is assumed that it is some kind of morphological constraint that prevents the clitics from attaching to the right of an inflected form. We could thus say that this constraint can be relaxed in certain contexts or styles.

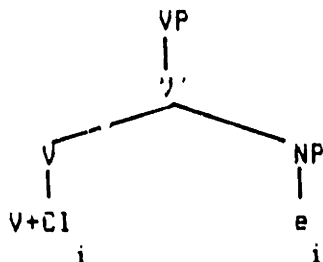
In an analysis where the clitics would be generated directly onto the verbal element that selects them, presumably to the left of the verb, as shown in (41), and where there would be no "independent" movement of the clitics under INFL, it is far from obvious how the different clitic placement facts would be accommodated for.



The attachment to the left in simple tensed clauses would follow from the fact that the clitics are already attached to the verb, so that V-raising to

INFL will apply to Cl + V in (41). And the attachment to the right of ⁱ infinitival verbs could be handled by assuming that the clitics are generated directly to the right in this case, as shown in (42).

(42)



However, the facts regarding clitic placement in the presence of auxiliary verbs do not conform to the analysis just outlined here. In the presence of auxiliary verbs the clitics always appear attached onto the auxiliary and not onto the main verb.

(43) a. Pepe la ha hecho/*ha hechola/*ha la hecho.

'Pepe has done it'

b. Maria quiere haberla escrito/*haber escritola.

'Maria wants to have written it'

In an analysis that assumes that clitics are generated directly onto the verbal head, some kind of readjustment rule will be necessary to handle these cases properly. Notice that the main effect of such a rule will be to attach the clitics to the first verbal element of the clause, namely the element that undergoes V-raising to INFL.

It thus seems that the generalization that we want to capture is that the clitics will always end up attached to the verbal element that will be under INFL at S-structure. It seems to me that this generalization calls for a simpler answer than one which necessitates local movement rules to account for the facts of (43). The obvious solution to these facts is to assume that the clitics are generated (or moved to) under INFL and that they then cliticize onto the verbal element which is raised to INFL. The cliticization

process will be sensitive to certain morphological constraints, as indicated above.

Another argument that can be adduced in favor of the hypothesis that clitics are generated under INFL, comes from the analysis of impersonal *SI* in languages like Italian. In 2.2.2.2 above I mentioned that Belletti (1982) argues that *si* is generated under INFL in Italian. If she is right, then the fact that *si* follows other complement clitics and the negation would prove not only that these complement clitics are in INFL at S-structure but also that they must not have raised to INFL already cliticized onto the verb, otherwise the presence of an intervening *si* will be difficult to account for. Actually, even under an analysis whereby *si* originates in subject position and is then cliticized under INFL (Burzio (1986)), it would be difficult to account for its placement between the object clitics and the verb if the object clitics are already cliticized onto the verb at that point. I repeat here Burzio's example given in (25b).

- (29) b. Questi libri gli *si* vorrebbero proprio dare.
'These books *SI* would really like to give to him'

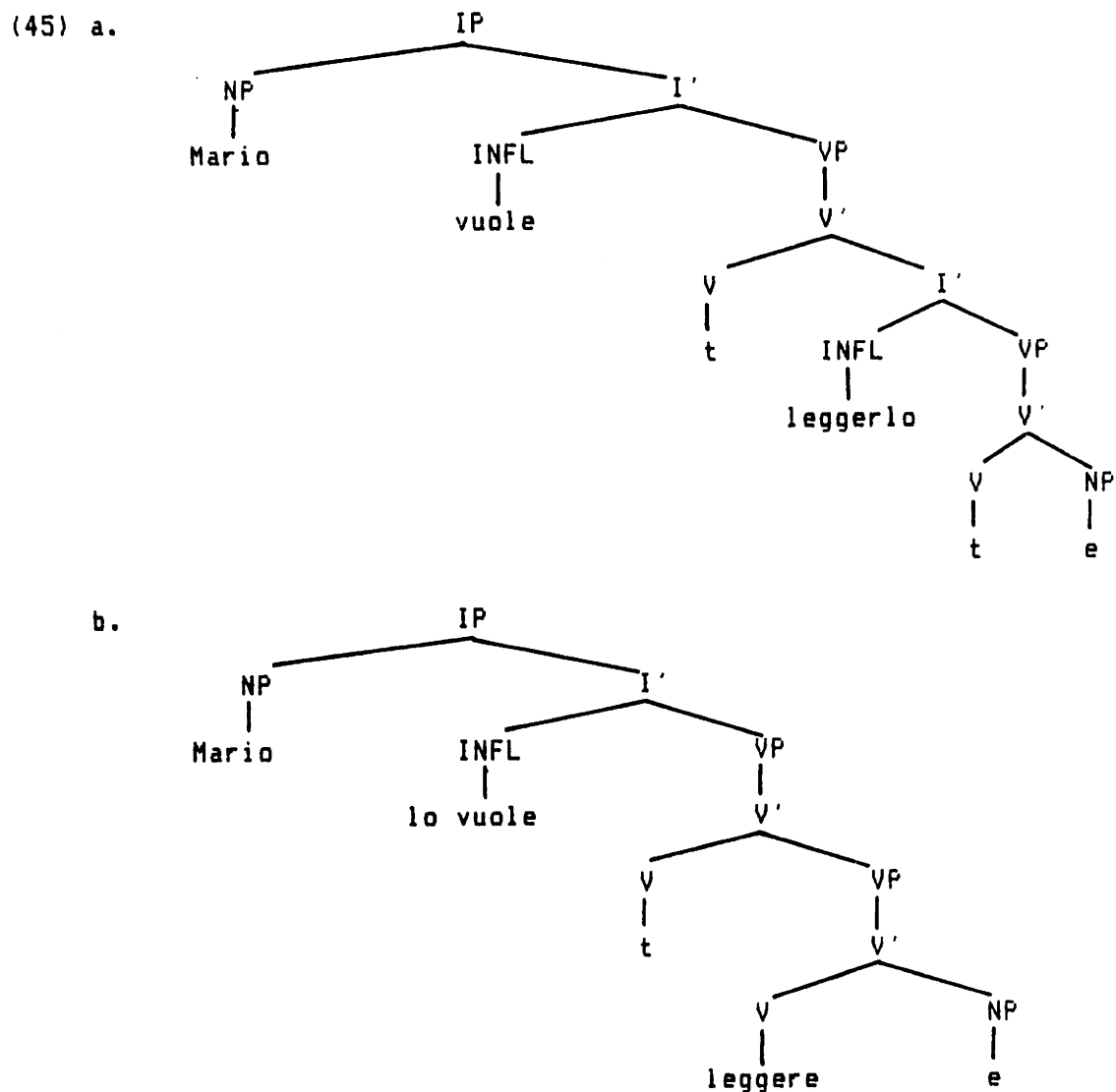
I will therefore assume that clitics in languages like Spanish and Italian are generated under INFL (or are moved to INFL independently of the verb).

Returning to the Cl-Cl phenomenon, the fact that the clitics cannot appear attached onto the embedded verb in a "restructured" construction will now follow from the hypothesis that clitics must be under INFL. Recall that I assume that there is no embedded INFL node in a "restructured" construction. Hence, no clitics will be able to appear in these complements.

We still need to account however for the impossibility of Cl-CI in the presence of an embedded INFL, that is in the case of a "non-restructured" construction. This is now the question that I want to address.

Consider the S-structures (45) corresponding to the sentences in (11), repeated here in (44).

- (44) a. Mario vuole leggerlo.
b. Mario lo vuole leggere.



According to the analysis put forward here, in the non-restructuring case there must be an embedded INFL as shown in (45a) and in the restructuring

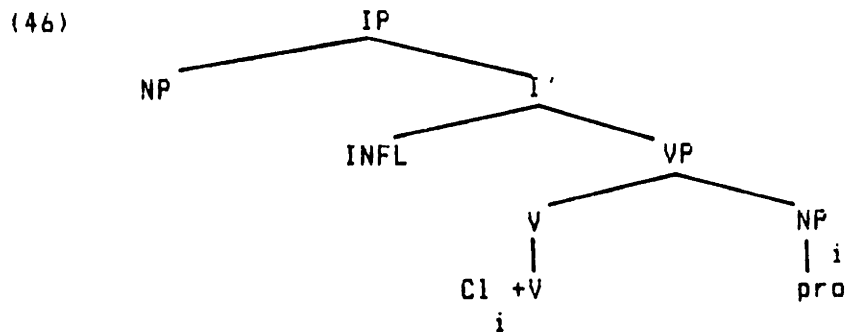
case there must crucially not be an embedded INFL as shown in (45b).

I will assume that the empty category that the clitic is associated with in object position in (45) is *pro*, following, among others, Borer (1983) and Roberge (1986). Recall that *pro* is the pronominal empty category first introduced by Chomsky (1982) to account for the pronominal properties of the empty element in subject position in null subject languages. More recent work has shown that we can also find *pro* in object position under certain conditions.

Given this assumption regarding the nature of the empty category, we must now account for the fact that the relation clitic-*pro* appears to be sensitive to the presence of an embedded INFL. In the previous section, I proposed that the ungrammatical cases of Long OP are to be analyzed as violations of the ECP, that is as a failure of antecedent government. One could be tempted to propose a similar analysis for the Cl-CI facts as well, since they appear to be sensitive to the same factors. There are however many reasons to believe that the ECP holds only of A-bound and A'-bound traces and not of pronominal elements such as *pro*. It must then be that another principle of the grammar is responsible for ruling out the illicit cases of Cl-CI. A likely candidate would be a version of the principle assumed to be responsible for the proper licensing of the element *pro*.

Regarding *pro*, Borer and Roberge assume that it can appear in any position where an overt NP could appear and that its licensing is done in terms of government and coindexing by some (phonetically) realized set of features including person, number and, in some cases, gender. Thus the position occupied by *pro* must be governed by the element which is coindexed with it.

The approach taken by Borer and Roberge implies that it must be the clitic (the coindexed element) that will govern the empty category. Under that analysis of object clitics, the clitics are base-generated adjoined to V under VP. Thus in a simple structure like the following, the clitic will govern the object position by virtue of the fact that the verb governs the object position.



However, under the analysis of object clitics as generated under INFL that I propose here, it is not obvious whether the clitic can actually govern the empty category.

Recall that in chapter 1 above, I adopted the definition of government proposed by Chomsky (1986b), which I repeat here in (47).

(47) α governs β iff α \bar{m} -commands β and there is no γ , γ a barrier for β , such that γ excludes α .

Given this definition of government (for the concept of *exclusion*, see 1.2 above), *pro* in (45a) will be governed by the clitic *lo* under the embedded INFL only if VP is not a barrier for government, since VP evidently excludes *leggerlo*. Let me repeat here the relevant substructure of (45a).

(48) [*leggerlo* [*t* [*pro*]]]
 I' VP NP

In (48), the verb *leggere* has undergone V-raising under INFL. According to Chomsky (1986b), after V-raising, the newly formed element V is lexical and

therefore L-marks VP (L-marking is introduced in 1.2 above). Therefore VP does not constitute a barrier in (48) and we could expect that government of *pro* by the clitic will be possible. It appears however that in this case the Minimality Condition will prevent government of *pro* by the clitic. Recall that, in essence, the Minimality Condition rules out cases of government when there is a "closer" governor.

(49) In ... α ... [γ ... δ ... β ...]

α does not govern β if γ is a projection of δ excluding α .

In (48), VP excludes *leggerlo* and government of *pro* by the clitic is therefore disallowed by the Minimality Condition, clearly not the desired result.

Let us now consider the restructured case of (45b), the relevant substructure of which is given here in (50).

(50) [I' lo vuole [VP t [VP leggere [NP pro]]]]

In (50), the embedded VP is not a BC for *pro* since it is L-marked by the matrix verb. Given Chomsky's assumption that V-raising under INFL has the effect of L-marking the VP, the higher VP is also not a barrier. Then, in (50), there is no barrier that prevents government by the clitic of *pro*. However, once again, even if we analyze the two VPs as a case of adjunction structure, the Minimality Condition will preclude government of *pro* by the clitic since the material in INFL is excluded by the higher VP, again not the desired result.

Let us now examine the case of an illicit Cl-Cl which, according to our hypothesis, should arise when there is an embedded INFL present.

(51) [I' lo vuole [VP I' t [VP leggere [NP pro]]]]

Here again, government of *pro* by the clitic *Io* will be prevented by the Minimality Condition, even if we consider that there is no barrier involved in this structure.

It thus appears that if we want to maintain the hypothesis that it must be the clitic that governs and identifies *pro*, we will need to develop an analysis which will void the effects of the Minimality Condition for the structures in (45) while still correctly ruling out a structure like (51). The problem that we are facing, however, is that we do not want to say that the embedded verb does not govern *pro*, since it clearly must govern it: the embedded verb directly θ -marks the object and therefore θ -governs it. A possible solution to this problem would be to look for a different approach to the licensing of *pro*.

Adams (1987) offers another approach to the "licensing" of *pro*, in which the position of *pro* and the content of *pro* are not necessarily identified by the same element. Adams states her theory of "Prodrop" as follows:

(52) *Theory of Prodrop*

The position and content of *pro* must be identified.

- a. The position of *pro* is identified by a governing head.
- b. The content of *pro* is identified by coindexation with the proper features.

Before considering this other approach to the licensing of *pro*, let us reconsider for a moment the account of Long OP that was developed in the preceding section. Recall that at the end of that section, I proposed that the determining factor for the proper government of the trace of the raised direct object should be the head-head agreement characteristic of complex predicate structures, that is of restructuring. It is not unreasonable to assume that the conditions for Cl-Cl could also be contingent on this

head-head agreement, since after all, we are looking for the "defining" property of restructuring. Keeping this in mind, let us turn now to Adams' theory of *pro*.

Recall that Adams proposes that *pro*'s position and content need not be identified by the same element. Let us further assume that when *pro*'s position and *pro*'s content are identified by different elements, these elements must share an index, as stated in (53).

(53) Licensing Conditions for *pro*:

The position and content of *pro* must be identified.

- a. The position of *pro* is identified by a governing head.
- b. The content of *pro* is identified by coindexation with the proper features.

When the position and the content of *pro* are identified by different elements, these elements must be coindexed.

Returning to the structures upon consideration here, we find that in (48), the embedded verb *leggere* and the clitic *lo*, being both under the embedded INFL, clearly conform to this coindexation requirement and *pro* is thus correctly licensed: its position is identified by the trace of *leggere*, its content is identified by coindexation with *lo*, and *leggere* and *lo* share an index.

In (50), the clitic *lo* is under the matrix INFL attached to *vuole* and thus shares the main verb's index. The embedded verb *leggere* however also shares the main verb's index by virtue of head-head agreement. In such a structure, therefore, the clitic which identifies *pro*'s content and the verb, *leggere*, which identifies *pro*'s position are coindexed. We thus correctly account both for the restructuring and the non-restructuring structures.

The next crucial step is to examine whether this proposal will also

correctly rule out a "non-restructured" construction exhibiting Cl-Cl, that is the structure represented in (51) above. Here we may suppose that *pro*'s content is correctly identified by virtue of it being coindexed with the clitic *lo*. The position of *pro* is identified by *leggere* under government. But in this structure the embedded verb does not share any index with the clitic since head-head agreement does not take place here. The structure is therefore correctly ruled out.

To summarize, it has been argued in this section that the conditions on the proper licensing of *pro* given in (53) coupled with the head-head agreement hypothesis put forward in the preceding section can account for the facts regarding the possibilities of Cl-Cl in the complements to restructuring verbs. This analysis is based on the assumption that the empty category that the clitic is coindexed with is *pro*. As mentioned in footnote 17, if it turns out that the empty category associated with the clitic should rather be taken to be NP-trace, an analysis along the lines of that given above to account for the Long OP facts could be adopted for the Cl-Cl facts as well.

2.2.2.4 The change of auxiliary phenomenon

Burzio (1986) provides a thorough analysis of the CA phenomenon found in restructuring constructions. His account is based on his analysis of auxiliary selection and past participle (pp) agreement in Italian which appear to function as follows:

- (54) a. Auxiliary *essere* (E) is assigned when there is a relation of a certain type between the subject and either a clitic or a direct object.
- b. A pp will agree with an element holding a relation of a certain type with its direct object.

These two rules cover the following three cases:

- (55) a. NP cl V ... E only
- b. ... cl V NP ... pp agreement only
- c. NP V NP Both E and pp agreement

The case of pp agreement with direct object clitics is illustrated by the following sentences. I give here the structures assumed by Burzio for the restructuring cases. I will return shortly to the structures and the analysis that I propose for these cases.

- (56) a. Li ho letti [e]
 i i
 'I have read them'
- b. Li ho voluti [leggere [e]] [PRO---]
 i VP i S
 'I have wanted to read them'
- c. Li vorrei [aver gia letti [e]] [PRO---]
 i VP i S
 'I would want to have already read them'

Sentence (56a) illustrates the case of pp agreement in a simple clause where the direct object appears as clitic. The other two examples illustrate the case of pp agreement in restructuring constructions; example (56b) shows pp agreement on the higher verb while example (56c) shows pp agreement on the lower verb.


The case of pp agreement illustrated in (55c) is found in the SI

construction when there is an ergative verb (in the sense of Burzio) present, as shown in (57) for simple clauses and in (58) for restructuring clauses (the presence of the clitics *gli* and *ci* ensures that restructuring has taken place in these examples).

- (57) a. *Gli si e telefonato.*
 SI has phoned (to) him (E; no pp agreement)
- b. *Ci si e andati.*
 SI has gone there (E; pp agreement)
- (58) a. *Gli si sarebbe voluto telefonare.*
 SI would have wanted to phone (to) him (E; no pp agreement)
- b. *Ci si sarebbe voluti andare.*
 SI would have wanted to go there (E; pp agreement)

The contrast exemplified in (57) follows from the fact that in (57b) there is a subject-object relation due to the ergative status of *andare* while in (57a) there is no such relation given the non-ergative status of *telefonare*. So, in fact, in (57b), the subject-object relation induces pp agreement and both the subject-clitic and subject-object relations induce E, as shown in (59).

(59) ... [e] si e andati t ...



Burzio accounts for the pp agreement shown in the restructuring construction exemplified in (58b) by assuming that the trace of the embedded object is linked to the matrix subject. Burzio assumes that once VP-preposing has applied to the embedded clause, the object of the embedded verb becomes an object of the matrix verb as well. The trace of the embedded object, however, must still have a proper antecedent at S-structure. According to Burzio, the matrix subject will be able to act as a c-commanding antecedent for the trace since the matrix subject and the embedded subject are coindexed in such structures. Thus, for Burzio,

example (58b) will be analyzed as in (60).

(60) [e] si sarebbe voluti [andare t] [PRO ---]
 i i VP i S i

If restructuring does not take place, the auxiliary will still be E given the subject-clitic relation but pp agreement will not be possible. If we replace clitic *SI* with non-clitic *noi* 'we', the auxiliary of non-restructured (61a) becomes A and pp agreement does not take place but the auxiliary of restructured (61b) is E and pp agreement takes place, both phenomena being induced by the subject-object relation.

(61) a. *Noi avremmo voluto [PRO andare t]*
 i S i i
 We would have wanted to go (A; no pp agreement)

 b. *Noi saremmo voluti [andare t] [PRO ---]*
 i VP i S i
 We would have wanted to go (E; pp agreement)

Let us examine now how the account of restructuring developed in this chapter can handle the facts examined thus far. In the case of pp agreement induced by direct object clitics, the structures given in (56b-c) will rather be analyzed as shown in (62a-b) respectively. These structures are very similar to those proposed by Burzio, except for the fact that there is no embedded S with PRO present here.

(62 a. *Li ho voluti [leggere [e]]*
 i VP i
 'I have wanted to read them'

 b. *Li vorrei [aver gia letti [e]]*
 i VP i
 'I would want to have already read them'

Recall that in 2.2.2.3 above, it was shown that in such structures the clitic-*pro* relation (I take *e* to be *pro*) is properly licensed given that
 i
 head-head agreement between the matrix and the embedded verbs has taken

place. The clitic-pro relation will thus induce pp agreement as expected.

In the case of the SI construction exemplified in (58b), I will assume once again a structure similar to that proposed by Burzio, except for the fact that there will be no embedded S node with a PRO subject.

(63) [e] si sarebbe voluti [andare t]
i i VP i

The analysis that I assume for a structure like (63) hinges to a certain extent on the analysis of non-restructured constructions involving ergative verbs, so I will start here by examining the latter case, an example of which is given in (64).

(64) Si sarebbe voluto andare.
SI would have wanted to go (E; no pp agreement)

Here we have the auxiliary E induced by the subject-clitic relation but no pp agreement, a diagnostic that restructuring has not taken place.

An interesting question with respect to ergative verbs arises under the account of restructuring developed in this chapter, namely that of the status of the object position of an embedded ergative verb. If the surface subject of an ergative verb originates as an internal argument of the verb, thus as an object, as Burzio argues, then we expect that there must be an object position present in the structure of a sentence like (64). This would follow from the Projection Principle. We know however that this position must be filled by an empty category since the embedded verb is an infinitival verb. Under Burzio's analysis, at S-structure, the empty category found in the object position of an ergative verb is the trace of the embedded subject PRO. Under the analysis proposed in this chapter, however, there is no embedded PRO subject. Recall that I assume that the external θ -role of an embedded verb in the complement to an effective

predicate is discharged by the matrix subject. This assumption will not handle the case of ergative verbs (or passive verbs for that matter as well) since with these verbs the element that appears as a surface subject originates as an object which is assigned an internal θ -role by the verb. It is the lack of Case-marking for the object that forces the movement of the object to the non- θ subject position. Do we therefore expect that there will be an empty category in the object position of an ergative verb appearing in the complement of an effective verb? And if so, what type of empty category could it be?

Let us suppose that the Projection Principle forces the generation of an object position with these verbs, as shown in the D-structure (65) which represents the case of the non-restructured sentence (64).

(65) [e] _i si sarebbe voluto [[andare e]]
 i i I' VP

We know that the empty category in object position in (65) cannot be PRO since PRO can only appear in non-governed position, nor can it be a variable since there is no potential binder for a variable in such a structure. We are thus left with two possibilities, namely NP-trace or *pro*. From the discussion of Long OP in 2.2.2.2 above we know that an NP-trace in this position is ruled out by the ECP since antecedent-government does not obtain here. Then, it must be that the empty category is *pro*. But for *pro* to appear here, it will have to satisfy the licensing conditions that we assumed in 2.2.2.3 above, namely that its position and content be properly identified. Recall that in the discussion of the Cl-CI facts, I argued that the governing head for *pro* and the element with which it is coindexed must share an index in order for *pro* to be properly licensed. But in (65), for the proper reading to obtain, the empty category should be coindexed with

the matrix subject. The matrix subject however does not share any index with the embedded verb *andare* which is the governing head for *pro*. This is so because head-head agreement between the matrix and the embedded verbs cannot take place in such a structure. Therefore, *pro* is not properly licensed here under the desired reading. We must therefore conclude that no empty category can actually appear in the object position of an ergative verb within the complement to an effective verb. I propose that in such cases, no object position is generated and the internal θ -role of the ergative (or passive) verb is discharged by the matrix subject, just as in the case of the external θ -role of non-ergative (non-passive) verbs. The D-structure of our non-restructured example will thus be as in (66) rather than as in (65).

(66) [e] si sarebbe voluto [[andare]]
 i i I' VP

Let us now go back to the restructuring case illustrated in (63) which I repeat here as (67).

(67) [e] si sarebbe voluti [andare e]
 i i VP i

The fact that pp agreement obtains in this structure seems to indicate that there must be a subject-object relation taking place here. If so, then it must be that there is an empty category in the object position of *andare* in this case, contrary to the non-restructured case of (66). The empty category must be coindexed with the matrix subject as indicated. Here two analyses of the empty category appear plausible. The empty category could be taken to be *pro*. It would then have to be not only coindexed with the matrix subject but also governed by a head which shares an index with the matrix subject. This latter requirement is fulfilled here since head-head agreement between the matrix and the embedded verbs takes place and since we

further assume that there is SPEC-head agreement between the subject and the
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 matrix verb.

The empty category could also be taken to be NP-trace here, as a result of Long OP to the matrix subject position, which again would fulfill the requirement of antecedent-government given head-head agreement and SPEC-head agreement.

In the case of (61b) however, Long OP is impossible, given that the matrix subject position is filled. In such a structure, therefore, the empty category must be taken to be *pro* as shown in (68).

(68) Noi saremmo voluti [andare *pro*]
 i VP i
 We would have wanted to go

It thus appears possible to handle the core facts regarding the CA phenomenon under the analysis of restructuring proposed in this chapter. It must be noted however that Burzio mentions many other instances of the CA phenomenon which appear to not follow the expected pattern. At the present time, I do not have any illuminating solution to offer for these problematic cases. For some of these cases, the tentative explanations proposed by Burzio could probably be translated into the analysis proposed here, while for some other cases, such as those mentioned in footnote 12, like Burzio, I have no explanation to offer at this point.

2.2.3 The interpretation of restructuring structures

In this section I will briefly review the important study of Napoli (1981) which convincingly argues that the "restructuring" verbs behave like auxiliaries not only syntactically but more importantly semantically as

well. Her conclusions are in accordance with the claim on which is based the analysis of restructuring developed in this chapter, namely that restructuring takes place when the "restructuring" verb does not have an E-position to be discharged. In such cases, only the E-position of the infinitival verb is discharged and the "restructuring" verb is interpreted as an auxiliary.¹⁹

With regard to the syntactic behavior of "restructuring" verbs, Napoli (1981) assumes the analysis of Rizzi (1978) according to which the "restructuring" verb and the infinitival verb come to form a verbal complex after the rule of restructuring has applied. Napoli argues that the structure of the verbal complex found in a restructuring sentence is identical to that of verbal complexes with auxiliary verbs. Following also Radford (1977), she shows that the syntactic constituency tests used by Rizzi (1978) to support his claim that the restructuring construction involves a verbal complex, can similarly be used to show that an auxiliary + past participle structure also forms a verbal complex. Napoli provides additional tests which also confirm her hypothesis. Napoli's conclusion is that at least at the level of S-structure²⁰ the restructuring verbal complexes and the auxiliary + past participle complexes have identical structures. I will not review her demonstration here since my purpose in this section is not to study the syntactic structure of auxiliary verbs but is rather to study the semantically similar behavior of auxiliaries and restructuring verbs.

Napoli argues that the semantic interpretive rules must apply to the structures of restructuring verbal complexes and auxiliaries + past participles in the same manner. In other words, these structures being

identical, they must be interpreted in a similar fashion. I will not, here, challenge her claim that the structures of auxiliary and restructuring verbs are identical (again because the study of auxiliaries is quite beyond the scope of this dissertation). I would like to point out however that under the account of restructuring proposed in this chapter, it is not necessary that the structures of auxiliary and restructuring verbs be syntactically identical since it is argued here that the crucial characteristic that they share is the absence of an *E*-position in their thematic grid. It is therefore conceivable that the syntactic structures could be somewhat different, let's say in the number of bar projections of the *V* nodes involved for instance, although they should obviously share a common enough character since they do appear to respond to syntactic constituency tests in a similar fashion.

Let us now review Napoli's analysis of the semantic interpretation of auxiliary and restructuring structures. ²¹ Concerning the semantic interpretation of auxiliary verbs *essere* and *avere*, Napoli mentions that their function is to supply information about the state or action expressed in the past participle. She gives the following three descriptive statements which appear to characterize auxiliaries.

- (69) a. The auxiliaries do not express states or actions in themselves.
- b. The main verbs homophonous with the auxiliaries are frequently-used lexical items, expressing basic, unqualified concepts.
- c. Any adverbs which modify the auxiliaries also modify their past participles.

She argues that these statements can be taken as reflections of interpretive rules, which she states as in (70).

- (70) a. The auxiliary offers supplemental information about the action or state of the main verb, introducing no additional independent action or state.

- b. The auxiliary adds conceptually basic or simple information.
- c. A complement of the auxiliary other than the main verb must be interpreted as a complement (or as binding a complement) of the main verb, as well.

Napoli then goes on to show that the rules of (70) also apply to verbal complexes of the restructuring type.

First, she argues that the main verb in such constructions does not express an independent state or action in itself. It rather expresses a concept which adds to the information about the state or action of the infinitive verb. As she points out, it should be the case that such an interpretation is restricted to the restructuring case and that the same verb in a non-restructuring case could express an independent state or action.
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The first example examined by Napoli involves the aspectual verb *continuare* in a construction where restructuring did not take place, as evidenced by the fact that the clitics are attached onto the embedded verbs.

- (71) Il semaforo segnava giallo, giallo, giallo, continuando
ad accendersi e riaccendersi.
'The traffic light showed yellow, yellow, yellow, continuing
to flash and flash again' (Calvino, 190)

Let me quote Napoli's discussion of this sentence:

The point of the sentence in the story is that the traffic light blinks constantly. The main character becomes obsessed with this, and the very act of repetition seems to madden him. Thus the action upon which attention is focused is characterized by simple continuation or repetition, without much interest in what particular activity is repeated. Certainly *continuando* is not here functioning primarily to lend information to the act of lighting expressed in the following infinitives. And it is no accident that CC fails to occur here. My consultants agree that, while CC would certainly be grammatical in [71], it would be less appropriate to the context of the story. (p.865)

It thus appears that when the focus is on the action characterized by the matrix verb, restructuring manifestations are not appropriate. Under the analysis put forward here, this would follow from the fact that in such cases, the matrix verb is a full verb, in the sense that it has an E-position, and the verb may thus be interpreted as constituting an "event" in itself. In such structures, the embedded verb will have its own INFL and no manifestation of restructuring should be able to occur.

Napoli also examines the behavior of movement verbs such as *andare* 'to go'. She points out that these verbs enter into restructuring only when their infinitival complements are not understood as purpose or reason clauses. Rather the "restructuring" movement verbs express actions which lead to that of the infinitive; they function as a comment on how the action of the infinitive is brought about. Thus, in sentences like (72a-b), the subject is not performing two separate actions of going and finding but rather a single action of finding done by means of motion.

- (72) a. Vado a trovarlo.
 b. Lo vado a trovare.
 'I am going to find him'

Napoli points out however that she has not been able to come up with a pair of examples, one involving clitic-climbing and the other not, that would display the same kind of slight semantic distinction that she found with the aspectual verbs. I will have nothing further to say about these motion verbs here.

Napoli then examines verbs like *volere* 'to want'. She points out that such verbs can be used in a discourse which implies the truth of their complements. In such cases, the proper interpretation of a verb like *volere*

is one of intention rather than one of desire. Napoli argues that in examples where clitic-climbing has applied, *volere* is interpreted as expressing the intention and the infinitival complement represents a proposition that will be true in the future. Again let me quote her discussion of the following two contrastive examples:

- (73) Aspetta. Ti voglio regalare qualcosa. Una cosa proprio bella. Vieni.
'Wait. I want to give you something. Something very pretty. Come.'
(Calvino, 21)
- (74) Peccato; io voglio farti un regalo e tu non vuoi.
'What a shame! I want to give you a gift, and you don't want (me to).'
(Calvino, 23)

Here a boy meets a young girl and wants to give her a gift; he has in mind the clear intention of giving her such a gift. His statement of desire is really a statement of intent, with confidence that he will succeed. He proceeds to try to convince her to accept a gift; but she refuses. After a while he concludes that, while he would like to give her a gift, he cannot... The second time he does not use CC; and this time the statement is one of desire, but not of intention. He knows now that what he desires will not be realized. (p.868)

Another interesting example studied by Napoli involves the verb *cercare* 'to try' which, for some speakers, can undergo restructuring. As Napoli points out, under restructuring, it should be that the verb of trying would somehow be inextricably connected to the infinitive semantically. She provides the following examples, which do appear to confirm this fact.

- (75) a. Cerchero di finirlo. Te lo prometto.
b. *Lo cerchero di finire. Te lo prometto.
'I'll try to finish it. I promise you.'
- (76) a. Cerchero di finirlo. E ci riuscirò.
b. ?Lo cerchero di finire. E ci riuscirò.
'I'll try to finish it. And I'll succeed.'
- (77) a. Ho cercato di finirlo. Ma ho fallito.
b. *L'ho cercato di finire. Ma ho fallito.
'I tried to finish it. But I failed.'

- (78) a. Ho cercato di finirlo. E ci sono riuscito.
b. L'ho cercato di finire. E ci sono riuscito.
'I tried to finish it. And I did.'

In the first two sets of examples (75)-(76), the verb *cercare* is in the future tense and the action of the infinitival clause is not yet realized. In (75), the assertion of promise focuses on the act of trying and is appropriate only when *cercare* is not used only to add information to the action conveyed by the infinitival complement. When clitic-climbing has applied, the verb *cercare* is understood as offering only supplemental information and the assertion of promise is judged unacceptable. In (76) the assertion of future success focuses on the succeeding in finishing more than on the succeeding in trying, contrary to the assertion of promise in (75). Napoli explains the relative acceptability of (76b) by pointing out that the future tense of *cercare* keeps the success of the action described by the infinitival complement hypothetical.

In the second two sets of examples (77)-(78), the past tense is used. In (77), the assertion of failure is acceptable only when the sentence is meant as a declaration of the subject's efforts, which is impossible when clitic-climbing has applied since in such a case, the focus is on the infinitival's action. In (78), the assertion of success favors the reading in which the embedded clause is focused and (78b) is thus acceptable.

Napoli concludes from these facts that the restructuring verbs do conform to rule (70a). In the analysis of restructuring developed in this chapter, these facts can all be seen to follow from the possibility for these verbs to constitute or not an "event", possibility which is encoded through the presence or absence of an E-position in their θ -grids.

Napoli's rule (70b) states that the auxiliary adds only conceptually basic or simple information. Thus the verb which undergoes restructuring should provide only simple additional information to the action described by the infinitival complement. As she points out this is clearly the case with the core class of restructuring verbs, such as the modals, the aspectuals and the movement verbs. Napoli also discusses several more marginal cases of restructuring verbs involving verbs of desire, for instance, and others. She shows how the more acceptable cases of restructuring involve the verbs that convey more basic concepts; in the case of the desire verbs, the verbs that carry a stronger emotional value are judged unacceptable in restructuring constructions. These facts indicate that the semantic content of a "main" verb is a determinant factor for the possibility for a verb to not have an E-position in its θ -grid. (As mentioned previously, I postpone the discussion of the periphery cases of restructuring to 2.8.1 below.)

Finally, Napoli examines the third interpretive rule given in (70c), namely that a complement of a verb that shows restructuring must be interpreted as a complement (or as binding a complement) of the infinitival verb as well. Napoli examines the case of adverbial complements and claims that an adverbial cannot be understood as modifying only the main verb when restructuring has applied, to the exclusion of the infinitival verb. She gives the following examples with the verb *volere* 'to want'.

- (79) a. Voglio di nuovo imprigionarli.
 b. Li voglio di nuovo imprigionare.

Napoli says that there are two readings possible for (79a):

- (80) a. I want once more to imprison them.
 (And I may have never done so in the past, although I have wanted to)
 b. I want to imprison them another time.
 (And I have done so in the past, although I may or may not have wanted to)

In (79b), only the second reading given in (80) emerges, i.e. the reading in which the adverbial modifies the infinitive and, only optionally, *volere*.

Napoli also gives examples involving locative and time adverbials in restructuring contexts.

- (81) a. Bisognava andarli a ricercare a casa del diavolo.
'It was necessary to go to look for them again at the devil's house.'
(Palazzeschi, 216)
b. Ora statemi a sentire.
'Now stay to listen to me' or 'Do listen to me now!' (imperative)
(Pratolini, 155)

In these examples, the adverbials can be understood as modifying either the infinitival verb or both the infinitival and the restructuring verbs, but they cannot be understood as modifying only the restructuring verb.

The facts concerning adverbial modification just reported here follow from our assumption that there is a single *Event*-role involved in restructuring constructions and that this *Event*-role is that of the embedded verb. Higginbotham (1985) follows Davidson (1966) in assuming that in adverbial modification the adverbs should be taken as predicated of events. In the restructuring sentences exemplified in (79b) and (81), the matrix INFL θ -binds the *E*-position of the embedded verb, thus the only *Event*-role discharged in such sentences comes from the infinitival verb. If an adverbial is present it will be predicated of that event. This accounts for the interpretation under which the adverbial is understood as modifying only the infinitival verb. The interpretation under which the adverbial is understood as modifying both the restructuring and the infinitival verbs can be assumed to follow from the fact that in such structures the restructuring and infinitival verbs form a complex predicate in the sense that the

restructuring verb is undissociable from the infinitival verb and that they are thus understood as forming a single event.

2.3 Modern French vs Old French and the Other Romance Languages.

In the preceding section, I argued that the core cases of the restructuring phenomenon found in languages like Italian and Spanish follow from the fact that the restructuring verbs belong to the effective class and therefore select the semantic type A, realized as a projection of V, and also from the fact that these verbs have the property that they do not necessarily have an E-position in their θ -grid. My claim is that restructuring occurs when these matrix verbs do not have an E-position, in which case they behave somewhat like auxiliaries.

Modern French differs from Italian and Spanish in that it does not show any of the restructuring effects (Cl-Cl, Long OP, CA) studied in the previous section. It is a well-known fact however that this is a more or less recent development in the history of French since we can find instances of restructuring in Old French as well as in Middle French. Until as far as the seventeenth century, a sentence like the following was fully acceptable (from Foulet (1961)):

(82) Je le vous ai voulu dire. (Malherbe, III, 254)
'I wanted to tell it to you'

Thus, it must be that something happened in the evolution from Old French to Modern French which somehow rendered these constructions opaque. The obvious question that arises then is why it should be the case that Modern

French does not exhibit any restructuring effect.

Under a "restructuring" analysis like that proposed by Rizzi (1978), one could simply say that Modern French has lost the rule of restructuring (which, for him, is different from that involved in the causative construction) whereas Italian and Spanish have retained it. But within the GB framework adopted here, it is now generally agreed that there cannot exist any such rules as that proposed by Rizzi. In any case, in view of the analysis proposed in the preceding section, such an explanation in terms of the loss of a grammatical rule is now impossible.

Under an analysis of restructuring in terms of double subcategorization frames (VP and S') as those proposed by Zagana (1982) and Strozer (1981) for instance, an obvious explanation for the loss of restructuring in French would be to assume that there has been a change in the subcategorization properties of the main verbs that enter into the restructuring construction. This is in effect what Pearce (1985) proposes in her study of the restructuring construction in Old French, namely that the Old French verbs are subcategorized for VP complements whereas the Modern French verbs are subcategorized for S/S' complements.

This solution is obviously incompatible with the claim made in this chapter that the effective verbs s-select A whose CLR is V. Although it is not impossible to imagine that languages could differ with respect to the CLR of a semantic category, the null hypothesis would appear to be that the CLR of a category is given as part of UG. Furthermore, French effective verbs do appear to take the same type of complements as the Italian or Spanish verbs, namely an infinitival complement. Tensed complements with

these verbs are clearly impossible as it was shown in the introduction of this chapter.

Under the account of restructuring developed in the preceding section, the property underlying the manifestations of restructuring is the auxiliary behavior of some matrix verbs of the effective class. Could it be then that Modern French simply lacks the possibility of interpreting these verbs as auxiliaries? Or in other words, could it be that the Old French restructuring verbs have simply lost the possibility to not have an E-position in their θ -grid? Under such an hypothesis, the main difference between the French modal verb *vouloir* and the Italian *volere* would be that *vouloir* contrary to *volere* only has the θ -grid given in (83) while *volere* is associated with the two θ -grids given in (84).

(83) VOULOIR: $\langle 1, 2, E \rangle$
 |
 Action

(84) VOLERE: $\langle 1, 2, E \rangle$
 |
 Action

$\langle 1, 2 \rangle$
 |
 Action

Why this should be the case however is rather puzzling, especially in view of the fact that Modern French still exhibits the *faire*-construction which seems to also involve the formation of complex predicates (see the discussion in 2.8.2 below).²³

In any case, even if we were to ignore the problems raised by the existence of the causative construction, we would still have to face the question of why Modern French does not allow anymore the possibility for

some verbs to behave as auxiliaries. I assume, following Napoli (1981), that it is the fact that some predicates may only convey supplemental information or only add basic, simple information, that accounts for the fact that these verbs may lack an E-position. In other words, I assume that the property of behaving as auxiliaries for some of the effective verbs follows directly from their meaning. But if that view of the restructuring verbs is correct, then we should expect that the French verbs will also be able to behave as auxiliaries.

I will assume here that the French verbs equivalent to those that enter into restructuring in Italian and Spanish are not different from the Italian or Spanish verbs, at least as far as their θ -grids are concerned. Under such an assumption, the apparent absence of restructuring in Modern French will have to follow from some other properties of the grammar of that language.

If I am right in assuming that the possibility of getting restructuring effects derives from the properties of the languages involved, then it would not be too surprising to find that Modern French also exhibits some other changes with respect to Old French that we could correlate with the absence of restructuring.

In this section I will thus examine a number of syntactic and morphological properties that hold across languages such as Italian, Spanish and Old French but that are absent or different in Modern French. The question will be asked as to whether these different properties can be identified as correlations and whether they can shed some light on the apparent absence of the restructuring phenomenon in Modern French.

A brief examination of Old French compared with Italian and Spanish and with Modern French reveals the existence of at least three other changes that could perhaps be correlated to the change under discussion here.

Looking at Old French, we find that like the other Romance languages that exhibit restructuring, it is a null-subject language, contrary to Modern French where the presence of the subject in finite clauses is always obligatory.

We also find that pronominal clitics cannot be attached to the left of infinitival verbs, again just as in Italian and Spanish.

Finally, a third property of Old French that was later lost is the possibility of nominalizing infinitives. We will see that there are in fact two ways in which infinitives appear to be nominalized. First, there is a productive morphological rule in Old French that turns an infinitival verb into a noun. This type of morphological nominalization is still productive in the other Romance languages but Modern French only exhibits remnants of this morphological process in lexicalized nouns such as *le manger* 'the food' or *le souvenir* 'the remembrance'. Second, a whole infinitival clause in Old French could be "nominalized", in the sense that it could appear preceded by a determiner but without losing its internal clausal structure. As we will see below, Spanish also shows this type of nominalization. Crucially, this is now impossible in Modern French.

One can ask whether these properties of Old French have any bearing on the possibility of having phenomena like restructuring. For instance, Kayne (1981) suggests that restructuring may be typologically related to the null subject parameter. According to him, it could be that the rule of

restructuring (Rizzi's rule) requires the absence of the embedded infinitival NP subject node and that this node can be missing only if the grammar of the language is such that the NP subject node can be missing in a simple tensed clause. I will return below to the possible correlation between restructuring and the null subject parameter.

In the following sections I will in turn examine each of these syntactic or morphological properties. I will then try to determine which, if any, of these properties can be correlated with the phenomenon of restructuring.

But before doing so, I would like to mention that this section is of a much speculative nature and is therefore not intended to provide a final answer to the problem of explaining the change from Old French to Modern French. A thorough study of this change could easily be a dissertation topic in itself. My point here is simply to indicate some possible avenues for further research and also to provide some possible analysis of the absence of clitic climbing with the restructuring verbs in Modern French. As for the other two manifestations of restructuring that were studied in the previous section, one simply cannot arise anymore in French, namely the phenomenon of Long OP, and the other, the Change of Auxiliary phenomenon, also appears to have disappeared but I will have nothing conclusive to say about that change.

2.3.1 The placement of clitics in Romance

The main purpose of this section is to examine the structure of the verb phrase and INFL focusing particularly on the positioning of pronominal

clitics in Romance. As mentioned above, object clitics in Old French as well as in Italian and Spanish appear either attached to the left of a tensed verb or to the right of an infinitival verb. In Modern French, however, clitics always appear attached to the left of both tensed and infinitival verbs.
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In 2.2.2.3 above, I proposed to account for the distribution of clitics in Italian and Spanish by proposing that the clitics are generated under INFL in these languages. Another possibility that was considered, namely that the clitics are directly generated onto the verb, as in Roberge (1986) for instance, was dismissed on the grounds that it would leave unaccounted for the placement of the clitics in auxiliary structures.

Another hypothesis that was not explored then could be that there are independent clitic nodes generated to the left of the first verbal element under VP and that the clitics are generated there and then, later on, cliticized onto the verb. Or, if clitics are base-generated in argument positions, one could assume that the clitics are adjoined either to V or to VP and that they later cliticize onto the verb.

This latter hypothesis could in fact be appropriate for Modern French where clitics are always in preverbal position. I would now like to further examine these two hypotheses, the INFL and VP hypotheses, in the hope to arrive at an explanation of the difference between Modern French and the other Romance languages.

Let us first look at the positioning of clitics in simple tensed clauses like that in (85).

(85) Jean le voit.
 'Jean sees him'

Under the current assumption that verbs move under INFL (V-Movement), there seems to be a priori two possible analyses of preverbal clitics in
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 tensed clauses.

First, the clitics can be generated preverbally under VP and then moved along with V under INFL by V-Movement. The second possibility is that the clitics are generated directly under INFL and then cliticized onto V after V-Movement has taken place. Let us examine in turn what predictions, in terms of the problems that concern us here, are made by each of these two analyses.

2.3.1.1 Clitics under VP

There are in fact at least two possible analyses of clitics under VP that can be elaborated as we will see here.

As mentioned above, one possibility is that there exist independent clitic nodes under VP, as shown in (86).

(86)
$$\left[{}_{IP} NP \left[{}_I INFL \left[{}_{VP} (CL)^* V \dots \right] \right] \right]$$

Under this analysis the clitics constitute independent elements and a process of cliticization is necessary to account for the fact that the clitics are eventually cliticized onto the verb. The cliticization process must crucially take place before V-Movement under INFL ensuring that clitics are moved along with the verb. This proposal accounts for the positioning

of clitics in tensed clauses for French as well as Italian and Spanish.

But, as mentioned above, Old French, Italian and Spanish do not allow preverbal clitics with infinitival verbs.

- (87) a. Mario vuole vederlo.
b. *Mario vuole loveder.
'Mario wants to see him'

One possibility would be to assume that in the case of the infinitival verbs V-Movement leaves behind the clitics, presumably because cliticization fails to apply in the case of infinitival verbs. In Modern French, the infinitival verbs do not appear to undergo V-Movement (see the discussion below) and the both the clitics and the infinitival verbs would remain VP-internal even at S-structure.

This analysis does not seem very satisfactory as it now stands for two reasons. First, it is necessary to assume that cliticization applies before V-Movement which is a rather questionable move if V-Movement is to take place in the syntax. Second, cliticization in Italian and Spanish would not be a blind process as are normally cliticization processes since it must not apply when the following verb is infinitival. Or rather, it must still apply with an infinitival verb as well since the clitic needs to be cliticized but it will have to apply after V-Movement has taken place. We would thus be forced to posit that there are two distinct cliticization processes taking place in languages like Italian and Spanish. I believe that the ad hoc nature of this analysis casts sufficient doubt for rejecting it as a possible explanation for the clitic positioning in Romance.

Another possible analysis of clitics under VP would be to argue that the clitics are generated directly onto the verb, as in Borer (1983) or Roberge

(1986) among others.

Under such an analysis, however, we will run into the problem of accounting for the fact that the clitics actually always end up attached to the first verbal element whether this element is the verb that selects the clitics or not. I refer the reader to the discussion presented in 2.2.2.3 above.

It thus seems that both analyses whereby the clitics are generated within the verb phrase are not very satisfactory in view of the placement facts of languages like Spanish and Italian. The analysis that advocates direct generation of the clitics onto the verb that selects them will in fact also be problematic in the case of French as well, since the clitics in French also appear attached onto the auxiliary when there is one present. But the first analysis mentioned here, namely that of the independent clitic nodes, could be maintained for French since the clitics in French are always pre-verbal. I will return below to this possibility.

2.3.1.2 Clitics under INFL

Let us now examine the alternative analysis, namely that adopted in 2.2.2.3 above whereby the clitics are generated under INFL (or perhaps rather moved under INFL).

Under this analysis, there are no clitic nodes generated within VP. Rather, clitic nodes are part of INFL at D-structure; the clitics are thus base-generated under INFL. (Or the clitics are generated in argument

positions and then later moved directly under INFL.)

After V-Movement has taken place, the clitics are attached onto the now adjacent verb. As mentioned in 2.2.2.3 above, we could say that the "normal" attachment would be to the right of the verb but that with finite forms the attachment is to the left due to the presence of the inflectional endings on the verb.

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However the impossibility of having postverbal clitics with infinitives in French remains unaccounted for at this point. One possibility would be to say that infinitive morphology in Modern French counts as an inflectional ending thus forcing the attachment to the left. Another possibility however would be to assume that infinitive verbs do not raise under INFL in Modern French. In fact, it has been argued on independent grounds by Emonds (1978) that only finite verbs are raised under INFL in French.

Emonds argues for a rule of Finite Verb Raising which raises finite verbs under TENSE as shown in (89).

(88) S \rightarrow NP TENSE VP
VP \rightarrow (NEG) (ADV) V'...

(89) Finite Verb Raising

NP - TENSE - X - V - Y \Rightarrow 1 - 4 + 2 - 3 - 0 - 5
Conditions: X doesn't contain NP or V; obligatory application

Emonds' proposal accounts for the placement of negative and adverbial elements in finite and infinitival clauses. In French, NEG and a variety of adverbs appear to the left of infinitives but to the right of finite verbs (and present participles).

(90) a. Jean ne dort pas beaucoup.
'Jean doesn't sleep much'

- b. Jean n'a pas beaucoup dormi.
'Jean has not slept much'
- c. Jean voudrait ne pas beaucoup dormir.
'Jean would like not to sleep much'

His proposal translates easily into the current framework where INFL²⁷ stands for his TENSE. Hence, Finite Verb Raising is just an instance of V-Movement. Modern French would thus differ from the other Romance languages in having a more restricted version of V-Movement.

So far this second analysis appears to handle the Romance clitic placement facts in a more plausible manner than the first one and it would thus seem appropriate to simply adopt it here.

There is however a third possibility that has not been mentioned so far. Up to now in the discussion of the clitic positioning in Romance, it was implicitly assumed that all Romance languages share a common clitic system in the sense that the clitics would be generated under the same node (either VP or INFL) or directly onto the verb both in Modern French and in the other Romance languages. A third possible explanation for the surface differences between these languages could also arguably be that they differ as to where their clitics originate (or move to).

For instance, it could be that the clitics in Modern French are generated within the VP whereas in the other Romance languages they are generated under INFL. This view would imply that the change from Old French to Modern French in the clitic positioning is quite a radical change in the grammar of clitics.

But in fact, the analysis of restructuring proposed in this chapter could perhaps provide a type of evidence, of a theoretical nature, that such a

change may actually have happened.

Let us assume that the clitics in French, contrary to those of Italian and Spanish, are in effect under VP prior to (finite) V-Raising to INFL. It could then be that the impossibility of getting clitic-climbing in Modern French has to do with the fact that the clitic is confined to the VP where it is generated (thus in effect arguing against the existence of a clitic movement rule). Recall that in some sense I assumed a similar but opposite scenario in the case of clitic-climbing in Italian and Spanish, namely that it occurs because there is only one INFL in these structures and that the clitics in these languages are generated under INFL.

I will adopt here without more justification this idea that the clitic systems of Modern French and the other Romance languages differ in the manner just outlined. As we just saw, it is not entirely implausible that such an hypothesis could be on the right track, at least with respect to the problem of explaining the absence of clitic-climbing in Modern French. We will see below in 2.3.4 that this change in the clitic system of French could also be related to the change in the Null Subject Parameter.

2.3.2 The Null Subject Parameter

Several accounts of the Null Subject Parameter have been put forth in the recent literature (cf. among others, Jaeggli (1981), Chomsky (1981, 1982), Rizzi (1982)). Here I will basically adopt Rizzi's analysis although I will assume, following Chomsky (1982), that the empty category in subject position is *pro*.

Following a suggestion of Taraldsen (1978), the possibility for some languages to allow "missing subjects" is said to be related to the fact that these languages have a rich inflectional system. In other words, in Null Subject languages, the minimal feature specifications of the missing subjects can be recovered via the verbal inflection.

I will follow Rizzi here in assuming that the feature that distinguishes the Null Subject languages is that INFL is marked as (+pronoun) in these languages.

At this point, however, it is far from obvious how any analysis of the null subject phenomenon that assumes that the null subject is the empty category *pro* can be linked to the possibility for these languages of having restructuring. In fact, whether one assumes a restructuring analysis in terms of a rule of restructuring like that proposed by Rizzi (1978), a VP-preposing analysis like that of Burzio (1986) or an analysis in terms of VP complements like that proposed in this chapter, the approach to the null subject phenomenon in terms of the licensing of *pro* by some element in INFL will have nothing to say about the restructuring phenomenon.

In the case of a restructuring analysis or of a VP-preposing analysis, the empty category in the embedded subject position is PRO different from the *pro* that is postulated for the "missing subject" in NSL. There is thus no obvious link between the possibility of having a restructuring rule or a VP-proposing rule and the possibility of having a null subject under this account.

In the case of a VP complement analysis, the possible link between the

null subject phenomenon and restructuring is even harder to envision at first since that analysis assumes that there is no embedded subject position with the complements of the "restructuring" verbs.

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In section 2.3.4, however, we will see that it is actually possible to correlate the null subject phenomenon with the analysis of restructuring proposed in this chapter.

2.3.3 The nominal character of infinitives

One of the properties mentioned at the beginning of this section as being a putative candidate for a correlation with restructuring is the fact that infinitivals in languages that exhibit restructuring seem to be more nominal in nature.

There seems to be several ways in which infinitives appear to be "nominal". First, it has been noted in several recent studies that Romance infinitival complements seem to fall under Case theory just like ordinary NPs (cf. among others, Contreras (1985), Picallo (1985), Raposo (1985) and Plann (1986)). This nominal property of requiring Case seems to hold across Romance, as the following French examples show:

- (91) a. La pensée de perdre son emploi effraie Jean.
'The thought of losing his job frightens Jean'
b. *La pensée perdre son emploi ...
c. Jean pense perdre son emploi.
'Jean thinks that he'll lose his job'

These examples show that an infinitival complement selected by a noun must be preceded by the preposition *de*. The presence of *de* in nominals is generally assumed to follow from Case theory requirements. If the

complement belongs to a category that needs to receive Case and if the head that selects this complement belongs to a non-Case-assigning category, a dummy Case marker (*de* in French) will be inserted. In French, tensed complements contrary to infinitival complements do not require *de*-insertion as the following example shows.

- (92) La pensée (**de*) qu'il perdrait son emploi...
'The thought that he would lose his job...'

So it seems that infinitival complements in Romance have a "nominal" character since for the purposes of Case assignment they behave as ordinary NPs. I will return in 2.5 to the topic of the Case-Marking of infinitival phrases.

There is another way however that infinitives show nominal properties in languages like Italian, Spanish and Catalan. Picallo (1985) notes that infinitive forms in Catalan can create structures which may be considered neutralized categories between S and NP. This allows infinitives to receive structural Case, appear with a possessive subject and a determiner, or be modified by an adjective, as shown in the following set of examples.

- (93) a. Un constant volar d'abelles
'A constant to fly of bees'
b. El florir d'aquests arbres
'The to blossom of these trees'
c. El seu anar i venir
'His/her to go and to come'

In his syntax of Old French, Foulet (1961) notes the same properties for the infinitives: they can be preceded by a determiner or possessive subject, be modified by an adjective or a complement and appear with Case endings (they take an *s* in the singular nominative form). Clearly, this is now impossible in Modern French as the examples (94) parallel to the Catalan

examples given in (93) show.

- (94) a. *Le voler des abeilles.
b. *Le fleurir de ces arbres.
c. *Son aller et venir.

The examples in (93) are best analyzed as cases of nominalizations of the infinitive verb since the infinitive in these constructions behaves exactly as a noun as far as taking adjectives, determiners and *de* complements.

Plann (1981) shows that Spanish has two types of *el + infinitive* constructions. One type is similar to the type illustrated in (93) where the infinitive is the head of a noun phrase. The other type is illustrated in (95). According to Plann, the infinitive in this construction occurs in a clausal complement to a phonologically unrealized head noun. A major difference between the two types is thus that in one case, the infinitive is dominated by N whereas in the other case it is dominated by V.

- (95) a. El fumar constantemente es molesto.
'The "to smoke" constantly is inconvenient'
b. El lamentar la perdida de las elecciones es inutil.
'The "to regret" the loss of the elections is useless'

In this construction, the infinitive behaves exactly as a verb as far as taking adverbs, direct objects, etc. Plann gives ample evidence for the distinction between the two types. Foulet also mentions the existence of this type of nominalization in Old French. Clearly, Modern French does not allow these constructions anymore.

- (96) a. Mes quant ce vint au resgarder les ronges de l'espee...
(Gr., 205, 14-6. From Foulet (1961:216))
b. *Le fumer constamment est dangereux.
c. *Le regretter la perte des elections est inutile.

It thus seems that the infinitives in Modern French have lost their

possibility of undergoing both the morphological nominalization process illustrated by the Catalan examples in (93) and the syntactic nominalization process illustrated by the Spanish examples in (95).

As for the morphological process, I will simply assume that the infinitives of Modern French cannot undergo this morphological rule perhaps because they have lost the nominal character of the infinitives in the other Romance languages. The loss of the syntactic nominalization process could perhaps be explained by the fact that the infinitival verbs in Modern French do not raise under INFL so that INFL in the IP subject sentences of (96b-c) is not headed by a "nominal" infinitive in French contrary to Spanish and Old French.

It could be that the impossibility for French infinitives to undergo V-Movement has to do with the fact that these infinitives are somehow less nominal than the infinitives of the other Romance languages. Let us assume that an untensed INFL in Romance has somewhat of a nominal character. Then we could relate the impossibility for the infinitives to raise to INFL in French to the fact that the infinitives are not nominal.

2.3.4 Explaining the change from Old French to Modern French.

I will now try to put together the pieces of the puzzle, hoping that they do in fact belong to the same puzzle. This last section is of a very speculative nature and should therefore be looked at mainly as possible avenues for further research. It could be that some of the changes studied here have nothing to do with the change in restructuring properties

exhibited in Modern French. I will however assume that these changes are all related and I will thus try to propose some possible explanation for these correlations.

Let us first go back to the analysis of the Null Subject parameter. Recall that it was assumed that the INFL of the Null Subject languages is marked as being pronominal and that this feature is what distinguishes these languages from the non Null Subject languages. The INFL in Old French would therefore be marked with this feature (+pronoun).

I also assumed at the end of 2.3.1.2 that the clitic system of Modern French differs from that of the other Romance languages in the fact that the clitics in Modern French are under VP while they are under INFL in Italian and Spanish.

It is now possible to correlate the Null Subject phenomenon with the clitic positioning by assuming that clitics would be generated under INFL only if INFL is (+pronoun). I will refer to this possibility of having a (+pronoun) INFL as the Pronominal INFL Parameter. We could then hypothesize that both the loss of the Null Subject phenomenon and the change in the clitic system of French are simply the reflex of a change in the value of the Pronominal INFL Parameter. It may actually be that the loss of the Null Subject phenomenon occurred first (independently) but that it had for effect a reanalysis of the INFL node whereby the parameter came to take the opposite value.

It is now also possible to correlate the Null Subject phenomenon, the clitic positioning facts and the absence of clitic climbing. The clitics being generated under VP in Modern French, the configuration for clitic

climbing would never arise (see section 2.8.2 on the apparent counter-example to this claim raised by the causative construction). Recall that the configuration for clitic-climbing under the analysis put forward here requires two conditions: 1) that the clitics be under INFL and 2) that there be no embedded INFL. But in Modern French the clitics can only appear under a finite INFL as the result of V-Raising under INFL.

Under such an analysis, the change between Old French and Modern French amounts to the loss of the pronominal feature of INFL which entails both the loss of the Null Subject properties and a reanalysis of the clitic system thereby accounting for the clitic positioning and for the impossibility of clitic climbing, one possible manifestation of restructuring.

At the end of the preceding section, I suggested that the infinitives in Modern French have lost the nominal character of the infinitives of the other Romance languages. Why this should be the case however remains somewhat of a mystery. And so does also the putative correlation between the nominalizing properties of the infinitives and the restructuring phenomenon. The only possibility that I can envision at this point would be to assume that the loss of the pronominal properties of INFL in French has had some bearing on the possibility of raising the infinitives, so that it is perhaps not the case that it is the infinitives that have lost their nominal character but that it is rather INFL that by losing its (pro)nominal properties has stopped being a possible host for the infinitival verbs.

In this section, I have sought to explain the apparent absence of restructuring effects in Modern French by trying to correlate this change with other changes that have also affected the language. The hypothesis

that has emerged here is that there may have been a major change in the clitic system of French (a change in the value of the Pronominal INFL Parameter). I argued that this change could well be responsible for the absence of clitic-climbing in Modern French. In fact, this change could also be responsible for the absence of the SI-construction, if we are right in assuming that SI must be generated under INFL, since that generation would now be impossible in Modern French. We can thus also account for the absence of Long OP in Modern French. As for the third manifestation of restructuring, namely the change of auxiliary phenomenon, I must admit that I have no solution to offer at this point regarding its absence in Modern French. It appears however that this phenomenon was much less frequent in Old French than it is nowadays in Italian. I can only conjecture that there must be some major differences in the auxiliary systems of Old French, Modern French and Italian but the task of uncovering these differences will remain for further studies.

2.4. The theoretical implications of VP complements

In the first three sections of this chapter, I argued that the infinitival complements found with effective verbs are best analyzed as cases of VP complementation contrary to standard assumptions that infinitival complements must be "sentential" at all levels of representation. I did not however discuss the consequences of this proposal with respect to the theoretical framework assumed in this dissertation. It is thus the purpose of this section here to discuss some of the theoretical implications of this analysis.

The proposal to allow for the possibility of VP complements raises questions concerning the status of the Extended Projection Principle, the exact formulation of the θ -criterion and the status of the distinction made between raising and control predicates. The following sections will discuss each of these issues in turn.

2.4.1 The Extended Projection Principle

The proposal to analyze certain complements as VP complements would appear to violate the Extended Projection Principle (EPP) as it is most often understood. The EPP can be informally stated as in (97), following Chomsky (1982).

(97) Extended Projection Principle:

- a. The θ -marking properties of each lexical item must be represented categorially at each syntactic level: at LF, S-structure, and D-structure.
- b. Clauses must have subjects.

The first part of the EPP constitutes what is referred to as the Projection Principle. The EPP is thus seen as an extension of the Projection Principle with the added requirement that all clauses have subjects; a requirement which does not follow from the Projection Principle since θ -marked subjects are not obligatory subcategorized elements and since we further find non-arguments in the subject position. The main evidence in favor of the EPP comes from the obligatory presence of expletives and from control structures, like infinitivals and gerundives, which seem to have "understood" subjects.

The problem raised by our analysis of the complements to effective verbs with respect to the EPP is that these complements would appear to violate the second clause of the EPP if we understand that requirement to mean not only that every predicate must have a subject but also that every predicate and its subject must constitute a separate clause.

That interpretation of the EPP however appears to be too strong, especially in regard to structures with secondary predicates where it looks as though two predicates have the same subject, as in (98) for instance.

(98) John left the room angry.

But if we adopt Rothstein's (1983) view of the EPP in terms of her predicate-linking rule, then the second clause of the EPP can be reformulated in terms of the requirement that every predicate must have a subject, without requiring that the predicate and the subject necessarily constitute a clause. In fact, under Rothstein's view of the EPP, we can see the two parts of the principle as being both ways of expressing the general principle that all functions must be saturated (cf. also the discussion in Chomsky (1986a)).

The infinitival complements of the effective verbs would now satisfy this revised formulation of the EPP since the embedded predicate in these complements has a subject, namely the matrix subject.

Another more serious problem with respect, this time, to the first clause of the EPP is raised by the analysis of the embedded ergative or passive infinitivals in the complements to effective verbs. In 2.2.2.4 above, I argued that in the case of non-restructured complements to effective verbs,

an embedded ergative verb will assign its internal θ -role directly to the matrix subject. In other words, I argued that there is no object position generated with embedded ergatives in a VP complement. However, if the Projection Principle is understood as imposing a categorial representation for every subcategorized element, the analysis of the ergative complements that I propose will violate the principle. Unless we allow for the possibility that the categorial representation need not be necessarily realized within the verb phrase, as long as the θ -role is assigned to a category which is present at every syntactic level. I will assume here that less stricter interpretation of the Projection Principle.

2.4.2 The θ -Criterion

The VP analysis of the infinitival complements to effective verbs put forward in this chapter also raises some questions with respect to the formulation of the θ -criterion. Under the analysis developed here, when a matrix effective verb assigns a θ -role to the subject position, the subject will in fact be assigned two θ -roles since I assume that the subject also discharges the external θ -role of the embedded verb in such structures.

But the version of the θ -criterion that I have adopted in 1.2 above, following Higginbotham (1985), is perfectly compatible with such dual assignment of θ -roles.

(99) θ -Criterion

- a. If X discharges a thematic role in Y, then it discharges only one.
- b. Every thematic position is discharged.

Part a) of the version of the θ -criterion proposed by Higginbotham requires that X discharge only one thematic role of a given θ -grid but it does not entail that X cannot discharge more than one thematic role. In fact, what is implied here is that X can discharge more than one thematic role as long as the thematic roles are part of different θ -grids.

Although many formulations of the θ -criterion have assumed a statement to the effect that an argument is assigned one and only one θ -role, more recent formulations of the θ -criterion, for instance that of Chomsky (1986a), are also perfectly compatible with our analysis.

(100) θ -Criterion

Each argument α appears in a chain containing a unique visible θ -position P, and each θ -position P is visible in a chain containing a unique argument α .

As Chomsky points out, this formulation of the θ -criterion allows the possibility for a θ -position to receive multiple θ -roles. Under this understanding of the θ -criterion, the fact that I assume that the subject of a matrix predicate may receive more than one θ -role, namely one from the matrix predicate and one from the embedded predicate, does not appear to constitute a θ -criterion violation.

2.4.3 The raising/control distinction

One question that may be asked at this point is that of the status of the distinction raising/control under a VP analysis. Clearly we want to preserve the distinction between raising structures and control structures since it plays a significant role in the grammar.

In this section, I will first review the standard arguments for the distinction raising/control. It will be shown that the distinction can be maintained as well under the approach in terms of VP complements proposed here. I will then examine some cases of "mixed" predicates studied by Zubizarreta (1983). We will see that in her analysis many types of predicates can be distinguished with respect to the raising/control properties. In fact, Zubizarreta proposes that predicates may assign either obligatorily or optionally or not assign at all an external θ -role to their subject and, moreover, this θ -role may have the status of an argument θ -role or of an adjunct θ -role. The distinctions that she proposes lead to the partitioning of the effective verbs into at least four different types of predicates. In discussing these different types, I will try to examine whether some of these types could not be reduced to the two prototypical types of true control and true raising verbs, in effect eliminating the need for having recourse to the notion of adjunct θ -role.

Different arguments have been put forth in the literature for distinguishing control structures from raising structures. In the following discussion, I will first review the standard arguments for raising (following the discussion presented in Zubizarreta (1983)) and I will then discuss the raising/control status of the effective verbs under scrutiny in this chapter.

A first argument for distinguishing raising verbs from control verbs comes from the fact that expletive subjects may appear in the matrix position of raising verbs but not of control verbs.

- (101) a. Il semble évident que Murielle a peur du loup.
'It seems to be obvious that Murielle is afraid of the wolf'

- b. *Il veut être évident que Murielle a peur du loup.
'It wants to be obvious that Murielle is afraid of the wolf'

Another related argument involves the fact that objects of idioms may also appear as the surface subject of raising verbs but not of control verbs.

- (102) a. Justice semble être rendue dans ce pays.
'Justice seems to be made in this country'
b. *Justice veut être rendue dans ce pays.
'Justice wants to be made in this country'

Within the present theory, these facts imply that verbs like *sembler* do not assign an argument θ -role to their subject whereas verbs like *vouloir* do.

A third argument for distinguishing raising structures from control structures is provided in May (1977). May points out that a quantifier in the matrix subject position of a control structure may only have wide scope with respect to the matrix predicate whereas in a raising structure it may have both wide and narrow scope.

- (103) a. Some politician is likely to address John's constituency.
b. Some senator promised to address John's constituency.

Sentence (103a) is ambiguous between a reading in which the quantifier has narrow scope over the matrix predicate (e.g. 'it is likely that there is some politician (or other) who will address John's constituency') and a reading in which the quantifier has wide scope over the matrix predicate (e.g. 'there is a politician, e.g. Rockefeller, who is likely to address John's constituency'). In contrast, sentence (103b) is unambiguous and the quantifier in the subject position can only be understood as having wide scope over the matrix predicate.

May also points out that a quantifier in the embedded clause of a raising

construction may have scope over a quantified matrix surface subject while in a control structure the matrix quantifier always has wide scope over the quantifier in the complement clause. In fact, a raising structure like that in (104a) is three-way ambiguous as shown in (105) while (104b) is unambiguous.

- (104) a. Some politician is likely to address every rally in John's district.
b. Some politician promised to address every rally in John's district.
- (105) a. There is a politician, e.g. Rockefeller, who will address all of the rallies in John's district.
b. It is likely that there is some politician (or other) who will address all of the rallies.
c. It is likely that for each of the rallies, there is some politician who will address it (i.e. there may be a different politician for each rally).

Zubizarreta (1983) also gives two other tests specific to French that support the distinction between raising and control structures. First, there is the well-known phenomenon of *en*-cliticization studied in Ruwet (1972). Raising verbs and passive verbs permit the cliticization of *en* from the adnominal complement of their surface subject, as shown in (106) and (107), respectively. On the other hand, control verbs and active verbs do not allow this cliticization process, as shown in (108) and (109).

- (106) a. La solution du problème semble avoir été publiée.
'The solution to the problem seems to have been published'
b. La solution semble en avoir été publiée.
- (107) a. La lecture de ce livre a été conseillée aux étudiants par le professeur.
'The reading of this book has been advised to the students by the professor'
b. La lecture en a été conseillée aux étudiants par le professeur.
- (108) a. Le chef de la bande a décidé d'être magnanime.
'The chief of the band decided to be magnanimous'
b. *Le chef a décidé d'être magnanime.
- (109) a. Les missiles de la NASA ont atteint leurs cibles.
'The missiles of the NASA hit their targets'
b. *Les missiles en ont atteint leurs cibles.

It seems that the common property of the verbs that permit this cliticization is that they all involve raising or movement into their subject position, as pointed out by Couquaux (1979). This in turn implies that these verbs do not take an external argument.

Second, Zubizarreta shows that the distribution of the pronoun *ça* supports the claim that the argument in the matrix subject position of a raising verb is selected by the verb of the embedded clause. The pronoun *ça* which appears only in argument position may refer to a proposition (or an event) and thus appear as the subject of verbs with propositional subjects (or rather "event" subjects, see chapter 3 below) such as *ennuyer* 'bother' or *impressionner* 'impress'. But *ça* cannot normally appear as the subject of *sembler*.

- (110) a. *Que Jean parte m'ennuie/m'impressionne.*
'That Jean left bothers/impresses me'
b. *ça m'ennuie/m'impressionne que Jean parte.*

- (111) a. **ça semble que Jean est parti.*
b. *Il semble que Jean est parti.*
'It seems that Jean has left'

However, if a verb with a propositional subject is embedded under *sembler*, then *ça* can appear as the surface subject of *sembler*.

- (112) a. *Que Pierre parte semble t'ennuyer.*
'That Pierre leaves seems to bother you'
b. *ça semble t'ennuyer, que Pierre parte.*

The arguments given here clearly show that the grammar must distinguish between raising predicates and control predicates. In the context of the present study, the distinction between control predicates and raising predicates with the class of effective verbs will be captured in the following manner. When the matrix verb is a control predicate, it will

assign an external θ -role to its subject. The matrix subject will thus bear two θ -roles, one assigned by the matrix verb and the other by the embedded infinitival verb. When the matrix verb is a raising predicate, the surface subject will originate in the embedded VP and will only be assigned a θ -role by the embedded infinitival. Since the effective verbs constitute the class of predicates that select only for infinitival complements, these verbs must necessarily belong to either the raising type or the control type. It appears, however, that the effective verbs are in fact partitioned into four distinct types with respect to the distinction raising/control, as shown by the study of Zubizarreta (1983).

Zubizarreta proposes that there are in fact two types of thematic roles with respect to the θ -criterion: adjunct θ -roles and argument θ -roles. This distinction appears to be relevant in the case of some verbs which show only some of the raising properties examined above. That is that there are some matrix verbs which behave both as raising predicates, in allowing some of the raising properties, and as control predicates, in disallowing some other raising properties. Zubizarreta analyzes these verbs as assigning an adjunct θ -role to their subject. I will return shortly below to these verbs and to the analysis proposed by Zubizarreta.

But, first, for expository reasons, I would like to simply list the different types of predicates uncovered by Zubizarreta with respect to their status as raising or control predicates. (In this discussion, I will ignore another type that she distinguishes, namely the type represented by adjectival predicates like *être susceptible* which she analyzes as assigning obligatorily an adjunct θ -role.)

(113) Obligatory θ -role assignment:

1. argument θ -role (*oser, vouloir*)
2. argument θ -role or adjunct θ -role (*menacer, promettre*)

Optional θ -role assignment:

3. argument θ -role (*commencer, risquer*)
4. adjunct θ -role (*pouvoir, devoir*)

No θ -role assignment:

5. (*sembler*)

The first type, namely the verbs that assign obligatorily an argument θ -role to their subject, covers the uncontroversial control type. The other three types cover different cases of raising predicates which either show mixed properties with respect to their raising status or else can be either true raising or true control verbs. Here we will examine each type in turn.

The predicates of the second type are those which appear to obligatorily assign a θ -role to their subject. However, according to Zubizarreta, this θ -role can either be an argument θ -role, in which case these predicates are control predicates (type 1), or an adjunct θ -role, in which case they show some raising properties.

The class of predicates in question comprises verbs such as *menacer* 'to threaten', *promettre* 'to promise', *exiger* 'to demand', *mériter* 'to deserve'. These verbs show mixed lexical properties with respect to the status of their subjects (cf. Ruwet (1972)). Zubizarreta gives the following examples:

- (114) a. *Pierre nous menace de mort.*
'Pierre threatens us with death'
b. *La course aux armements menace la paix.*
'The arms race threatens the peace'

- (115) a. Je vous promets une belle surprise.
 'I promise you a nice surprise'
 b. Les pommiers promettent beaucoup de fruits cette année.
 'The apple trees promise a lot of fruit this year'
- (116) a. Le chef de la police exige une récompense.
 'The chief of police demands a reward'
 b. Ce livre exige une lecture soigneuse.
 'This book demands a careful reading'
- (117) a. L'auteur de ce livre mérite le Prix Nobel.
 'The author of this book deserves the Nobel Prize'
 b. Ce livre mérite une publication rapide.
 'This book deserves a rapid publication'

On the basis of these examples, involving simple sentences, we could conclude that these verbs assign a θ -role to their subjects since these are clearly arguments in these sentences.

These verbs, however, also share several properties of raising predicates, as shown by Ruwet (1972). As with raising predicates, the object of idioms or semi-idioms in the infinitival complement may appear as the surface subject of these verbs.

- (118) a. Grand cas promet/mérite d'être fait des derniers événements en Pologne.
 'A big deal promises/deserves to be made of the last events in Poland'
 b. Parti menace/exige d'être tiré de cette situation.
 'Advantage threatens/demands to be taken of this situation'
- (119) a. Justice menace/exige d'être rendue dans ce pays.
 'Justice threatens/demands to be made in this country'
 b. Assistance mérite/promet d'être portée aux hommes de ce pays.
 'Assistance deserves/demands to be given to the men in this country'

Also, these verbs behave like raising predicates with respect to the possibility of *en*-cliticization.

- (120) a. Le chef menace d'en être impitoyable.
 b. Le chef promet d'en être magnanime.
 c. L'histoire mérite d'en être écrite.
 d. La préface mérite d'en être publiée rapidement.

Finally, although these verbs do not select a propositional external argument, as shown in (121), they allow such propositional arguments when the verb of their infinitival complement selects a propositional argument, as shown in (122).

- (121) a. *Que Jean parte menace l'équilibre de la famille.
 'That Jean leaves threatens the equilibrium of the family'
 b. *Que Jean est idiot mérite de la publicité.
 'That Jean is stupid deserves publicity'

- (122) a. Que Jean parte menace de t'ennuyer.
 'That Jean leaves threatens to bother you'
 b. Que Jean est idiot mérite de devenir évident.
 'That Jean is stupid deserves to become obvious'

Zubizarreta points out that the obvious solution to these facts, which would be to simply assume that these verbs can optionally assign a θ-role to their subject, is not adequate in view of the following facts.

First, as noticed by Rouveret and Vergnaud (1980), an expletive cannot appear in the subject position of these verbs. They give the following examples to illustrate the contrast between *sembler* and *menacer*.

- (123) a. Il semble y avoir beaucoup de monde à la fête.
 'There seem to be a lot of people at the party'
 b. Il semble pleuvoir.
 'It seems to rain'
 c. Il semble avoir été arrêté beaucoup de monde pendant le Mondial.
 'It seems that a lot of people were arrested during the Mondial'
 d. Il semble falloir partir.
 'It seems necessary to leave'
 e. Il semble s'en être fallu de peu que la guerre ne se déclenche.
 'It seems it was touch and go whether the war began'
 f. Il semble s'avérer que Jean est idiot.
 'It seems to turn out that Jean is silly'

- (124) a. Il menace d'y avoir beaucoup de monde à la fête.
 'It threatens there to be many people at the party'
 b. Il menace de pleuvoir.
 'It threatens to rain'
 c. *Il menace d'être arrêté beaucoup de monde pendant le Mondial.
 'It threatens to be arrested a lot of people during the Mondial'
 d. *Il menace de falloir partir.
 'It threatens to be necessary to leave'

- e. *Il menace de s'en falloir de peu que la guerre ne se déclenche.
'It threatens to touch and go whether the war begins'
- f. *Il menace de s'avérer que Jean est idiot.
'It threatens to turn out that Jean is silly'

Second, Zubizarreta points out that a quantifier in the subject position of these verbs may only have the wide scope characteristic of control verbs.

- (125) a. Personne ne semble être venu, mais quelqu'un semble être venu.
'Nobody seems to have come, but somebody seems to have come'
- b. Personne ne mérite/menace de venir, mais quelqu'un mérite/menace de venir.
'Nobody deserves/threatens to come, but somebody deserves/threatens to come'

According to Zubizarreta, the sentence in (125a) is not a contradiction, but (125b) is a contradiction. She also notices that in (126a), but not in (126b), *chacun* may be bound to *les diplomates*.

- (126) a. Un interprète chacun semble avoir été assigné aux diplomates.
'One interpreter each seems to have been assigned to the diplomats'
- b. *Un interprète chacun promet/exige d'être assigné aux diplomates.
'One interpreter each promises/demands to be assigned to the diplomats'

Zubizarreta argues that these facts show that the subject position of these verbs has semantic content, that is a θ -role. However, the idiom facts, the en-cliticization facts and the facts regarding the possibility for propositional subjects appear to show that there is movement (raising) to the subject position.

She proposes that these verbs assign an adjunct θ -role and that these roles are invisible for the θ -criterion, contrary to the argument θ -roles. Consequently, she proposes the following revision of the θ -criterion.

- (127) a. Every θ -role must be assigned to one and only one argument.
- b. Every argument must bear one and only one argument θ -role.

Thus, in sentences such as (118), (119), (120) and (122), the verbs assign an adjunct θ -role to the subject position but since they do not assign an argument θ -role, movement to this position is allowed, therefore accounting for the raising behavior shown in these sentences. The ungrammaticality of sentences (124c-f) and (126b) and the contradiction of (125b) would be due to the fact that the subject position has semantic content given that it is assigned an adjunct θ -role.

The verbs *menacer* and *promettre* may also appear with a direct or indirect object, as shown in (128).

- (128) a. Pierre nous menace de nous tuer.
 'Pierre threatens us to kill us'
 b. Je vous promets de vous faire une belle surprise.
 'I promise you to give you a nice surprise'

As Zubizarreta points out, when a direct or indirect object is present, these verbs assign an argument θ -role to their subject, as shown by the ungrammaticality of the following sentences.

- (129) a. *Tort menace la ville d'être donné aux habitants.
 'Wrong threatens the city to be done to the inhabitants'
 b. *Justice promet aux révoltés d'être rendue.
 'Justice promises the insurgents to be made'
- (130) a. *Le chef menace les révoltés d'en être impitoyable.
 'The chief threatens the insurgents to be merciless'
 b. *Le chef promet aux révoltés d'en être magnanime.
 'The chief promises the insurgents to be magnanimous'

Thus these verbs can either assign an argument θ -role or an adjunct θ -role to their subject. It would be interesting to reduce these two possibilities to the presence of the direct or indirect object, since we could then treat these two cases as arising in the context of distinct argument structures. Zubizarreta, however, does not draw that conclusion

since, for her, the cases illustrated by simple sentences without direct or indirect objects must be instances where the subject is assigned an argument θ -role (cf. the sentences in (114b) and (115b)).

I would like to suggest however that when *menacer* and *promettre* are used without a direct or indirect object and particularly when they are used with a non human subject, they never assign an argument θ -role to the subject. One main advantage of such an analysis is that it would now be possible to correlate the argument or adjunct status of the subject θ -role with distinct argument structures of these verbs, which appear to be needed in any case since their meaning is quite different when they appear with a direct or indirect object.³⁰ I will thus propose the following argument structures for these verbs.

(131) MENACER: a. < 1 , 2 , 3 , E >
 Agent(1), Goal(2), Theme/Action(3)

 b. < (1) , 2 , E >
 Theme/Action(2)

PROMETTRE: a. < 1 , 2 , 3 , E >
 Agent(1), Theme/Action or Proposition(2), Goal(3)

 b. < (1) , 2 , E >
 Theme/Action(2)

In the second argument structure for each verb, I have notated the adjunct θ -role assigned to the subject by using parentheses and I have omitted to give the semantic role for that argument since it does not seem to me to bear any role such as agent or theme. In fact, in such cases, it seems that the semantic role of the subject comes only from the embedded predicate.

The major problem with this analysis is of course that, at first sight, it appears to not account for the cases of simple sentences such as those in

(114b) and (115b) which I repeat here, for convenience, as (132a) and (132b) respectively.

- (132) a. La course aux armements menace la paix.
b. Les pommiers promettent beaucoup de fruits cette année.

It seems to me however that, even in these cases, a raising analysis would be more appropriate, given the interpretation of these sentences. A sentence like (132a) receives the interpretation that there is a certain possibility, which is that the arms race will affect, compromise the peace. And similarly, a sentence like (132b) receives the interpretation that there is a certain possibility, which is that the apple trees will produce a lot of fruit this year. I would thus derive these sentences from a D-structure in which the surface subject and the surface direct object form a predicative unit, as shown in (133).

- (133) a. e menace $\left[\begin{smallmatrix} \text{la course aux armements} \\ \text{NP} \end{smallmatrix} \right] \left[\begin{smallmatrix} \text{la paix} \\ \text{NP} \end{smallmatrix} \right]$
b. e promettent $\left[\begin{smallmatrix} \text{les pommiers} \\ \text{NP} \end{smallmatrix} \right] \left[\begin{smallmatrix} \text{beaucoup de fruits cette année} \\ \text{NP} \end{smallmatrix} \right]$

These complements are interpreted as concealed "actions". The correct structure might in fact comprise some empty node V, accounting for the implicit verbal interpretation. I will not elaborate any further on this matter here but see 2.6 below where I examine the concealed actions that can appear as complements to verbs like *commencer* for instance.

Given the fact that these verbs assign only one Case to their complement, the subject of the complement will have to raise to the matrix subject position in order to receive nominative Case. This movement is possible since that position is not assigned an (argument) θ -role. In the case of embedded infinitival complements, a similar analysis can be provided. The

sentence in (134) would be derived from a D-structure such as that given in
31
(135).

(134) Il menace de pleuvoir.

(135) e menace [_{vp} il pleuvoir]

It thus appears possible to distinguish the two verbs *menacer* and the two verbs *promettre*. One question that remains to be further studied, however, is that of the adjunct θ -role assigned by the matrix predicate. Recall that Zubizarreta argues that this θ -role is responsible for the fact that these verbs do not show all of the raising properties that a verb like *sembler* exhibits.

But, in the framework developed in this dissertation, there is another major difference between verbs like *sembler* and verbs like *menacer*, which is that the latter takes an argument that appears to be an "action" whereas the former may take an "event" or a "proposition". Consequently, the complements of these two verbs will not have the same structure. It seems to me that the restriction on the presence of true expletives with a verb like *menacer* should follow from the fact that its complement is an "action". The idea would be that the presence of true expletives is only possible in the context of "events" or "propositions". Sentences like the following would therefore be ruled out on the basis of the fact that the embedded infinitival complement cannot be interpreted as an "action".

- (136) a. *Il menace de falloir partir.
 'It threatens to be necessary to leave'
 b. *Il menace de s'avérer que Jean est idiot.
 'It threatens to turn out that Jean is silly'

As for the facts relative to quantifier scope, I would first like to point out that the ungrammaticality of sentence (126b) may in fact be due to a

more general restriction against a raising analysis for these sentences.

The parallel sentence without the quantifier seems to me to only receive the interpretation where the subject has actually made a promise to someone (not mentioned in this case) but not the interpretation of possibility characteristic of the raising structure.

(137) L'interprète promet d'être assigné aux diplomates.
'The interpreter promises to be assigned to the diplomats'

As for the other case pointed out by Zubizarreta, namely the contrast between (125a) and (125b), it seems to me that when *sembler* is understood as an "effective" predicate rather than as a "propositional" one, the sentence in (125a) is also a contradiction, but I will not pursue this matter any further here.

To sum up, I have tried here to show that recourse to the notion of "adjunct θ -role" may not be necessary to handle the case of verbs like *menacer* and *promettre*. If this proposal turns out to be right (obviously it still needs to be further refined), then these two verbs will simply be associated with the following argument structures.

(138) MENACER: a. $\langle 1, 2, 3, E \rangle$
 Agent(1), Goal(2), Theme/Action(3)

 b. $\langle 1, E \rangle$
 Theme/Action(1)

PROMETTRE: a. $\langle 1, 2, 3, E \rangle$
 Agent(1), Theme/Action or Proposition(2), Goal(3)

 b. $\langle 1, E \rangle$
 Theme/Action(1)

In terms of the table of types of predicates given earlier, we would now have the following partitioning:

(139) Obligatory θ -role assignment:

1. argument θ -role (*oser, vouloir, menacer NP, promettre à NP*)
2. non existent

Optional θ -role assignment:

3. argument θ -role (*commencer, risquer*)
4. adjunct θ -role (*pouvoir, devoir*)

No θ -role assignment:

5. (*menacer, promettre, sembler*)

Let us now examine the third type listed above, namely the type that assigns optionally an argument θ -role to the subject. This type is represented by verbs like *commencer* which have been analyzed in the literature as being cases of "mixed" verbs, in the sense that they can enter into either a control structure or a raising structure.

The main argument for assuming that these verbs may assign an argument θ -role to their subject comes from the fact that the subject in the following simple sentences appears to be an argument of the verb.

(140) a. Pierre a commencé le livre.

'Pierre began the book'

b. Pierre risque sa vie.

'Pierre risks his life'

I would like to suggest an analysis of these sentences along the lines of that proposed for the *menacer* and *promettre* cases examined above. It seems that the direct objects in these sentences are interpreted as concealed actions. The interpretation of a sentence like (140a) is that there is a certain beginning that is taking place, which is that Pierre has done something with respect to the book (reading it, writing it,...). Similarly, the interpretation of a sentence like (140b) is that there is a certain risk involved, which is that something may happened to Pierre's life (in the

occurrence, lose it, since that is the most likely thing that can happen to one's life).

Of course, the subject in (140a) appears to be the agent of the matrix verb *commencer* but this is due to the fact that it receives an agent θ -role from the implicit verb of the "action" complement. Similarly, in (140b), the θ -role of the subject would come from the embedded implicit verb.

If this analysis is on the right track, then it may be the case that verbs like *commencer* and *risquer* are always raising predicates.

Zubizarreta points out an interesting difference between the *menacer* type and the *commencer* type with respect to the possible occurrence of true expletives in subject position. It appears that *commencer* and *risquer* both allow the presence of such expletives, as shown by the following sentences.

- (141) a. Il commence à être publié beaucoup de livres en anglais.
'It begins to be published many books in English'
b. Il risque de devenir évident que Pierre est idiot.
'It risks to become obvious that Pierre is an idiot'

To the extent that we analyze the complements of effective verbs like *commencer* and *risquer* as "actions", we would expect that these sentences should be ungrammatical, given the explanation put forward above for the ungrammaticality of similar sentences involving *menacer* and *promettre*.

Notice however that it is not the case that all instances of expletives are allowed with these verbs. The following sentence for instance contrasts with that given above with *sembler*.

(142) *Il commence à falloir partir.
'It begins to be necessary to leave'

Obviously, much work still needs to be done before we can really understand the constraints on the complements of these verbs. I take it however that the fact that there exist such restrictions supports the claim made in this chapter that the effective verbs select directly the verb or the noun that heads the complement. I assume that selectional restrictions of the kinds that seem to be operative here can only occur when there is a direct selection of the head by the matrix predicate.

I will thus assume that verbs like *commencer* and *risquer* should be listed under type 5 in the table given above. We would then have the following partitioning of verbs.

(143) Obligatory θ -role assignment:

1. argument θ -role (*oser, vouloir, menacer NP, promettre à NP*)
2. non existent

Optional θ -role assignment:

3. non existent
4. adjunct θ -role (*pouvoir, devoir*)

No θ -role assignment:

5. (*menacer, promettre, commencer, risquer, sembler*)

To the extent that the proposals put forward above can be sustained, we are now left with only one case of optional θ -role assignment which also happens to be the only case of adjunct θ -role assignment.

This last type of predicates involves the two modal verbs *pouvoir* and *devoir*. It has often been argued in the literature that the 'root' interpretations and the 'epistemic' interpretations of these modals correlate with control properties and raising properties respectively.

Zubizarreta argues rather that these predicates assign optionally an adjunct θ -role to their subject. She thus treats these verbs as being always instances of raising verbs, although she assumes that in their root interpretations, they will optionally assign an adjunct θ -role to the subject.

Zubizarreta first examines the English modals *must*, *can*, *may* and *should*. She gives the following chart of their 'root' and 'epistemic' senses and the entailments in (145), (146) and (147).

(144)	Root	Epistemic
MUST	obligation, requirement or necessity	logical entailment (probability, certainty or inevitability)
CAN	ability, capacity	possibility
MAY	permission	possibility or likelihood
SHOULD	obligation, necessity	supposition

(145) John must/should arrive earlier.

a. 'root' sense

(i) It is necessary (or required) that John arrive earlier.

(ii) It is required of John that he arrive earlier.

John has the obligation to arrive earlier.

b. 'epistemic' sense

It is probable (or certain)/supposed that John will arrive earlier.

(146) Peter can come earlier.

a. 'root' sense

Peter is able to come earlier.

b. 'epistemic' sense

It is possible that Peter will come earlier.

(147) Peter may come earlier.

a. 'root' sense

(i) X "permits" that Peter comes earlier.

(ii) John is permitted/allowed to come earlier.

b. 'epistemic' sense

It is likely/possible that Peter will come earlier.

On the basis of these entailments, Zubizarreta argues that a modal like *can* in its 'root' sense has a semantic relation with the argument in subject position (cf. (146a)) and that the modals *must* and *may* in their 'root' sense may optionally have a semantic relation with the argument in subject position (cf. the contrasts between (145a(i)) and (145a(ii)) and between (147a(i)) and (147a(ii))).

Zubizarreta also points out that the existence of this semantic relation is further supported by the fact that the "orientation" of 'root' modals change under passive, as shown by the following examples taken from Jackendoff (1972).

- (148) a. The doctor may/must examine John.
b. John may/must be examined by the doctor.

But Zubizarreta points out that it is also the case that a 'root' modal need not necessarily change meaning under passive and that, in fact, if the deep object is inanimate, this change of meaning is impossible.

- (149) a. Visitors may pick flowers.
b. Flowers may be picked by visitors.

- (150) a. Sam must shovel the dirt into the hole.
b. The dirt must be shoveled into the hole by Sam.

Zubizarreta claims that these facts are not surprising given that the 'root' *may* and *must* only optionally select an argument and that this argument must be animate (cf. the interpretations (145a(ii)) and (147a(ii))).

The modals *devoir* and *pouvoir* in French have the following 'root' and 'epistemic' interpretations with the same entailments given for the English modals, according to Zubizarreta.

(151)	Root	Epistemic
DEVOIR	obligation, requirement or necessity	logical entailment (probability, certainty, inevitability, supposition)
POUVOIR	ability, capacity, permission	possibility or likelihood

On the basis of the fact that in their 'root' senses the modals *may/pouvoir* and *must/should/devoir* appear to only have an optional semantic relation with their surface subject, Zubizarreta argues that a control analysis for the 'root' modals would be inappropriate, at least in some cases. This leads her to propose that the modals are always associated with a raising analysis and that they can optionally assign an adjunct θ -role to the subject.

She notices, for instance, that these modals have all the syntactic properties of raising predicates. Expletives and objects of idioms may appear in the subject position.

- (152) a. Il doit s'avérer que Jean est idiot.
 'It must turn out that John is a fool'
 b. Parti peut être tiré de cette situation.
 'Advantage can be taken of this situation'

Also, the pronoun *ça* may appear in subject position to the extent that the embedded verb selects a sentential subject and the pronoun *en* can be cliticized onto the embedded verb.

- (153) a. Ça doit devenir évident que Jean est idiot.
 'It must become obvious that Jean is an idiot'
 b. La lecture peut en être conseillée aux enfants.
 'The reading of it can be recommended to the children'

As Zubizarreta points out, the raising sentences given above can have a 'root' interpretation. She gives the following possible interpretations, where the interpretations in (154a-b) correspond to the sentences in

(152a-b) respectively and the interpretations in (155a-b) correspond to the sentences in (153a-b) respectively.

- (154) a. It is necessary that John turn out to be a fool.
b. It is permitted to take advantage of this situation.

- (155) a. It is necessary that it become obvious that John is a fool.
b. It is permitted to recommend the reading of this book to the children.

I would rather analyze the three different interpretations (the two 'root' interpretations and the 'epistemic' interpretation) associated with *devoir* and *pouvoir* as following from three distinct argument structures. It seems to me that the meaning differences found with the modals show that these have different but related selectional properties.

The 'root' interpretation that corresponds to the 'capacity' reading of *pouvoir* and to the 'obligation' reading of *devoir* implies that the subject is an argument of the modal. I propose that these verbs are "control" predicates, that is are predicates which assign a θ -role to their subject.

The 'root' interpretation that corresponds to the 'permission' reading of *pouvoir* and to the 'necessity' or 'requirement' reading of *devoir* implies that the subject is not an argument of the modal. I propose that these verbs are "raising" predicates, that is are predicates which do not assign a θ -role to their subject.

Finally, the 'epistemic' interpretation that corresponds to the 'possibility' reading of *pouvoir* and to the 'probability' reading of *devoir* implies also that the subject is not an argument of the modal. I propose that these verbs are also "raising" predicates. The difference between the 'epistemic' raising predicates and the 'root' raising predicates is that the

'epistemic' modals require the presence of a sentential operator in COMP (see the analysis in 3.2.3 below).

The modals *pouvoir* and *devoir* would thus be associated with the following argument structures.

- (156) POUVOIR: a. < 1 , 2 , E > Action(2)
 'capacity reading'
 b. < 1 , E > Action(1)
 'permission reading'
 or, if under the scope of the operator, 'possibility reading'
- DEVOIR: a. < 1 , 2 , E > Action(2)
 'obligation reading'
 b. < 1 , E > Action(1)
 'necessity reading'
 or, if under the scope of the operator, 'probability reading'

I have chosen here to represent both the "raising" root reading and the epistemic reading of these modals under the same argument structure, but it may be that these constitute separate argument structures. We will see in chapter three that the epistemic reading appears to be possible only when the modal is under INFL at S-structure. This could indicate that the proper way to view the operator requirement is rather that the modal itself raises to COMP at LF, a movement that would be possible only if the modal is already under INFL at S-structure. If this is the case then it may be that there is only one "raising" argument structure for these verbs and that the two possible interpretations simply follow from whether the modal has or has not raised to COMP at LF.

We now have the following partitioning of verbs:

(157) Obligatory θ -role assignment:

1. argument θ -role (*oser, vouloir, menacer NP, promettre à NP, pouvoir, devoir*)
2. non existent

Optional θ -role assignment:

3. non existent
4. non existent

No θ -role assignment:

5. (*menacer, promettre, commencer, risquer, pouvoir, devoir, sembler*)

This partitioning of course depends to a large extent on whether the facts regarding the possible presence or absence of the expletives with verbs like *menacer* and *commencer* can receive a proper explanation. I mentioned above that the differences might have something to do with restrictions imposed by some matrix verbs like *menacer* onto their complement. We know, for instance, that *menacer*, when it is used as a control predicate, shows some important restrictions as to what type of infinitival verb may appear as its complement (see Ruwet (1972)). It seems to me that the answer to the differences found between *menacer* and *commencer* will probably be connected to the selectional restrictions found with *menacer* but I will not undertake that study here.

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To conclude this rather long section on the raising/control distinction, I have tried to argue here that this distinction is simply encoded in terms of whether a given predicate assigns an external θ -role or not. I have sought to provide solutions to the problem of accounting for the "mixed" properties shown by many predicates of the effective class with respect to the distinction raising/control, without having recourse to the notion of adjunct θ -role proposed by Zubizarreta. It is interesting to note that the

predicates that show these "mixed" properties happen to all be members of the effective class. But this is not too surprising given the type of "close" relationship that these verbs have with the infinitivals that head their complements.

2.5_Infinitival complements introduced by *de*/*à*

One major empirical as well as theoretical problem that arises in the treatment of infinitival complements in Romance is that of the status of the prepositions *de* and *à* which, in many cases, introduce the infinitival complements.

This problem has been addressed by several linguists in the last decade and some of the analyses that have been proposed will be presented below in section 2.5.2 both as a means of exposition of the problem and as a review of the possible avenues for a solution.

Within the current theory, *a priori*, there only seem to be two possible alternatives to account for the occurrence of these particles: either these "introducing" elements are "true" prepositions, as they appear to be elsewhere in the language, or else they are complementizers (or prepositions in complementizer positions), on a par with the tensed complementizer *que* or the English (prepositional) complementizer *for*.

Another problem connected to that of the status of these elements is the problem of whether there is some systematicity in the distribution of these "prepositional" infinitival complements in terms of the semantic classes of

verbs that we have distinguished in 1.1.1 above. The most elaborate attempt to answer this question that I am aware of is that of Long (1974) which I will briefly review in the following section.

2.5.1 The distribution of infinitivals introduced by *de/à*

Infinitival complements introduced by *de/à* appear mainly in two types of contexts in French. Either they follow directly the verb that they complement in which case they are normally the only subcategorized complement of that matrix verb. Or they appear after some other complement, either a direct object or an indirect object of the main verb. Examples of the former type are given in (158) and of the latter type in (159).

- (158) a. Murielle a commencé à aller à l'école.
 'Murielle has started to go to school'
 b. Jean a fini de manger.
 'Jean has finished eating'
- (159) a. Murielle a persuadé Jean de jouer avec elle.
 'Murielle has persuaded Jean to play with her'
 b. Murielle a promis à Louise d'être sage.
 'Murielle has promised Louise to be well-behaved'

As it was mentioned in chapter 1, Long (1974) is particularly concerned with showing how certain apparently arbitrary surface distinctions and, in particular, the distribution of *à* and *de* before infinitives, correspond to more basic distinctions among semantic functions of verbs.

Long points out that the restrictions on infinitival prepositions are in many cases predictable on the basis of the semantic function of the matrix verb. For instance, the prepositions *à* and *de* are systematically excluded after verbs of stating, knowing, and believing, that is, after propositional

verbs (cf. 1.1.1 above). In contrast, the preposition *de* is always required with verbs of ordering, suggesting, or promising (which are for the most part emotive verbs). Long gives the following examples.

- (160) a. Il affirme (*de) l'avoir rencontrée hier.
'He states that he met her yesterday'
b. Il croit (*de) pouvoir la rejoindre au bout de quelques semaines.
'He thinks that he can join her in a few weeks'
c. Il constate (*de) être mal compris par ses auditeurs.
'He notes that he is being misunderstood by his listeners'
- (161) a. Il a ordonné à Jacques de démolir les bâtiments.
'He ordered Jacques to destroy the buildings'
b. Ils ont proposé à Jean-Paul d'écrire cet article.
'They suggested writing that article to Jean-Paul'
c. Il jure à sa femme de ne plus se soûler.
'He swears to his wife that he won't get drunk any more'

Long remarks that apart from some narrow well-defined subsets of the class of effective verbs, most verbs belonging to that class require their infinitival complement to be introduced by *de* or *à*. I will return in section 2.5.3 to the exceptions to this generalization.

- (162) Effective verbs:
a. Jean oblige Murielle à jouer avec lui.
'Jean compels Murielle to play with him'
b. Jean a réussi à partir.
'Jean has succeeded to leave'
c. Jean cherche à partir.
'Jean is trying to leave'

In short, Long claims that, apart from some well-defined sets of exceptions, the class of effective verbs seems to require the presence of a preposition. As for the other two major classes of verbs, the propositional verbs never surface with a preposition and the emotive verbs do not seem to show a homogeneous behavior, a problem to which I will return in 2.5.3 below.

However, Long does not distinguish between the occurrence of a preposition

that behaves like a real preposition and the occurrence of a preposition that does not. I believe that this distinction, which will be explained shortly below, is crucial in arriving at a satisfactory explanation of the distribution of the prepositions with infinitival complements.

2.5.2 The status of *de/à*

We have already seen in the examples given in the previous section that several matrix verbs in French require that their infinitival complements be introduced by *de* or *à*. In some cases, the presence of these prepositions seems to be predictable from the subcategorization of these predicates since nominal complements of these verbs, normally fulfilling the same semantic role, appear with the same preposition.

- (163) a. Danielle pensait à voyager.
'Danielle was thinking of travelling'
b. Danielle pensait à son voyage.
'Danielle was thinking of her trip'
- (164) a. Danielle parlait de partir en voyage.
'Danielle was talking of going on a trip'
b. Danielle parlait de son voyage.
'Danielle was talking of her trip'
- (165) a. Claire a persuadé le juge d'acquitter son client.
'Claire has persuaded the judge to acquit her client'
b. Claire a persuadé le juge de la justesse de son argumentation.
'Claire has persuaded the judge of the correctness of her argumentation'

In other cases, however, the prepositions show up only with the infinitival complements although the matrix verbs can also take NP complements which again seem to fulfill the same semantic role as the infinitival complement.

- (166) a. Louise avait promis à Murielle d'aller glisser.
 'Louise had promised Murielle to go sliding'
 b. Louise avait promis à Murielle une nouvelle traîne sauvage.
 'Louise had promised Murielle a new toboggan'
- (167) a. Claire a commencé à lire le rapport du juge.
 'Claire has begun to read the judge's report'
 b. Claire a commencé la lecture du rapport du juge.
 'Claire has begun the reading of the judge's report'

The status of the prepositions *de* and *à* in (166)-(167) seems somewhat problematic given that contrary to those in (163)-(165) they show no sign of being "true" prepositions. When the prepositions *de* and *à* form a real prepositional phrase with their complement, they can be replaced by the clitics *en* and *y* respectively. In (163)-(165), this replacement is possible as shown in (168), whereas in (166)-(167), it leads to ungrammatical sentences as shown by (169).

- (168) a. Danielle y pensait. (*y* = à voyager/à son voyage)
 b. Danielle en parlait. (*en* = de partir en voyage/de son voyage)
 c. Claire en avait persuadé le juge.
 (*en* = d'acquitter son client/de la justesse de son argumentation)
- (169) a. *Louise en avait promis à Murielle. (*en* = d'aller glisser)
 b. *Claire y a commencé. (*y* = à lire le rapport du juge)

The matter becomes even further complicated once we take into account the fact that the complement introduced by *de* in (166a) can be replaced by the pronoun *le* whereas the infinitival complement introduced by *à* in (167a) cannot be so replaced, as shown in (170).

- (170) a. Louise l'avait promis à Murielle, d'aller glisser.
 b. *Claire l'a commencé, à lire le rapport du juge.

Both *promettre* and *commencer* appear to take direct object NPs, as was shown in (166b) and (167b) respectively. In (167b), the direct object NP of *commencer* fulfills the same semantic role (of "action" according to our analysis) as the infinitival complement of (167a) and the nominal complement

can be replaced by *le* as in (171).

(171) Claire l'a commencé, la lecture du rapport du juge.

The question that arises then is that of the status of these prepositions that do not seem to head prepositional phrases. Several linguists (cf. Long (1974), Huot (1977, 1981), Kayne (1981), among others) have claimed that they are best analyzed as complementizers, parallel to the English *for*.

In what follows, I will first examine the arguments put forth by Kayne (1981) in favor of the complementizer status of *de* and *à*, pointing out some of the problems associated with that proposal. I will also review the analyses of Manzini (1982) and Rizzi (1982) of the Italian preposition *di*.

In 2.5.3, I will propose an analysis of these prepositions based on the hypothesis that infinitival complements do not all have the same structure, their structure being determined by their semantic role (*action, event, proposition*).

2.5.2.1 Kayne (1981)

Kayne (1981) (following Long (1974) and Huot (1977)) argues on the basis of paradigms like (172) that *de* must be within the sentential complement of *dire*. (The examples throughout this section are Kayne's unless it is specified otherwise.)

- (172) a. Je lui ai dit qu'il parte.
 'I told him that he (should) leave'
 b. Je lui ai dit de partir.
 c. Je lui ai dit quelque chose.
 'I told him something'
 d. *Je lui ai dit de quelque chose.

But as he points out, this conclusion would not be incompatible with an analysis of *de* as an equivalent of English *to* rather than as an equivalent of the English infinitival complementizer *for*.

Kayne gives several arguments that show that *de* cannot be analyzed as *to*. First, he observes that *de*, like *for* but unlike *to*, cannot appear in infinitival structures with a *wh*-phrase in COMP.

- (173) a. Je lui ai dit où aller.
 'I told him where to go'
 b. *Je lui ai dit où d'aller.

The impossibility of *de* in infinitival complements headed by a *wh*-phrase can be easily accounted for by the restriction against doubly-filled COMP if *de* is analyzed as a complementizer but would remain unexplained under an analysis of *de* as an equivalent of *to*, given the grammaticality of the English gloss found in (173a).

Second, Kayne points out that both in French and in Italian, *de/di* are incompatible with verbs exhibiting raising to subject position.

- (174) a. *Jean semble/paraît d'être parti.
 b. *Gianni sembra/pare di essere partito.
 'John seems/appears to have left'

The absence of *de/di* suffices to render the above sentences perfectly grammatical. Further, it is not the case that these verbs are necessarily incompatible with *de/di* since when Italian *sembrare/parere* appear in control structures they require *di*.

- (175) Mi sembra/pare di aver capito
 '(It) seems/appears (to) me (that I) have understood'

The fact that *de/di* are incompatible with raising structures again supports the hypothesis that they are complementizers since raising is impossible across a complementizer whereas, as can be seen from the English gloss of

(174), the presence of *to* does not prevent it.

A third argument is provided by the following paradigm:

- (176) a. *Je croyais Jean être arrivé.
 'I believed John to have arrived'
 b. *Sostengo Gianni essere intelligente.
 'I assert John to be intelligent'
- (177) a. le garçon que je croyais être arrivé.
 'the boy that I believed (to) have arrived'
 b. il ragazzo che sostengo essere intelligente.
 'the boy that I assert (to) be intelligent'
- (178) a. *le garçon que je croyais d'être arrivé.
 b. *il ragazzo che sostengo di essere intelligente.

This class of verbs exhibits the interesting property that although the structures in (176) are ungrammatical surface structures, they appear to be possible D-structures since *Wh*-movement of the embedded subject to a higher COMP yields a grammatical output, as shown in (177).
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As Kayne points out, *de/di* are always impossible in these constructions. But many of these verbs in Italian allow *di* when they appear in a control structure.

- (179) Gianni crede/sostiene di essere intelligente.
 'John believes/asserts (that he) be (is) intelligent'

Kayne claims that this fact is not accidental but rather confirms the status of *de/di* as complementizers which in turn reduces the ungrammaticality of structures like (178) to another instance of the general restriction against extracting an embedded subject across a complementizer.

Finally, Kayne argues that the complementizer status of *de/di* can account without any special stipulation for the position of the negative elements *ne/non* in the following sentences:

- (180) a. Je lui ai dit de ne voir personne.
 b. *Je lui ai dit ne de voir personne.

- c. Gli ho detto di non vedere nessuno.
 - d. *Gli ho detto non di vedere nessuno.
- 'I told him not to see anyone'

whereas under an analysis of *de/di* as equivalents of English *to*, the fact that *ne/non* must follow *de/di* would remain puzzling.

One major problem associated with an analysis of *de* (and *à*) as a complementizer concerns the traditional raising analysis of a certain class of verbs which introduce their infinitival complements with *de* or *à*. As Kayne (1981) points out in his footnote 9: "The French and Italian equivalents of the English verbs assimilated to raising by Perlmutter (1970) must now either not have *de/di* or not truly be instances of raising. Thus, *menacer* 'threaten', *risquer* 'risk', *continuer* 'continue', *cesser* 'cease', *arrêter* 'stop', etc., all of which take *de*, must never have a trace (as opposed to PRO) in embedded post-*de* subject position." The reason why these verbs cannot be instances of raising is that, in Kayne's analysis, prepositions in French are not proper governors. Hence, the trace that would be left behind by raising into the matrix subject position in these constructions would not be properly governed and the sentences would therefore be ruled out by the Empty Category Principle.

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The main problem with treating these verbs as instances of control verbs is that they allow the EN-AVANT rule of Ruwet (1972) which, as we saw in 2.4.3, is characteristic of raising structures. So, as Kayne himself points out, an alternative explanation would have to be found for the following sentences, if these are to be analyzed as cases of control structures.

- (181) a. Le chef menace d'en être impitoyable.
'The chief (of the band) threatens to be merciless'
- b. L'auteur commence à en être célèbre.
'The author (of the book) begins to be famous'

Another argument for the raising status of these verbs comes from the fact that they allow objects of idioms as their surface subjects. Recall the discussion in 2.4.3 of the difference between control and raising predicates with respect to this phenomenon.

- (182) a. Tort menace d'être donné...
b. Hommage commence à être rendu...

Hence, it would seem that these verbs are better dealt with if one assumes that they are raising verbs. But, if the preposition is in COMP, then we are faced with the problem that the trace in the embedded subject position would not obey the ECP.

This is the first major problem raised by Kayne's analysis. The other problem that will be mentioned now is one that arises in connection with the present study of infinitival complements. According to the hypothesis put forward in this chapter, the infinitival complements of the effective verbs (thus of verbs like *commencer*) are instances of VP complements. It is therefore somewhat inconceivable that the preposition that introduces the infinitival complements of the effective verbs would be a complementizer in COMP position, that is in the head position of CP.

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I will return in 2.5.3 below to an analysis of these prepositions that is compatible with the fact that the complements to effective verbs are VP complements.

2.5.2.2 Manzini (1982)

Another problem with the proposal that *de/di* are equivalent to the English

complementizer *for* is raised in Manzini (1982). Manzini agrees with Kayne (1981) that Italian prepositions introducing infinitival complements cannot be assimilated to the English *to*. However, she also argues, contrary to Kayne, that they cannot be complementizers. She considers three types of preposition + infinitival complement constructions, exemplified in (183)-(185) below.

(183) Mario decise di andarsene all'estero.
'Mario decided to go abroad'

(184) Mario acconsenti ad andarsene all'estero.
'Mario consented to go abroad'

(185) Mario ando all'estero per studiare.
'Mario went abroad to study'

Considering the hypothesis that these infinitival prepositions are simply embedded under a PP node, she argues that this can only be the case when the other complements (non-infinitival S' and NP) of these verbs are also introduced by the same preposition. As she shows, *di* differs from *a* and *per* in this respect.

(186) a. Mario decise (*di) che Luigi se ne andasse all'estero.
'Mario decided that Luigi went abroad'
b. Mario decise *della/la partenza.
'Mario decided the departure'

(187) a. Mario acconsenti a che Luigi andasse all'estero.
'Mario consented that Luigi went abroad'
b. Mario acconsenti alla partenza.
'Mario consented to the departure'

(188) a. Mario ando all'estero perche Luigi studiassi.
'Mario went abroad (in order for) Luigi study'
b. Mario ando all'estero per lo studio.
'Mario went abroad for the study'

Thus treating the string preposition + infinitival complement in (184) and (185) as a PP allows us to maintain the same subcategorization frame for all the structures that can complement these main verbs, given the examples in

(187) and (188). However, in the case of *di*, since the non-infinitival *S'* and NP complements are not introduced by the preposition as shown in (186), considering *di* + infinitival complement as a PP would force us to postulate a different subcategorization frame for the infinitival complement, which is clearly not a satisfactory solution.

Manzini considers also the possibility of analyzing *di* as a complementizer and provides two arguments against such an analysis. First, she notices the fact that *di*, contrary to the English complementizer *for*, can never be followed by a lexical noun phrase. However, as she points out, this fact can be accounted for if one adopts Kayne's (1981) analysis of prepositions. For Kayne, *di* assigns only inherent Case contrary to English prepositions which can assign both inherent and structural Case. Hence, there would be no way for *di* to assign Case to the subject position that it governs since inherent Case is assigned only to subcategorized NPs.

However, she provides a second argument against the hypothesis that *di* is in COMP. It is assumed (Rizzi (1978)), that the ungrammaticality of (189) follows from the fact that *S'* is a bounding node in Italian. Hence (189) constitutes a Subjacency violation since the relative phrase crosses two *S'* nodes.

(189) *La ragazza a cui non so [_{S'} che cosa desideri [_{S'} che [_S io dia ...]]]
 'The girl to whom (I do) not know what (he) desires that I give'

In contrast, the grammaticality of (190) is explained under the assumption that a node is bounding only if it branches. Movement of the relative phrase in this case crosses only one bounding node and does not produce a Subjacency violation.

- (190) La ragazza a cui non so [_S che cosa desideri [_S [_S dare ...]]]
 'The girl to whom (I do) not know what (he) desires to give'

Since the same movement out of an embedded *di* infinitival also does not constitute a Subjacency violation as seen in (191), Manzini concludes that *di* is not in COMP, for if it were, this S' would be branching and would count as a bounding node, therefore precluding the movement of the relative phrase.

- (191) La ragazza a cui non so [_S che cosa pensi [_S di dare ...]]
 'The girl to whom (I do) not know what (he) thinks to give'

Faced with the problem that *di* cannot be embedded under a PP nor be in COMP, Manzini proposes that it is adjoined to the infinitival complement, as shown in (192).

- (192)
-
- ```

graph TD
 S1[S] --- di[di]
 S1 --- S2[S]

```

According to Manzini, her analysis does not violate the Projection Principle, since adjunction is not a category changing operation. Further, since no branching S' is created, the grammaticality of (191) poses no problem. Manzini's proposal answers correctly the issue raised by the subjacency facts. It does not however explain why a preposition should be needed with certain verbs and moreover it is difficult to imagine how the requirement for a preposition will be encoded in the lexical entry of the matrix verb since subcategorization does not normally extend to elements in adjoined positions.

We will see below in 2.5.3 that the analysis that will be put forward for many cases of prepositional infinitival complements is not so unlike

Manzini's adjunction analysis. The main difference will be that it will be argued that the preposition is adjoined to the complement as a Case spelling, that is as the head K of a KP.

#### 2.5.2.3 Rizzi (1982)

Rizzi (1982, chapter III) offers another solution to the subadjacency facts discussed by Manzini. Rizzi also argues that there are two types of prepositions introducing infinitival clauses. Some are true prepositions heads of PPs, which can take infinitival clauses or NPs as complements. So, in the following examples, *di* and *a* are true prepositions and the structure for the infinitival complement is as shown in (195).

- (193) a. Mario dubita di poter vincere.  
           'Mario doubts to be able to win'  
        b. Mario dubita di questo.

- (194) a. Mario mira a vincere la gara.  
           'Mario aims to win the race'  
        b. Mario mira a questo.

- (195) ... V  $\left[_{PP} \left[_{P} \left[_{S} \left[_{S} \text{NP infinitive VP} \right] \right] \right] \right]$

But in other instances, the structure in (195) does not seem appropriate. Epistemic verbs and verbs of saying, for example, can take a control complement introduced by *di*, but these verbs are clearly not subcategorized for a prepositional object as shown in (196). Rizzi assumes that in those cases *di* is a complementizer and that the structure for these infinitival complements is as in (197).

- (196) a. Mario  $\left\{ \begin{array}{l} \text{ritiene} \\ \text{afferma} \end{array} \right\}$  di aver fatto il suo dovere.  
           'Mario believes/asserts to have done his duty'

b. Mario  $\left\{ \begin{array}{l} \text{ritiene} \\ \text{afferma} \end{array} \right\}$  (\*di) questo.

(197) ... V  $\left[ \begin{array}{l} P \\ S' \end{array} \left[ \begin{array}{l} NP \\ S \end{array} \text{ infinitive VP} \right] \right]$

As Rizzi points out, the hypothesis that *di* is in the Comp position in sentences such as (196a) can also account for the fact that the rule of AUX-to-Comp is impossible in these structures. Its application would be ruled out by the Doubly Filled Comp effect. Thus, a verb like *ritenere* 'believe' which can take both an infinitival complement introduced by *di* and an infinitive with an empty complementizer shows the following contrast which supports the hypothesis that *di* is a complementizer.

(198) a. \*Ritengo  $\left[ \begin{array}{l} S' \\ S \end{array} \text{ di esser} \left[ \begin{array}{l} S \\ S \end{array} \text{ loro in grado di pagare il riscatto} \right] \right]$

'I believe to-be they able to pay the ransome'

b. \*Chi  $\left[ \begin{array}{l} i \\ S' \end{array} \text{ ritieni} \left[ \begin{array}{l} di e \\ S \end{array} \left[ \begin{array}{l} e \\ S \end{array} \text{ essere disposto ad aiutarci} \right] \right] \right]$

'Who do you believe  $\left[ \begin{array}{l} S' \\ S \end{array} \text{ 'of' e} \left[ \begin{array}{l} e \\ S \end{array} \text{ to be ready...} \right] \right]$

(199) a. Ritengo esser loro in grado di pagare il riscatto.  
b. Chi ritieni essere disposto ad aiutarci.

The fact that the auxiliary *essere* cannot move into Comp in (198a) is due to the Doubly Filled Comp effect as mentioned above. In (198b), the trace in the embedded subject position is not properly governed by the trace in the Comp position because of the presence of *di*, hence the structure is ruled out by the Empty Category Principle. The sentences in (199) show that the rule of AUX-to-Comp as well as the *Wh* extraction of the embedded subject are both possible when there is no other lexical material in Comp.

Given the status of *di* as a complementizer in these structures, the

question arises of why its presence in Comp does not render *S'* a bounding node on a par with the tensed complementizer *che*. Rizzi's solution to this problem relies on the observation that prepositions tend to display clitic-like behavior. In fact, Rizzi shows that in the case of prepositions introducing infinitival complements in Italian, their clitic-like behavior is such that they cannot be separated from the infinitival verb by non-clitic material. Since this cliticization process is unlikely to be performed through a movement rule, as it would presumably violate the binding theory, Rizzi suggests that it is rather due to reanalysis. This reanalysis operation specifies a new set of proper analyses without destroying the original set. According to Rizzi then, the fact that the presence of *di* in a sentence like (191) above does not produce a subjacency violation can now be accounted for in terms of the reanalysis proposal independently needed to account for the clitic-like behavior of the infinitival prepositions in Italian.

As mentioned above, I will rather propose here that the preposition *di* is adjoined to the complement as an element realizing Case. We will see that the clitic-like behavior of *di* follows from the fact that it appears in the head position of the KP under which is embedded the infinitival complement. Given this proposal, the clitic-like behavior of *di* is to be compared to that of the determiners with respect to a following NP under a DP analysis.

### 2.5.3 Case-marking and the status of the prepositions

My analysis of the facts relative to the prepositional infinitival complements will of course differ markedly from the analyses proposed by Kayne or Rizzi since I do not assume a uniform S/S' analysis of infinitival complements. In fact, one major aspect of the analysis that will be developed here is that it will rely on the assumption that infinitival complements do not all have the same structure.

Anticipating the discussion and analysis of the complements to emotive and propositional verbs (but see Chapter One above), I assume that infinitival complements arise in the context of each of the three semantic categories proposed in this dissertation, i.e. *action*, *event*, *proposition*. The infinitival complements that instantiate the semantic category *action* are cases of VP complements or I' complements. The infinitival complements that instantiate the semantic category *event* are projections of the category INFL and will be analyzed in chapter 3 as cases of I' complements. Finally, the infinitival complements that instantiate the semantic category *proposition* are projections of the category COMP and will be analyzed as CP complements.

Having posited that much, let us now examine the distribution and behavior of the prepositional infinitival complements with respect to the three semantic classes distinguished in this dissertation.



### 2.5.3.1 The effective verbs

I will first start by examining the case of the infinitival complements to the effective verbs, that is, the verbs that do not select any tensed complements. We have already seen that the modals, the aspectuals and the verbs of movement select only infinitival complements. There are however many other verbs among the effective class that we have not really examined so far. (A partial list of the effective verbs can be found in the Appendix to this chapter.)

As mentioned in 2.5.1, Long (1974) shows that most verbs that belong to the effective class take an infinitival complement introduced by *de* or *à*. We will see that we must, however, distinguish at least two types of prepositional infinitival complements that appear with effective verbs. One type is that found when the infinitival complement is the only internal argument of the effective verb. The other type is that found when the infinitival complement plays the role of "second" internal argument of the verb, that is, when we have an "object control" structure.

I will start by examining the first type here. It is possible to make up a list that will be a subset of Long's lists of verbs that take prepositional infinitival complements, by listing only the predicates whose infinitival complements are the unique subcategorized complements of these verbs.

(200) Effective verbs that take *de*:

|              |                   |          |                  |
|--------------|-------------------|----------|------------------|
| achever      | 'to finish'       | méditer  | 'to think about' |
| arrêter      | 'to stop'         | négliger | 'to neglect'     |
| cesser       | 'to cease, stop'  | remettre | 'to put off'     |
| désapprendre | 'to forget (how)' | risquer  | 'to risk'        |
| différer     | 'to put off'      | tâcher   | 'to endeavor'    |
| essayer      | 'to try'          | tenter   | 'to attempt'     |
| finir        | 'to finish'       |          |                  |

Effective verbs that take *à*:

|           |                        |
|-----------|------------------------|
| apprendre | 'to learn (how)'       |
| avoir     | 'to have, be supposed' |
| chercher  | 'to seek, try'         |
| commencer | 'to begin'             |
| continuer | 'to continue'          |

Thus it seems that several effective verbs require that their infinitival complement be preceded by a preposition. It also appears that the preposition found with these infinitival complements does not behave as a real preposition, as noticed above.

- (201) a. \*Marie l'achève, de manger sa pomme.  
           'Marie finishes to eat her apple'  
       b. \*Nicole l'essaie, de manger la pomme.  
           'Nicole tries to eat the apple'  
       c. \*Sophie le médite, de faire les cents coups.  
           'Sophie thinks about playing all sorts of tricks'  
       d. \*Catherine le néglige, de faire ses devoirs.  
           'Catherine neglects to do her homeworks'  
       e. \*Marc le tente, de convaincre ses parents.  
           'Marc attempts to convince her parents'  
       f. \*Michel le cherche, à s'amuser.  
           'Michel seeks to have fun'  
       g. \*Serge le continue, à être sage.  
           'Serge continues to be well-behaved'

The same ungrammaticality would obtain if we were to replace *le* by the pronouns *en* or *y* in the examples above. In fact, the infinitival complements that appear with the verbs given in (200) cannot be pronominalized at all in a language like French.

Supposing that I am right in assuming that the infinitival complements of such matrix verbs are VP complements, or rather are projections of V, we can then attempt to explain both the need for the preposition as well as its non truly prepositional character.

But before doing so, I would first like to examine the subclass of effective verbs which appears to go against Long's generalization that effective verbs require their complement to be introduced by a preposition. In (202), I give a partial (but not far from exhaustive) list of the effective verbs that appear to be exceptions to Long's generalization.

(202) Effective verbs that take "bare" infinitival complements:

|               |            |                         |
|---------------|------------|-------------------------|
| Modals:       | devoir     | 'to have to'            |
|               | pouvoir    | 'to be able to'         |
|               | vouloir    | 'to want to'            |
|               |            |                         |
| Motion verbs: | aller      | 'to go'                 |
|               | venir      | 'to come'               |
|               | retourner  | 'to go back'            |
|               | monter     | 'to go up'              |
|               | descendre  | 'to go down'            |
|               | courir     | 'to run'                |
|               |            |                         |
|               | avoir beau | 'to try in vain'        |
|               | daigner    | 'to condescend'         |
|               | faillir    | 'to be on the point of' |
|               | oser       | 'to dare'               |

Here again, the infinitival complements of these verbs cannot be pronominalized as shown by the following examples.

- (203) a. \*Michel le peut, trouver le livre.  
           'Michel is able to find the book'  
       b. \*Serge le retourne, chercher le livre.  
           'Serge goes back to get the book'  
       c. \*Louis l'a beau, chercher le livre.  
           'Louis tries in vain to look for the book'  
       d. \*Nicole l'a failli, trouver le livre.  
           'Nicole has been on the point of finding the book'  
       e. \*Guy l'ose, dire ce qu'il pense.  
           'Guy dares say what he thinks'

The fact that *de*/*à* do not behave as prepositions with the complements of the verbs listed in (200) should not be too surprising given the fact that we argue that these complements are VP complements. I assume that the truly prepositional behavior of elements like *de* and *à* comes out only when these are Case assigners, heading a prepositional phrase. Since VP (or V) is not a category that is normally assumed to be able (or to need) to bear Case, we can hypothesize that the prepositions that show up with these complements is not required for Case assignment purposes. Therefore the *raison d'être* of the preposition in (204) cannot be that the embedded infinitival complement needs to receive Case.

(204) Daniel a commencé à écrire son papier.  
       'Daniel has started to write his paper'

As a matter of fact, as just mentioned, the VP complement of a verb like *commencer* should be incapable of bearing Case. However, *commencer* is a Case-assigning verb as shown in (205).

(205) Daniel a commencé son papier.  
       'Daniel has started his paper'

Couldn't it be then that the *raison d'être* of the preposition in (204) is to somehow prevent Case-assignment from the matrix verb to the VP complement? Or, to word this into a more plausible proposal, couldn't it be that the presence of the preposition with the complements of these verbs is in fact the realization of Case with a category which cannot absorb Case directly?

The answer to this question lies in the examination and comparison of the Case assigning properties of the two types of effective verbs listed above, that is, the type that requires that the infinitival complement be

introduced by a preposition (the verbs in (200)) and the type that takes "bare" infinitival complements (the verbs in (202)).

Interestingly, the verbs listed in (200) appear to be Case-assigning verbs, as shown by the possible occurrence of direct object NPs in (206), while the verbs listed in (202) do not take direct object NPs and are thus presumably not Case-assigners, as shown in (207).<sup>40</sup>

- (206) a. Eric achève son travail.  
          'Eric has almost finished his work'  
      b. Alain médite un nouveau bouquin.  
          'Alain thinks about a new book'  
      c. Pierre risque sa vie.  
          'Pierre risks his life'  
      d. Murielle apprend l'alphabet.  
          'Murielle is learning the alphabet'

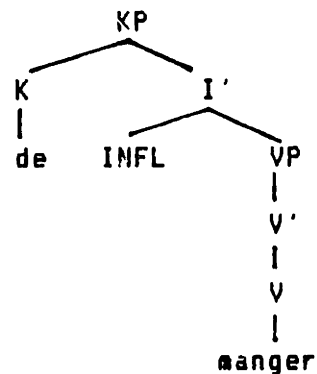
- (207) a. \*Eric peut son travail.  
          'Eric can (do) his work'  
      b. \*Jean vient le livre.  
          'Jean comes the book'

These facts seem to support the hypothesis introduced above that the presence of the preposition with some of the effective verbs may be due to the fact that these verbs must assign objective Case. Assuming that infinitival VPs cannot realize Case directly, the function of the preposition in this case would actually be one of Case-realization rather than one of Case-assignment.

Perhaps, the best way to handle such cases is to assume the existence of categories that are "Case Phrases" (KPs) as proposed for instance by Lamontagne and Travis (1988). Under such an approach, the verbs listed in (200) would be specified in their lexical entries as requiring a KP complement, or, in other words, as assigning Case. The complement would still be associated with the semantic category *action* whose CLR can be

either V or N. When the complement is realized as a NP, it is interpreted as a "concealed action" (see 2.6 below) and it receives objective Case which is not overtly realized in Modern French. When the complement is realized as a VP (or I' to keep in line with the proposal of 2.1 above), it is also interpreted as an action and it also receives objective Case but the Case is realized by the preposition which heads the KP, as shown in (208).

(208)



Let us now turn our attention to the other type of effective verbs that take prepositional infinitival complements, namely the "object control" verbs. These are verbs like *forcer* 'to force', *obliger* 'to oblige' and *contraindre* 'to compel'.<sup>41</sup> With these verbs, the infinitival complement appears preceded by the preposition *à* which behaves as a true preposition heading a PP, as shown in (210).

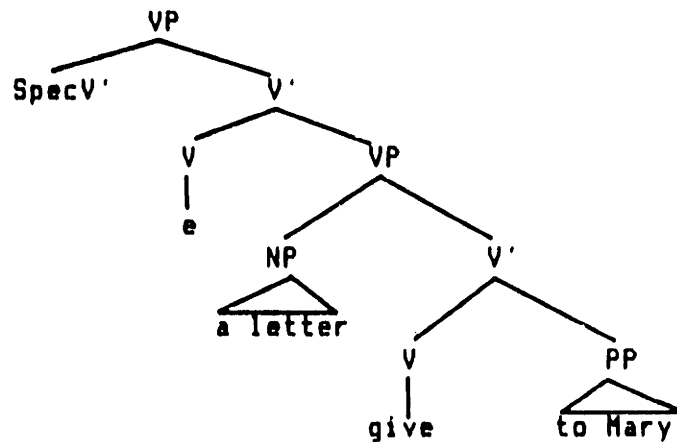
- (209) a. Claire a forcé Catherine à tout manger.  
           'Claire has forced Catherine to eat everything'  
       b. Serge a obligé François à sortir.  
           'Serge has obliged François to go out'

- (210) a. Claire y a forcé Catherine, à tout manger.  
       b. Serge y a obligé François, à sortir.

The analysis that I would like to propose for these cases is based on the proposal made by Larson (1987) regarding the structure of VPs containing more than one internal arguments. In that paper, Larson proposes to account for different facts relative to the double object construction in a language

like English by arguing that verbs like *give* are generated in a complex verbal phrase like that represented in (211).

(211)



The verb phrase underlying a string like *give a letter to Mary* is thus a strictly binary branching structure in which the higher VP consists of an empty V taking a VP complement. That VP complement has a specifier (a subject) which is the surface direct object of the verb and a complement which is the surface indirect object of the verb. The verb *give* and the indirect object *to Mary* can be seen to form a small predicate *give-to-Mary* (see Chomsky (1955/1975)) which is predicated of the "subject" *a letter*. For reasons of Case assignment and others the verb *give* will raise to the empty V position of the higher VP, an instance of head movement. The higher VP will itself be predicated of a subject like *Alice* to yield a sentence like *Alice gives a letter to Mary*.

I will not review here the different arguments put forward by Larson in favor of his analysis of the double object construction. I refer the reader to his article. What I would like to concentrate on here is the claim made by Larson that it may be the case that all instances of multiple internal arguments of a predicate should also be handled in a manner similar to his treatment of the double object construction. In fact, Larson explicitly

proposes that the X-bar schema should be revised as to allow the possibility for only one complement at a given level.

$$(212) \begin{array}{lcl} XP & \longrightarrow & \text{Spec}X' \quad X' \\ X' & \longrightarrow & X \quad YP \end{array}$$

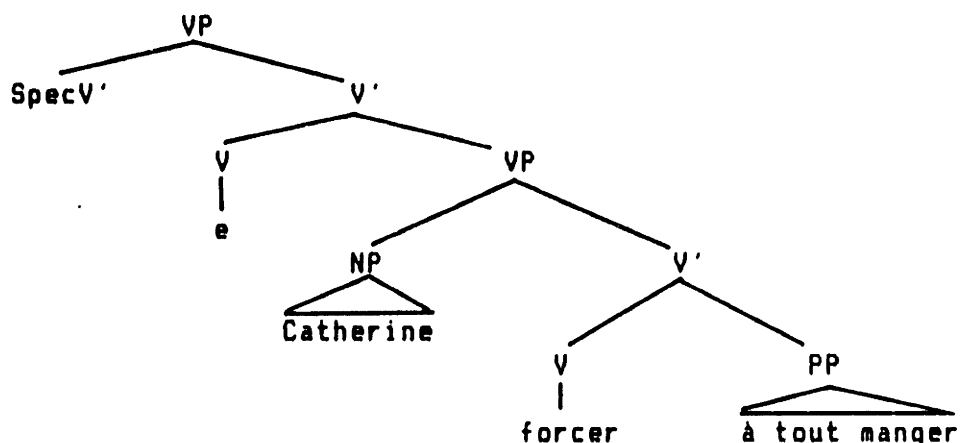
Larson further assumes the following hypothesis regarding the realization of the arguments of any given predicate:

(213) If  $\alpha$  is a predicate and  $\beta$  is an argument of  $\alpha$ , then  $\beta$  must be realized within a projection headed by  $\alpha$ .

As Larson points out, this principle imposes a very tight relation between thematic and categorial structure. For instance, this principle leads to the analysis of clauses with the subject located underlyingly within the VP, as it is argued in many recent studies.

Larson's proposal entails that in the case of the object control verbs exemplified in (209), the underlying verb phrase will be structured in a manner similar to that of the double object construction. The relevant subpart of the verb phrase for the realization of the internal arguments of *forcer* would be as follows:

(214)



The direct object NP will be assigned Case by the verb after V-raising has taken place. The "action" complement will be embedded under a PP node as



shown in (214). The presence of the preposition *à* appears to be required for Case-assignment purposes in the case where the complement is realized as a NP (as a concealed action).

(215) *Cela me force à des démarches inutiles.*

'This forces me to (undertake) some useless steps'

I will assume that the main verb *forcer* has only one structural Case to assign, namely the objective Case that will be assigned to the direct object. But the fact that the "action" complement can be realized as a NP indicates that there must be another (inherent) Case available. When such a situation occurs, French (and the other Romance languages, as well) has recourse to a preposition that will assign Case to the complement. The preposition will be either *à* or *de*. Which preposition will be chosen appears to depend on different semantic factors and is also subject to speaker variation in some cases. It seems that when a verb implies the realization of some action, like *forcer*, the preposition will be *à*, whereas when the verb expresses the non-realization of an action, a verb like *empêcher* 'to prevent' for instance, the preposition will be *de*. This is reminiscent of the facts noted in footnote 33 above. I will not pursue this matter here.

Hence, a verb like *forcer* will introduce its "second" internal argument by means of the preposition *à* which will assign Case to the complement. In such cases, *à* appears to head a PP, as we saw above.

When the complement is an infinitival complement, the preposition will also be present (presumably because it is projected with the verb from the lexicon) but the preposition will play a dual role in such cases. On the one hand, it will be a Case-assigner, as in the case of an NP complement, but on the other hand, it will also absorb or realize the Case for the

infinitival complement, as in the case of the other prepositional infinitival complements examined above.

#### 2.5.3.2 The emotive verbs

Let us now examine the distribution of the prepositional infinitival complements with the verbs belonging to the emotive class.

The emotive verbs are verbs that s-select an "event" as their complement. The canonical lexical realization of "event" is INFL. The infinitival complements that appear with emotive verbs will be I' complements. It will be argued in chapter 3 below that an important distinction must be established between the emotive verbs that are also factive verbs and those that are not. In short, it will be argued that the complements to factive-emotive predicates are "definite events" and that their definite nature is instantiated through the presence of an operator that binds the "event"-position under INFL. I assume that the presence of this operator has for effect of turning the IP or I' complement into C' complement, the operator being presumably in COMP position. The complements to non-factive emotive predicates, on the other hand, are simply "events" and thus are not associated with any kind of operator.

As it was mentioned above, it seems that the emotive verbs do not show a uniform behavior with respect to the presence of prepositions introducing their complements. Unfortunately, this lack of uniform behavior will not really be explained here. But I will nevertheless present some possible analysis that will account partly for the facts relative to the presence of prepositions and to their status.

Here again, I will divide up the verbs into two main types on the basis of whether the infinitival complement is the only internal complement of the emotive verb or whether it is part of a more complex verb phrase. The latter case arises with verbs that express permissions, commands or desires involving another person than the main subject. We will see that these verbs take infinitival complements introduced by the preposition *de*. But, let us first examine the case where the infinitival complement constitutes the unique internal argument of the verb.

As Long points out, the emotive verbs appear to divide up into three classes depending on whether they require obligatorily, optionally or do not require the presence of a preposition. Long gives the following classification:

(216) Emotive verbs that take a preposition:

|                    |             |                     |                  |
|--------------------|-------------|---------------------|------------------|
| <i>craindre de</i> | 'to fear'   | <i>regretter de</i> | 'to regret'      |
| <i>déplorer de</i> | 'to lament' | <i>supporter de</i> | 'to put up with' |
| <i>endurer de</i>  | 'to bear'   | <i>tolérer de</i>   | 'to tolerate'    |

Emotive verbs that take optionally a preposition:

|                      |             |                       |             |
|----------------------|-------------|-----------------------|-------------|
| <i>adorer (de)</i>   | 'to adore'  | <i>espérer (de)</i>   | 'to hope'   |
| <i>désirer (de)</i>  | 'to desire' | <i>préférer (de)</i>  | 'to prefer' |
| <i>détester (de)</i> | 'to hate'   | <i>souhaiter (de)</i> | 'to wish'   |

Emotive verbs that take "bare" complements:

|                    |             |                  |                 |
|--------------------|-------------|------------------|-----------------|
| <i>aimer</i>       | 'to like'   | <i>penser</i>    | 'to wish'       |
| <i>aimer mieux</i> | 'to prefer' | <i>prétendre</i> | 'to wish'       |
| <i>entendre</i>    | 'to wish'   | <i>vouloir</i>   | 'to wish, want' |

Let me first observe that, for me, some of the verbs listed as taking optionally a preposition sound rather awkward when used with a preposition. In my own idiolect, the verbs *adorer*, *désirer*, *détester* and *préférer* would be listed with the verbs that take only "bare" infinitival complements.

But even with this reclassification, we still face the problem of accounting for the presence or the absence of *de* with these verbs.

A first fact to be noticed is that the application of the pronominalization test that we used earlier gives quite different results with these verbs, depending on whether the complement is introduced by a preposition or not. The infinitival complements of the verbs that take prepositional infinitivals appear to be more easily pronominalized by *le* than those of the verbs that take bare infinitivals. Compare the following two sets of sentences.

- (217) a. Jean le regrettait sincèrement, d'être arrivé en retard.  
'Jean sincerely regretted it, to have arrived late'  
b. Marie l'a souvent déploré, d'avoir raté cette occasion.  
'Marie has often deplored it, to have missed that opportunity'
- (218) a. ??Marie le veut absolument, être la meilleure.  
'Marie absolutely wants it, to be the best'  
b. \*Claire l'adore, manger à l'Express.  
'Claire adores it, to eat at l'Express'  
c. \*Alain le préfère, téléphoner plutôt qu'écrire.  
'Alain prefers it, to call rather than write'

The examples in (218) correspond to the following perfectly grammatical sentences:

- (219) a. Marie veut absolument être la meilleure.  
b. Claire adore manger à l'Express.  
c. Alain préfère téléphoner plutôt qu'écrire.

These facts are particularly interesting since it cannot be claimed here that these verbs are not Case-assigning verbs. They can all appear with direct object NPs, as shown in (220).

- (220) a. Marie veut un beau cadeau pour son anniversaire.  
'Marie wants a nice present for her birthday'  
b. Claire adore les vacances au bord de la mer.  
'Claire adores vacations by the ocean'  
c. Alain préfère les coups de téléphone aux lettres.  
'Alain prefers phone calls to letters'

In (220a) and (220c), the direct object NPs appear to function as concealed events. In (220a), the sentence is understood as meaning that *Marie wants to receive a nice present*. The sentence in (220c) is interpreted as meaning either that *Alain prefers to receive phone calls rather than letters* or that *Alain prefers to make phone calls rather than write letters*. In (220b), the noun *vacances* carries an "eventive" meaning itself, so that the whole NP is interpreted as an event. We thus see that a NP can appear as a complement to an emotive verb, fulfilling the same semantic role as the infinitival complement.

I am afraid that I will not be able to present any illuminating solution to the problem of why only some of the verbs require a preposition or, conversely, of why only some of the verbs take bare infinitivals. There seems to be some kind of (imperfect) correlation between the presence of the preposition and the "negative" or "positive" connotation of these verbs. There also seems to be a correlation between the factive status of the verbs and the use of the preposition, but again this correlation is not perfect.

A possible "syntactic" solution could be to assume that normally infinitival complements that are projections of INFL cannot absorb Case directly in a language like French (perhaps because INFL is not headed by the infinitive, as it is assumed in 2.3 above). They would thus require the presence of a preposition, like the VP infinitivals that appear as complements to verbs like *commencer*. The IP complement would be embedded under a KP whose head would be filled by the preposition *de*.

We could account for the cases where there is no preposition by adopting a proposal made by Lamontagne and Travis (1988) who argue that the head of KP

may be empty only when it is immediately adjacent to the Case-assigning element, actually when it is in a relation of proper government with that Case-assigning head. Since the infinitival complements of these verbs are always adjacent to the verb, this proposal has some plausibility. I will assume that only IP complements, in contrast to VP (or I') complements, can appear within a KP whose head is empty. This assumption will account for the fact that although the infinitival complement of a verb like *commencer* appears to be adjacent to the verb, the head of the KP cannot be empty.

Factive emotive predicates like *regretter* appear to require that their infinitival complements be introduced by *de*. As mentioned previously, the complements to the factive emotive verbs will be analyzed, in chapter 3 below, as C' complements. It seems that these C' complements are also complements that cannot appear within a KP whose head is empty. The generalization would be that only true IP complements, that furthermore are sisters to the matrix verb, can appear without a preposition.

Although this analysis has some plausibility, it will not account for two sets of exceptions. First, a verb like *détester* 'to hate' is a factive predicate but it can be used without a preposition. Second, a verb like *craindre* 'to fear' is not a factive verb and yet it requires the presence of a preposition. Another problem that comes up with this analysis is that of accounting for the optional presence of the preposition with some verbs. Clearly, if we simply state that the head of KP may only optionally be empty, we will not account for the fact that some verbs do not allow the presence of a preposition.

Let us now turn to the other type of emotive verbs, namely the type that

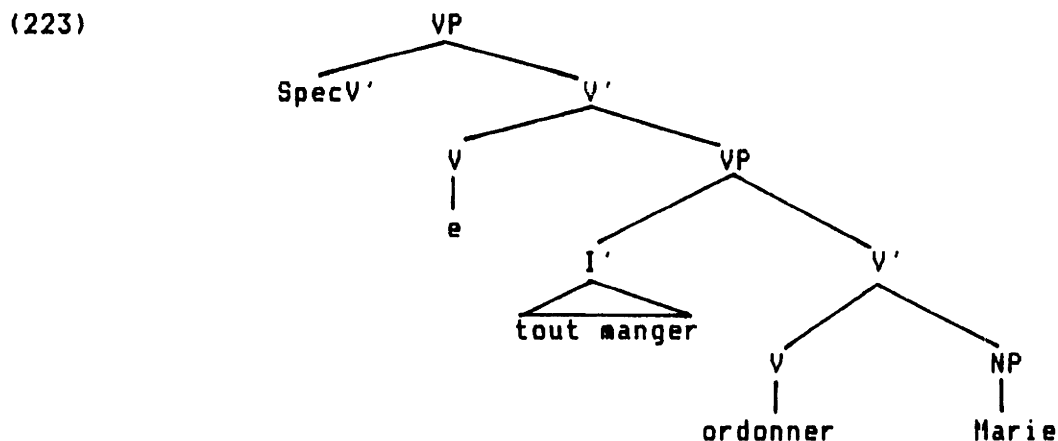
comprises the verbs of permission, command or desire (expressed in favor of someone else than the subject). These verbs appear with a (dative) indirect object which functions as the controller for the embedded infinitival.

- (221) a. Jean ordonne à Marie de tout manger.  
           'Jean orders (to) Marie to eat everything'  
       b. Jean souhaite à Marie de réussir son examen.  
           'Jean wishes (to) Marie to succeed in her exam'

These prepositional infinitival complements behave like direct objects as shown by the fact that they can be replaced by the pronoun *le*.

- (222) a. Jean l'ordonne à Marie, de tout manger.  
       b. Jean le souhaite à Marie, de réussir son examen.

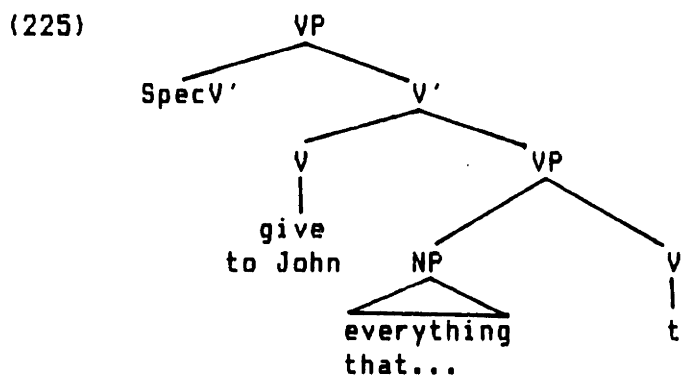
As in the case of the direct object control verbs studied above, I will assume an analysis of these complements along the lines of Larson (1987). Thus, the internal arguments of a verb like *ordonner* would be generated in a complex verbal structure such as the following.



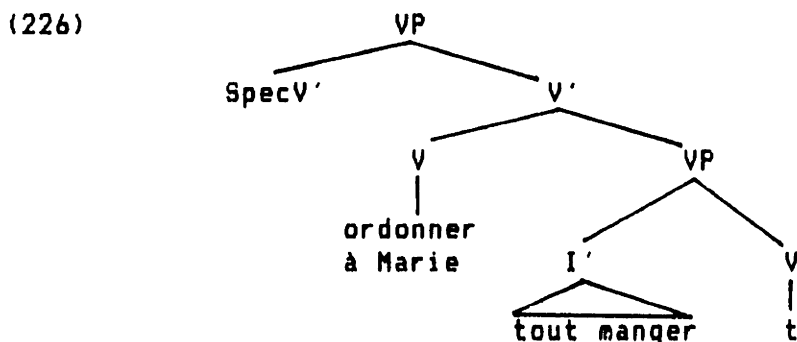
I assume that the verb *ordonner* has two Cases to assign. Both complements *Marie* and *tout manger* will be embedded under KP nodes; *Marie* will be assigned dative Case and *tout manger* will be assigned accusative Case. In this structure, the infinitival complement appears to function as a "subject" with respect to the verbal phrase *ordonner à Marie*.

An interesting aspect of the sentences exemplified in (221) above is the fact that what appears to function as the direct object of the verb is realized after the indirect object. This phenomenon is reminiscent of the "Heavy NP Shift" phenomenon and could thus arguably be treated in a similar fashion. Interestingly, one important argument given by Larson in favor of his analysis of the double object construction involves the treatment of such phenomena as "Heavy NP Shift". In short, Larson accounts for the occurrence of sentences such as the following by proposing that in such cases the verb and its indirect object are reanalyzed as forming a simple V and are thus raised together to the empty V node as shown in (225).

(224) I gave to John everything that he demanded.



We could thus extend Larson's analysis to the cases exemplified above which would now be derived as shown in (226).





Such an analysis, however, would seem to imply that the order of complements found in sentences like those in (221) is a marked order. But, in fact, the order indirect object - infinitival complement appears to be the unmarked order, at least in a language like French. Moreover, we would expect that in the presence of a heavier indirect object, it would be impossible to reanalyze V' as V. The presence of a heavy indirect object would thus force the order infinitival complement - indirect object. But this fact is not corroborated, as shows the following example.

(227) Le patron a ordonné à tous les employés qui avaient participé  
au projet de construction de préparer le rapport final.

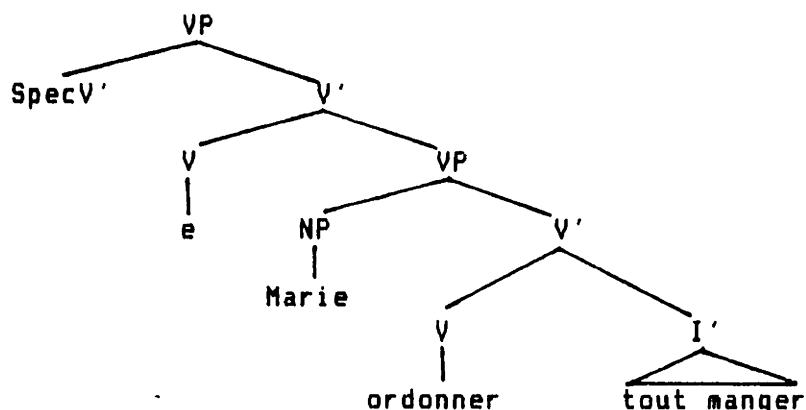
'The boss ordered all the employees that participated in the  
construction project to prepare the final report'

The order infinitival complement - indirect object is also possible, at least for some speakers, but it seems to be preferred when the infinitival complement itself is "light", at least with respect to the indirect object. For instance, in the previous sentence, the reverse order of complements appears to be somewhat acceptable (with a "focus" intonation). However, in general, even a very light infinitival complement would not normally appear before the indirect object.

(228) ?Pierre a ordonné de partir à ses enfants.  
'Pierre ordered to leave his children'

In view of such facts, it seems that the proper analysis of these cases of indirect object control verbs should rather be as follows:

(229)



Assuming that this analysis is correct, we must still however explain the obligatory presence of the preposition introducing the infinitival complement with these verbs.

It is interesting to note that the Romance languages do not all show a uniform behavior with respect to the presence of a preposition with these verbs. In Spanish, for instance, a verb like *ordenar* takes a "bare" infinitival complement, as shown by the following example taken from Bordelois (1974).

(230) Les ordenaron a los chicos barrer el patio.  
'They ordered the kids to sweep the court'

As I suggested above, a possible explanation for the fact that French appears to require the presence of a preposition in the case of the complements to verbs like *ordonner* may lie in the absence of V-raising to INFL for the infinitives in French. The difference between Spanish and French would be that in Spanish, the infinitival verb heads INFL which is the head of the complement of *ordenar*, while, in French, the head INFL contains no verbal element. Given the nominal character of an INFL headed by an infinitival verb, these infinitival complements can absorb the Case assigned by the matrix verb. In French, however, INFL is not nominal and

moreover it contains no lexical element capable of bearing Case. The Case assigned by the matrix verb *ordonner* must therefore be realized by the preposition *de* which heads the KP under which IP is embedded.

### 2.5.3.3 The propositional verbs

Let us now turn our attention to the class of propositional verbs. In French, the infinitival complements of these verbs do not appear with a preposition, even when the complement is not the only internal argument of the verb.

- (231) a. Alain croit avoir bien fait son travail.  
'Alain believes (that he) has done his work well'  
b. Yves estime avoir raison.  
'Yves esteems (that he) is right'
- (232) Il nous dit ne pas avoir peur.  
'He tells us (that he) isn't afraid'

In chapter four below, it will be argued that the propositional verbs s-select  $\bar{P}$  whose CLR is COMP. The infinitival complements found with these verbs would thus be CP complements. The obvious generalization to be made here is that CP complements can absorb the objective Case assigned by the  
43  
matrix verb.

It is interesting to note that there are a few verbs in French, like *dire* and *jurer*, which appear to belong both to the emotive and to the propositional class. When *dire* functions as an emotive verb, its meaning is similar to that of *ordonner* and the infinitival complement must appear with  
44  
the preposition *de*.

- (233) Il nous a dit de ne pas avoir peur.  
'He tells us not to be afraid'

Similarly, when *jurer* functions as an emotive verb, its meaning is that of a "promise" and the infinitival complement must appear preceded by *de*. But when it functions as a propositional verb, its meaning is rather that of a "formal declaration".

- (234) a. Il nous a juré de faire ce travail.  
'He has sworn (promised) to us to do this work'  
b. Il nous a juré avoir fait ce travail.  
'He has sworn (declared) to us (that he) has done this work'

Obviously, these examples follow very nicely from the analysis outlined above.

To conclude this section on the status of the prepositions with infinitival verbs, we have seen that these prepositions behave very differently depending on the type of matrix verb that selects the infinitival complement with which they appear. I have tried to outline some possible analyses of these prepositions that could both account for their occurrence and their behavior with the different classes of verbs. Much work however remains to be done on this topic. For instance, the analysis proposed here for the infinitival complements of the propositional verbs would not handle the Italian facts. Recall that in 2.5.2.1 above, it was mentioned that the "control" complements of the propositional verbs in Italian must appear preceded by the preposition *di*. Also, I have not undertaken here a complete survey of all the verbs that take infinitival complements. I suspect that such a study would probably show many idiosyncratic facts that would not conform to the analyses proposed here. What this section has shown, however, is that there cannot be any solution

to the problem of the status of the prepositions that would ignore the fact that these prepositions function differently depending on the class of matrix verbs with which they appear.

## 2.6 The S-selection of effective verbs

In section 2.1 above, it was claimed that the verbs under investigation in this chapter s-select the semantic type "action", *A*, whose CLR is normally a verb. Obviously, such a proposal needs to be further qualified and must also be somewhat revised in view of the fact, mentioned in 2.4.3 and in 2.5.3, that some of these verbs also take direct object NPs or NPs embedded under a PP, which appear to fulfill the same semantic role.

One major question that has been avoided so far here is that of what the notion "action" stands for. The choice of the term "action" is in fact somewhat unfortunate since it would seem to imply that only verbs that are truly "active" may be found in the complements to effective verbs. This is clearly not the case, if one assumes a narrowly defined conception of "action", since we have examples like the following.

- (235) a. Jean commence à être plus à l'aise avec les étudiants.  
'Jean begins to be more at ease with the students'  
b. Jean commence à se sentir mieux.  
'Jean begins to feel better'

These examples show that we must understand "action" as referring also to a change of state. As Lamiroy (1987) points out, there is clearly a constraint against the occurrence of stative verbs in the complements to aspectual verbs. She contrasts the following examples, involving in a) an

action verb and in b) a stative verb.

- (236) a. Jean commence à construire une maison.  
'Jean begins to build a house'  
b. \*Jean commence à avoir une maison.  
'Jean begins to have a house'

Another type of selectional restriction, involving a verb like *oser* 'to dare', is noticed by Ruwet (1972). It seems that the occurrence of a passive infinitival complement is disallowed with this verb, as shown by the following example.

- (237) \*Il ose être battu.  
'He dares be beaten up'

Ruwet proposes to account for this fact in terms of a restriction imposed by *oser* to the effect that the subject of its infinitival complement must be a deep subject and not a derived subject, as it would be in the case of a passive verb. Such a constraint would also account for the ungrammaticality of the following example, where the subject would also not be a deep subject.

- (238) \*Il ose être grand.  
'He dares be tall'

Sueur (1977) shows, however, that this constraint cannot simply be a kind of structural constraint in terms of "deep subject". He gives the following examples.

- (239) a. \*Pierre ose pouvoir venir.  
'Pierre dares be able to come'  
b. Il ose être présent.  
'He dares be present'  
c. \*Pierre ose recevoir une lettre.  
'Pierre dares receive a letter'  
d. Pierre ose recevoir Sylvie.  
'Pierre dares receive Sylvie'

The example in (239b), involving an adjectival predicate, is to be contrasted with the example in (238). Presumably, both sentences will be

derived from similar D-structures and sentence (239b) would thus appear to contradict Ruwet's explanation. The example in (239a) also appears to be problematic if I am right in assuming that a modal like *pouvoir* can enter into a control structure in one of its interpretations. Finally, the contrast shown by the examples in (239c) and (239d) further confirms that the constraint cannot simply be one on the D-structure position of the subject of the infinitival complement.

The kind of constraint that appears to be behind these facts seems to be one involving the thematic role of the subject of the two verbs. The meaning of a verb like *oser* clearly involves a strong agentive reading on the part of the matrix subject. It seems that the embedded infinitival complement, to the extent that it expresses an "action" that the matrix subject has in mind to perform must also be associated to an agentive performance.

Other selectional restrictions are found with verbs like *menacer*, for instance (cf. Ruwet (1972) and footnote 32 above). Also, Emonds (1978) points out that the French verbs of motion do not allow their infinitival complement to show passive forms, or, as noticed by Gross (1968), to be independently negated and to appear with the perfective auxiliary *avoir*.

I will not investigate any further here the selectional restrictions imposed by the effective verbs on their complements, as this would require a more thorough investigation which is beyond the scope of this thesis (cf. also the studies of Lamiroy (1987) and Newmeyer (1975) on this issue).

Nevertheless, it seems to me that the existence of such restrictions can be taken as further evidence that the embedded infinitival verb is directly

selected by the matrix verb.

Returning to the semantic category "action", I have used the term "action" in this dissertation as a kind of supercategory ranging over the semantic types "action" and "state" as these are defined in Jackendoff's work for instance. The selectional constraints found with verbs like *oser* suggest that it may be necessary to assume that these semantic types are semantic categories that can be s-selected as such. I will not pursue this issue here but I would like to point out that the fact that some effective verbs may allow both "action" and "state" while others may only allow "action" does not affect the argument made here that the effective verbs are to be distinguished on the basis of their s-selectional properties from the emotive and the propositional verbs.

Turning now to the issue of what can constitute the CLR of the semantic type "action", it appears that one must also allow for a possible CLR as a noun, given the existence of examples like the following.

- (240) a. Jean commence la lecture du livre.  
'Jean begins the reading of the book'  
b. Jean a fini la cuisson du repas avant l'arrivée des invités.  
'Jean finished the cooking of the meal before the guests arrived'  
c. Jean a finalement achevé la réparation de la voiture.  
'Jean finally completed the repair of the car'
- (241) a. Jean commence un nouveau livre.  
'Jean begins a new book'  
b. Jean a fini la soupe avant l'arrivée des invités.  
'Jean finished the soup before the guests arrived'  
c. Jean a achevé la voiture de M. Séguin plus vite que prévu.  
'Jean finished Mr Séguin's car faster than planned'

The examples in (240) involve action nominalizations which fulfill the semantic role of "action" that is s-selected by the matrix aspectual verb. The possibility for a noun to fulfill the semantic role of "action"



indicates that the CLR of "action" may also be a noun.

The examples in (241) show that even nouns that would appear to only denote "objects" are also interpreted in accordance to the semantic role of "action". These complements are in fact "concealed actions" (cf. the concealed questions of Grimshaw (1979) mentioned in 1.1.4.1 above).

The most likely interpretation of (241a) is either that *Jean is beginning to read a new book* or that *Jean is beginning to write a new book*, which are the two most likely action interpretations associated with books, although some other interpretations could be enforced given an appropriate setting of a situation. For instance, one can imagine a situation in which Jean works for a publishing company and is either a proof-reader or an illustrator. In such a situation, the sentence in (241a) would be interpreted as meaning either that *Jean is beginning to proof-read a new book* or that *Jean is beginning to illustrate a new book*. Similarly, the example given in (241b) may be taken to mean that *Jean has finished preparing or cooking the soup before the guests arrived*. But it could also probably mean that *Jean finished eating the soup* given the appropriate setting. In (241c) a number of interpretations are also possible to the extent that they reflect actions that one can perform with respect to cars. It could be the repair, the washing, the painting of the car that has been completed by Jean.

Interestingly, nominals that denote "events" or "propositions" are clearly impossible as complements of aspectual verbs.

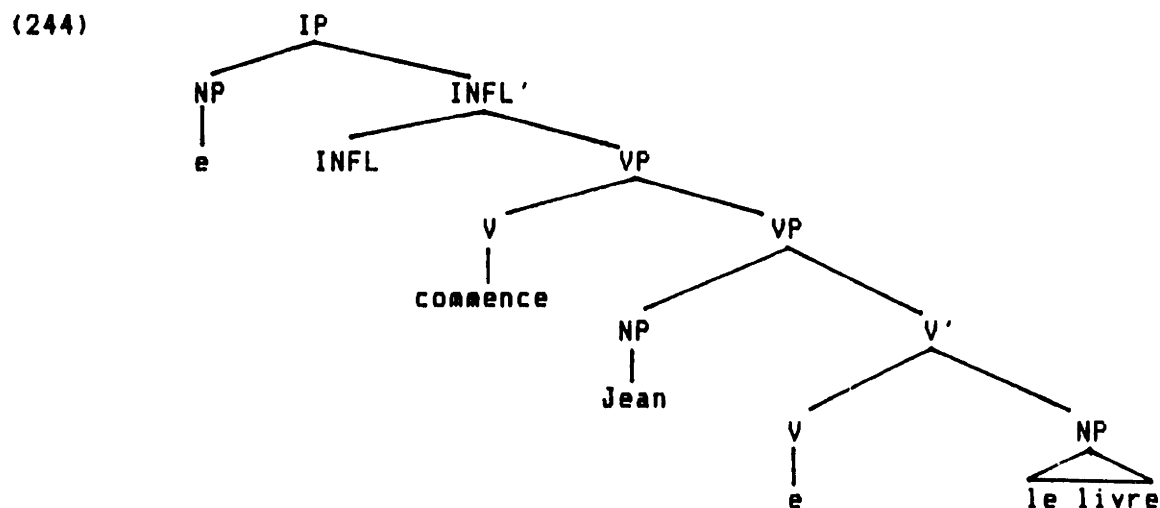
- (242) a. \*Jean commençait le départ.  
'Jean began the departure'  
b. \*Jean achevait l'importance de la recherche.  
'Jean completed the importance of research'

These facts provide some further evidence that it is necessary to distinguish a distinct semantic role for the complements to aspectual verbs.

In 2.4.3 above, I proposed to analyze these cases of concealed actions in terms of a raising analysis. The surface subject and direct object would be generated at D-structure as a small clause object, as illustrated in (243).

(243) e commence [ <sub>NP</sub> Jean [ <sub>NP</sub> le livre ] ]

I also suggested that it may in fact be more accurate to assume that there is an empty verb node in such complements. The motivation for the presence of an empty verb node would be that we need to account for the fact that the surface subject appears to receive its  $\theta$ -role from the implicit verb. If this hypothesis is right, the D-structure given in (243) would rather be like in (244).



## 2.7. Rumanian

The complements to the effective verbs in Rumanian differ from those of the other Romance languages in that they do not show up as infinitival complements. In fact, one major difference between Rumanian and the other Romance languages is that Rumanian more or less lacks infinitival  
45  
complementation.

The fact that the complements to the effective verbs are realized as "tensed" complements would thus appear to undermine the claim put forward in this chapter. Upon closer scrutiny, it appears, however, that the complements to effective verbs are clearly different syntactically (in many respects) from the complements of the other classes of main predicates. It will be argued here that these differences follow from the fact that the complements to effective verbs are projections of V rather than projections of INFL or COMP.

One first important difference that must be mentioned is that these "tensed" complements crucially appear in the subjunctive mood, never in the indicative mood. Another major difference is that these subjunctive complements differ from the other subjunctive complements (those selected by emotive verbs) in many respects. First, they disallow the presence of the subjunctive complementizer *ca*. Second, when they appear to have an embedded subject, this subject must be coreferential to that of the matrix verb and must also crucially appear post-verbally. I will return below to these differences. But, first, I will review some of the facts presented by

Farkas (1983).

Rumanian subjunctive morphology consists of the particle *să* preceding the verb which, in the present subjunctive takes on the present indicative inflection except for the third person singular and plural which have a special subjunctive form. The past subjunctive is conjugated with the auxiliary *a fi* (to be) in the past. According to Farkas, the subjunctive particle *să* and the verb are sisters to a V node. She points out that only elements such as the negative particles, pre-verbal clitics and iterative particles are permitted to occur between *să* and the verb and that furthermore these elements must occur in a fixed order.

Subjunctive clauses in Rumanian have a special complementizer *ca* which is distinct from the indicative complementizer *că*. The distribution of this subjunctive complementizer *ca* is rather complex as it involves some restriction (at least in standard Rumanian) against sequences of *ca să* that may arise in different circumstances such as the following in which the subject of the subjunctive clause is in post-verbal position.

- (245) *Vreau (\*ca) să vină Ana cu noi.*  
(I)-want that subj. comes Ana with us  
'I want Ana to come with us.' (Farkas' example (3))

What is of interest for us here is the type of subjunctive complement that appears with the verbs under investigation in this chapter. Interestingly, the subjunctive complement that appears with these verbs is never introduced by the subjunctive complementizer *ca*, even in non-standard Rumanian.

(246) Ana a început să gătească cina.

Ana has started subj. cook the dinner

'Ana started to cook dinner.' (Farkas' example (18))

Farkas points out that the time reference of the complements of verbs such as a *începe* 'to start' is completely dependent on that of the main verb. That is that the matrix verb provides the reference point for the time reference of the complement. The complements of verbs such as a *începe* 'to start' and a *continua* 'to continue' can have time adverbials only when the complement refers to habitual or repeated events. As she shows, the following sentence is anomalous because the time adverbial *două ore* 'two hours' can only be understood as modifying the matrix verb which is not a durative verb. This contrasts with (248) where the complement of a *începe* refers to a repeated action due the presence of the adverb of quantification *zilnic* 'daily'.

(247) Petru a început să cînte la vioară două ore ieri la cinci.

'Peter started to play the violin two hours yesterday at 5.'

(248) Petru a început să cînte la vioară două ore zilnic.

'Peter started to play the violin two hours daily.'

(Farkas' examples (19)-(20))

Farkas concludes "...that the complements of a *începe* and a *continua* have *unspecified time reference*. A complement has *unspecified time reference* if it does not accept time adverbials modifying the whole complement and if its time reference is completely determined by that of the matrix verb." (p.365)

Apart from the aspectuals 'to start' and 'to continue', Farkas points out that the following verbs also take subjunctive complements that never appear with the complementizer *ca*: a *ajuta* 'to help', a *încerca* 'to try', a *ezita* 'to hesitate', a *încuraja* 'to encourage', a *pregăti* 'to prepare', a *sfătui*

'to advise', a *propune* 'to suggest'. According to Farkas, the complements of these verbs have restricted, rather than unspecified, time reference. She points out that the complement of verbs like 'to help' may have its own time adverbial as shown in (249a) but its time reference must be identical to that of the matrix (249b).

- (249) a. Petru o va ajuta pe Ana să-și dea mîine examenul.  
 P. her will help acc. A. subj.-refl. give tomorrow the exam  
 'Peter will help Ana to take her exam tomorrow.'
- b. ?\*Petru o ajută pe Ana acum să-și dea mîine examenul.  
 P. her helps acc. A. now subj.-refl. give tomorrow the exam  
 (Farkas' examples (26))

Farkas also notes that the complements of a *încuraja* 'to encourage', a *sfatui* 'to advise', a *pregăti* 'to prepare' must have a time reference that is posterior to the matrix. She groups the two types of time reference exhibited by these subjunctive complements under the notion *dependent time reference*.

Farkas studies another interesting fact that arises in connection with the COMP-less subjunctive complements discussed here. This fact is that they all appear to be not only dependent on the matrix in time reference but also in subject reference as well. In these constructions, the embedded subject must be coreferential with an argument of the matrix.

- (250) a. Am început să gătesc eu cina.  
 (I)-have started subj. cook I the dinner  
 'I started to cook the dinner'
- b. A început să cînte Petru la vioară.  
 has started subj. play P. at violin  
 'Peter started to play the violin' (Farkas' examples (28))

Farkas also mentions the interesting case of verbs which can take both indicative and subjunctive complements, such as a *ști* 'to know'. When a *ști*

takes an indicative complement, that complement is independent of the matrix in both time and subject reference. But when the verb appears with a subjunctive complement, the complement shows dependent time reference as well as subject reference dependency.

- (251) a. Știu că (eu) am înotat bine în tinerețe.  
 (I)-know that I have swam well in youth  
 'I know that I swam well in my youth.'
- b. Știu că Petru a înotat bine în tinerețe.  
 (I)-know that Petru has swam well in youth  
 'I know that Peter swam well in his youth.'
- c. Știu să înot bine.  
 (I)-know subj. swim well  
 'I know how to swim well.' (Farkas' examples (30))

This seems to show that we are dealing with two distinct verbs 'to know' here. In fact, it will be argued in 2.8.1 below that the verb meaning 'to know how' is an effective verb.

As mentioned earlier, another important fact relative to the embedded subject of these subjunctive complements is that it must necessarily appear in post-verbal position whereas in a subjunctive complement to an emotive verb it will normally precede the verb. Kempchinsky (1986) gives the following example.

- (252) a. Ion <sub>i</sub> l-a ajutat pe Dan <sub>i</sub> să rezolve el <sub>i</sub> problema.  
 Ion him helped Dan solve the problem  
 'Ion helped Dan to solve the problem'
- b. \*Ion l-a ajutat pe Dan (ca) el să rezolve problema.

Kempchinsky argues that these "subjects" should rather be analyzed as cases of emphatic pronouns, a position which I will also adopt.

Another interesting difference also pointed out in Kempchinsky is the fact

that with this type of subjunctive complements no constituent may appear before *să* + V, as shown in (253).

(253) a. \*Am început (ca) în bucătărie să gatesc cină.  
'(I) began in the kitchen to cook dinner'

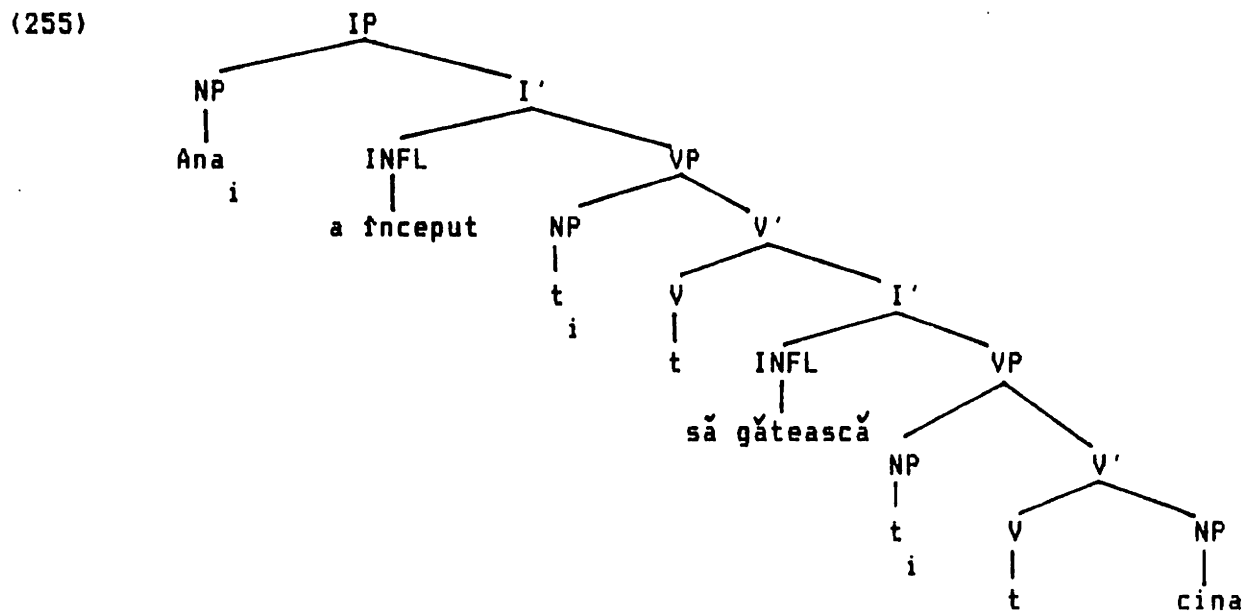
b. \*Știu (ca) în momentul de față să înot bine.  
'(I) know at this moment (how) to swim well'

These facts all seem to follow very well from the analysis proposed in this chapter, given the additional stipulation that Rumanian verbs must be inflected in some minimal way. I will assume as before that the complements to effective verbs are realized as a projection of a verb but that in Rumanian the presence of an embedded INFL will always be required in such structures.

The embedded verb will appear under INFL at S-structure and it will have to agree with the subject of the sentence since there is a predication relation between the embedded verb and the subject (whether as a result of control or raising). The absence of any complementizer, the tense dependency and the absence of any other elements before the complement will follow from the I' structure that is assumed here. Thus, a sentence like (246) repeated here as (254) will have the S-structure shown in (255).



(254) Ana a început să gătească cina.  
 'Ana started to cook dinner'



## 2.8 More on the Effective Verbs

In this last section, I will first examine the class of "non-restructuring" effective verbs. In 2.2 above, I argued that the phenomenon of restructuring occurs when a matrix effective verb lacks an E-position in its θ-grid. I assumed that this phenomenon is unmarked in the cases of effective verbs (the core cases of restructuring). In this section, we will examine the cases of "non-restructuring" effective verbs as well as the cases of restructuring that occur with verbs that appear to be non-effective (the periphery cases of restructuring). It will be argued that the variation shown among speakers as to which verbs can enter into restructuring favors the analysis of restructuring that has been developed in this chapter.

In 2.8.2, I will propose an analysis of the causative construction that will rest essentially on the assumption that the verbs *faire* 'to make' and *laisser* 'to let' are associated with an abstract verb CAUSE with which they form a complex predicate. Hence, a causative verb like *faire* is analyzed as *faire* - CAUSE and that complex predicate takes an "action" complement like the other effective predicates. I will propose that the abstract verb is represented in the syntax as an empty V node. An analysis of the embedded infinitival will be developed that makes use of the type of complex verb phrases proposed by Larson (1987). I will not, however, provide a complete study of the causative construction. In particular, I will not cover the facts relative to the positioning of clitics in this construction as this is a task quite beyond the limits of this thesis.

Finally, in 2.8.3, I will provide an analysis of object control verbs, also based on the work of Larson (1987). I will try to show how "control" can in fact be reduced to a simple predication relation once we assume the type of structures that follow from Larson's hypothesis.

#### 2.8.1 The "non-restructuring" effective verbs

In 2.2 above, I avoided to list specifically which verbs among the effective class enter into restructuring. Rather, I claimed that the modal verbs, the aspectual verbs and the verbs of movement appear to constitute the "core" class of restructuring verbs. This claim, however, appears to be too strong in view of two types of facts. First, it is not the case that all the verbs that belong to these subtypes are necessarily accepted by all

speakers in the context of restructuring. Second, there are a few verbs that, a priori, would not be analyzed as belonging to the effective class and that are, at least for some speakers, productive restructuring verbs.

As for the first type of "exceptions", it is often mentioned in the literature on restructuring that there is much variation among speakers as to which verbs exactly can be used in restructuring contexts. For instance, Burzio (1981, 1986) does not give exactly the same list of verbs as Rizzi (1978). Although both authors agree on most verbs, Burzio does not include in his list verbs like *finire* 'to finish' and *tornare* 'to return' which were given by Rizzi, but Burzio adds the raising verb *sembrare* 'to seem' which was not included by Rizzi. This kind of variation is not limited to these two studies. In fact, although there seems to be some general consensus on the "core" cases of restructuring, all the studies that I have come across differ in some minimal way with respect to the verbs that the authors consider to be productive restructuring verbs.

It seems to me that this type of variation is a further indication that what is behind the possibility of restructuring is in fact the possibility for a speaker to use a main verb as an auxiliary. Moreover, this possibility is also clearly dependent upon the speaker's analysis of the semantic content of the main verb. The less semantic import a verb has, the most likely it is to be used as a restructuring verb. The study of Napoli (1981), which was reviewed in 2.2.3 above, confirms this hypothesis.

Let us then suppose that there is such a requirement that the verbs be understood as conveying little information in order to be able to appear in a restructuring context. We can then explain the absence of restructuring

with some of the effective verbs as well as the possibility of restructuring for some of the verbs that do not appear to belong to the effective class.

A typical "non-restructuring" effective verb, at least in most of the studies that I have come across, is a verb like *osare* 'to dare'. This verb is to be compared with a verb like *volere* 'to want' which is a typical restructuring verb (one for which all speakers agree). The verb *volere* under restructuring adds the meaning of "intention" but not of "desire", as we have seen in 2.2.3 above. But the verb *osare* cannot so easily be understood as referring simply to an "intention" on the part of the speaker. Rather *osare* implies that the speaker has deliberately and knowingly (that is, knowing that there may be consequences to his act) performed an action. This verb adds some important semantic information to the sentence and thus cannot be interpreted as an auxiliary.

A similar contrast, but less strong, obtains between the aspectual verbs *cominciare* 'to begin' and *finire* 'to finish'. It seems that it is more difficult to ignore the semantic import of the verb *finire*. When a speaker uses a verb like *finire*, there is most often some emphasis on the fact that the action expressed by the infinitival complement is (has been, will be) "finished". But a verb like *cominciare* does not necessarily add such a strong semantic import. The contrast can be seen for instance by comparing the following two sentences.

- (256) a. Il commence à pleuvoir.  
          'It begins to rain'  
      b. Il a fini (cessé) de pleuvoir.  
          'It has stopped raining'

The sentence in (256b) carries the information that it was raining and that the rain stopped. The sentence in (256a) can carry the meaning that it

wasn't raining and that now the rain has started. But it can also be used to merely indicate that it is raining now. Of course, the meaning of the sentence is still intended to convey the message that the raining state is in opposition to a previous non-raining state, but the interpretation is not as much focused on this change of state as on the mere fact that it is now raining. In fact, a sentence like (256a) is appropriate even when it has already been raining for a little while, as long as the speaker is just noticing it at the point when he utters the sentence. The speaker does not have to actually witness the beginning of the rain. This is not the case with a verb like *finir*. Hence, the anomaly of a sentence like the following:

(257) Il finit de pleuvoir.  
'It stops raining'

Such a sentence seems to be appropriate only in a context where one can actually see the last drops of rain fall and conclude from that that it is the end of the rain.

Although I have not studied each verb of the effective class with respect to their semantic contribution to a sentence, I believe that similar facts will hold for each of them, thus determining which ones can be used as auxiliaries and which ones must be used as "main" verbs.

The approach taken here can also enable us to account for the "periphery" cases of restructuring. These occur with verbs like *desiderare* 'to desire' or *amare* 'to love', for some speakers only. Napoli (1981) points out that with this class of emotive verbs, the possibility of restructuring appears to be correlated with the degree of emotional strength conveyed by the verbs. She gives the following examples:

- (258) a. Lo voglio capire.  
           'I want to understand it'  
       b. ?Lo desidero (di) capire.  
           'I desire to understand it'  
       c. \*Lo anelo di capire.  
           'I yearn to understand it'

Napoli points out that a sentence like (258b) is accepted by some speakers and rejected by others, while all speakers accept (258a) and reject (258c). As she points out, it seems that the concept of simple desire can be judged to be basic enough so that verbs like *volere* and, for some speakers, *desiderare* are acceptable in restructuring contexts. However, when the concept of desire is more descriptively specified, as in the case of the verb meaning 'to yearn', the verb cannot be understood as adding only simple information.  
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The possibility of restructuring with a verb like *desiderare* could be handled by assuming that when it is used in a restructuring context, it is analyzed as an effective verb, since it only expresses the relationship of the subject to the performance of an action, in such cases.

Another more problematic case is that of the verb *sembrare*. For the speakers who accept *sembrare* in restructuring contexts, the verb is probably also analyzed in those instances as conveying little information. It is interesting to note that the related verb meaning 'to appear' is not included in Burzio's list of restructuring verbs. But again, this is not an unexpected result given the stronger semantic import of a verb like 'appear' over 'seem'. I will assume that when *sembrare* is used as a restructuring verb, it functions as an effective verb. We will see in chapter four that there is also some independent motivation for treating the infinitival complement of a verb like 'to seem' as a VP complement.

There remains one other problematic case that I would like to mention here. This is the case of the verb *sapere* in its meaning 'to know how'. The problem that arises with this verb is that, for many speakers, it may appear in the restructuring construction even in the presence of a Wh-word, as shown by the following example taken from Rizzi (1978).

(259) Su questo punto, non ti saprei che dire.  
'On this point, I wouldn't know what to tell you'

I will assume that the verb *sapere* is analyzed as an effective verb and that the Wh-word is adjoined to VP (see Chomsky (1986b) on adjunction to VP). The verb *sapere* would thus s-select an "action" but can also s-select a "question" at the same time.

## 2.8.2 The causative construction

Given the definition of effective verbs as being those verbs which express the relationship of a subject to the performance of an action, causative verbs like *faire* 'to make' and *laisser* 'to let' would appear to be members of that class. The problem with these verbs, however, is that their complement appears with its own subject. This fact has usually been taken to imply that the complement of these verbs is sentential, with the consequence that the surface word order and the mono-sentential character of the surface sentence must be accounted for by a VP movement rule which extracts the embedded VP and adjoins it to the main causative verb. This is the approach taken by Burzio (1986). Rouveret and Vergnaud (1980) rather argue for a rule which adjoins a projection of V to S.

Under Burzio's approach, a sentence like (260) would be derived from a

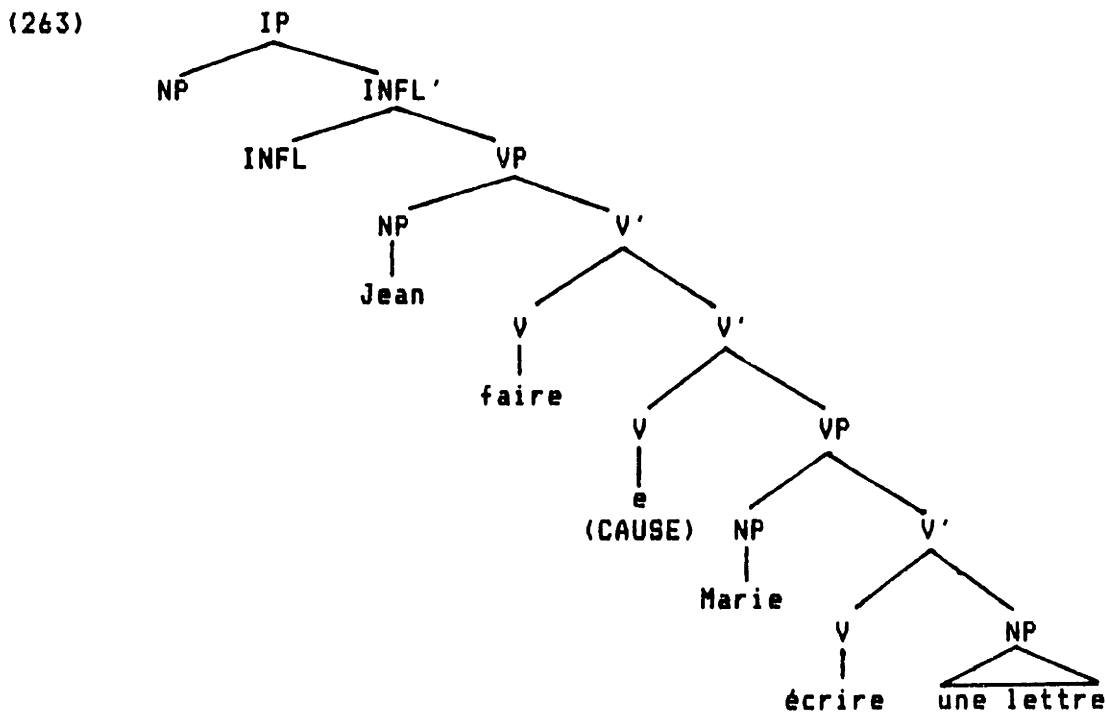
D-structure like (261) which would give rise to an S-structure like (262).

(260) Jean a fait écrire une lettre à Marie.  
'Jean made Marie write a letter'

(261) Jean a fait  $\left[ \begin{smallmatrix} \text{Marie} \\ \text{S} \end{smallmatrix} \left[ \begin{smallmatrix} \text{écrire une lettre} \\ \text{VP} \end{smallmatrix} \right] \right]$

(262) Jean a fait  $\left[ \begin{smallmatrix} \text{écrire une lettre} \\ \text{VP} \end{smallmatrix} \left[ \begin{smallmatrix} \text{Marie} \\ \text{S} \end{smallmatrix} \text{ t} \right] \right]$

Here, I would like to suggest an approach to the causative construction that is based on the assumption that these verbs are effective verbs and thus s-select an action as their complement. I propose that the causative meaning of a verb like *faire* involves the presence of an abstract verb CAUSE which forms with *faire* a complex predicate "*faire* - CAUSE". This complex predicate s-selects an "action" complement, as other effective verbs. I propose that the abstract verb CAUSE is realized syntactically in D-structure under an empty V node, as shown in (263).



I assume that V-raising must necessarily apply in these structures in order for the embedded subject to be properly Case-marked. I further assume



that the abstract verb CAUSE (or the complex predicate "*faire* - CAUSE") has one Case to assign but that it can only assign it when its position is filled by a lexical element of the appropriate nature, namely a verb. The Case can be realized as accusative or dative, depending on whether there is another accusative NP present.

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In the derivation of sentence (260), it seems that the embedded V' is reanalyzed as V and is then raised to the empty V node (see section 2.5.3.2 and Larson (1987) on "reanalysis"). The underlying subject appears with dative Case, as expected.

It is interesting to note that this analysis, which is based on Larson's (1987) view of the verb phrase, can give a more natural account of certain facts relative to the word order of the constituents with respect to the subject within the embedded complement.

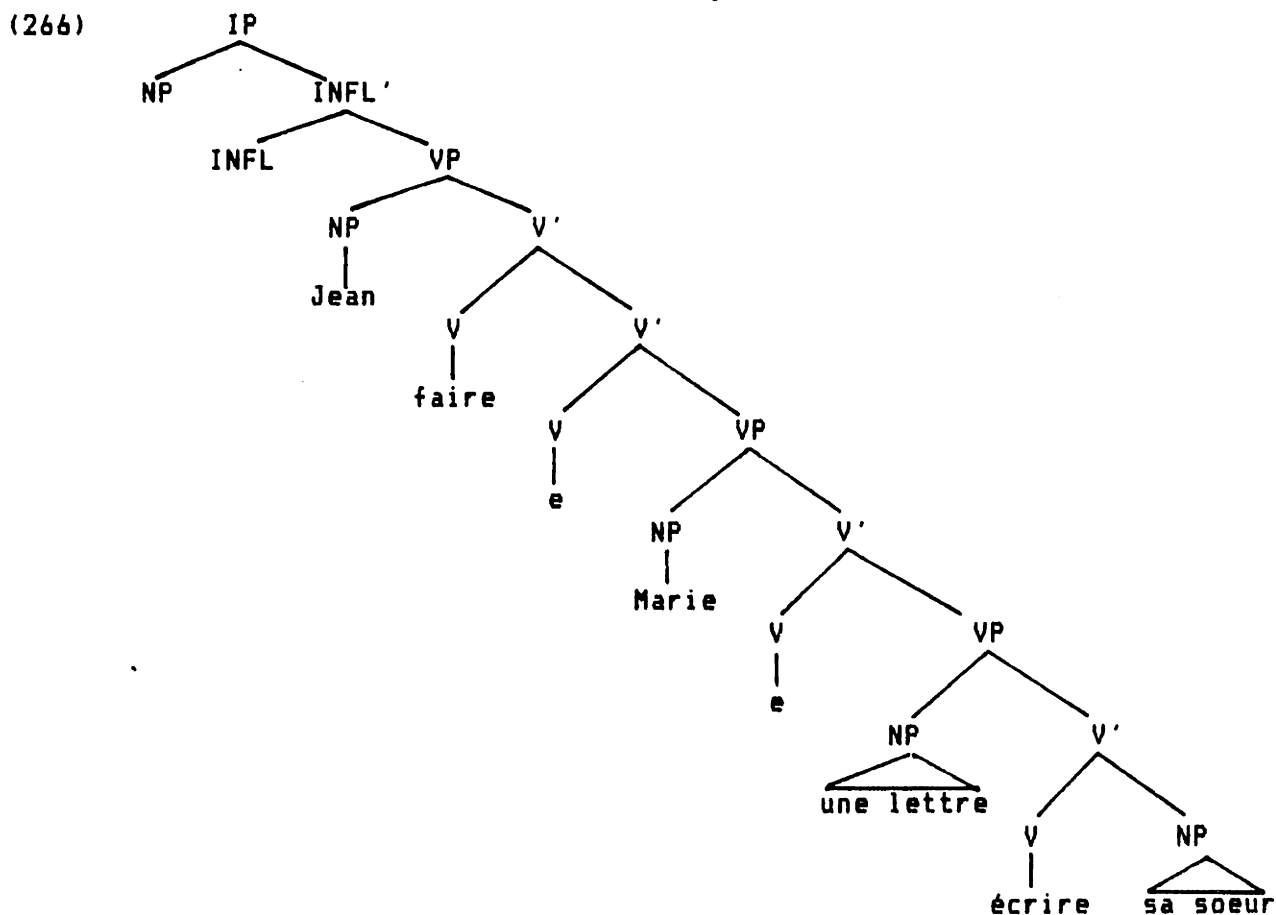
Consider the following sentences (the examples 264d-i) are taken from Rouveret and Vergnaud):

- (264) a. Jean a fait écrire Marie à sa soeur.  
           'Jean made Marie write to her sister'  
       b. \*Jean a fait écrire à sa soeur Marie.  
       c. ?Jean a fait écrire à sa soeur à Marie.
- d. On a fait sortir Marie du bureau.  
           'They had Marie leave the office'  
       e. \*On a fait sortir du bureau Marie.
- f. Cela a fait changer tout le monde d'avis.  
           'That made everyone changes his mind'  
       g. Cela a fait changer d'avis à tout le monde.
- h. Marie a fait devenir son fils comédien.  
           'Marie made his son become an actor'  
       i. Marie a fait devenir comédien son fils.

The first set of examples shows that when a transitive verb like *écrire* does not appear with a direct object, the embedded verb is normally raised without the indirect object, in which case the underlying subject will be assigned accusative Case and will appear next to the verb. For the speakers who accept sentence (264c) or, for that matter, the sentence in (265), it seems that the verb is raised with its indirect object (or with both its direct and indirect objects).

(265) Jean a fait écrire une lettre à sa soeur à Marie.  
 'Jean has made Marie write a letter to his sister'

I assume that the D-structure of a sentence like (265) is as follows:



The sentence is derived by reanalyzing the V' sister to the NP subject *Marie* as V for the purposes of V-raising (first, *écrire* raises to the most

embedded empty V node). When the direct object is missing, there seems to be a choice between moving only the verb, or reanalyzing the verb with the indirect object, that is the most embedded V', as V. Actually, another possible analysis of sentence (264c) would be to assume that the direct object of *écrire* is present as *pro* and that the sentence is derived in the same manner as described for (265). This account would keep in line with the above remark that dative Case is assigned to the subject when there is already an NP bearing accusative Case within the VP.

Let us now examine the second set of examples, that is, the examples (264d-e). These examples show that when the complement of the infinitive is a locative PP, only the verb undergoes V-raising. The subject is assigned accusative Case, as expected.

The examples (264f-g) involve the expression *changer d'avis* 'to change own's mind'. Here, it appears that the expression can be analyzed as a simple V or as a verb with a complement, given the two possible surface orders. When the expression is analyzed as V, it seems that it takes away the possibility for accusative Case-assignment. I don't have an answer to provide for this fact. With respect to the possibility of analyzing the expression *changer d'avis* as a unit, it is interesting to note the contrast, noticed by Rouveret and Vergnaud, between the sentences in (264f-g) and the following sentences.

- (267) a. Cela a fait changer tout le monde de chemise.  
           'That made everyone change his shirt'  
       b. \*Cela a fait changer de chemise à tout le monde.

The sentences (264h-i) show the case where an embedded verb, *devenir*, takes an AP complement. Here again, either the verb or the verb with the

adjective, as a result of reanalysis, can be raised. The reanalysis appears to be impossible when the AP is "heavier", as shown by the following example, again taken from Rouveret and Vergnaud.

- (268) \*Marie a fait devenir excellent comédien son fils.  
'Marie made his son become an excellent actor'

The assumption that the reanalysis of the embedded verb with its internal argument is possible only to the extent that this constituent is not too heavy will also account for the fact that a heavy direct object NP will appear after the subject. Kayne (1975) gives the following example:

- (269) Elle fera boire à Jean le vin qui se trouvait sur la table  
'She will make John drink the wine that was on the table'

It will also account for the absence of reanalysis when the internal argument is a sentential complement, as also noticed by Kayne.

- (270) a. Elle a fait admettre à Jean qu'il avait tort.  
'She made Jean admit that he was wrong'  
b. Elle a fait dire à Jean: "J'ai tort."  
'She had Jean say: "I'm wrong."  
c. Elle a fait comprendre à Jean en quoi il avait tort.  
'She made Jean understand how he was wrong'

Let us now turn our attention to the structure that I propose for the complex predicate "*faire* - CAUSE". I assume that the abstract verb CAUSE is embedded with respect to *faire*. One motivation for this assumption comes from the fact, noted by Kayne, that *faire* and the infinitival verb do not constitute a unit with respect to question formation, clitic placement in imperative sentences and the placement of negation.

- (271) a. Fera-t-il partir Marie?  
'Will he have Marie leave?'  
b. \*Fera partir-il Marie?  
(272) a. Fais-lui lire ce livre.  
'Have him read this book'  
b. \*Fais lire-lui ce livre.

- (273) a. On ne fera pas partir Jean.  
'They won't make Jean leave'  
b. \*On ne fera partir pas Jean.

These facts follow from the structure that I propose since only *faire* will raise to INFL position, accounting for the placement of the negation, and will subsequently raise from INFL to COMP, accounting for the facts in (271) and (272).

I also assume that the abstract verb CAUSE is embedded under a V' node rather than a VP node. Since the verb CAUSE postulated here is only an abstract verb part of the meaning of the causative predicate, it does not have any  $\theta$ -grid associated with it, independently of the lexical verb *faire*. There is thus no reason to assume that it will need to project up. But since *faire* - CAUSE is a predicate that selects an action, the complement will be a sister to the abstract verb CAUSE, thus accounting for the projection to the one bar level (V').

This structure may turn out to solve a problem noted at the beginning of section 2.3 above with respect to the absence of clitic-climbing in Modern French. Recall that I proposed that the absence of restructuring effects, such as clitic-climbing, in French, may be the result of a change in the clitic system of that language. It was noted, however, that the phenomenon of clitic-climbing was only lost in the "restructuring" construction and not in the causative construction. In fact, we also find clitic-climbing in structures involving a "true" auxiliary and a past participle, as is well-known. Moreover, in the case of these auxiliary structures and, to a large extent, in the case of the causative construction, clitic-climbing is not an optional phenomenon. I believe that this indicates that the

structures of these two constructions must be distinguished from that of the restructuring construction.

I will assume that auxiliary structures and causative structures are both instances of a V-V' structure. This proposal is in spirit with Emonds' (1978) proposal for both constructions, except for the fact that Emonds argues rather for a V'-V structure. I will not discuss this issue here.

If I am right in assuming that the clitics in French are somehow confined to their VP, as I argued in 2.3 above, then we can attempt to explain some of the clitic placement facts found in these structures.

In the auxiliary structures, the clitics always end up attached to the first verbal element within VP, thus to the head of VP, according to the V-V' hypothesis. In the causative construction, however, the facts are rather more complex and the previous statement would appear to be contradicted in many cases. The study of these facts will not be pursued here. I would like to mention, however, that the analysis outlined in this section could perhaps handle some of the problematic cases of clitic placement in terms of a distinction between the arguments of the embedded verb that are realized at the most deeply embedded level and those that are either realized higher up or that are moved along with the verb. But this will have to await some further study.

### 2.8.3 The object control verbs

In this section, I will argue that in most cases the phenomenon of control can simply be seen as a case of predication between a subject and a predicate. We will see that this result follows from an analysis of object

control structures in terms of the proposal put forward by Larson (1987) for the double object construction in English.

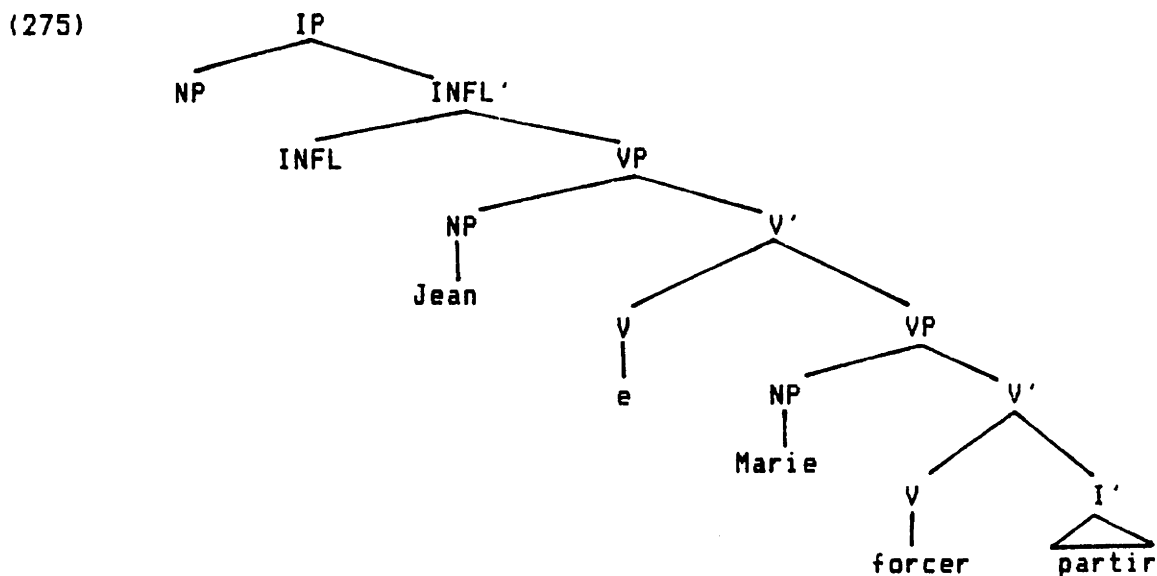
In this chapter, I have argued that the complements to the effective verbs are to be analyzed as cases of VP complements. I have assumed that in the case of "subject control", the embedded infinitival is predicated of the matrix subject. This predication, I assume, is mediated through the percolation of the external  $\theta$ -role of the embedded verb, as shown in 2.1 above. Hence, with the subject control verbs, the control phenomenon can simply be reduced to a normal case of predication between a subject and a verb.

It would be interesting to reduce all cases of control to such a predication relation. But this would imply that all cases of infinitival complements are "predicates", that is, are VP (I') complements. So far in this thesis, I have assumed that the infinitival complements of the effective and the emotive verbs both appear as I' complements, the two types, effective and emotive, being distinguished on the basis of whether it is V or INFL that is the selected head of the complement. We will see in chapter 4 below that there are clear cases of CP infinitival complements involving a lexical subject. But the infinitival complements to the propositional verbs also appear in control structures in Romance. It may be that in such cases, the propositional verbs are functioning somewhat as effective or emotive verbs and that the "control" infinitivals to propositional verbs would also be I' complements. I will not attempt to resolve this issue here (but see the discussion in chapter 4 below). It remains, however, that many cases of control infinitivals are instances of VP (I') complements. Here, I will examine these different cases and show

that it is possible, in each case, to reduce control to predication.

Let us first examine the case of verbs like *forcer*, that is, the case of "direct object control". In 2.5.3 above, I proposed that the D-structure of a sentence like (274) is as in (275). (In the structures to be given below, I will omit the prepositions introducing some of the infinitival complements. See section 2.5.3 above for an analysis of these prepositional infinitival complements.)

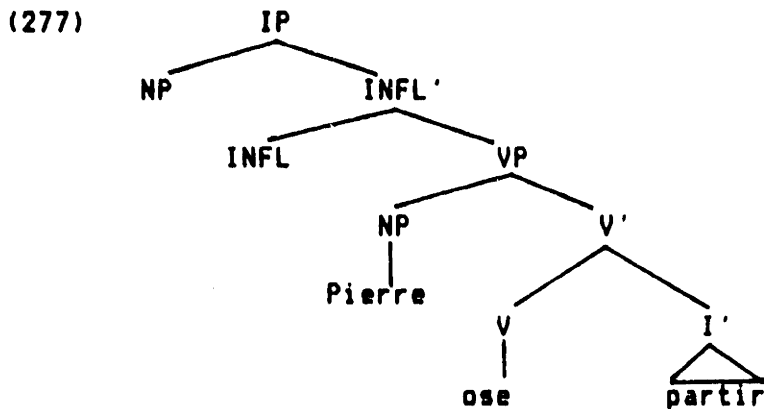
(274) Jean force Marie à partir.  
'Jean forces Marie to leave'



This structure is similar to the structure that I assume for the subject control cases, as the comparison with (277) indicates.

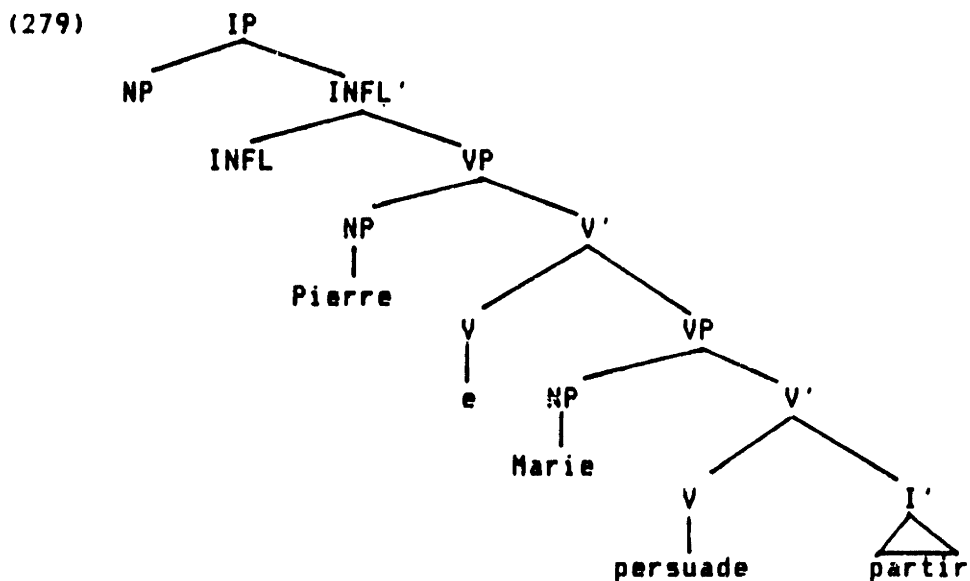


(276) Pierre ose partir.  
 'Pierre dares leave'



Another case of "direct object control" is found with a verb like *persuader* 'to persuade'. Again, a similar analysis can be provided for this verb.

(278) Pierre persuade Marie de partir.

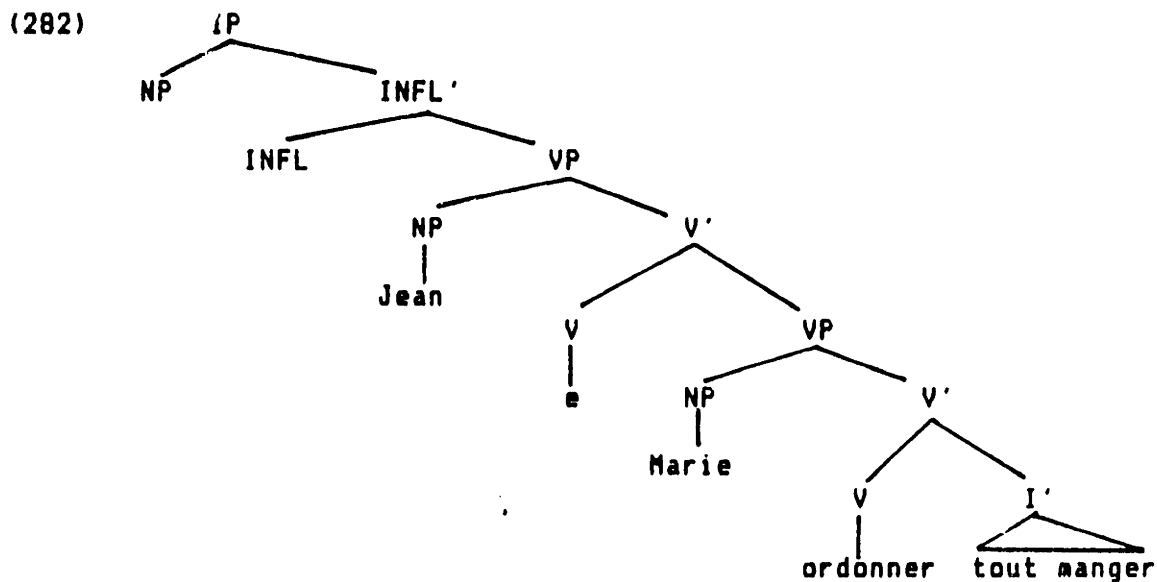


I assume that the verb *persuader* is analyzed as an effective verb when it appears in a control structure such as (278). This verb can also be used as a propositional verb, however, when it appears with a tensed indicative complement, as in (280).

- (280) Jean a persuadé Marie que tout irait bien.  
 'Jean persuaded Marie that everything would go well'

The cases involving "indirect object control", that is, control by an argument marked for dative Case by the matrix verb, would also seem to follow from the structure that I proposed for these complements. Recall that, in 2.5.3, I proposed to analyze a sentence like the following as having a D-structure like that shown in (282).

- (281) Jean ordonne à Marie de tout manger.



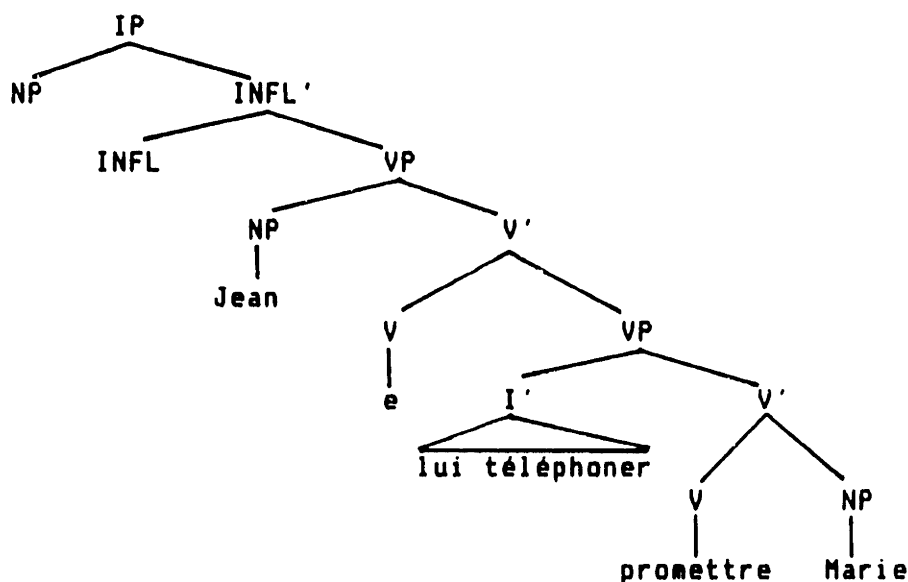
The final case that I would like to consider here is that of verbs like *promettre* 'to promise' and *jurer* 'to swear'. Like the verbs of command, these verbs can appear with indirect objects, as shown in (283). The controller of the infinitival complement, however, is not the indirect object but is rather the subject of the main verb.

- (283) Jean a promis à Marie de lui téléphoner.  
 'Jean promised Marie to call her'

A possibility that arises in the framework adopted here is to treat these structures as being derived from a structure in which the infinitival

complement is the "subject" of the predicate phrase *promettre à Marie*. The closest subject for the infinitival complement would thus be the matrix subject. A verb like *promettre*, when it appears with a tensed complement, is a propositional verb. However, when *promettre* appears with an infinitival complement, it also becomes effective since it expresses the subject's relationship to the performance of an action. Let us thus assume that the complement here can be analyzed as an I' complement. The D-structure of sentence (283) would then be as shown here. 50

(284)



According to this hypothesis, the surface order of the sentence would be derived by reanalyzing the verb and the indirect object as V.

Obviously, a number of issues still need to be resolved with respect to the analysis developed here. One important issue is that of the exact status of the infinitival complements to verbs that are not only "effective". Another issue is related to the reanalysis hypothesis assumed to be responsible for several of the surface orders that we have studied. These questions, however, will have to await some further study.

## Appendix to Chapter 2

### Effective verbs that take only an "action" complement:

|                   |                    |              |                  |
|-------------------|--------------------|--------------|------------------|
| achever de        | 'to finish'        | faillir      | 'nearly'         |
| aller             | 'to go'            | finir de     | 'to finish'      |
| apprendre à       | 'to learn'         | méditer de   | 'to think about' |
| arrêter de        | 'to stop'          | menacer de   | 'to threaten'    |
| avoir à           | 'to have to'       | monter       | 'to go up'       |
| avoir beau        | 'to try in vain'   | négliger de  | 'to neglect'     |
| cesser de         | 'to cease'         | oser         | 'to dare'        |
| chercher à        | 'to seek, to try'  | pouvoir      | 'to be able to'  |
| commencer à       | 'to begin'         | promettre de | 'to promise'     |
| continuer à/de    | 'to continue'      | remettre de  | 'to put off'     |
| courir            | 'to run'           | retourner    | 'to go back'     |
| daigner           | 'to condescend'    | risquer de   | 'to risk'        |
| désapprendre à/de | 'to forget (how)'  | tâcher de    | 'to endeavor'    |
| descendre         | 'to go down'       | tenter de    | 'to attempt'     |
| devoir            | 'to have to, must' | venir        | 'to come'        |
| différer de       | 'to put off'       | vouloir      | 'to want'        |
| essayer de        | 'to try'           |              |                  |
| éviter de         | 'to avoid'         |              |                  |

### Effective verbs that take a direct object and an "action" complement:

|                  |             |
|------------------|-------------|
| contraindre NP à | 'to compel' |
| forcer NP à      | 'to force'  |
| obliger NP à     | 'to oblige' |

### Emotive verbs that appear to also be effective:

|                    |             |                     |                |
|--------------------|-------------|---------------------|----------------|
| conseiller à NP de | 'to advise' | permettre à NP de   | 'to permit'    |
| défendre à NP de   | 'to forbid' | proposer à NP de    | 'to propose'   |
| demander à NP de   | 'to ask'    | recommander à NP de | 'to recommend' |
| interdire à NP de  | 'to forbid' | reprocher à NP de   | 'to blame'     |
| ordonner à NP de   | 'to order'  | suggérer à NP de    | 'to suggest'   |

## Notes to Chapter 2

1. Traditionally, modal verbs in Romance have not been analyzed as constituting a separate category like the English modals (although Picallo (1985) proposes to analyze the epistemic modals as generated under INFL, like the English modals; I will return to her analysis in 3.2.3 below). Nevertheless, the modals clearly constitute a (small) semantic class which in French includes *pouvoir*, *devoir* and perhaps *vouloir*.

The aspectuals constitute the class of verbs also called the "begin-class" by Newmeyer (1975). My use of the term "aspectual" in this chapter is to be understood as coextensive to Newmeyer's "begin-class" and not to his "aspectual class" which is broader than the class under investigation here, since it includes predicates like *happen*, *turn out*, etc.

As for the movement verbs, these are often described as semi-auxiliaries which can also be used in their "main" predicative function as movement verbs. These are verbs such as French *aller* 'to go' or Italian *tornare* 'to come back'. Rizzi (1978) refers to these as the 'motion verbs'.

The fact that these three classes of verbs appear to behave similarly in many cases and, as will be claimed below, that they appear to share the same s-selection, does not entail that they constitute a unique semantic class. If Long's classification (cf. 1.1.1 above) is correct, then these three classes of verbs share the property of belonging to the larger class of effective verbs. The property that sets them apart from the other verbs of the effective class is that they may function as what is sometimes called "semi-auxiliaries" or to adopt Picallo's terminology "verbal modifiers". Whatever the correct term is what it is intended to express is the fact that these verbs may form a complex predicate with their complement. This will be accounted for below.

2. I have chosen the term "action" as a cover label for the semantic type of complements found with effective verbs. Recall that in 1.1.1 above, it was pointed out that Long defines the effective predicates as predicates which describe a subject's relationship, whether causal, potential, or other, to the performance of an action. This may seem to be too strong a requirement since there appear to be cases involving infinitival complements whose verbs cannot easily be analyzed as action verbs. I will consider the type "action" as a sort of supercategory and assume that individual verbs of the effective class may further specify whether they allow action verbs, change of state verbs, stative verbs, etc. This issue will be further addressed in 2.6 below.

3. It must be mentioned here that the correlation "restructuring" / "lack of tensed complements" hinted at in the text is not perfect. That is, there exist verbs that cannot appear with tensed complements and yet fail to undergo restructuring. It would thus seem that the "lack of tensed complements" constitutes a necessary but not a sufficient condition for restructuring. Even this claim, however, appears to be too strong since there are a few verbs that can undergo restructuring and that also can appear with tensed complements. The fact that restructuring does not occur with all the verbs of the effective class will be handled here by proposing

that only some of these verbs can have the property of lacking an Event-position in their  $\theta$ -grid. As for the fact that there are a few verbs that do not belong to the effective class but that may undergo restructuring, it will be proposed in 2.8 below that we must distinguish between the core cases and the periphery cases of restructuring and an analysis will be developed to account for the periphery cases.

4. I will continue to use the term "restructuring" even though it is claimed here that there is no actual restructuring going on in these constructions.

5. Zagana (1982) and Picallo (1985) actually argue for a  $V'$  analysis of these complements. I believe that a VP analysis is more accurate and I would reserve the  $V'$  analysis for auxiliary + past participle structures. But I will not pursue the matter here.

6. As far as I can tell, Picallo never explicitly states that the restructuring verbs select only  $V'$  complements. But she also never mentions that they may appear with  $S'$  complements. In fact, I do not remember her ever discussing the analysis of the "non-restructured" constructions also possible with these verbs. Thus, my assumption that Picallo does not propose double subcategorization frames for these verbs is not based on any actual statement to that effect and is just an extrapolation on my part.

7. The proper analysis of auxiliary structures in the framework adopted here, or in any framework for that matter, is far from obvious. Are auxiliaries generated under a normal V node and then moved to INFL? Or are they generated directly under INFL? Also, is the past participle under a V node that projects to a maximal projection, or simply to  $V'$ , as suggested in footnote 5 above? Even the selectional properties of auxiliaries, if any, do not seem to be quite easily analyzable. I do not intend to answer any of these questions here, but I simply want to propose that auxiliaries differ from main verbs at least in lacking an E-position.

8. I will not review the different syntactic tests proposed by Rizzi (1978) to support his claim that in the restructuring construction the main verb and the infinitival verb form a complex predicate. In the presence of restructuring, the following syntactic processes are no longer possible: 1) wh-movement with pied-piping of the embedded infinitive; 2) clefting of the embedded infinitive; 3) Right Node Raising with respect to the embedded infinitive; 4) Complex NP Shift with respect to the embedded infinitive. Strozer (1981) shows how each of these tests can also be accounted for under a VP analysis.

9. Another analysis that assumes bi-sentential structures as well as double subcategorization frames for the "restructuring" verbs is proposed in Zubizarreta (1982). Zubizarreta argues for the existence of parallel structures to account for these constructions. In short, restructuring structures have two parallel structures; one which exhibits a bi-sentential structure and another where the matrix verb and the embedded infinitival form a complex predicate. Her proposal has the advantage of satisfying the Projection Principle proposed by Chomsky (1981), which was clearly violated by the earlier restructuring rule of Rizzi (1978). See Picallo (1985) for some arguments against the analysis proposed by Zubizarreta (1982).

10. I added the qualification "in the core cases" here because the verbs studied in this section constitute the core cases of restructuring, that is the cases for which there seems to be a consensus across speakers and across languages. The "periphery" cases will be discussed in 2.8 below.

11. The verb meaning 'to want' (Italian *volere*, Spanish *querer*) is the only apparent exception to this generalization. It seems however that this apparent exception can be traced back to the fact that *volere* is a "mixed" verb in the sense that its meaning as a modal expressing "desire" makes it possible for that verb to belong both to the effective class, as a modal, and to the emotive class, as a verb of "desire".

12. Rizzi (1978) and Burzio (1981, 1986) both point out that the interaction between clitic climbing and the change of auxiliary is not perfect. It seems that the change of auxiliary can somewhat marginally happen even if clitic climbing has failed to apply. Under the analysis of clitic climbing that will be proposed below, the possibility for the change of auxiliary in the absence of clitic climbing would mean that the change of auxiliary can marginally occur in the absence of restructuring, that is, in the presence of an embedded INFL. I will have nothing further to say on this subject here. See also the discussion in Burzio (1986) who takes the opposite stand, namely that in such structures, restructuring has applied and that clitic climbing has failed to apply although it is normally an obligatory process under restructuring.

13. Napoli (1981), whose article will be reviewed in 2.2.3 below, points out that contrary to the commonly assumed fact that negation is impossible with restructuring, it is possible to find *non* in intervening position, although its occurrence seems to be somewhat constrained. In particular, Napoli mentions that it is more natural when *non* receives an intonation peak. She also points out that the same facts seem to hold true in the case of *non* occurring between an auxiliary and a past participle. (Her article is concerned with showing the parallelism between restructuring and auxiliary constructions.) Perhaps the *non* that can appear in these cases should be analyzed as being part of the VP, as in some instances of double negation on a verb.

N. Chomsky (p.c.) points out also that sentences such as "I heard John not keep his word" seem to indicate that NEG is not under INFL since it is usually assumed that INFL is not present in such sentences. Again, it may be that NEG can also appear in adverbial position.

14. With the modal verbs it is less clear that the infinitival complement lacks TENSE entirely. It seems to me however that the presence of different time adverbials with the modals is highly restricted and that it normally forces the epistemic reading of the verb.

(i) Jean devait arriver demain.

'Jean was supposed to arrive tomorrow'

The favored interpretation of the modal *devoir* here is that of probability. In 3.2.3 below, it will be argued that the epistemic reading of the modals involves the presence of an operator in COMP. The scope of epistemic modals is over the entire event described by the sentence. It would therefore be

possible to have the time reference of the epistemic modal be in the past over a future event as in "It was probable that John would arrive today". It will also be argued that epistemic modals must be under INFL at least at LF in order to be properly linked to the operator in COMP. This requirement will account for the fact that the presence of a perfective auxiliary appears to allow only the root interpretation of the modal, which disallows the possibility of different time adverbials, as seen in (ii).

(ii) \*Jean a dû arriver demain.

'Jean has had to arrive tomorrow'

15. It is perhaps also possible to account for the illicit cases of Long OP under a binding theoretic approach. This would require revising the notion of local domain (see chapter 1 above) in terms of "event-domains" so that when there is an INFL present in a complement to an effective verb, the domain is closed for binding purposes. I will not explore this possibility any further here.

16. The Portuguese clitic placement facts do not follow the same pattern as Italian and Spanish. An analysis of these facts and of their possible relation to restructuring will not be pursued here. See Rouveret (1987) for a detailed analysis of the clitic positioning in Portuguese.

17. The most likely alternative analysis of the empty category associated with a clitic is that it is an NP-trace. If this is the case, then the analysis presented in this section could be reworked along the following lines. As it is argued above, I would assume that the clitics must be under INFL but this time only as a result of a movement rule. Thus, the clitic placement rule would move the clitic directly to the INFL position. The trace left behind will have to obey the ECP (or Binding Principle A, see footnote 15) in the same manner as the trace of Long OP. Hence, the account given above in 2.2.2.2 for the Long OP facts could just be extended to the clitic climbing facts. This analysis may actually turn out to be more satisfactory since it does not require that we revise the licensing conditions for *pro* as it will be proposed below here in the text.

18. The claim made here that the empty category in object position in (67) can be *pro* appears to go against Rizzi (1986) who argues that *pro* appears only in Case-marked positions.

19. There are other facts that can also be adduced to support the claim that the restructuring verbs are interpreted as auxiliaries. For instance, Strozer (1981) and Zagana (1982) notice the change of meaning of the motion verbs when they appear in restructuring structures. Fresina (1982) also discusses the particular meaning of the Italian verb *avere da* under restructuring.

20. Napoli does not use the term "S-structure". This is a terminological adaptation on my part.

21. There is one possible drawback for the claim that I am making in this section that Napoli's study provides some further evidence in favor of my analysis of restructuring. The problem is that Napoli has only studied the semantics of sentences involving Cl-CI and not that of sentences involving



the other two manifestations of restructuring, namely Object Preposing and the Change of auxiliary. I take the liberty to assume that the interpretation should be the same with all manifestations of restructuring.

22. In discussing how the restructuring verbal complexes conform to the three rules that she proposes, Napoli tests different types of matrix verbs. Her discussion covers matrix verb such as *desiderare*, for instance, which I consider to be a periphery case of restructuring. These cases of restructuring will be discussed below in 2.8. In this section I am limiting my attention to the core cases of restructuring, namely those occurring with a subset of the effective verbs.

23. Also, we find some unusual cases of passive structures involving the matrix verbs *commencer*, *finir* or *achever* where the direct object of the embedded infinitival appears in the subject position of the main verb which shows passive morphology. Grevisse (1975) gives several examples of these structures, like the following.

(i) Le château n'était pas achevé de meubler.

'The castle was not finished to furnish'

(Chateaubr., Mém., II, 2, 1)

It is not clear however that these are cases of "syntactic" passives, since the presence of a *by*-phrase appears to be rather difficult to obtain. In any case, even if these are instances of adjectival passives, the fact that they can occur over an embedded infinitival must still be accounted for. I will not study these structures here.

24. Object pronouns in Old French exhibit a strong form and a weak form. In infinitival constructions, when the embedded infinitival is the complement of a "restructuring" verb, the most frequent structure is with the weak form cliticized onto the matrix verb. There are also structures with the weak form, that is the clitic form, appearing to the right of the infinitive. The strong form of the pronoun can appear either following or preceding the infinitival verb. Structures with the strong form of the pronoun preceding the infinitival verb are parallel to those where a full lexical NP object precedes the infinitival verb. In any case, the important fact to note here is that the weak form, the clitic form, does not normally appear to the left of an infinitival verb.

25. The V-Movement hypothesis for French has also been argued for in other studies. For instance, Emonds (1978) argues for a rule of Finite Verb Raising for French to which we will return below. Also, Mc A'Nulty (1984) argues against the Affix-Hopping rule for Romance and adopts Emonds' rule of Finite Verb Raising. She then explores the consequences of adopting this rule with respect to the null subject parameter. See also Pollock (1987) on this issue.

26. An obvious counter-example to the claim that clitics normally attach to the left of finite verbs is the affirmative imperative forms, where the clitics obligatorily attach to the right.

(i) Donne-le moi.

'Give it to him'

I would suggest that the affirmative imperative is formed by generating an

imperative marker (operator) in COMP which then forces the verb to move to COMP. But only the verb would move to COMP not the entire INFL.

Obviously, several details would still need to be worked out, such as for instance the different clitic sequencing with the affirmative imperative in many dialects of Modern French, including Standard French.

27. Emonds' phrase-structure rule for the VP assumes that both the negation and the adverbs are generated under VP. I rather assume that the negation is under INFL and that some adverbs may also be under INFL although most adverbs would be under VP.

28. In the framework of Chomsky (1981a) however, the account of the null subject parameter developed there can be correlated with the possibility of restructuring as Rizzi (1982, chapter IV, appendix II) points out. The correlation is possible in that framework since the "missing subject" is assumed to be PRO. However, this account of the null subject phenomenon has been proved to be inadequate (Chomsky (1982)).

29. It could possibly be argued that the possibility of having VP complements depends on the possibility for the language to have a null subject. However, this would then mean that languages like Modern French do not have VP complements, which goes against the analysis put forward in this chapter.

30. The infinitival complements with these verbs also appear to behave quite differently in terms of some constituency tests, depending on whether they take another internal argument or not. For instance, when *menacer* takes a direct object, the infinitival complement behaves as a PP headed by *de*. However, when *menacer* is used as a raising predicate, the infinitival complement does not behave as a PP.

- (i) a. De quoi avais-tu menacé Marie?
- b. Je l'en ai menacée.

- (ii) a. \*De quoi avais-tu menacé?
- b. \*Pierre en avait menacé.

See Rochette (1982) on this issue and section 2.5.3 on the analysis of these infinitival prepositions.

31. I assume, following recent proposals by Fukui and Speas (1986), Sportiche (1986) and others, that the subject is generated within a projection of the verb, in particular in the Spec position of VP. In the case of the control verbs belonging to the effective class, I will continue to assume, however, that there is no embedded subject generated in these structures. This follows from the fact that PRO cannot appear in this position. The embedded infinitival verb will be predicated of the matrix subject (see 2.8.3 below on the issue of control). In the case of the raising predicates belonging to the effective class, I assume that the surface subject originates in the specifier position of the embedded VP and is then raised to the matrix surface subject position, thus accounting for the raising properties of these verbs.

32. Ruwet (1972) mentions an interesting fact (noticed by Gross (1969)) with respect to the "control" verb *menacer*. It seems that when *menacer* undergoes passive, the embedded infinitival complement must also appear in the passive form.

- (i) Le marquis a menacé Justine de la fouetter.
- (ii) Justine a été menacée par le marquis d'être fouettée.
- (iii) \*Justine a été menacée par le marquis de la fouetter.

However, as Ruwet points out, the generalization does not seem to be that the embedded verb must show a passive form, since we find sentences like the following:

- (iv) Justine a été menacée (par le marquis) 

|   |                                                                                       |
|---|---------------------------------------------------------------------------------------|
| { | de subir les pires tortures<br>de recevoir des coups de bâton<br>de se faire fouetter |
|---|---------------------------------------------------------------------------------------|

I will not study any further here the selectional restrictions found with *menacer*. My point was simply to indicate that since we find some restrictions with the control *menacer*, it might also be the case that there will be restrictions as well as to what may appear in the complement of the raising *menacer*. See also Higginbotham (1986) on this issue.

33. A further question that will not be directly addressed here is whether there is some systematicity in the choice of one preposition over the other. In other words, given a predicate  $x$ , that is marked as taking an infinitival complement introduced by a preposition, is it possible to predict which preposition will show up?

There is one class of matrix verbs for which the choice of the preposition seems to clearly follow from the meaning of the verb: the aspectual verbs. Within this class, the verbs which convey the meaning of the beginning of an action require the presence of *à*, those which convey the meaning of the ending of an action require *de*, while, interestingly, those which mean the continuation of an action can appear either with *à* or *de*, although the choice of one over the other might be preferred by individual speakers.

- (i) a. Daniel a commencé à écrire son travail.  
'Daniel has started to write his paper'
- b. Daniel a fini d'écrire son travail.  
'Daniel has finished writing his paper'
- c. Daniel continue à/d' écrire son travail.  
'Daniel continues to write his paper'

Although I will not specifically directly address this issue here, I believe that the analysis of the object control verbs that will be proposed in 2.5.3 and 2.8.3 below, will give a partial answer to this problem.

34. The ungrammaticality of the sentences in (174) would be due to the ECP and would be analogue to that found in the following examples:

- (i) a. \*Qui croyais-tu que l'avait épousée?  
\*Who did you think that had married her?  
b. \*Ils semblent que parlent anglais.  
\*They seem that speak English.

35. These structures will be further studied in 4.2 below.

36. Kayne's conclusion that these verbs must be instances of control rather than raising converges with that of Rouveret and Vergnaud (1980). They claim that a verb like *menacer* must be a control verb since it does not share all the usual properties of a truly raising predicate like *sembler*. Recall, however, the discussion of these verbs in 2.4.3 above, where it is argued that the examples provided by Rouveret and Vergnaud could probably be explained in terms of selectional restrictions imposed by verbs like *menacer*.

37. A possible alternative that would be compatible with a complementizer status would be to argue that Spec of VP may be filled by an infinitival complementizer. I will not pursue this analysis here.

38. Long includes the verbs of requesting or commanding among the lists of effective predicates that he gives (pp 57-59). To the extent that these verbs also select for subjunctive complements, I would probably analyze them as emotive verbs. They may in fact belong to both classes. In some sense, when one person orders another person to perform a certain action, the person giving the order is involved with respect to the following action both as a "cause" and also as expressing a "desire". I will return to this issue in 2.8.3 below.

39. The pronominalization of the infinitival complement appears to be somewhat possible with the modals when they are used in non-dislocated contexts.

- (i) Il le peut.  
(ii) Il le doit.

40. *Vouloir* 'to want' would appear to be exceptional since it clearly can assign Case. However, I assume that when *vouloir* behaves as a modal verb, it is not a Case-assigning verb. In a sentence like (i),

- (i) Jean veut un ours en peluche pour Noël.

'Jean wants a teddy bear for Christmas'  
we are dealing with the 'volition' predicate which takes direct object NPs as well as IP infinitival and subjunctive complements. See footnote 11 of this chapter and also chapter 3.

Among the effective verbs that take *de*, *tâcher* appears to be an exception to the generalization made here, as it does not seem to allow a direct object NP.

41. There may be other types of "object control" verbs that should also be analyzed as effective verbs. In general, it seems that when a main verb appears with a direct or indirect object followed by an infinitival complement, the meaning of the main verb is "effective" in the sense that it expresses the relationship of its subject to the performance of the action (by the direct or indirect object) denoted by the infinitival complement. Some verbs which appear to be "emotive" or "propositional" when their complement is a tensed complement shift meaning and appear to be more "effective" when the complement is an infinitive.

42. The optionality of the preposition with some emotive verbs is also found in Italian with verbs like *desiderare* for instance.

43. As we saw in 2.5.2 above, the infinitival complements to propositional verbs in Italian are introduced by *di* when the complement is a control structure but not when the complement is an infinitival with a lexical subject. See chapter 4 below on some possible analysis of this difference.

44. The reader may recall that similar examples involving *dire* are given by Kayne (1981) as part of his argumentation in favor of analyzing *de* as a complementizer. We have the following examples, involving the verb *dire* understood as a verb of command.

- (i) Jean lui a dit d'aller là-bas.
- (ii) Jean lui a dit où aller.
- (iii) \*Jean lui a dit d'où aller.

I will analyze such cases as involving adjunction of *où* to the VP (see Chomsky (1986b) on adjunction to VP). It seems that in such cases, the presence of *où* voids the problem of Case-absorption for the infinitival complement. See also section 2.8.1 below where I propose a similar movement analysis for the Wh-words within the complement of a verb like *savoir* 'to know how'.

45. There seems to be a few cases of infinitival verbs in Rumanian but, in general, the complements of the effective verbs appear as subjunctive complements.

46. Let me quote Napoli's discussion of the verb *amare*, which I find particularly interesting:

A young woman from Milano judged CC with *amare* 'love' as good. Then she returned to this example and explained that she might easily use CC with *amare* with her friends, a group for which the verb had become highly frequent; but that she would not use CC with *amare* with her mother, unless she was willing to risk being corrected. In her group of friends, *amare* no longer expressed a serious emotional attachment, but rather a generalized good feeling. But for her mother, *amare* had strong connotations, too strong to allow CC. To her peers, *amare* was a basic, simple verb; but for her mother, a verb to be used sparingly and with good judgment.

47. The proposal that *faire* involves the presence of an abstract verb CAUSE is not so unlike the proposal of Rouveret and Vergnaud (1980) that *faire*, like auxiliaries, is subcategorized for a category with an affixal head.

48. According to the proposal just outlined, a sentence like the following is ruled out because the embedded verb has failed to move to the empty V position and the embedded subject cannot be assigned Case.

(i) \*Cela fera Jean acheter ces livres.

For the speakers who accept a sentence like (ii), we could assume that the clitic does not receive Case in the subject position but rather by virtue of being cliticized onto the main verb. The embedded subject position would be filled by an empty category, NP-trace or *pro* depending on the analysis adopted for clitics (see 2.2.2.3 and 2.3.1 above).

(ii) Cela le fera acheter ces livres.

49. The expression *changer d'avis* appears to be semi-idiomatic in the sense that it can either be analyzed as idiomatic or not, as shown by the examples in (264f-g). Kayne (1975) gives another interesting set of examples involving an idiomatic expression which can be "separated" only when the direct object of the idiom is heavy.

(i) Cela fera prendre position aux spectateurs contre les agents.

(ii) Cela fera prendre aux spectateurs position contre les agents.

(iii) \*Cela fera prendre aux spectateurs position.

'That will make the spectators take a stand against the police'

When the object of an idiom cannot be made heavier by adding a complement, the subject must appear after the direct object.

(i) Elle fera entendre raison à Jean.

(ii) \*Elle fera entendre (à) Jean raison.

(iii) Il a fait lâcher prise à son chien.

(iv) \*Il a fait lâcher (à) son chien prise.

50. Obviously, if the proper analysis of the infinitival complements of verbs like *ordonner* and *promettre* turns out to be that they are VPs, as it is suggested in this section, we will have to revise the analysis of the status of the prepositions given in 2.5.3 above. The true generalization might be that when an "action" complement is the only internal argument of a verb, it does not behave as a direct object. Or to put this differently, it may be that the direct object behavior of the infinitival complements of verbs like *ordonner* and *promettre* is brought up by the presence of another argument. I will not pursue this matter here.

## Chapter 3

### EMOTIVE VERBS

#### 3.1. Introduction

This chapter focuses on the sentential complements to emotive verbs in the Romance languages. The emotive verbs are predicates which express a judgment of personal relevance on the part of the subject with respect to the event denoted by the complement. The emotive predicates are characterized by Kiparsky and Kiparsky (1970, p.149) as:

"Emotive complements are those to which the speaker expresses a subjective, emotional, or evaluative reaction. The class of predicates taking emotive complements includes the verbs of emotion of classical grammar, and Klima's affective predicates (Klima, 1964), but is larger than either and includes in general all predicates which express the subjective value of a proposition rather than knowledge about it or its truth value."

I will adopt this broad definition of the emotive class. The emotive class will thus comprise the verbs of emotion as well as the verbs of volition, command, permission and the psychological verbs, which all express the subjective value of a proposition or rather of an "event", reserving the term proposition for an event whose truth-value is being asserted (see

As the Kiparsky's show, some emotive predicates are also factive predicates although not all factive predicates belong to the emotive class. We will see that the further distinction between factive and non-factive emotive predicates will play a crucial role with respect to certain syntactic properties that hold only with one class and not with the other.

An interesting property of emotive predicates in Romance is that they may appear either with a subjunctive complement or with an infinitival one. More interestingly, in most cases, the two types of complements appear to be in complementary distribution, as exemplified in (1). This complementary distribution, which is referred to as the obviative phenomenon of subjunctive clauses, is not found with the complements of propositional verbs, as shown in (2).

- (1) a. Louise voulait prendre le train.  
       'Louise wanted to take the train'  
       b. Louise voulait que ses enfants prennent le train.  
       'Louise wanted her children to take the train'  
       c. \*Louise voulait qu'elle prenne le train.  
           i                                  i  
       d. Louise voulait qu'elle prenne le train.  
           i                                  j
- (2) a. Jeanne croit pouvoir partir.  
       'Jeanne believes that she can leave'  
       b. Jeanne croit que Pierre peut partir.  
       'Jeanne believes that Pierre can leave'  
       c. Jeanne croit qu'elle peut partir.  
           i                                  i

The obviative phenomenon (or obligatory disjoint reference phenomenon) illustrated in (1c-d) is just one of a series of phenomena that set subjunctive complements apart with respect to the indicative complements found with propositional verbs. Subjunctive complements are said to show a more transparent character which resembles that of many infinitival



complements. For instance, subjunctive complements appear to be "tense dependent" in the sense that their tense interpretation is dependent on that of the matrix clause. Another phenomenon indicating the transparent character of subjunctive complements is found in a language like French where the quantifier *tous* 'all' can be extracted from certain infinitival complements as well as from subjunctive clauses, in contrast with indicative complements which disallow such movement (see 1.1 above; I will return to this phenomenon in 3.4).

Several recent studies of subjunctive complements have explored the hypothesis that this transparent character, at least in the case of the obviative phenomenon, follows from the fact that the INFL node of subjunctive clauses is coindexed with (or associated to, or dependent on) that of the matrix clause. There is however a major problem that any analysis based simply on the coindexing of INFL nodes faces, namely that of the transparent character of subjunctive clauses that appear as complements to derived nominals since derived nominals presumably do not have an INFL node.

The analysis that will be put forward here is that the head of a subjunctive or infinitival complement to an emotive verb is INFL (rather than COMP which is the head of an indicative complement, see chapter 4 below).<sup>1</sup> In terms of the theory of s-selection introduced in chapter 1, I propose that emotive predicates s-select an "event",  $\bar{E}$ . The Canonical Lexical Realization (CLR) of  $\bar{E}$  is either the category INFL or the category N, in the case of "concealed events". I propose that the selection of INFL follows from the fact that INFL is the category that realizes the Event-role of a verb since it is the category that  $\theta$ -binds the E-position of the

verb. Thus, selecting for an "event" amounts to selecting for a projection of the head INFL which is the position where "events" are realized.

The partial lexical entry of an emotive verb like *souhaiter* 'to wish' will have the following representation.

(3) SOUHAITER: < 1 , 2 , E >  
                  |  
                  Event

Since the CLR of "event" is INFL, INFL is therefore the head of the complement to the emotive verb *souhaiter*. If the embedded INFL has tense and AGR features, the complement will be a subjunctive clause, at least in Romance.

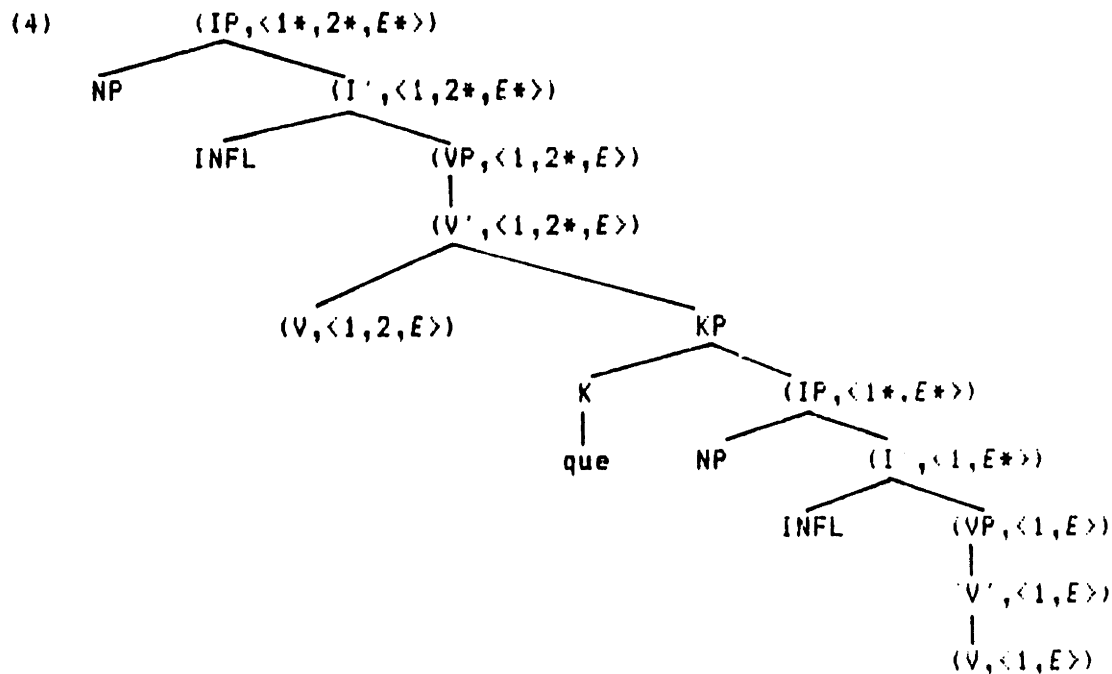
Under such a proposal, the question arises as to what the status of the complementizer *que* might be with these complements. I will assume here that the presence of *que* does not imply the presence of a COMP position with these subjunctive complements. We will see below that this proposal is not as farfetched as it may appear to be, since it will enable us to account for most of the puzzling facts found with subjunctives. Supposing that this assumption is valid, we must then ask the question of why there should be an element *que* introducing subjunctive complements and of where this element is generated, that is, under what type of node. There are at least two possible answers to these questions.

First, we could assume that *que* is essentially required for adjacency purposes, that is, for breaking the adjacency that would otherwise obtain between the matrix verb and the embedded subject. Under such a view of the role played by *que*, we could assume that it is simply adjoined to IP. This proposal, however, would go against the current view that adjunctions

involve only maximal projections (see Chomsky (1986b)).

The other possibility is that *que* plays a role similar to that of the prepositions with the infinitival complements, namely the role of being a Case-spelling element for an argument that cannot absorb Case directly (see the discussion in 2.5.3 above). Under this approach, *que* would head a KP and would have as its complement the subjunctive IP. Here, I will adopt this second solution which has the obvious advantage of keeping in line with the current view on adjunction structures.<sup>2</sup>

The subjunctive complement of a verb like *souhaiter* will therefore have the structure represented in (4).



Under this proposal *que* can in fact be seen both as an element realizing the Case assigned by the matrix verb and also as preventing an unwanted adjacency between the matrix verb and the embedded subject.<sup>3</sup>

As we will see below, it appears that *que* does not behave as a "closer"

governor for the embedded clause with respect to the selection of the head of the complement as well as with respect to the determination of the binding domain of the embedded subject (see 3.2 below). In both cases, the matrix verb appears to govern the head and the specifier positions of IP.

We will see, in 3.3.1, that in the case of some subject-object asymmetries that are found with subjunctive complements, it could be tempting to analyze *que* as a "closer" governor. But the conclusion that will be reached there is that it is not the presence *que* that prevents antecedent government.

It is interesting to note that the presence of *que* in languages like Italian and Spanish is not always required with subjunctive complements (cf. Rizzi (1982), Torrego (1983), Kempchinsky (1986)). In Spanish when *que* is omitted the embedded subject must either be null or appear post-verbally. This could be taken to imply that the subject cannot raise from its D-structure position within VP to Spec-I', when *que* is absent. Italian, however, has no such requirement and the embedded subject may appear pre-verbally whether or not *che* is present. I will not attempt to explain these facts any further here (but see the footnotes 3 and 4).

The proposal that the complements to emotive verbs are simply IPs will account straightforwardly for the fact that these complements are never headed by *Wh*-words and for the fact that these complements are "tense dependent" or show an "unrealized tense".

I assume that the "tense dependency" shown by subjunctive complements implies that these complements do not have a tense operator of their own. I will follow several recent studies in assuming that the presence of TENSE

implies the presence of COMP, where the tense operator must be, at least at LF, in order to have scope over the entire sentence. Hence with the complements of emotive predicates, there is no Tense operator in COMP. I propose that the distinction between indicative and subjunctive complements with respect to the presence of a Tense operator follows from the fact that a Tense operator may only be present when COMP is selected as the head of a complement. Thus, main predicates that select indicative clauses actually head-select COMP and by the same token TENSE. Main predicates that select subjunctive clauses head-select INFL and no TENSE.

When I claim that subjunctive complements lack a "tense operator", it does not mean that they show no "tense features". I will refer to the "tense operator" as TENSE. Subjunctive complements therefore lack TENSE but they have "tense features". Since they lack TENSE, their "tense features" will be interpreted with respect to the TENSE of the matrix clause.

The complements to emotive predicates are thus projections of INFL and as such they are lacking TENSE which can only be present when COMP is the head of the clause. But INFL can be either [+AGR] or [-AGR]. The realization of [+AGR] in Romance is normally a subjunctive clause. In Portuguese, it can also be an inflected infinitive clause. I will return below in section 3.5 to the Portuguese inflected infinitives. When INFL is [+AGR], there will be a subject realized in the sentence, since a [+AGR] INFL always requires a subject. In such cases, the selected head INFL will clearly project up to the IP level, as shown in (4) above.

The realization of [-AGR] is an infinitival clause, like those exemplified in (5).

- (5) a. Paul aime lire.  
       'Paul likes to read'  
       b. Pierre ordonne à Jean de se taire.  
       'Pierre orders Jean to shut up'

When INFL is [-AGR], that is, is infinitival, it is less clear what the projection of this complement should be like. A priori, there seems to be two possible alternatives. One is to assume that the head INFL will project up to the IP level. Under this proposal, the question arises of whether there is a subject generated in such infinitival complements. The usual assumption regarding the nature of the empty category that appears in subject position of an infinitival clause is that it is PRO. It is also assumed, however, that PRO can only appear in ungoverned positions. But the subject position of an IP complement is a governed position. We therefore do not expect to find PRO in such a complement. There remains the possibility that the complement is an IP clause "without" a subject. The IP would then have to be predicated of some other NP (some argument of the matrix clause).

The alternative is that INFL does not project up to the IP level, for the reason that no empty category can appear in its subject position (and no lexical element as well since AGR is not present<sup>8</sup>). The structure of the infinitival complement to an emotive verb would thus be an I'. This structure will also have to be predicated of some argument of the matrix clause.

Under this second alternative, the structure of the infinitival complement of an emotive verb will be similar to that of the complement of an effective (non-restructuring) verb. In the discussions of these emotive infinitival complements in 2.5.3.2, 2.8.1 and 2.8.3 above, I mentioned that it may be

the case that these infinitival complements can also be analyzed as "action" complements on a par with the complements to the "effective" verbs. In fact, one possibility that has not really been considered so far in this thesis, would be to assume that the possible hierarchy among the semantic types *action*, *event*, *proposition* mentioned in 1.1.4.2 above, is such that when a verb s-selects  $\underline{E}$ , it can also s-select  $\underline{A}$  and similarly, that when a verb s-selects  $\underline{P}$ , it can also s-select  $\underline{E}$  and  $\underline{A}$ . But not the converse. That is that an effective verb that s-selects  $\underline{A}$  cannot s-select any other semantic category since these are higher on the hierarchy.

This approach, which will not really be explored here, could account for the fact that "control" infinitival complements appear with all semantic classes. It could also account for the "mixed" properties shown by many predicates of the propositional and emotive class.

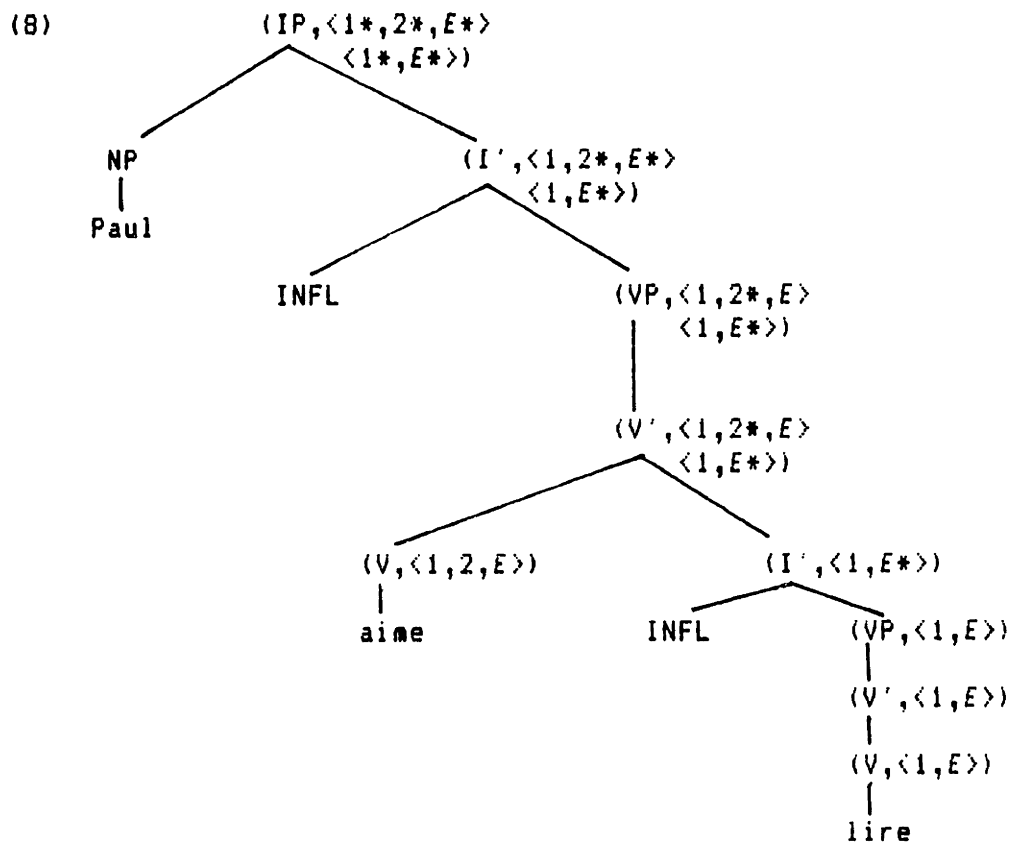
In 2.8.3 above, it was mentioned, in connection with verbs of command like *ordonner* 'to order', that some emotive verbs appear to have "mixed" semantic properties. When *ordonner* is used with a subjunctive complement, it expresses a judgment of personal relevance on the part of the subject with respect to the event denoted by the complement.

- (6) Le général ordonne que tous les soldats soient présents.  
 'The general orders that all soldiers be present'

However, when *ordonner* is used with an infinitival complement, it may be understood both as expressing a judgment of personal relevance and as expressing the relationship of the subject to the performance of the action.

- (7) Le général ordonne à tous les soldats d'être présents.  
 'The general orders all the soldiers to be present'

Given these facts, it seems that the structure of the infinitival complements to the emotive verbs could arguably be the same as that of the complements to the effective verbs. But this is already a possibility that is opened to us under the assumption that no empty category can be present in the subject position of an IP complement. I will thus assume here that the structure of a sentence like (5a) is as shown in (8). (The exact structure should comprise an NP node in matrix Spec-V' position where the subject will originate. The same remark applies for structure (4) given above or, for that matter, for many structures given in this dissertation.)



This structure is thus similar to that found with the "non-restructured" complements to the effective verbs studied in the previous chapter. The main difference between the infinitival complements to the emotive verbs and those to the effective verbs is that with the former INFL is the head rather



than a degenerate category and that consequently the complement is a projection of INFL. The main similarity between these complements is that both types share a certain non-clausal character reflected by the absence of an embedded subject.<sup>9-10</sup>

The remainder of this chapter will be organized as follows. The next two sections will be devoted to a detailed examination of the differentiating properties of subjunctive complements. The so-called obviation property of the subjunctive has received much attention in recent work within GB and I will thus begin my survey of the differentiating properties of subjunctive complements by examining the facts relative to this phenomenon. The account of the obviative phenomenon that will be put forward here is based on the assumption that the embedded (surface) subject position of a subjunctive complement is governed by the matrix verb, therefore accounting for the fact that the minimal governing category for the embedded subject is the main clause.

In section 3.3, I will review several syntactic properties that also differentiate subjunctive complements from indicative complements. It will be argued that these differences follow from the fact that subjunctive complements are IP clauses contrary to indicative complements which are CP clauses. We will see that the assumption that subjunctive complements are IP clauses can probably be made to account for the fact that extraction from the embedded subject position appears to be disallowed in these structures. Given the absence of a Spec-C' position in these complements, the first step in the extraction of the embedded subject will involve adjunction to the matrix VP. It appears that in these cases, proper government (antecedent government) of the trace in subject position by the intermediate trace

adjoined to the matrix verb is impossible.

In the fourth section, I will examine the phenomenon of leftward quantifier-movement found in French, which occurs mainly with the complements to effective and emotive verbs. The fact that this phenomenon is also found with subjunctive complements further supports the claim that the complements to emotive verbs are not CP clauses. It will be argued, following Haik (1985), that the quantifier *tous* 'all' must form a chain with a variable at LF in order to be properly interpreted as a quantifier. The variable that the quantifier binds is a clitic-chain and the newly formed chain will be subject to Principle A of Binding Theory. We will see that this analysis accounts for the fact that quantifier-movement is possible only in the case of VP, I' and IP complements.

The fifth section of this chapter will focus on the differences between the factive emotive complements and the non-factive emotive complements. It will be argued, following Melvold (1986), that factive complements involve the presence of an operator. We will see that the presence of this operator can be analyzed in one of two ways, as involving either a C' structure or simply an adjunction structure. It will be argued that the presence of that operator is responsible for the fact that the complements to factive emotive predicates do not show a uniform behavior across Romance with respect to the obviative phenomenon as well as with respect to the choice of the subjunctive or the indicative mood. We will see that the "clear" impossibility of a syntactic extraction of the embedded subject in a factive complement, compared to the relative acceptability of such syntactic extraction in the case of the complements to non-factive emotive predicates, follows from the presence of that operator as well as from the absence of a

Spec-C' position. We will also see that the presence of the factive operator will account for the fact that the inflected infinitive in Portuguese is possible in the complements to factive-emotive predicates but not in the complements to non-factive emotives.

### 3.2 The Obviative Phenomenon in Subjunctive Complements

As mentioned above, the recent literature on subjunctive has paid much attention to the so-called obviative phenomenon which manifests itself in certain subjunctive complements (cf. among others, Picallo (1985), Johnson (1983), Jakubowicz (1984), Kempchinsky (1986)).

The obviative phenomenon is characterized by the obligatory disjoint reference of the subject of the embedded subjunctive with respect to the subject of the matrix clause as shown in (9).

- (9) a. \*Je voudrais que je finisse cet article.  
       'I would like that I finish(S) this article'  
       b. Je voudrais qu'il finisse son article.  
       'I would like that he finish(S) his article'  
       c. Il voudrait qu'il finisse son article.  
           i                  j/\*i  
       'He would like that he finish(S) his article'

This disjoint reference effect, which I will refer to as the "Subjunctive Disjoint Reference (SDR) effect", following Kempchinsky (1986), is reminiscent of that found in simple clauses where two pronouns must be disjoint in reference.

- (10) Il lui parle.  
       i      j/\*i  
       'He talks to him'

Recall that the disjoint reference of pronouns exemplified in (10) is

accounted for by Condition B of the Binding Theory which states that a pronominal must be free in some local domain (cf. 1.2 above). The similarity of the phenomena illustrated in (9) and (10) has of course led the linguists working on this topic to propose an account of obviation in subjunctives along the lines of a redefinition of the notion of "local domain". In other words, the line of research followed by most linguists has been to account for the ungrammaticality of (9a) for instance by arguing that it constitutes a violation of Condition B.

Obviously, for that analysis to go through, one must first account for the fact that an embedded subjunctive complement does not constitute a "local domain" for the binding conditions to apply. This task however is not as simple as it may seem at first sight, for several reasons.

First, a subjunctive complement being normally analyzed as a CP complement, one must distinguish somehow between a subjunctive CP and an indicative CP since the latter never shows obviation effects.

- (11) a. Je croyais que je finirais cet article plus rapidement.  
           'I believed that I would finish this article faster'  
       b. Il croyait qu'il finirait son article plus rapidement.  
           i                  j/i  
           'He believed that he would finish his article faster'

Second, as noticed by Jakubowicz (1984) and Kempchinsky (1986), among others, not all subjunctive complements behave alike with respect to the SDR phenomenon. It seems that we must distinguish three classes of subjunctive complements: a class that always shows SDR effects, a class that never shows SDR effects and, finally, a class that may show SDR effects, subject to language, dialect and speaker variation.

The class that always shows SDR effects is best represented by verbs like

*vouloir* 'to want' and *souhaiter* 'to wish' (cf. the examples in (9) above).

These emotive predicates are also referred to as volitional verbs.

The class of subjunctive complements that never show SDR effects are those subjunctive complements sometimes called secondary subjunctives.<sup>12</sup> Following Kempchinsky (1986), I will use the term 'dubitative' as a cover term for the subcategorized secondary subjunctive complements. This class includes, on the one hand, verbs which, when under negation or interrogation, may appear with a subjunctive complement and, on the other hand, verbs which in their affirmative form are verbs of doubt. An example of the latter type is given in (12) and of the former type in (13).

(12) Je doute que je finisse cet article.

'I doubt that I finish this article'

(13) Je ne crois pas que je finisse jamais cet article. 13

'I don't believe that I'll ever finish this article'

These subjunctive complements are in fact CP complements to propositional verbs and it appears that it is the presence of a negative scope operator that triggers the subjunctive mood. Given the analysis of the obviative phenomenon that will be proposed here, the absence of any SDR effect with these subjunctive complements will follow from the fact that the embedded subject position is not governed by the matrix verb (see 3.2.1 below).

Finally the class of subjunctive complements that show much variation cross-linguistically with respect to SDR effects is the class of factive emotive verbs exemplified in (14)-(16) below. Kempchinsky points out that these verbs are almost always followed by the subjunctive in Spanish whereas in Rumanian they show up with indicative complements and in French they may show up with either the subjunctive or the indicative. She gives the following examples.

- (14) Me molesta que los estudiantes no lleguen/\*llegan a tiempo a la clase.  
'It bothers me that the students don't arrive (S/\*I) on time to class'
- (15) Ma surprinde ca Petru se însoara/ca Petru să se însoare.  
'It surprises me that Petru gets married (I/\*S)'
- (16) Je regrette que mon fils n'a/ait pas un chat.  
'I regret that my son doesn't have (I/S) a cat'

Kempchinsky also points out that these complements do not only vary cross-linguistically (in Romance) with respect to whether or not they appear in the subjunctive mood, but also, when they do appear in the subjunctive, there appears to be some variation regarding the SDR effect. I will postpone the discussion of these complements until 3.5 below where it will be shown that the variation observed is due to the possible dual analysis of these complements given the presence of the factive operator.

The third reason that makes it difficult to characterize the binding domain for SDR effects is one that has been pointed out by Ruwet (1984). Ruwet shows that even with the volitional verbs one can find grammatical sentences exhibiting no SDR effect. Recall that the volitional verbs constitute the class that seems to clearly disallow coreference of the matrix and the embedded subjects, given the ungrammaticality of (9a) for instance. However Ruwet gives examples like the following which are, if not always perfectly grammatical, at least quite acceptable when compared to

(9a).

(17) a. Je veux (absolument) que je sois parti dans dix minutes.

'I (absolutely) want to be gone in ten minutes'

b. Je ne voudrais (vraiment) pas que je sois obligé de partir plus tôt que prévu.

'I would (really) not want to be forced to leave earlier than planned'

Other examples which appear to contradict the claim that the subject of the complements to volitional verbs must be disjoint in reference from the matrix subject involve the presence of an epistemic modal in the subjunctive clause. These examples are pointed out in Ruwet as well as in Picallo (1985). In 3.2.3 I will analyze the cases involving epistemic modals. I will not attempt, however, to cover the other cases pointed out by Ruwet. <sup>14</sup>

A fourth reason that makes it difficult to characterize the binding domain for subjunctives is one of a more theoretical nature. It appears that the binding domain for subjunctives must somehow comprise the matrix subject but not the matrix objects, since sentences like the following are perfectly grammatical.

(18) a. Pierre propose à Marie qu'elle prenne le train.

<sub>i</sub> <sub>i</sub>  
'Pierre proposes to Marie that she take the train'

b. Jean souhaite à Pierre qu'il gagne.

<sub>i</sub> <sub>i</sub>  
'Jean wishes to Pierre that he win'

Finally, another important aspect of the Romance subjunctive and of the SDR effect, in particular, is that it constitutes one of the cases discussed in the literature where the apparent complementary distribution of anaphors and pronominals (Conditions A and B of BT) breaks down (see Chomsky (1986a)). I will not discuss this issue here.

We must therefore find an analysis of the Romance subjunctive which can

not only account for the SDR effect but which can also account for the numerous restrictions and implications associated with it. In what follows, it will be argued that the assumption put forward in this chapter that subjunctive complements to the emotive verbs are projections of INFL enables us to account for at least some of the main aspects of the SDR effect in a more natural fashion, given the transparent character of IP compared to CP.

The remainder of this section will be organized as follows. In 3.2.1, I will propose an analysis of the SDR effect found in the complements to volitional verbs. In 3.2.2, I will show how this analysis extends quite naturally to the subjunctive complements of volitional nominals. Finally, in 3.2.3, I will examine the cases uncovered by Picallo (1985) with respect to the opacity triggered by the presence of an epistemic modal in the embedded subjunctive. The cases involving subjunctive complements to factive verbs will be analyzed in section 3.5 below and the absence of SDR effects with the subjunctive complements to dubitative verbs will follow from the fact that these complements are CP complements.

### 3.2.1 The complements to volitional verbs

Putting aside the data uncovered by Ruwet (1984), it appears that the subjunctive complements to the volitional verbs show obligatory SDR effects.

In the first section of this chapter, I proposed that subjunctive complements are generated as a projection of the category INFL, which is the CLR of the semantic type  $\xi$ . I also proposed to analyze *que* as a Case-spelling element heading the KP under which the IP complement is



embedded. I mentioned that this que does not appear to prevent government of the head INFL by the matrix verb, at least as far as selection is concerned, given that selection most likely involves government.

The claim that the matrix verb governs the head INFL of the subjunctive complement appears to be further confirmed by the facts relative to the SDR effect. Indeed, the SDR effect operative in subjunctive complements seems to suggest that, for purposes of the Binding Theory, the binding domain for the embedded subject position in a subjunctive clause extends to the higher clause. A natural explanation of this fact is to assume that the matrix verb governs the embedded INFL and therefore also governs the embedded subject position, given the definition of government adopted in 1.2 above.

The minimal governing category for the embedded subject will therefore be the higher clause which is the least Complete Functional Complex (CFC) containing the lexical governor of the embedded subject (see 1.2 above and Chomsky (1986a) on the notion CFC).

It now follows that the embedded subject will have to be disjoint in reference from the matrix subject since they are both contained within the same local domain. Therefore, in the examples given in (9), which I repeat here in (19), the embedded subject will have to be disjoint in reference from the matrix subject, a fact which accounts for the given judgments of grammaticality.

- (19) a. \*Je voudrais que je finisse cet article.  
      'I would like that I finish(S) this article'  
      b. Je voudrais qu'il finisse son article.  
      'I would like that he finish(S) his article'  
      c. Il voudrait qu'il finisse son article.  
          i                               j/\*i  
      'He would like that he finish(S) his article'

(20) a. Pierre propose à Marie qu'elle prenne le train.

b. Jean souhaite à Pierre qu'il gagne.

(21)



the minimal governing category for the embedded subject is the notion of CFC

constituent under which IP is embedded. Therefore, the fact that the embedded subject cannot be coreferential with the matrix subject in this structure provides a further argument for the current assumption that the notion of minimal governing category should be defined in terms of the CFC, which in this case will entail that the matrix IP will constitute the minimal governing category for the embedded subject.

This proposal, however, will also entail that the embedded subject should be obligatorily disjoint in reference from the indirect object as well, since the object is part of the matrix IP. At this point, I have no explanation to offer for the fact that the embedded subject may be coreferential with the indirect object in these structures other than to assume with Picallo (1985) and Kempchinsky (1986) that subjunctive clauses must be in extraposed position (adjoined to VP) due to the effect of the Case Resistance Principle (see Stowell (1981)), and hence, that the matrix object does not c-command the embedded subject.

### 3.2.2 The complements to volitional nominals

I mentioned in 3.1 above that the analyses of the SDR phenomenon that are based on some linking or anaphoric dependency between a matrix INFL and a subjunctive INFL are problematic in view of the fact that subjunctive complements to volitional nominals also show SDR effects although there is no "matrix" INFL involved with the nominal.

The analysis of subjunctive complements proposed here does not rely on the relation of two INFLs. Rather, I assume that volitional predicates (whether

they are verbs or nominals) select an IP complement. Given this assumption, it is easy to see that the analysis proposed above to account for the obviative phenomenon found in the complements to volitional verbs can also be readily extended to the cases of subjunctive complements to volitional nominals.

Kempchinsky (1986) gives the following examples:

- (22) a. María<sub>i</sub> me ha expresado [el deseo de [que [ [pro]<sub>\*i/j</sub> ayude  
a los refugiados]]]

'Maria has expressed to me the desire that (s/he) help the refugees'

- b. María<sub>i</sub> me ha explicado [su<sub>j</sub> deseo de [que [ [pro]<sub>i/\*j/k</sub> ayude  
a los refugiados]]]

'Maria has explained to me his/her desire that (s/he) help the refugees'

Kempchinsky accounts for these facts in the following manner. In (22a) the nominal has no subject and the subject of the subjunctive complement must be disjoint in reference from the matrix subject. This follows from the fact that the NP constitutes a binding domain only when it contains a subject. Therefore, in (22a), the least CFC containing the governor of *pro* is the matrix S. In (22b) however, the nominal has a subject and the subject of the subjunctive complement must be disjoint in reference from this subject but is free to corefer to the matrix subject. In this case, the least CFC containing the governor of *pro* is the NP.

Kempchinsky's account is obviously perfectly compatible with the assumption made here that the subjunctive complements are IPs and I will thus simply adopt her analysis of the determination of the least CFC in the case of these volitional nominals.

### 3.2.3 Subjunctive complements involving epistemic modals

Picallo (1985) points out that the SDR effect found with the complements to volitional verbs appears to break down in the case where the embedded subjunctive complement contains an epistemic modal, as shown by the contrast between (23) and (24).

(23) a. \*La seva <sub>i</sub> esperança que pro <sub>i</sub> parlés amb ell anava disminuint  
'His/her hope that (he/she) talked to him was diminishing'

b. \*Pro <sub>i</sub> sentien que pro <sub>i</sub> produïssin una falsa impressió  
'(They) regretted that (they) give a false impression'

(24) a. La seva <sub>i</sub> esperança que pro <sub>i</sub> pogués parlar amb ell  
anava disminuint  
'His/her hope that (he/she) could talk to John was diminishing'

b. Pro <sub>i</sub> sentien que pro <sub>i</sub> deguessin produir una falsa impressió  
'(They) regretted that (they) must give a false impression'

Based on a number of considerations that will be reviewed shortly below, Picallo proposes to analyze epistemic modals as generated under INFL, much like the standard analysis for the English modals.

According to Picallo, the fact that the epistemic modals are generated under INFL will account for the opacity of the subjunctive clauses containing them in the following manner. She assumes that when the modals are generated under INFL they occupy the head position of that node and that the features [Tense, AGR] which would normally occupy the head position are then analyzed as sisters of the head. Since the features [Tense, AGR] do not occupy the head position when an epistemic modal is present, they cannot be anaphorically related to the head of S in the upper clause. Thus no

Tense-chain can be formed and the embedded subject is free to corefer to the matrix subject. As Picallo points out, this behavior of the epistemic modals can be seen as a result of the fact that an epistemic modal is associated with a sentential operator whose scope, much like the scope of the TENSE operator, appears "to delimit domains for the interpretive rules to apply defining basic units for the processing of sentences" (p.266).

The analysis of the epistemic modals that will be proposed here draws on this idea that there is a sentential operator associated with the epistemic modals and that this operator is responsible for the opacity observed with respect to the SDR effect.

But first, let us review the facts that have led Picallo to propose that epistemic modals are generated under INFL.

Picallo gives the following classification of the Catalan modals and their possible root or epistemic meanings. Interestingly, the modal *deure* only has an epistemic meaning, as shown in (26). As we will see below, the behavior of *deure* will provide some further evidence to Picallo's claim that epistemic modals are under INFL.

| (25)                         | Epistemic   | Root               |
|------------------------------|-------------|--------------------|
| <u>poder</u> (may/can)       | possibility | to be able/allowed |
| <u>deure</u> (must)          | necessity   | --                 |
| <u>haver de</u> (to have to) | necessity   | to be compelled    |
| <u>voler</u> (to want)       | --          | to want            |

- (26) La Núria deu escriure una novel·la  
 'Núria must write a novel'  
 a. It must be the case that Núria is writing a novel  
 b. \*Núria is obliged to write a novel

Picallo points out that the full verbal behavior of modal verbs in Catalan is possible only when these are interpreted in their root sense. When an

epistemic reading is obligatory or possible, the modals exhibit certain of the idiosyncracies found with the "true" English modals. Picallo lists the following as idiosyncracies exhibited by the true English modals.

- (27) a. Modals do not show number agreement or DO support
- b. Modals cannot appear in infinitive or gerund morphology
- c. Modals cannot occur adjacent to each other
- d. Modals cannot be marked with AUX
- e. Modals cannot take normal complementation forms

Picallo argues that most of these idiosyncracies also hold of the modals in Catalan, but only of the epistemic modals.

She points out that, in Catalan, when two modals occur adjacent to each other, only the first one can receive the epistemic reading, as shown by the interpretation of (28) or by the ungrammaticality of (29).

- (28) La Núria deu poder tocar el piano.  
      'Nuria must can play the piano'
- a. It must be the case that Nuria is able/allowed to play the piano.
- b. \*It must be the case that it is possible that Nuria would play the piano.

- (29) \*En Joan pot deure tocar el piano.  
      'John may must play the piano'

Also when a modal appears with an auxiliary, only the root interpretation is possible, as indicated in (31).

- (30) En Joan ha pogut anar al cinema.  
      'John has mayed go to the movies'

- (31) a. ??(\*) It has been possible that John went to the movies
- b. John has been able/allowed to go to the movies

The epistemic modal *deure* further illustrates this fact since that verb always appears in the simple tenses, present or imperfect.

- (32) \*En Pere havia degut tastar el pastís.  
      'Peter had musted taste the cake'

Picallo also shows that only the root interpretations of the modals are

available when these appear in infinitive or gerund forms.

On the basis of these facts, Picallo argues that modal verbs in the epistemic reading function as clausal operators and are generated in the INFL node like their English counterparts.

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It seems to me, however, that the facts uncovered by Picallo only imply that the epistemic modals must be under INFL at S-structure and not that they must be base-generated in that position. I will rather assume that epistemic modals are generated under V, like other main verbs, but that they must be under INFL at S-structure, since it is only from that position that they will be able to be linked to a sentential operator in COMP. Recall that in 2.4.3 above, I argued that the epistemic modals are raising predicates and that the root modals are also raising predicates, under one of their interpretations. It was briefly mentioned in connection with these two raising analyses that the distinguishing property between the raising epistemic and the raising root modals is that the former are associated with a sentential operator.

We could assume that this sentential operator must be in COMP, like the TENSE operator for instance, in order to have scope over the sentence. This proposal, however, implies that there must be a COMP position in the cases of the subjunctive complements to volitional verbs that comprise an epistemic modal. This appears to go against the claim made in this chapter that these subjunctive complements are in fact IP complements.

A possible explanation for the presence of a COMP position could be to assume that there is a kind of reverse selection operating from the head INFL of the complement that would require the presence of the sentential



operator thus creating a COMP position.

Another possibility, however, would be to assume that there is no such COMP position with a sentential operator and that the epistemic reading of the modal simply results from an LF adjunction of the modal to the clause, a position from which the modal will have scope over the entire event.

Let us first consider the first alternative mentioned above, namely that the presence of an epistemic modal under INFL determines the generation of a COMP position with a sentential operator. If this is the case, we can then attempt to explain the syntactic behavior of the epistemic modals as follows. It is a well-known fact that COMP and INFL often behave as discontinuous elements. In the X-bar framework assumed here this fact receives some further support since INFL is the head of IP which is the complement of COMP. We can then presume that an operator in COMP can be linked to an element under INFL but not to an element that is in an other more embedded position. Or alternatively, we can assume that the operator in COMP requires the LF movement of the epistemic modal, a movement which would be possible only if the modal is already under INFL at S-structure.

The peculiar properties of the Romance epistemic modals can all be accounted for under this proposal that the modal must be under INFL at S-structure. It is clear that the obligatory presence of modals in INFL in order to obtain the epistemic reading will account for the impossibility of having a perfective auxiliary, since in such structures, it is the auxiliary and not the modal that is under INFL. As for the impossibility of embedding epistemic modals under other modal or aspectual verbs, this would follow from our analysis as well, since these verbs select VP complements,

therefore disallowing the presence of an operator in their complement. It seems to me that this analysis does more than just correctly account for the facts, it actually explains why an epistemic reading is impossible under modals and aspectuals since these complements do not constitute "events".

Under this analysis, the lack of SDR effects found in sentences involving epistemic modals in the subjunctive complements (cf. the examples in (23)-(24) above) will be accounted for by assuming that the presence of the COMP position has for effect of blocking the government relation between the matrix verb and the embedded subject.

I mentioned above that we could see the generation of a COMP position with these IP subjunctive complements as following from a kind of "reverse" selection by the head INFL, under which the epistemic modal is located. We will see below in 3.5 that a similar analysis in terms of the selection of an operator in COMP selected by the head INFL of the event complement appears to be adequate for the complements to the factive-emotive verbs.

Let us assume then that these facts indicate that it is possible to add some "extra" structure to an IP complement, to the extent that this extra structure is required by an element in the head position, that is, in INFL. What remains unclear however under this proposal is whether the "extra" structure is present in the entire derivation from D-structure or only at some specific level. If we assume that the COMP position (or Operator position) is present at D-structure, it seems that we may run into problems with respect to the assumption that selection of complements involves a government relation. Recall that we know that the presence of the operator is responsible for the absence of government of the subject position, given

the absence of SDR effects in these complements.

Another possibility is to assume that the COMP-operator position is present only at LF. But in fact this assumption is in some sense equivalent to the second possibility mentioned above, namely that there is not really a COMP position involved in these structures but simply a phenomenon of Modal-Raising at LF (comparable to the well-known Quantifier-Raising proposed by May (1977)). Under this analysis, the subjunctive complements that exhibit an epistemic modal will be IP complements both at D-structure and at S-structure but that at LF the epistemic modal will be adjoined to the clause, as shown in (33).

(33) ... V [ Modal [ NP [ ... ] ] ]  
          IP          IP      I'

The modal will then govern the embedded subject position and will therefore prevent government by the matrix verb. Since the lexical governor for the embedded subject will now be an element within the projection of the head INFL of the complement, the least CFC containing the lexical governor of the subject will be the embedded clause and the subject will be free to corefer with the matrix subject. This proposal will also entail, however, that at LF the matrix verb does not govern the embedded INFL anymore, a fact which would seem to go against the current view that selection is checked at LF. But since the epistemic modal would itself have been raised from INFL, it is not implausible to assume that the selection of the head INFL by the matrix verb will be satisfied by virtue of the presence of the modal in the IP adjoined position.

To sum up, I have argued in this section that epistemic modals are raising verbs generated under V<sub>r</sub> but that, in order to receive the epistemic

interpretation, they must take scope over the sentence in which they  
16  
appear. Either they are linked to an operator in COMP or in some pre-IP  
position or they are simply adjoined to the clause at LF. Under either  
analysis, the end result is that the government relation between the matrix  
verb and the embedded subject is blocked and the subject is now governed by  
an element belonging to the lower clause. The minimal CFC for the subject  
is therefore the subjunctive clause. This explains the absence of SUB  
effects with subjunctives involving epistemic modals.

### 3.3 Subjunctive vs. Indicative Complements

In this section, we will examine different properties that show that  
subjunctive complements must be analyzed differently from indicative  
complements. We will see that most of these properties involve the  
existence of a subject-object asymmetry that appears to be restricted to  
subjunctive clauses, as shown by Kayne (1984) and Piccolo (1984), among  
others. We will also examine some other interesting differences between  
indicative and subjunctive complements, pointed out by Ronat (1974), who  
also argues, on the basis of that evidence, that subjunctive complements  
should be analyzed as S's (IP's).

Most of the facts that will be reviewed in this section point to a  
solution of the differences found between subjunctive and indicative clauses  
in terms of a "barriers" framework. We will see that, in the case of the  
subject-object asymmetry, the difference between indicative and subjunctive  
complements appears to be due to a failure of antecedent government to take

place in the case of the extraction from the subject position of a subjunctive clause. The proposal put forward here that subjunctive clauses are IP complements entails that there is no Spec-C' position available in these complements. In this section, I will explore the possibility of relating the difference in behavior of the subjunctive and indicative complements to this absence of a Spec-C' position with the subjunctive complements. We will see, however, that the possible avenues for treating this difference between indicative and subjunctive clauses also raise many problematic questions that will not be investigated here, as they would take us too far apart from our main topic.

### 3.3.1 A Subject-Object Asymmetry in Subjunctive Complements

A number of facts pointed out by Kayne (1984) and Piccallo (1984) show that there is a clear subject-object asymmetry in subjunctive complements in contrast to indicative complements.

Piccallo examines several facts suggesting that a quantifier trace in the subject position of an indicative clause is immune to the effects of the ECP whereas a quantifier trace in the subject position of a subjunctive complement shows normal ECP effects. She proposes to account for the difference between indicative and subjunctive complements by assuming that an indicative INFL can act as a proper governor contrary to a subjunctive INFL. She further argues that the difference between a subjunctive INFL and an indicative INFL amounts to the distinction between a [-Tense] and a [+Tense] INFL. She thus assumes that only a [+Tense] INFL can act as a proper governor.

Her proposal implies that subjunctive and indicative complements will also differ with respect to the *that-t* phenomenon. If a [+Tense] INFL can properly govern the subject position, then it is expected that subject extraction will be possible from the subject position of indicative clauses. But in the case of a subjunctive clause, subject extraction will only be possible from postverbal position.

Recall that Rizzi (1982) argues that the Null Subject languages exhibit the same type of ECP effects than the other languages and that the apparent *that-t* violations are due to the fact that the subject can be extracted from postverbal position given that these languages have a process of free inversion of the subject. Thus, Picallo's account differs from that proposed by Rizzi in that she argues that the subject position of an indicative clause will always be immune to any ECP effects since it will always be properly governed by the [+Tense] INFL. But Picallo agrees with Rizzi that subject extraction from a subjunctive clause will only be possible from postverbal position, where the trace will be properly governed by the verb.

Although Picallo's proposal accounts for the facts of the Null Subject languages that she investigates, it does not carry over so well to other languages such as English and French. In fact, English shows ECP effects with respect to the *that-t* phenomenon both in indicative and in subjunctive clauses.

But before going any further into this topic let us first examine the facts that have led Picallo to argue that the subject position of an indicative clause must be properly governed.

Following observations by Contreras (1976) and Jaeggli (1980), Picallo points out that in Spanish and Catalan subjunctive complements disallow the presence of focused subjects in the embedded subject position contrary to the indicative complements, as evidenced by the following paradigm (from Picallo (1984), p.78).

Indicative complements:

- (34) a. Diuen que en JOAN arriba.  
b. Diuen que arriba en JOAN.  
'(They) say that JOHN arrives'
- (35) a. Sabem que en PERE ha parlat.  
b. Sabem que ha parlat en PERE.  
'(We) know that PETER has talked'

Subjunctive complements:

- (36) a. \*Sento que en JOAN vingui.  
b. Sento que vingui en JOAN.  
'(I) regret that JOHN come'
- (37) a. \*Volem que en PERE parli.  
b. Volem que parli en PERE.  
'(We) want that PETER talk'

The sentences (34)-(37) show instances of focused embedded subjects marked by heavy stress. Such focused embedded subjects are disallowed in (36a) and (37a) where the complement is in the subjunctive mood. However, as (36b) and (37b) show, focused subjects can appear in postverbal position. The sentences in (34) and (35) show that with indicative complements focused embedded subjects are possible both in subject position and in postverbal position.

The sentences in (38)-(39) also show instances of contrastively marked embedded subjects, this time by means of the adverbial locution *si que*. Again, we find that such contrastively marked subjects are disallowed in subjunctive complements while indicative complements show no such restriction.

(38) Indicative complement:

La Maria m'ha dit que en Joan *sí* que ha pres mal.  
'Mary has told me that John *sí* que got hurt'

(39) Subjunctive complement:

\*Els bombers han impedit que en Joan *sí* que prengués mal  
'The firemen have prevented that John *sí* que get hurt'

According to Picallo, these differences follow from the fact that only the [+Tense] INFL of an indicative clause can properly govern the variable left in subject position at LF. In the case of a subjunctive complement, the [-Tense] INFL cannot act as a proper governor and the variable is therefore not properly governed.

Picallo shows that similar asymmetries between subjunctive and indicative complements are also found with respect to the scope properties of embedded quantified NP subjects.

Indicative complements:

- (40) a. Tots els estudiants saben que *alguns* examens són difícils.  
b. Tots els estudiants saben que son difícils *alguns* examens.  
'All students know that *some* exams are difficult'

- (41) a. Cada elector creu que *tres* candidats han parlat.  
b. Cada elector creu que han parlat *tres* candidats.  
'Every elector believes that *three* candidates have spoken'

Subjunctive complements:

- (42) a. Tots els estudiants senten que *alguns* examens siguin difícils.  
b. Tots els estudiants senten que siguin difícils *alguns* examens.  
'All students regret that *some* exams are difficult'

- (43) a. Cada elector vol que *tres* candidats parlin.  
b. Cada elector vol que parlin *tres* candidats.  
'Every elector wants that *three* candidates speak'

With the indicative complements in (40)-(41), wide scope interpretation of the embedded quantified NP subject is possible whether the quantifier is in subject position or in postverbal position. Narrow scope is also possible in both cases.



With the subjunctive complements in (42)-(43), wide scope interpretation of the embedded quantified NP subject is possible ONLY when the quantifier is in postverbal position. Thus, in (42a) and (43a), only the narrow scope interpretation is allowed.

For the reasons mentioned at the beginning of this section it seems that Picallo's claim that an indicative INFL can be a proper governor cannot be sustained for other languages. Another reason for rejecting her analysis also arises now in connection with the proposal that proper government reduces to antecedent government. Under this proposal, the differences between the subjunctive and the indicative clauses noted here cannot be explained in terms of a difference in the properties of a node to be a proper governor (a case of lexical government).

Given the structural difference between indicative and subjunctive complements postulated in this chapter, a possibility that arises here is that the subject-object asymmetry noted above follows from that structural difference, that is from the IP/CP difference between subjunctives and indicatives. But before turning to the analysis of the facts pointed out by Picallo, let us first consider another set of facts concerning the subject-object asymmetry characteristic of subjunctive clauses.

Kayne (1984; chapter 2) gives the following contrast involving the negative elements *ne...personne*, where *ne* is in a matrix clause containing a verb that selects for a subjunctive complement and *personne* is either in the subject or in the object position of the embedded clause.

- (44) a. ?Je n'ai exigé qu'ils arrêtent personne.  
'I neg have required that they arrest nobody'  
b. \*Je n'ai exigé que personne soit arrêté.

A first fact to be noticed with respect to the relative acceptability of (44a) is that in this case, a similar sentence involving an indicative complement is not acceptable.

- (45) \*Je n'ai cru qu'ils arrêteraient personne.  
'I neg have believed that they would arrest nobody'

The possibility for a negative quantifier like *personne* to be linked outside its clause to the negative element *ne* appears to be restricted to subjunctive clauses. I assume that this fact follows from the structural distinction between subjunctive and indicative complements that I assume in this dissertation. It is only when the complement is an IP complement that a negative quantifier will be able to be in the scope of the matrix negation.

Let us now examine the contrast exemplified in (44). Here again, we see that the negative quantifier *personne* can only be linked to *ne* if it is in object position but not if it is in subject position. These facts are thus reminiscent of the focus facts exemplified above.

As it will be argued shortly below, the three sets of facts examined here all appear to involve a restriction against the LF raising of some element in the embedded subject position of a subjunctive clause to a position adjoined to the matrix clause.

Let us first consider the case of the focus constructions exemplified in (34)-(39) above. As May (1985) points out, focus constructions show the interesting property that the LF movement of the focused element must be to a maximally broad scope position. Assuming that focused NPs are adjoined to S' at LF, following Culicover and Rochement (1983), May derives the broad



Given the fact that adjunction to maximal projections that are arguments appears to be disallowed (see Chomsky (1986b)), the first step involved in the movement of the embedded subject will be the adjunction of the embedded subject to the matrix VP. Subsequent movement of the focused element will eventually adjoin it to the matrix CP.

In the case where the embedded focused subject is in post-verbal position (or perhaps in its D-structure subject position, that is in SPEC-V'), the first step involved in the derivation will be the adjunction of the focused element to the embedded VP. Subsequent movement will involve the adjunction of the focused NP to the matrix VP and eventually to the matrix CP, as required for the proper interpretation of focus constructions.

These two derivations are illustrated in (48).

- (48) a. [ NP [ ... [ t [ ... que [ t [ ... ] ] ] ] ] ]  
           CP      VP      VP          IP      I'  
       b. [ NP [ ... [ t [ ... que [ pro [ [ t [ V t ] ] ] ] ] ] ] ]  
           CP      VP      VP          IP      I'  VP      VP

In the case of the derivation illustrated in (48b), it could even be the case that the initial trace is in SPEC-V' as mentioned above, in which case it may be possible that there is another intermediate step in the derivation involving the SPEC-I' position, if the suggestion made in footnote 4 above concerning the possibility of movement through that position turns out to be viable.

The two derivations illustrated in (48) would both appear to conform to the ECP given that IP is presumably not a barrier in these structures (being L-marked by the matrix verb). But, if the principle of grammar responsible for the impossibility of extracting the subject of a subjunctive complement is the ECP, then it must be the case that at least one of the traces

involved in the derivation in (48a) fails to be antecedent-governed and that this failure of antecedent government does not carry over to the derivation of the structure involved in (48b).

It seems that the most likely explanation of the contrast between the two structures would be to assume that the initial trace in SPEC-I' position in (48a) is not properly governed by the intermediate trace adjoined to the matrix VP. A possible line of argumentation would be to assume that in the case of this type of LF movement, it is ONLY the initial trace that needs to obey the ECP. If this assumption can be sustained (which may not be the case, see Lasnik and Saito (1984)), then we could hypothesize that it is either *que* or the matrix verb that prevents the government by the VP-adjoined trace, of the initial trace in the embedded SPEC-I' position. In the case of the derivation illustrated in (48b), however, the initial trace will be properly governed by the intermediate trace adjoined to the embedded VP and the fact that the intermediate trace is not itself properly governed will not be relevant if the ECP holds only for the initial trace.

Assuming that this analysis can be made to work out, let us now turn our attention to the cases of quantifier scope. We observed that the quantifier phrases in subjunctive complements can only have broad scope when they occur in post-verbal position. This restriction accounts for the quantifier facts uncovered by Picallo as well as for the facts concerning the possibility of allowing the negative quantifier *personne* to be in the scope of the negative element *ne*. In subject position, the quantified elements can only have narrow scope, which in the case of the negative quantifier *personne* will give rise to an ungrammatical structure, assuming that this element must be associated with the negative particle *ne* at LF. With indicative complements,

the quantified NPs can have wide scope whether they appear in subject or object position.

I will assume, following May, that quantifier phrases are adjoined to IP, a necessary assumption here given our claim that subjunctive complements are IPs. Narrow scope will thus always be possible in a subjunctive complement. Again we can explain the absence of wide scope possibility from the embedded subject position of a subjunctive, by assuming that the trace left behind by the movement of the quantifier phrase would not be properly governed. In the case of the indicative complements, it must be the case that the movement through SPEC-C' makes it possible for the trace in the embedded SPEC-I' position to be properly governed by the intermediate trace in SPEC-C'.

There is however a serious problem brought up by the analysis just outlined here if we are to assume that it is *que* that is responsible for the lack of proper government in a structure like (48a). Recall that the analysis proposed in 3.2 above to account for the obviative phenomenon crucially relied on the assumption that the presence of *que* does not prevent government by the matrix verb of the embedded INFL and SPEC-I' positions. But the analysis proposed here would on the contrary crucially rest on the opposite assumption, namely that *que* does behave as a closer governor in the case of the LF movement of an element in the embedded subject position of a subjunctive clause. It would thus seem to be more likely that it is the matrix verb that prevents antecedent government in this case, although I will not elaborate here on the consequences of this proposal.

The facts regarding the possibility of extraction from the subject

position of a subjunctive clause appear to be even more puzzling once we take into account the facts relative to the possibility of syntactic *Wh*-movement of the subject of a subjunctive clause. It is generally assumed that syntactic extraction of the subject of a tensed embedded clause in French is possible even in the presence of the complementizer *que*, to the extent that the complementizer can be coindexed with the *Wh*-trace and therefore surface as *qui* as shown by the following sentences.

- (49) a. *Qui crois-tu qui est venu?*  
           'Who do you believe that has come?'  
       b. *Qui veux-tu qui vienne?*  
           'Who do you want that comes?'

In these sentences, it is assumed that the *Wh*-trace in subject position is properly governed by the coindexed complementizer *que-qui* introducing the embedded clause. In the case of the derivation of sentence (49a), the complementizer indexing mechanism can be analyzed as an instance of Spec-head agreement, assuming that the complementizer *que* (the head of CP) agrees with the *Wh*-trace in Spec-C' and that when this occurs, the complementizer is realized as *qui*. This analysis accounts for the lack of *That*-trace effects in this example (compare to the English gloss of 49a where the presence of the complementizer gives rise to an ECP violation).

As it is shown by the grammaticality of sentence (49b), the possibility of extracting the subject of a subjunctive clause appears to also depend on this COMP indexing mechanism. If this sentence is to be analyzed on a par with (49a), it would then seem to imply that there is also a CP structure involved with this subjunctive complement, contrary to what has been claimed so far in this chapter. But, the facts regarding this type of extraction from subjunctive clauses do not appear to be as clear-cut as the example in

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As it is shown by the grammaticality of sentence (49b), the possibility of extracting the subject of a subjunctive clause appears to also depend on this COMP indexing mechanism. If this sentence is to be analyzed on a par with (49a), it would then seem to imply that there is also a CP structure involved with this subjunctive complement, contrary to what has been claimed so far in this chapter. But, the facts regarding this type of extraction from subjunctive clauses do not appear to be as clear-cut as the example in



(49b) would seem to indicate. For instance, Pesetsky (1982) gives the following examples which show that there seems to be a contrast in the extraction possibilities from the embedded subject position of an indicative complement compare to that from a subjunctive complement.

- (49) c. la femme que je crois qui est venue...  
          'the woman that I believe that has come...'  
      d. ??la femme que j'exige qui vienne...  
          'the woman that I require that comes...'

Although the judgments on these extraction facts are far from clear, it is possible that what is happening here is that the coindexing mechanism involved in the derivation of sentence (49a) can also occur in the case of the subjunctive complements but without involving the presence of a *Wh*-trace in Spec-C' position. The coindexing would rather occur between *que* and the *Wh*-trace in subject position, in these cases. We could assume that this "special" coindexing is possible only to the extent that *que* is adjacent to the subject position.

This assumption could in turn explain why subject extraction appears to be impossible in the case of the subjunctive complements to factive emotive verbs. It will be argued below in 3.5 that there is a factive operator present in the case of these complements and that this operator is either analyzed as being adjoined to the IP complement or as being under a COMP node, but that under both analyses the structure does not comprise a Spec-C' position. If this analysis is correct, we can then assume that *que* will not be adjacent to the subject position in the case of these factive subjunctive complements.

It thus perhaps possible to assume that in general, movement from the subject position of a subjunctive clause is not permitted, although it can

be rescued by a special instance of the *que-qui* rule (which, I assume, would occur at S-structure). It may even be the case that movement from the subject position of an IP complement is disallowed, whether it involves *Wh*-movement or NP-movement. This would then entail that the cases of subject raising with verbs like *seem* or the passivization of the embedded subject of an ECM complement to a verb like *believe* would have to be analyzed differently. In fact, it will be argued in 4.3 below that these constructions do not involve IP complements contrary to standard assumptions.

Assuming that extraction of the subject of an IP complement is generally disallowed, it may be the case then that any "initial" trace in Spec-I' position will fail to be antecedent governed by an intermediate trace adjoined to a matrix verb, as suggested above. Assuming, as before, that it is only the initial trace in this type of derivation that needs to be properly governed, I will still assume that the problem with a structure like that in (48a) is that the matrix verb blocks the government of the trace in Spec-I' by the VP-adjoined trace. But in the case of an indicative complement, the intermediate trace in Spec-C' will never be an initial trace. That intermediate trace will thus properly govern the initial trace in Spec-I', although it will not itself be properly governed by the trace adjoined to the matrix VP.

Obviously, this analysis raises many problematic questions that extend quite beyond the scope of this study and that will have to be more specifically investigated before any conclusive solution can be reached.

### 3.3.2 Other differentiating properties of the subjunctive clauses

In this section, we will briefly examine four other differentiating properties of the subjunctive clauses which are uncovered in Ronat (1974), who also argues on the basis of the contrasts to be studied below that subjunctive complements are S complements in contrast with indicative complements which are S' complements.

#### 3.3.2.1 The particles *oui/non*

A first contrast noticed by Ronat is that subjunctive complements contrary to indicative complements cannot be replaced by the particles *oui/non* 'yes/no'. These particles are normally said to replace "entire" sentences. 18

Subjunctive complements:

- (50) a. \*Il veut que oui/non.  
'He wants that yes/no'  
b. \*Il aime que oui/non.  
'He likes that yes/no'  
c. \*Il regrette que oui/non.  
'He regrets that yes/no'

Indicative complements:

- (51) a. Il croit que oui/non.  
'He believes that yes/no'  
b. Il réalise que oui/non.  
'He realizes that yes/no'  
c. Il raconte que oui/non.  
'He tells that yes/no'

Although it is not obvious here whether this test is sensitive to semantic or syntactic properties, I will assume that the particles *oui/non* can only replace the semantic category "proposition" and not the semantic category "event" (and of course not "action" either). Therefore, the contrast

between the subjunctive and the indicative complements exemplified by the sentences in (50)-(51) above would follow from the fact that these complements instantiate different semantic categories. Alternatively, one could assume that the particles *oui/non* can only replace CP's and not IP's, without making reference to the semantic type that these categories are realizing. In any case, whatever the correct explanation may turn out to be, this contrast can be taken as further evidence that subjunctive and indicative complements must be distinguished either semantically or syntactically.

### 3.3.2.2 Extraposition of non-restrictive relatives

Another interesting difference pointed out by Ronat is that, in French, subjunctive complements, in contrast to indicative complements, do not allow the extraposition of non-restrictive relatives out of the NP subject.

- (52) a. Je sais que des livres se sont vendus, qui sont  
d'ailleurs très intéressants.  
'I know that some books were sold, that are by the way  
very interesting'
- b. Pierre raconte que des amis sont là, qui sont d'ailleurs  
très sympathiques.  
'Pierre tells that some friends are there, who are by the way  
very nice'
- (53) a. \*Je préfère que des livres se soient vendus, qui sont d'ailleurs  
très intéressants.  
'I prefer that some books are sold, that are by the way  
very interesting'
- b. \*J'exige que des amis soient là, qui sont d'ailleurs très  
sympathiques.  
'I demand that some friends be there, who are by the way very nice'

The non-extraposed versions of the examples in (53) are perfectly

grammatical.

- (54) a. Je préfère que des livres, qui sont d'ailleurs très  
          intéressants, se soient vendus.  
      b. J'exige que des amis, qui sont d'ailleurs très sympathiques,  
          soient là.

Several solutions could probably be developed to account for this phenomenon. Without entering into a long study of this type of extraposition, I would simply like to point out here that, in this case, the contrast between subjunctive and indicative complements clearly appears to involve a structural contrast between the two types of complements.

The analysis that could be pursued within the framework developed here would be to argue that non-restrictive relatives, originating from subject position, can only be adjoined to IP. If we assume, following Chomsky (1986b), that adjunction of maximal projections can only be to other maximal projections that furthermore must be non-arguments, then the adjunction of a non-restrictive relative to IP will be barred in the case of a subjunctive complement since these IP complements are clearly arguments. In the case of an indicative complement, however, the non-restrictive relative can freely be adjoined to IP since IP is embedded under CP in this case and since it is CP and not IP which qualifies as the maximal projection having argumental status.

Obviously, more work still needs to be done on this type of constructions before we can reach any conclusive explanation for these facts. But it remains, nevertheless, that this contrast can be taken as another piece of evidence favouring a structural distinction between subjunctive and indicative complements.

### 3.3.2.3 Clefts

Ronat also points out that extraction in clefts is possible out of subjunctive clauses but impossible out of indicative clauses. Here are some of her examples.

Subjunctive complements:

- (55) a. C'est Jules que tu veux que j'attende.  
'It is Jules that you want that I wait for'  
b. C'est lui que Paul regrette que je déçoive.  
'It is him that Paul regrets that I deceive'  
c. C'est à Marie que Jules déplore que j'écrive.  
'It is to Marie that Jules deplores that I write'

Indicative complements:

- (56) a. \*C'est lui que tu sais que je vois.  
'It is him that you know that I see'  
b. \*C'est Pierre que Paul raconte que Jules déçoit.  
'It is Pierre that Paul tells that Jules deceives'  
c. \*C'est à Marie que Pierre oublie que j'écris.  
'It is to Marie that Pierre forgets that I write'

As Ronat points out, it is only the embedding under a verb that requires an indicative complement that blocks the extraction, as clefts are grammatical in indicative contexts otherwise.

- (57) a. C'est lui que je vois.  
'It is him that I see'  
b. C'est Pierre que Jules déçoit.  
'It is Pierre that Jules deceives'  
c. C'est à Marie que j'écris.  
'It is to Marie that I write'

It appears, however, that Ronat's conclusion that extraction in clefts is impossible out of indicative clauses is in fact too strong, as we will see here. First, I would like to point out that the ungrammaticality of the sentences in (56) is not a very strong type and that these sentences would probably deserve a higher degree of grammaticality judgment than that

indicated here. Also, these examples appear to involve matrix verbs that are not particularly good bridge verbs compare to other matrix verbs that also select an indicative complement. Consider for instance the following examples.

- (58) a. C'est Pierre que Paul croit que Jules déçoit.  
'It is Pierre that Paul believes that Jules deceives'  
b. C'est à Marie que Pierre pensait que j'avais écrit.  
'It is to Marie that Pierre thought that I had written'

It may be that the (mild) ungrammaticality of the examples in (56) is due to the fact that verbs like *savoir* and *oublier* are propositional factive verbs and that there is presumably a sentential operator present in these structures (see the analysis of factive emotive complements in 3.5 below) and that a verb like *raconter* is not really a propositional verb, in the sense that it does not appear to express a subject's judgment concerning the truth value of a proposition. The type of ungrammaticality involved with these complements also probably indicates that we are dealing here with some minor type of Subjacency effect. I will not, however, pursue this analysis here.

#### 3.3.2.4 Stylistic Inversion

Another difference between subjunctive and indicative complements can be found in their behavior with respect to Stylistic Inversion. Stylistic Inversion is normally triggered by the presence of a (+Wh) element. But Ronat notices that Stylistic Inversion can also occur within a subjunctive (-Wh) complement. Indicative (-Wh) complements do not allow Stylistic Inversion.

Indicative complements:

- (59) a. Je sais que les enfants sont partis.  
      'I know that the children have left'  
      b. \*Je sais que sont partis les enfants.
- (60) a. Pierre raconte que ses amis sont arrivés.  
      'Pierre tells that his friends have arrived'  
      b. \*Pierre raconte que sont arrivés ses amis.

Subjunctive complements:

- (61) a. Je veux que les enfants partent.  
      'I want that the children leave'  
      b. Je veux que partent les enfants.
- (62) a. Pierre préfère que ses amis soient arrivés.  
      'Pierre prefers that his friends have arrived'  
      b. Pierre préfère que soient arrivés ses amis.

There are, a priori, at least two possible analyses of phenomena such as Stylistic Inversion. One is that it is the verb that is moved into a pre-subject position, presumably COMP. The other is that it is the subject that is moved in post-verbal position. The first analysis is somewhat incompatible with the analysis of subjunctives as IPs developed here, given that there is no COMP position available in these complements.

It thus appears that we should favor the second approach, namely that of the movement of the subject. Whitney (to appear) analyzes Stylistic Inversion as an instance of constructional focus. She accounts for the fact that Stylistic Inversion is restricted to clauses where there is a (+Wh) element and to subjunctive clauses by assuming that in both instances the INFL node of the clause exhibiting Stylistic Inversion will be able to properly govern the trace in subject position by virtue of being itself properly governed either by the (+Wh) element or by the matrix verb (in the case of the subjunctive complements).

Her proposal that Stylistic Inversion is an instance of constructional



focus appears to be well-motivated on the basis of several tests which show that the inverted subject behaves as a focused element. Recall that the facts uncovered in 3.3.1 above with respect to the possibility of focusing the subject of a subjunctive clause showed that this focus is only possible when the subject is in post-verbal position.

I will therefore assume, following Whitney, that the phenomenon of Stylistic Inversion should be analyzed as involving constructional focus. I will not, however, adopt her analysis in terms of the proper government of the subject position by the embedded INFL, since I assume, following Chomsky (1986b) that proper government involves only antecedent government. One possible explanation for the phenomenon of Stylistic Inversion in subjunctive clauses would be to assume that it occurs because it is the only way for an embedded subject to be focused. The phenomenon of Stylistic Inversion would thus be comparable to the focus constructions with subjunctive clauses examined in 3.3.1 above. The question that we must then ask is that of why the extraposition of the subject is impossible in the case of the indicative complements. The answer to that question probably lies in the fact that French differs from a language like Catalan in that free inversion is not possible in French, given its non pro-drop character.<sup>19</sup> These considerations, however, will not be further explored here.

#### 3.4 The Phenomenon of Quantifier-Movement in French

In the last two sections we saw how some subjunctive complements behave differently than the indicative complements with respect to many syntactic

properties. Up to this point we have concentrated our attention on the subjunctive complements to the volitional predicates. These predicates may also appear with an infinitival complement as we saw in 3.1.

In this section I will concentrate on some further distinguishing behavior which differentiates infinitival and subjunctive complements from indicative complements. This contrast between infinitive and subjunctive on the one hand and indicative on the other has often been noticed in the literature by qualifying the subjunctive mood as being closer to the infinitive than to the indicative. We will see here that the closeness of the subjunctive and the infinitive has to do with the selection of the matrix predicates and that not all subjunctives and infinitives share a common character.

The syntactic property that brings up the most clearly this common character of the infinitives and the subjunctives is that exemplified in (63), the so-called Leftward Quantifier Movement (*L-Tous*), first studied by Kayne (1975).

- (63) a. Jean a tous voulu les lire.  
      'Jean has all wanted to read them'  
      b. Jean veut tous que Marie les lise.  
      'Jean wants Marie to read them all'

It is a well-known fact that *L-Tous* is restricted to certain types of complements. It will be argued here that the correct generalization is that it is restricted to VP and IP complements.

Kayne (1975) distinguishes two different rules of movement of quantifiers such as *tous* 'all': rightward movement and leftward movement. Here we will be mainly concerned with the latter type. The rule of *L-Tous* proposed by Kayne moves a quantifier associated with an object NP to a position to the

left of this NP, provided also that the NP appears in the form of a clitic.

- (64) a. J'ai rencontré tous les invités.  
          'I met all the guests'  
      b. Je les ai tous rencontrés.  
      c. \*J'ai tous rencontré les invités.

L-Tous can apply across S-nodes, moving the quantifier to a position next to a higher verb as long as the embedded clause is a non-tensed clause (or a subjunctive clause, as we will see shortly).

- (65) a. Jean a voulu rencontrer tous les invités.  
          'Jean wanted to meet all the guests'  
      b. Jean a voulu tous les rencontrer.  
      c. Jean a tous voulu les rencontrer.

Another characteristic of the rule of L-Tous is that it can apply any number of times in the course of a derivation, as shown by the following sentences, as long as the verbs are of the right type as we will see below.

- (66) a. Jean a osé vouloir rencontrer tous les invités.  
          'Jean dared to want to meet all the guests'  
      b. Jean a osé tous vouloir les rencontrer.  
      c. Jean a tous osé vouloir les rencontrer.

According to Kayne (whose study was embedded in a Standard Theory framework), L-Tous can apply to the underlying structures of the sentences in (64) and (66) because the underlying subjects of the infinitival clauses are deleted prior to the application of L-Tous by a rule of EQUI-NP-Deletion. In the case of (67) however, the application of L-Tous leads to the ungrammatical (68).

- (67) Jean a certifié avoir rencontré tous les invités.  
          'Jean has certified to have met all the guests'

- (68) \*Jean a tous certifié les avoir rencontrés.

Consequently, Kayne proposes that verbs such as *certifier* are subject to another rule of EQUI-NP-Deletion, EQUI<sub>2</sub>, which is crucially ordered after the rule of L-Tous.

In the framework developed in this dissertation, the fact that the rule of *L-Tous* appears to be restricted with respect to the type of main verbs that selects the infinitival complement suggests that the rule may in fact be sensitive to the structural form of the infinitival complement. Verbs like *oser* 'to dare' and *vouloir* 'to want' belong either to the class of effective predicates or to the class of emotive predicates whereas a verb like *certifier* is a propositional verb. Therefore, the infinitival complements of these verbs will differ as to their structural realizations.

The assumption that the phenomenon of *L-Tous* is sensitive to the structural form of the complement is further confirmed by the fact that *L-Tous* may also apply in the case of subjunctive complements to emotive verbs, as shown by the example in (64b) above, but not in the case of indicative complements to propositional verbs like *croire*.

- (69) \*Jean croit tous que Marie les lira.  
       'Jean believes that Marie will read them all'

The correct generalization would thus appear to be that *L-Tous* can occur with the complements of effective and emotive verbs. (This generalization appears to be somewhat too strong as stated here since there are some effective and emotive verbs that do not allow *L-Tous*. I will return below to these exceptions.)

Assuming that *L-Tous* is possible out of complements of the VP, I' and IP types, we must now provide an analysis that will account for the phenomenon itself. I will assume here that the quantifier *tous* is base-generated in the position in which it appears at S-structure (although a movement analysis could also probably account for the facts uncovered here).

Basically, *tous* can appear in most adverbial position available within VP. I will also assume, following Haik (1985), that in order for *tous* to be interpreted as a quantifier, it must form a chain with a variable at LF. Haik argues that since *tous* does not have an entire S in its immediate scope, its chain is subject to Principle A of the Binding Theory. She assumes that the variable that the quantifier binds is the clitic-chain and that *tous* becomes the head of the new chain (*tous*, Cl, *t*) at LF.

Given this assumption, that the chain formed by *tous* with the variable that it binds is subject to Principle A, we can now account for the fact that this chain formation is allowed with the complements to effective and emotive verbs. Recall that Principle A states that an anaphor must be bound in a local domain, which is defined as being the minimal governing category containing both a subject and a lexical category governing the anaphor. In the case of a subjunctive clause like that given in (64b), whose structure would be as in (70), I assume that the clitic will be under INFL at S-structure given V-raising. The minimal governing category for the clitic-chain will therefore be the matrix clause, since the matrix verb is the lexical category governing the embedded INFL. (I am ignoring here the representation of *que* and of the trace of the clitic.)

(70) Jean veut tous  $\left[_{IP} \text{ Marie } \left[_{I'} \left[_{INFL} \text{ les lise} \right] \left[_{VP} t \right] \right] \right]$

In the case of the infinitival complements to the effective and the emotive verbs, the structure of the embedded infinitival will be similar in both cases as we have argued above. The complement will thus be an I' as shown in (71).

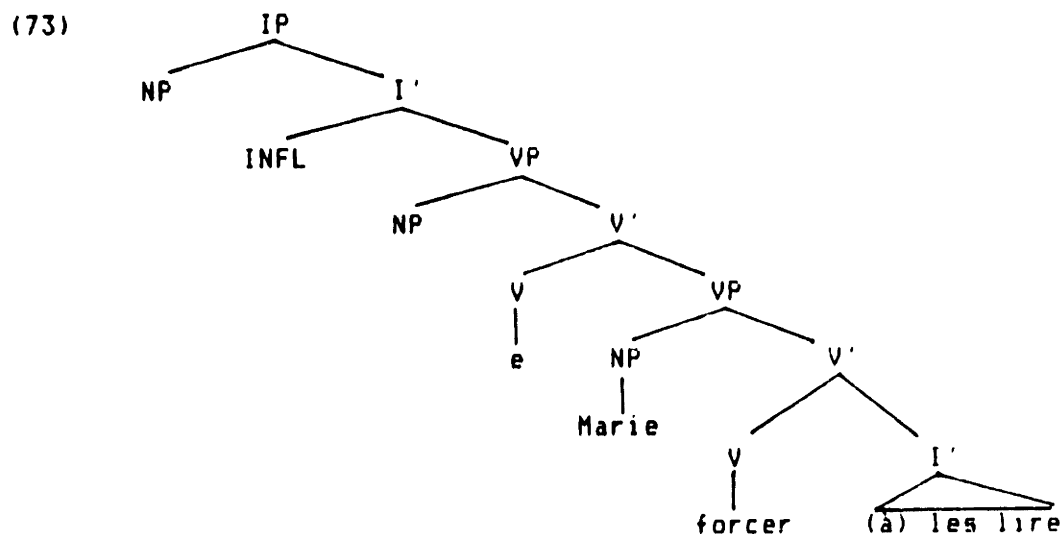
(71) Jean a tous voulu  $\left[_{I'} \left[_{VP} \text{ les rencontrer} \right] \right]$

In such a structure, the minimal governing category for the clitic is obviously the entire clause and we therefore correctly account for the L-Tous facts with these two classes of verbs.

Let us now turn our attention to one well-known restriction on the occurrence of L-Tous, namely that of the impossibility of relating *tous* to a clitic embedded in an "object control" infinitival complement.

- (72) a. \*Jean a tous forcé Marie à les lire  
           'Jean forced Marie to read them all'  
       b. \*Pierre a tous ordonné à Marc de les lire.  
           'Pierre ordered Marc to read them all'

Recall that in 2.8.3 above, I proposed to analyze these structures as involving a D-structure in which the direct or indirect object is in fact the subject of the embedded verb phrase, as shown in (73) for the case of *forcer*.



Here, the minimal governing category for the clitic will be the VP in which there is a subject for the embedded infinitival, namely the VP containing the subject *Marie* and we therefore account for the ungrammaticality of sentence (72a). The same analysis can be applied to the

case of *ordonner* in (72b) where the NP *à Marc* will be analyzed as the subject of the embedded infinitival.

### 3.5 The Complements to Factive Emotive Predicates

Up to now I have avoided discussing the behavior of the complements to factive emotive predicates, simply pointing out that their behavior is different from that of the complements to the non-factive predicates. As mentioned earlier, the class of factive verbs cuts across mainly two classes of verbs in our terminology: the class of emotive verbs and the class of propositional verbs. Here we will only be concerned with the factive emotive verbs.

I propose that these verbs, by virtue of belonging to the emotive class, s-select an  $\bar{E}$  whose CLR will be INFL, just as in the case of the non-factive emotives that we have examined in the previous sections.

But the complements to factive verbs present some particular characteristics that set them apart from the other complements to the emotive class. It is the purpose of this section to investigate these characteristics.

First, as mentioned in 3.2 above, it is not the case that all Romance languages (or all speakers of a particular language) use the subjunctive to realize the complements to the factive-emotive verbs. To the extent that we assumed so far that a projection of a [+Tense] INFL in Romance is realized

as a subjunctive complement, the variation observed with the factive emotive verbs still needs to be accounted for.

A second differentiating characteristic of these complements was also mentioned in 3.2 above in connection with the obviative phenomenon observed with subjunctive complements. There it was noted that the subjunctive complements to factive emotive verbs do not appear to be as "obligatorily" sensitive to the SDR effect as the subjunctive complements of the non-factive emotive complements.

Several other differentiating characteristics of the complements to factive emotive predicates are pointed out and analyzed in Rouveret (1980). Rouveret's study is in part concerned with the facts relative to the Portuguese inflected infinitival complements which are found with propositional verbs and factive emotive verbs. Rouveret shows that the inflected infinitival complements of these two types of verbs differ in many respects.

In short, it appears that the presence of a lexical subject within the inflected infinitival complements to propositional verbs is possible only when the inflected infinitive is an auxiliary verb which furthermore must appear before the subject. With the factive verbs, the inflected infinitive may appear either before the lexical subject (in which case it must also be an auxiliary verb) or after the subject.

Another difference pointed out by Rouveret is that subject extraction out of the inflected infinitival complements to factive verbs is impossible while it is perfectly grammatical in the case of the inflected infinitival complements to propositional verbs. Rouveret further shows that subject



extraction out of a tensed complement to a factive verb is also impossible.

Some of the facts mentioned above suggest that the complements to factive emotive predicates are similar to the complements to propositional verbs (e.g. the possibility for indicative complements and the possible absence of SDR effects when the complements appear in the subjunctive mood). It would therefore be tempting to analyze these complements as CP complements on a par with indicative complements to propositional verbs.

However, these complements also appear to constitute a more opaque domain with respect to extraction from subject position, a fact which clearly distinguishes them from ordinary CP complements and would rather appear to indicate that there is no SPEC-C' position available for movement.

These apparently conflicting conclusions can in fact be accommodated under an analysis of these complements as C' complements, the natural compromise in this case. But the proposal to analyze these complements as C' complements raises the question of how such a proposal is to be implemented in terms of the selection of the complement. That is, can we justify on semantic selectional grounds the occurrence of a projection like C' for the complements to factive emotive predicates? This is the first question that I will address here. In 3.5.1, it will be argued, following Melvold (1986), that factive complements are in fact "definite events" involving the presence of an operator and it will also be argued that the presence of this operator is responsible for the possible C' status of these complements.

The remainder of this section will be organized as follows. In 3.5.2, I will briefly consider how the analysis of the factive complements put forward here can account for the facts relative to the variation observed

with respect to the choice of mood and to the SDR effect. In 3.5.3, it will be shown that the impossibility of subject extraction can also be accounted for under the proposal that the factive complements are *C'* complements. In 3.5.4, I will return to the facts relative to the Portuguese inflected infinitivals.

### 3.5.1 The selection of factive complements

The proposal that will be put forward here is that the complements to factive emotive predicates are not simply "events" but are in fact "definite events", adopting and adapting a proposal by Melvold (1986).

Melvold points out that the complements of factive predicates differ from the complements of non-factive predicates in that the latter represent *propositions* while the former represent *presuppositions* and are therefore definite descriptions of events.

To account for the selection of these two types of complements, Melvold distinguishes the following two argument-types: *propositions* and *events*. For her, a *proposition* describes an action or state of affairs and has a truth value. An event is a definite description of a particular action or state of affairs and it is neither true or false. Given this characterization of the two types, Melvold proposes that factive verbs select an event-type argument while non-factive verbs select a proposition type. She argues that since event-arguments have a referential function, they will be bound by a different operator than proposition-arguments which are bound by an existential quantifier. She proposes that in the case of event-arguments

"the definite complementizer licenses an iota operator in the SPEC of COMP, thus making the sentence into a term which identifies a particular "event-object" in the world." Melvold further argues that the reason why the complementizer introducing a factive complement licenses an iota operator is that factive verbs select a functional head which bears the feature [+definite].

I will adopt here the proposal of Melvold that there is a iota operator present in the complement to factive verbs and that this operator is licensed by the feature [+definite] on the head of the complement. My analysis will differ, however, as the reader would have already guessed, in that I assume that the functional head of the complements to factive emotive verbs is INFL (rather than COMP for Melvold), so that it will be INFL that will bear this feature [+definite] which in turn requires the iota operator. The operator will be generated under COMP and will therefore be in a head-head relationship with the selected head INFL of the complement. <sup>21</sup>

In the following sections, we will see that the presence of this iota operator, which accounts for the definite character of these event-complements compare to those of the volitional verbs, is responsible for most of the peculiar characteristics of the complements to factive emotive verbs noted earlier.

### 3.5.2 The SDR effects in complements to factive verbs

Recall that it was mentioned in 3.2 above that the SDR effects in subjunctive complements to factive-emotive verbs seem to be subject to much variation, as is also the use of the subjunctive or the indicative with

these complements.

Kempchinsky (1986) shows that these complements appear as indicative complements in Rumanian while in French they may appear either as indicative or subjunctive complements. In Spanish, however, the subjunctive appears to be required for most speakers. Kempchinsky also shows that even in the case where these complements appear in the subjunctive, there seems to be some variation as to whether the complements exhibit SDR effects or not. She provides a solution to these problems which basically argues that there can be two analyses possible for these complements.

I will also advocate a solution to these problems in terms of a dual analysis of these complements. I will assume that the presence of the operator, that we have assumed to be responsible for the definite character of the factive complements, may be differently analyzed by different speakers or languages, as involving either the presence of a COMP node or as involving simply an adjunction structure (adjunction to IP).

When the operator is analyzed as being in COMP, the complement will not be an IP structurally and although the subjunctive is still possible by virtue of the fact that the complement is an "event", the domain for binding will be the embedded clause assuming that the operator in COMP will act as a governor for the embedded subject. I will assume that since the operator is in fact selected by the embedded INFL, the complete functional complex in which the subject must be free will be the lower clause.

When the operator is analyzed as being simply adjoined to IP, I will assume that its presence will not affect the government relationship that holds between the matrix verb and SPEC-I'. Recall that in 3.2.3 above, I

assumed that the LF raising of the epistemic modals has for effect of blocking the government relation of the matrix verb and the embedded subject. I will assume that such a blocking effect occurs only when there is some lexical element present in these adjoined positions at LF. Therefore, in the case of the factive emotive complements, I will assume that the operator does not require the raising of INFL or of any lexical element in INFL at LF and that it will not act as a closer governor for the embedded subject in these structures.

It appears that for some speakers or for some languages, the analysis of the operator as being in COMP also involves analyzing COMP as the head of the complement, in which case the complement will appear in the indicative on a par with the complements to propositional verbs.

### 3.5.3 Subject extraction with factive complements

Rouveret (1980) notices that subject extraction out of inflected infinitival complements is impossible when these occur as complements to factive verbs. This impossibility of subject extraction cannot be due to the some general constraint against extraction out of inflected infinitival complements since when these appear as complements to propositional verbs, the extraction of the embedded subject is possible.

- (74) a. Que meninos acreditas terem gastado esse dinheiro para nada?  
           'Which children do you think have spent that money for nothing?'  
       b. \*Que meninos lamentas terem gastado esse dinheiro para nada?  
           'Which children do you regret have spent that money for nothing?'

Rouveret also points out that a similar contrast exists in French concerning the possibility of extracting the subject of a tensed complement. Here again, subject extraction out of a complement to a

propositional verb is possible while it is disallowed when the complement appears after a factive verb.

- (75) a. Qui crois-tu qui a épousé Marie?  
'Who do you believe has married Marie?'  
b. \*Qui regrettes-tu qui ait épousé Marie?  
'Who do you regret that has married Marie?'

One possibility that can be explored to account for these facts is to argue that since the complement to a factive predicate has no SPEC-C position available, the extraction of the embedded subject will have to be done across the IP boundary and across the node where the factive operator is (presumably COMP). The sentences in (74b) and (75b) would both be ruled out by the ECP, assuming that the trace in the embedded subject position could not be properly governed (antecedent-governed) by the *wh*-extracted constituent. Moreover, in the case of the French example in (75b), we see that the *que* - *qui* rule which appears to be responsible for the lack of \**That*-*t* effect in a structure like (75a) does not rescue a sentence involving a complement to a factive emotive predicate. As it was mentioned in 3.3.1 above, it seems that the presence of the operator in these complements is probably responsible for the contrast with respect to the extraction of the embedded subject between the complements to factive emotive and non-factive emotive verbs. In the latter case, *que* would be adjacent to the subject position and the *que* - *qui* rule could apply while in the former case, *que* would not be adjacent to the subject position given the presence of the operator and the *que* - *qui* rule would not apply.

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#### 3.5.4 The Portuguese inflected infinitivals

In terms of the "sentential" complements that are under scrutiny in this

thesis, the distribution of the Portuguese inflected infinitivals appears to proceed as follows. The effective verbs appear to not take inflected infinitival complements. Among the emotive verbs, the factive emotive verbs can freely appear with an inflected infinitival complement whereas the non-factive emotive verbs may never take an inflected infinitival complement. (The examples given in this section are taken from Raposo (1987).)

(76) Eu lamento os deputados terem trabalhado pouco.  
 'I regret the deputies to-have-Agr worked little'

(77) \*Eu desejava os deputados terem trabalhado mais.  
 'I wished the deputies to-have-Agr worked more'

The propositional verbs, or at least a subset of these constituted of the epistemic and declarative verbs, can also take an inflected infinitival complement, as shown by the following example.

(78) Eu penso/afirmo terem os deputados trabalhado pouco.  
 'I think/claim to-have-Agr the deputies worked little'

The non-occurrence of inflected infinitivals as complements to effective verbs is straightforwardly accounted for under the analysis of the complements to effective verbs developed in the preceding chapter. Recall that the effective verbs s-select the semantic type A and that one possible CLR of A is V. Recall also that it was argued that an INFL node may appear in these verbal complements but that it can only be a "degenerate" INFL crucially not specified for Tense or AGR features. It follows from that analysis that the generation of inflected infinitivals as complements to effective verbs should most likely be impossible, since the major characteristic of inflected infinitives is their AGR features (although, given the existence of the Rumanian subjunctive complements to effective

verbs, it appears to be possible to find AGR markers on the verbal head of the complement to an effective verb, see 2.7 above). An inflected infinitive can only appear in structures where there is a non-degenerate INFL since it is only when INFL is not degenerate that it can be specified for AGR features. Thus the fact that the inflected infinitive never surfaces with the verbs that s-select *A* is a consequence of the fact that the complements of these verbs cannot contain a fully specified INFL.

Under such an account we would now expect to find inflected infinitives as complements to emotive predicates since these predicates select the head INFL which can therefore be specified for AGR, as confirmed by the occurrence of the subjunctive. The facts are not however quite as expected. As the examples in (76) and (77) show, the possibility of getting an inflected infinitive complement to an emotive verb in Portuguese is dependent upon whether the matrix verb is factive or not. When the matrix verb belongs to the class of the non-factive emotives, the inflected infinitive is disallowed, as shown in (77). Only when the matrix verb is a factive predicate do we find the occurrence of inflected infinitive forms, as shown in (76). In fact, another interesting property of the inflected infinitival complements to factive emotive predicates is that in these structures the verb carrying the personal infinitival inflection may not only appear after the lexical subject, as shown in (76), but it may also precede the lexical subject, as shown here in (79).

(79) Eu lamento ~~terem~~ os deputados trabalhado pouco.

This behavior of the inflected infinitive under a factive emotive predicate is to be contrasted with that of the inflected infinitival complements to propositional verbs whose only grammatical outcome is when



the inflected infinitive precedes the lexical subject, as shown by the contrast between (78) and the following example.

(80) \*Eu penso/afirmo os deputados terem trabalhado pouco.

Raposo (1987) accounts for the distribution and the behavior of the inflected infinitivals with the emotive and propositional verbs as follows. He argues that a major property of the inflected infinitive is that it must be Case-marked by the matrix predicate. According to him, the fact that the inflected infinitive in the complement to a propositional verb must precede the lexical subject follows from the fact that in order to receive Case from the matrix propositional verb, the inflected infinitive must appear in the head position of the complement which Raposo analyses as a CP complement. The inflected infinitive must therefore appear in COMP at S-structure which implies that INFL has raised to COMP.

Raposo accounts for the impossibility of getting inflected infinitives in the complements to emotive non-factive (volitional) verbs by assuming that the complements of these verbs are also CP complements. Thus, in a sentence like (77), the inflected infinitive being under INFL cannot receive Case from the matrix predicate. As Raposo points out however, the inflected infinitive of such complements cannot be moved to COMP as in the case of the complements to propositional verbs, as shown by the following example.

(81) \*Eu desejava terem os deputados trabalhado mais.

Raposo accounts for the difference between the complements to volitional predicates and those to propositional predicates by arguing that COMP in the case of the complements to volitional predicates is not an adequate "landing site" for the inflected infinitive. Raposo suggests that this restriction

may be due to the fact that volitional predicates do not take nominal complements and that if a nominal Infl raises to the head of CP in these complements, CP will become a pure nominal, in violation of the selectional requirements of the matrix predicate.

Raposo analyzes the inflected infinitival complements of the factive emotive predicates in the following manner. On the basis of examples like the following, Raposo argues that these predicates subcategorize for nominal maximal projections.

- (82) a. Nos lamentamos o eles terem recebido pouco dinheiro.  
           'We regret the they to-have-Agr received little money'  
       b. Nos lamentamos o facto de eles terem recebido pouco dinheiro.  
           'We regret the fact of they to-have-Agr received little money'  
       c. Nos lamentamos os pedidos dos Jesuitas.  
           'We regret the requests of the Jesuits'

Raposo also assumes that the Agr element in the inflected infinitive is a zero-level element of the category N. When an inflected infinitive is the head of an IP, IP is a maximal projection of [+N] and is thus non-distinct from NP. He argues that the inflected infinitival complement to a factive emotive predicate is to be analyzed as an NP=IP, as shown in (83).

- (83) Eu lamento [        os deputados terem trabalhado pouco ]  
                                 NP=IP

In this structure, *terem* is under INFL and can thus receive Case from the matrix predicate.

Raposo accounts for the grammaticality of a sentence like (79) by assuming that factive emotive predicates can also select a CP complement in which case the inflected infinitive will have to raise to COMP in order to be properly Case-marked. He thus assumes that factive emotive predicates enter into two different subcategorization frames, selecting either for an IP or a CP complement.

The analysis that I will propose for the distribution of the inflected infinitives with the emotive verbs will differ from that proposed by Raposo in at least two major respects. First, as the reader will have already foreseen, I will have to provide a different explanation for the impossibility of getting inflected infinitives in the complements to non-factive emotive predicates, since these complements are analyzed as IP complements in the system put forward in this chapter. Second, I will also depart from Raposo's basic assumption that inflected infinitives need to be Case-marked in order to be able to assign nominative Case. This departure from Raposo's hypothesis will be more explicitly discussed in 4.2 below but let me simply point out here that his proposal that the Case-marking of the inflected infinitive is required simply for the inflected infinitive to be able to assign nominative Case, appears to be a dubious move if we want to derive the necessity for Case assignment from the Visibility Condition. For these two reasons, I will not adopt the analysis proposed by Raposo.

Given the analysis of the complements to emotive predicates as projections of INFL proposed in this chapter, the question that must now be asked is that of how to account for the contrast between the factive and the non-factive emotive predicates with respect to the possible occurrence of inflected infinitives in their complements.

In order to account for this contrast, I will assume that Case-assignment is sensitive both to government requirements as well as to string adjacency preference. I will also assume that inflected infinitivals, contrary to non-inflected infinitivals, do not require to be assigned Case. In that sense they are like regular tensed verbs. In a structure like (84) which

represents the case of a complement to a volitional predicate, both the embedded subject and INFL are governed by the matrix verb. The embedded subject, however, is also adjacent to the matrix verb given that the only node intervening is the IP node. I assume that in such IP structures, when the matrix verb is adjacent to the SPEC-I' position, it will necessarily assign its Case to the embedded subject. But the inflected infinitive will also assign nominative Case to the embedded subject in this structure. The structure will therefore be ruled out because there will be Case-conflict, the embedded subject being assigned Case both by the matrix verb and by the embedded inflected infinitival.

(84) \*Eu desejava [ os deputados terem trabalhado mais]  
                                 IP

In the case of the complements to factive emotive predicates, the presence of the operator will prevent this direct Case assignment to the embedded subject position since that position is not adjacent to the matrix verb. The matrix verb will thus simply assign Case to its complement and the Case will be abstractly realized in the head K of the KF phrase under which the factive complement will be embedded, since both the head INFL and the NP in SPEC-I' cannot realize the Case assigned by the matrix verb (the head INFL by virtue of being verbal rather than nominal, and the subject NP because Case-assignment to specifier positions presumably requires adjacency as well as government). This analysis will thus account for the structures given in (82a) and (83). The phenomenon of AUX-to-COMP shown in (79) and (80) follows from the fact that the presence of the operator with these factive complements can be analyzed as involving the presence of a COMP position. I will return in 4.2 to the proper analysis of the AUX-to-COMP phenomenon.

### Notes to Chapter 3

1. Ronat (1974) also argues that subjunctive clauses are instances of S rather than S'.

2. Emonds (1985) also analyzes "complementizers" like *que* as prepositions. His approach, however, is different, although not incompatible, from that put forward here.

3. It will be argued below in 3.5.4 that Case assignment to an IP complement, in the absence of material breaking the adjacency between the matrix verb and the embedded SPEC-I' position will be to that position if the head INFL of the complement does not require Case. I assume that inflected elements, that is elements that show AGR markers, cannot be Case-marked. In such cases, the matrix verb will be able to assign its structural Case to the embedded subject, unless as mentioned above, the adjacency requirement for Case assignment to the specifier position is not fulfilled. I assume that in the case of the infinitival complements to emotive verbs in Romance, the infinitival INFL requires Case and thus prevents the possible realization of a lexical subject in these structures. The infinitival complements to emotive verbs in English do not require Case, perhaps by virtue of the presence of *to*. Since the head INFL of an infinitival complement to an emotive verb in English cannot be assigned Case, the matrix verb will be able to assign its Case to the embedded subject position (cf. (i)) or, alternatively, the IP complement will be embedded under a KP, where Case will be realized on the empty head K (cf. (ii)). I will return in chapter 4 below to the English infinitival constructions.

(i) I want John to leave.

(ii) I want to leave.

4. Torrego (1983) mentions that the class of matrix verbs that allow *que* to be absent comprises verbs like *lamentar* 'to regret' and also some verbs of saying. She also mentions that *que* deletion is not restricted to subjunctive complements. The data that she examines in that paper show that when there is *wh*-extraction from a clause embedded under a verb of the *lamentar* type, the presence of *que* is optional.

(i) La película que de veras siento (que) no llegases a ver es  
*El matrimonio de Maria Braun*.

'The movie that I really lament you didn't get to see is *The Marriage of Maria Braun*'

However, when the *wh*-extraction occurs from a deeper embedding, that is from a clause embedded under the complement of a verb of the *lamentar* type, *que* must obligatorily be present.

(ii) La película que de veras siento \*(que) no intentarás que  
proyectaran en tu clase es *El matrimonio de Maria Braun*.

'The movie that I am really sorry that you did not try to  
have shown in your class is *The Marriage of Maria Braun*'

Torrego accounts for the movement displayed in (i), when *que* is absent, as

being a case of movement skipping an S'-cycle, as shown in (iii).

(iii) [ [ [ ] [ ...siento...[ [ ] [ ...t...]]]]  
           S      S      S      S

This movement is allowed since there is only one bounding node that is crossed over in this case (under the assumption that only S' counts as a bounding node in Spanish). In the case of (ii), however, *Wh*-movement must leave a trace in the COMP directly embedded under the main verb, since otherwise the movement will result in a Subjacency violation. Hence, there are two possible derivations for this sentence but in both cases there will be movement through the highest embedded COMP, as shown in (iv).

(iv) a. [ [ [ ] [ ...siento...[ [ ] [ ...[ [ ] [ ...t...]]]]]]  
           S      S      S      S      S      S

      b. [ [ [ ] [ ...siento...[ [ ] [ ...[ [ ] [ ...t...]]]]]]  
           S      S      S      S      S      S

These facts are obviously problematic for the analysis of subjunctive complements developed in this chapter since under this analysis there should not be movement through COMP (or rather through Spec-CP) possible in the case of embedded subjunctives. In fact, the facts concerning the obligatory inversion of the verb under *Wh*-movement and the analysis proposed by Torrego (1984) that there is a Verb Preposing rule adjoining the verb to S when there is either a *wh*-word or a *wh*-trace in COMP (an analysis which would now be reinterpreted as being that the presence of a *wh*-element in Spec-CP triggers V-raising to COMP), are also problematic for the analysis of subjunctive clauses proposed here.

A possibility that I would like to suggest here is that it may be the case that, in Spanish, *Wh*-movement involves movement through Spec-IP. This proposal would imply that such movement is possible only when the subject (which, I assume, originates in the VP) has not moved to that position. If such an analysis can be made to work out, then the facts relative to the obligatory presence of *que* in (ii) above could be understood as meaning that *que* must be present when there is a *Wh*-trace in Spec-IP. In the case of the sentence in (i), the movement could either be done in one step, in which case *que* may be absent, or in two steps, in which case *que* must be present. This analysis could also perhaps account for some of the facts pointed out by Suñer (1986) concerning the possibility of having three pre-IP positions in Spanish. These three positions appear to involve *que*, followed by a *Wh*-element, followed by a verb. This possibility of movement through Spec-IP could also perhaps turn out to be the relevant factor that determines whether S (IP) is a bounding node or not. I will not pursue this analysis any further here.

5. Rizzi (1982) considers two different cases of subjunctive clauses where what appears to be the complementizer can be deleted. The first type that he considers involves hypothetical clauses like the following:

(i) *Se voi faceste il vostro dovere, non ci sarebbero problemi.*

'If you did your duties, there would be no problem'

In such sentences, *se* can be omitted only if the rule of AUX-to-COMP applies. I will assume that these hypothetical clauses are ordinary CP clauses (the type of secondary subjunctive pointed out by Salamanca (1982)).

The other case reported by Rizzi involves the subjunctive complements to the emotive verbs. Rizzi points out that the rule of AUX-to-COMP gives somewhat less natural results in these cases but that if AUX movement applies, retention of *che* makes the sentence ungrammatical.

- (ii) Speravo (+*che*) fossi tu disposto ad aiutarci.  
'I hoped (that) were you ready to help us'

Obviously, the rule of AUX-to-COMP should not be able to apply in this structure, if I am right that these subjunctives are IPs. It could be that the generalization is that when *che* is present, the subject must raise from its D-structure VP internal position to the surface subject position (Spec-IP). We would still have to account, however, for the fact that the subject may appear in Spec-IP when *che* is absent.

- (iii) Speravo (*che*) tu fossi disposto ad aiutarci.

6. I will ignore here the facts pointed out by Kempchinsky (1986), which appear to contradict this claim that subjunctive complements are necessarily "tense dependent". Kempchinsky shows that although there does seem to be some constraint on the tense interpretation of subjunctives (vs. indicatives), this constraint is not simply one of "absolute" tense dependency. I believe however that the facts that she points out do not necessarily imply that we must posit a TENSE operator for subjunctive complements.

7. The proposal that subjunctive complements are IPs also implies that nominative Case assignment cannot be done under canonical government as argued for instance by Stowell. I will rather adopt Borer's (1986) position that coindexing is responsible for nominative Case assignment.

8. In fact, it may not be impossible to argue that the position Spec of IP can be filled by a "subject" only when [AGR] is present. If this is the case, then there will never be PRO subjects in infinitivals. In 2.8.3 above, we have seen that the control cases of infinitivals can probably all be handled in terms of predication. The cases of infinitival structures which appear to involve the presence of the so-called "arbitrary PRO" would simply be cases of infinitivals that are not predicated of an argument. But this proposal will run into problems since it would imply that the external  $\theta$ -role of the infinitival verb is not discharged in these cases. I will not pursue this matter here.

9. Given this similarity, we also expect to find more marginal cases of restructuring involving verbs of the emotive class than verbs of the propositional class (the "periphery" cases discussed in 2.8.1 above). This expectation appears to be confirmed by the data from Old and Middle French.

10. As it was mentioned in 2.8.3 above, this analysis of the infinitival complements of the emotive verbs will necessitate a revision of the analysis of the prepositions introducing infinitival complements (cf. 2.5.3 above). If the complement of a verb like *aimer* is analyzed as an I' complement then we would expect that a preposition should be necessary to absorb the objective Case assigned by the verb. It is interesting to note that verbs

like *aver* are verbs for which there was or still is much variation in the use of a preposition. As it was mentioned in footnote 42 of chapter 2, Italian also shows variation in the use of the preposition *di* with these verbs. Perhaps the variation has to do with the possible dual analysis of these complements as being either "actions" or "events". It is also worth noting that the effects of the "double infinitive filter" proposed by Longobardi (1980) appear to mainly involve cases constituted of two adjacent infinitives where the first infinitive is an emotive verb. I will not, however, try to provide a solution for these facts here.

11. For an excellent survey of the different analyses put forth within the general framework of generative grammar, I refer the reader to Kempchinsky (1986). Here, I will not review any of these analyses for obvious reasons of space.

12. See Salamanca (1982) for a detailed study of the distinction between primary subjunctives which he analyzes as being embedded under a NP node and secondary subjunctives which are triggered by some element such as an adverb or a negation, for instance. Salamanca's study is the first one to my knowledge to put together the facts that are under investigation in this chapter. His study has certainly influenced mine.

13. Huot (1986) provides an interesting study of these secondary subjunctive complements in French.

14. It is interesting to note that several of the problematic cases pointed out by Ruwet, and for which there is no account in terms of "epistemic modality" or instances of secondary subjunctives, involve cases where the embedded subject originates as a D-structure object. These are cases involving passive structures, unaccusative verbs, and also psychological predicates. It would thus appear that in these cases, the fact that the subject originates as an object of the verb will make it possible for the binding domain to be restricted to the embedded clause. I will not explore here the actual consequences of these facts for the version of the Binding Theory that I am assuming.

15. As for the root modals, Picallo argues that these are best analyzed as adjunct predicates base-generated in the VP. She also argues that aspectual verbs are base-generated in the VP, like the root modals. She assumes that root modals or aspectual modifier verbs are non maximal projections and that the infinitive verb is the head of the predicate.

16. This would now solve the problem noted in 2.4.3 with respect to the argument structure representations of the modals. I would now assume that there is only one raising modal and that its meaning will vary slightly (epistemic vs root) depending on whether it raises to a pre-sentence position or not.

17. Another possibility, that will not be explored here, is that the impossibility of extraction from the subject position of subjunctive complements is due to a Binding Theory violation. Under such an approach, the impossibility of getting a lexical anaphor in the subject position of subjunctive clauses (recall the non-complementary distribution of anaphors and pronominals mentioned in 3.2 above) could perhaps be related to the



impossibility of movement from that position.

18. Ronat mentions one counter-example, the emotive verb *craindre* 'to fear' which can take *oui/non* as its complement.

(i) Je crains que oui/non.

It is interesting to note that *craindre* appeared to be also problematic in our treatment of the infinitival prepositions in 2.5.3 above. In fact, it seems that *craindre* should probably be analyzed as a propositional verb in certain cases.

(i) Jean craignait ne pas pouvoir partir.

Also the use of the subjunctive with this verb may in fact follow from the "negative" connotation associated with the verb (cf. the dubitative verbs mentioned in 3.2 above).

19. It could also probably be argued that the instances of Stylistic Inversion that occur with a [+Wh] element are also due to the same impossibility of focusing an NP in subject position, this time because there is some element in Spec-CP that blocks the movement of the focused NP.

20. Haïk gives the following condition on A'-chains:

(i) Condition on A'-chains:

- (a) If X is in an A'-position which has an entire S as its immediate scope, then X forms an A'-chain with Y, where X is in a percolation projection of Y.
- (b) If X is in an A'-position which does not have an entire S as its immediate scope, then X forms an A'-chain with Y, where (X,Y) obeys condition A.

The analysis proposed by Haïk to account for the phenomenon of *L-Tous* differs from that put forward here in that she assumes that the structures that allow this chain-formation to take place are obtained by an instance of LF restructuring comparable to the syntactic restructuring observed in languages like Italian (see 2.2 above). The motivation behind her proposal is that *L-Tous* appears to occur in the same environments as Clitic-Climbing does in Italian. But since French does not allow Clitic-Climbing and since the chain-formation needed to account for the quantifier interpretation of *tous* is an LF process, Haïk proposes that French also has the process of restructuring but only at LF, a proposal which accounts for the absence of Clitic-Climbing in French since, according to her, clitics must form a chain at S-structure.

It appears, however, that the environment in which *L-Tous* is permitted is in fact larger than the typical environment in which we observed restructuring effects.

21. In the case of the epistemic modals discussed in 3.2.3 above, I mentioned that it may be the case that the "extra" structure created either by the presence of some operator or by the LF raising of the epistemic modal, may only be extra structure at the LF level, so that in fact these

complements would be syntactically IP complements.

In the case of the factive complements, however, it seems that the "extra" structure should be present at all levels of representation as we will see below that different analyses involving different levels of derivations will rest on the existence of this "extra" structure.

It does not seem implausible to relate the differences in the treatment of the subjunctive complements involving epistemic modals and the complements to factive predicates to the fact that in the former case, it will simply be the interpretation of a "raising" modal appearing under INFL at S-structure (after V-raising) that will be responsible for the "extra" structure created at LF, while in the latter case, it is the selection for a "definite event" that will require the presence of the operator at all levels of representation. The selection of this operator could in fact be seen as a kind of inverted selection done by the head INFL of the "event" complement. I will leave opened here the question of the exact selectional mechanism involved in this case.

Another interesting fact that appears to confirm the analysis of the factive complements as involving an operator that binds the *Event*-position of INFL is that these complements may appear preceded by the determiners *el*, in Spanish, and *o*, in Portuguese (see Plann (1981) and Zubizarreta (1982)). I will assume that this possibility follows from the fact that these IP complements may be embedded under a DP node where the (definite) determiner can  $\theta$ -bind the INFL position of the complement.

22. Another fact that should be considered in some further study of the subjunctive complements to emotive verbs is that Stylistic Inversion appears to be disallowed in the complements to factive emotive verbs in contrast to the complements to non-factive emotive verbs (cf. section 3.3.2.4 above), as noticed by Rouveret (1980b). See also Zubizarreta (1982b) on subject extraction from factive complements.

## Chapter 4

### PROPOSITIONAL VERBS

#### 4.1 Introduction

In this chapter I will examine certain properties of the "sentential" complements to the propositional verbs. The propositional verbs are defined by Long (1974) as predicates which express judgments of truth value concerning a proposition that they introduce. The class of propositional verbs includes the verbs of stating, such as *dire* 'to say', the verbs of believing, such as *croire* 'to believe', and the verbs of knowing, such as *savoir* 'to know'.

It seems that a verb belongs to the propositional class to the extent that its complement constitutes a "proposition", that is, an "event" whose truth value can be asserted or denied independently of that of the matrix clause. The semantic category "proposition" would thus contrast with the other two semantic categories "action" and "event" which were introduced in the preceding chapters. In particular, the semantic category "proposition" contrasts with the semantic category "event" in that only the former is

associated with an independent truth-value.

As it was mentioned in 1.4.2 and 3.1 above, it seems as though the three semantic categories that are being studied in this dissertation are related to each other in a kind of hierarchical continuum where "action" constitutes the most basic type, where "event" is understood as comprising "action" and where "proposition" is understood as comprising both "action" and "event".

We can represent this hierarchy as follows:

(1) Action < Event < Proposition

The hierarchy would account for the fact that the effective verbs, which s-select "action", cannot s-select any other semantic category than "action". The hierarchy would also account for the possibility that some verbs of the emotive class, which s-select "event", can perhaps also select the semantic type "action" as well, but not the semantic type "proposition" which is situated higher up on the hierarchy (see 3.1 above). And similarly, the hierarchy could also account for the fact that some propositional verbs, which s-select "proposition", can perhaps also select the semantic types "event" and "action". These possibilities, which have not really been explored here (but recall the discussions in 2.8.3 and 3.1 above), may turn out to be needed in order to account for the fact that certain verbs of the emotive and propositional classes appear to have different interpretations depending on the type of complement that they appear with. I will briefly return to this issue in 4.2 below.

Going back to the propositional verbs, I propose that these verbs s-select the semantic category *proposition*,  $\bar{p}$ , whose CLR is COMP. Under the approach taken here, COMP may be understood as the category that turns an "event"



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overall tendency within GB has been to treat them as crucially not involving the presence of a COMP node. These two types of complements share the property that the subject of their embedded predicate appears to be Case-marked by the matrix verb. Within the present theory, this phenomenon implies that there is no barrier for government of the embedded subject position by the matrix verb if Case is to be assigned to that position by the matrix verb.

It thus turns out that the class of verbs that would have seemed at first sight to be the less difficult to analyze, given the uncontroversial status of a semantic category like *proposition*, actually presents such an array of types of complements that one wonders whether these correspond in fact to the same CLR or even to the same semantic category.

A possible alternative to the unique CLR of  $\bar{P}$  as COMP would be to assume that not only COMP but actually any major lexical category, that is, N, A, P and V, can also constitute possible CLRs of  $\bar{P}$ . Of course, these categories could only be understood as "propositions" to the extent that they are predicated of some subject, that is to the extent that they can be understood as "predications" whose truth value may be asserted or judged.

In this chapter I will first present the evidence that supports the claim that the CLR of  $\bar{P}$  is COMP. Of course, one major piece of evidence is provided by the fact that the propositional verbs can appear rather freely with tensed indicative complements. There are however other sentential structures appearing with the propositional verbs, namely infinitival structures, for which it is necessary to provide arguments in order to show that they are instances of CP complements. Recall that infinitives have so

far in this dissertation been analyzed as not constituting CP clauses.

I will thus argue here that at least some of the infinitival complements found with propositional verbs should be analyzed as CPs. In 4.2, I will examine three phenomena arising in the case of the Romance infinitival complements that support the claim that the selected head of these complements is COMP. We will see, however, that it may be the case that some infinitival complements are not instances of CP structures. A first account of the differences found between Romance and English with respect to the infinitival complements of the propositional verbs will be sketched out in that section. We will see however that this account appears to be problematic in the context of the complementation system developed in this thesis.

In the last section of this chapter, I will briefly present the evidence that can be adduced in support to the claim that the CLR of *P* can also be any major lexical category by examining the small clause complements to propositional verbs as well as the ECM construction found in English. We will see that it is possible to analyze the ECM infinitival constructions as instances of small clause complements.

#### 4.2 The infinitival complements to propositional verbs

In this section, we will first examine the structure and behavior of the infinitival complements to propositional verbs in the Romance languages. We will see that at least some of these infinitival complements must be analyzed as CP complements. We will also see, however, that the "control"

infinitival complements found with the propositional verbs are not so obviously analyzable as instances of CP complements. I will conclude this section by considering a possible analysis of the contrast found between English and the Romance languages with respect to the type of infinitival complements that these languages allow with propositional verbs.

The infinitival complements to propositional verbs in the Romance languages differ from those of English in that they exhibit subject control properties, as shown in (3), and fail to exhibit lexical subjects as shown in (4).

- (3) a. Jean croyait avoir fini son examen.  
      'Jean believed that he had finished his exam'  
      b. \*John believed to have finished his exam.
- (4) a. \*Jean croyait Pierre avoir fini son examen.  
      'Jean believed Pierre to have finished his exam'  
      b. John believed Peter to have finished his exam.

The standard account of the contrast between English and the Romance languages with respect to these facts is that the propositional verbs in English have the so-called property of being ECM verbs whereas the Romance verbs lack such exceptional character. Thus, the ungrammaticality of (4a) in French follows from the fact that no ECM may take place, hence forcing the occurrence of PRO in the embedded (ungoverned) subject position. The English matrix verb *believe* has the property of being an ECM verb, property which entails that there is no S' barrier at the level where Case marking takes place, hence allowing and in fact forcing the presence of an embedded lexical subject in the infinitival complement of such verbs, as seen in (4b). We will return below to the English ECM structures.

As is well known from the studies of Rouveret (1980), Kayne (1981), Rizzi



(1982) and Raposo (1987), among others, the ungrammaticality of sentences such as (4a) in Romance can be in some sense "rescued" by two operations which both have for effect to produce a structure in which the embedded lexical subject can be correctly assigned Case. These two operations are the *Wh*-extraction of the embedded subject and the phenomenon of AUX preposing which inverts the embedded subject and a following auxiliary verb. As we will see shortly, these facts and their standard analysis appear to confirm the claim that the complements to propositional verbs are CPs. I will start here by examining the *Wh*-extraction facts.

The studies of Kayne (1981) and Rizzi (1982) show rather convincingly that we must assume the existence of a COMP position (and of a Spec-CP position, once we translate their analyses into the X-bar framework adopted here) in the infinitival complements to propositional verbs like *croire* 'to believe', in French and in Italian, in order to account for the following examples where the moved *Wh*-expression appears to originate in the subject position of the embedded infinitival clause.

- (5) a. le garçon que je croyais être arrivé  
       'the boy that I believed (to) have arrived'  
       b. La donna che Mario affermava non volerlo sposare era mia sorella.  
       'The woman that Mario stated not to want to marry him was my sister'

As Kayne and Rizzi both show, the structures underlying these examples cannot surface with the lexical subject of the infinitival clause in the subject position.

- (6) a. \*Je croyais le garçon être arrivé.  
       b. \*Mario affermava questa donna non volerlo sposare.

Rouveret (1980) uncovers similar facts in the case of the Portuguese inflected infinitivals which appear as complements to epistemic and

declarative verbs. He gives the following examples.

- (7) a. *Que meninos acreditam terem gastado esse dinheiro para nada?*  
'Which children do you believe (to) have spent that money for nothing?'  
b. *Quantas juras terem partido a Coimbra?*  
'How many do you swear (to) have gone to Coimbra?'

In the case of the Portuguese inflected infinitivals, the structures in which the lexical subject appears in subject position are also ungrammatical in these cases (in contrast to the structures found with factive verbs, see 3.5 above).

- (8) \**Eles acreditam os meninos ter gastado esse dinheiro para nada.*  
'They believe the children (to) have spent that money for nothing'

These data strongly suggest that the infinitival clauses that appear with propositional verbs have a CP structure, which accounts for the possibility of extracting the embedded subject. It is assumed that the *Wh*-extraction of the embedded subject involves movement through the embedded Spec-C' position where the subject is assigned structural Case by the matrix verb. Hence, the extraction of the embedded subject constitutes one possible "rescue" operation for a D-structure in which a lexical subject appears in a CP infinitival complement. I will return below to the ungrammaticality of the sentences involving a lexical subject in the subject position of these infinitival complements.

As we have just seen, the infinitival structures exhibiting a lexical subject in subject position are ungrammatical in the three languages examined above. In all three languages, if the subject is *Wh*-extracted, the structures are "rescued". As Rizzi (1982) and Rouveret (1980) point out, in Italian and in Portuguese, these structures can also be rescued by the inversion of an auxiliary verb and the subject.

- (9) a. Mario affermava non esser lui in grado di affrontare la situazione.  
'Mario asserts not to be he/him able to face the situation'  
b. O Joao acredita terem eles gastado esse dinheiro para nada.  
'Joao believes to have them spent that money for nothing'

This phenomenon, which I will refer to as the INFL-to-COMP phenomenon, following Raposo (1987), appears to be restricted to structures exhibiting an auxiliary verb. Furthermore, INFL-to-COMP appears to not be operative in a language like French. If the phenomenon is analyzed as involving the raising of INFL to COMP, presuming that the infinitival auxiliary is under INFL in Italian and Portuguese (whether as a result of V-raising or because auxiliaries are generated under INFL), then a straightforward account of the absence of INFL-to-COMP in French can be given on the basis of the fact that infinitivals do not appear to undergo V-raising in that language (see section 2.3 above). Notice that if this analysis is on the right track, it will also provide some indirect evidence that auxiliaries are not generated directly under INFL in French.

The phenomenon of INFL-to-COMP is thus analyzed as involving head-to-head movement of INFL to COMP. Hence this phenomenon appears to provide further evidence that the infinitival complements to propositional verbs involve a COMP position and are therefore CP complements, like their tensed counterparts.

A further piece of evidence favoring a CP analysis of these complements comes from the fact noted above that the lexical subject cannot appear in the subject position in these complements. Here, we must distinguish two cases: the case of infinitival structures without any overt agreement markers, like those found in French and in Italian, and the case of the Portuguese inflected infinitivals which show overt agreement.

In the case of French and Italian, the impossibility for the lexical subject to be realized in subject position can straightforwardly be accounted for by the CP analysis of these complements since CP will act as a barrier with respect to government of the embedded subject position by the matrix verb, therefore precluding the possibility for Case assignment of the subject by the matrix verb. Recall that it is assumed that in the case of the *Wh*-extraction of the embedded subject, the subject is assigned objective Case by the matrix verb in the Spec-C' position where it is first moved to in the derivation of sentences like those in (5). As for the INFL-to-COMP structures of Italian, it appears that the presence of AUX under COMP makes it possible for nominative Case assignment to take place. I will return shortly below to this peculiar instance of nominative Case assignment.

In the case of the Portuguese inflected infinitivals, a somewhat different account of the absence of lexical subjects in subject position must be elaborated since the presence of agreement markers on the infinitival verb should presumably be sufficient for nominative Case assignment to take place. Recall that I assumed above (cf. footnote 6 of chapter 3) that nominative Case assignment is done by coindexing, that is by Spec-head agreement. Under this approach, we would predict that the sentence found in (8) should be grammatical. Hence, the ungrammaticality of that sentence requires some more elaborate account of the inflected infinitivals appearing in these structures.

One possibility would be to adopt the analysis proposed by Raposo (1987). Raposo argues that the obligatory inversion of the auxiliary and the subject in these structures follows from the requirement that the inflected infinitive must itself be Case-marked if it is to assign nominative Case to

the subject. Since the complements to propositional verbs are CP complements, the only way that the inflected infinitive can be Case-marked is by raising to the COMP position (the phenomenon of INFL-to-COMP). Raposo extends this analysis to the Italian structures exhibiting INFL-to-COMP by arguing that the infinitival IPs in that language may have an abstract, nonovert Agr element and that this abstract Agr may assign nominative Case only if it is itself Case-marked.

The problem with Raposo's account is that it relies on a very peculiar conception of the licensing function of Case assignment in these cases. It is generally assumed that the function of Case assignment is basically to ensure that all argument NPs will be visible for  $\theta$ -marking (the Visibility Condition, see for instance the discussion in Chomsky (1986a)). Under Raposo's analysis, in the case of the Portuguese inflected infinitives, the function of Case assignment is rather to make it possible for the inflected infinitival verb to assign nominative Case. If the inflected infinitive fails to be Case-marked by the matrix verb, it will not be "illicit", since it is not an argument of the matrix verb, but it will simply be incapable of assigning nominative Case. Although this hypothesis is not entirely implausible, it is nevertheless quite problematic under an approach that seeks to derive the Case filter (and hence the essence of Case marking) from the Visibility Condition.

Raposo's analysis is also problematic in view of the analysis of the inflected infinitives as complements to emotive verbs that I proposed above in 3.5.4. Recall that the distribution of the inflected infinitives as complements to emotive verbs is restricted to the factive emotive verbs. I proposed that the impossibility of getting inflected infinitives in the

complements to non-factive emotive verbs follows from the fact that the lexical subject would be assigned two conflicting Cases: objective Case from the matrix verb and nominative Case from Spec-head agreement with the inflected infinitive. That account relies essentially on the assumption that an inflected infinitival cannot be assigned the objective Case of the matrix verb even though it is in the head position of the IP complement. I assumed that in general inflected verbs are incapable of bearing Case since by virtue of being inflected they are truly verbal elements compare to the non-inflected verbs which have nominal properties.

Clearly, this account of the absence of inflected infinitival complements to the non-factive emotive verbs relies on an assumption that is exactly the opposite of that proposed by Raposo. Under the analysis that I proposed the crucial assumption is that inflected infinitives cannot be assigned Case whereas under Raposo's analysis inflected infinitives must be assigned Case.

Returning now to the case of the inflected infinitives that appear in complements to propositional verbs, it is still necessary however to propose an explanation for the fact that the lexical subject is assigned nominative Case only when there is preposing of the inflected auxiliary verb. Perhaps a possible explanation for this fact could be that in the absence of the Tense features characteristic of finite clauses there is no Tense operator in the COMP of these [-Tense] clauses.

It may be that the selection of the Tense and AGR features of INFL is normally mediated through the selection of the Tense operator in COMP in the case of CP clauses. In the case of the CP indicative complements, there will be a Tense operator in COMP selected by the matrix verb which will

transmit the Tense and AGR features to the embedded INFL again as a form of selection of a head for another head. In the case of non-inflected infinitival complements, there are no Tense or AGR features onto the verb so that the absence of a Tense operator in COMP is not going to be problematic since the matrix verb does not have to specify any features with respect to the embedded verb.

But in the case of a CP inflected infinitival complement, there are AGR features attached onto the infinitival verb and these must be selected by the matrix verb. However, for that selection to go through the inflected infinitive must be in a head-head relationship with the matrix verb. I will assume here that the absence of a Tense operator in COMP makes it impossible for this head-head relationship between the matrix verb and the embedded inflected infinitive to obtain. The only way that the inflected infinitive can be properly licensed in these cases is by raising to the COMP position. Under this account, the problem with a sentence like (8) is not that the embedded subject is not assigned nominative Case by the inflected infinitive but is rather that the inflected infinitive is not itself properly licensed in the sense that its AGR specifications are not licensed by a selecting head (whether a matrix verb or a Tense operator).

Given this proposal that INFL-to-COMP occurs when the COMP position lacks the Tense operator required for the mediation of the selection of the AGR features in INFL, it is now possible to account for the fact that the phenomenon of INFL-to-COMP also occurs in the case of the inflected infinitival complements to factive emotive predicates. Recall that in section 3.5 above, it was pointed out that these complements could either appear with the order lexical subject - inflected infinitive or with the

order inflected auxiliary infinitive - lexical subject. At that point I did not provide any explanation for the possible inverted order. Given the existence of a possible dual analysis of the complements to factive emotive predicates (see 3.5 above) and given the hypothesis just outlined here regarding the phenomenon of INFL-to-COMP, we may hypothesize that the possibility of INFL-to-COMP in the case of the factive emotive complements follows from the fact that the presence of the factive operator may involve the presence of a COMP position, which would lack a Tense operator, as in the case of the COMP position of the complements to propositional verbs. The presence of that COMP position will prevent the head-head relationship between the matrix verb and the inflected infinitival that is necessary for the selection of the AGR features. Hence, when the complements to factive emotive predicates are analyzed as involving a COMP position, the inflected infinitive must necessarily raise to the COMP position in order for the selection of its AGR features to take place.

Let us now consider the case of the Italian INFL-to-COMP phenomenon. Here, I will assume, following Raposo, that the Italian infinitival verbs under INFL may be specified for some abstract AGR features, but once again the infinitival verb will have to raise under COMP in order for its (abstract) AGR features to be properly selected by the matrix verb.

The data that we have examined so far all point to an analysis of these infinitival complements as involving a CP structure (or a C' structure in the case of the complements to factive emotive verbs). There is another interesting set of facts pointed out by Rizzi (1982), which also confirms the hypothesis that the infinitival complements to propositional verbs involve a CP structure. But as we will see shortly below, these facts also



raise the question of the status of the "control" infinitival structures which are also possible with the propositional verbs (cf. (3a) above). These facts have to do with the interaction of the structures assumed for infinitival constructions with respect to the Subjacency Condition. In that paper, Rizzi convincingly argues that only S', and not S, appears to be a bounding node in Italian. Given this claim, the ungrammaticality of a sentence like the following is explained by the fact that the *Wh*-extraction of the relativized element from the most deeply embedded clause crosses two bounding S' boundaries.

- (10) \*Un simile riscatto, che mi domando [quante persone ritengano  
[che pagheremmo \_\_\_]],...  
'Such a ransome, that I wonder [how many people would believe  
[that you would pay \_\_\_]],...'

Consider now the following structure involving the case of an infinitival complement where the subject has been *Wh*-extracted, therefore involving a CP embedded infinitival according to the analysis assumed here.

- (11) \*Un simile riscatto, che mi domando [quante persone ritieni  
[poter pagare \_\_\_]],...  
'Such a ransome, that I wonder [how many people you believe  
[to be able to pay \_\_\_]],...'

The ungrammaticality of this sentence appears to confirm the fact that it must have a structure similar to that of the previous sentence, namely a CP structure. In fact, a further piece of evidence for the CP status of the infinitival structure in (11) is brought up by considering the case of a "control" infinitival complement with the same matrix verb.

- (12) ?Un simile riscatto, che mi domando [quante persone ritengano  
[di PRO poter pagare \_\_\_]],...  
'Such a ransome, that I wonder [how many people would believe  
["to" be able to pay \_\_\_]],...'

As Rizzi points out, it appears that the alleged CP boundary found with

"control" infinitival clauses is "invisible" for subjacency. Another case of "control" infinitive that behaves similarly is the following involving the emotive verb *preferire* 'to prefer'.

- (13) ?Un simile riscatto, che mi domando [quante persone preferirebbero  
[PRO pagare \_\_\_]],...  
'Such a ransom, that I wonder [how many people would prefer  
[to pay \_\_\_]],...'

The account that Rizzi develops to handle these cases involves a reanalysis of these structures due to the cliticization of the preposition that introduces the infinitival complements, onto the following infinitival (see section 2.5.2.3 above).

In the framework of this dissertation, the (marginal) acceptability of (13) would follow from the fact that *preferire* is an emotive verb, which implies that its complement is a projection of INFL, therefore an I' (or at the most an IP) complement (see 3.1 above). There is thus no need to postulate a cliticization rule for that case. In the structure involved in (13) the *Wh*-phrase would have crossed only one S' boundary, thus only giving rise to a mild subjacency violation.

The (marginal) acceptability of (12), however, poses a more serious problem if we want to maintain the claim that the complements of propositional verbs like *believe* are projections of the category COMP.

A possible solution to this problem, that would still avoid to have recourse to Rizzi's reanalysis hypothesis, could be to consider that the "control" structures found with propositional verbs are not necessarily projections of COMP. This proposal would be in line with the remarks made at the beginning of this chapter and of chapter 3, concerning the possibility

for verbs that select a certain semantic category to also appear with complements that instantiate another semantic category, as long as this other semantic category is lower in the hierarchy of semantic categories proposed here.

Let us suppose that the "control" infinitival complements to propositional verbs in Romance arise in the context of an "emotive" or perhaps even an "effective" use of the propositional verbs. In the case of Italian, we could now analyze the obligatory presence of the preposition *di* with these control structures as following from the fact that the infinitival complement is an I' complement rather than a CP complement.

This approach could account for the "mixed" properties shown by many predicates of the propositional class. It would account, for instance, for the different uses of the verb *savoir* 'to know'. This verb would be analyzed as a propositional verb that can either s-select a "proposition" or a "question", as shown by the following examples.

- (14) a. Jean savait qu'il avait résolu le problème.  
'Jean knew that he had solved the problem'  
b. Jean ne sait pas à qui il devrait parler.  
'Jean doesn't know to whom he should talk'

But the verb *savoir* may also appear with infinitival complements.

- (15) a. Jean savait avoir résolu le problème.  
b. Jean ne sait pas à qui parler.

When this verb appears with tensed complements, its function is that of expressing a truth-value judgment on the part of the subject with respect to the complement. When the verb appears with an infinitival complement, it may still express a truth-value judgment, as in the case of (15a), where the complement is presumably a "proposition". But it may also be used to express

the relationship of a subject to the performance of an action, with a resulting shift in the meaning of the verb.

- (16) Jean sait faire les problèmes difficiles.  
'Jean knows how to do the difficult problems'

Let us consider the case of another propositional verb, the verb *croire* 'to believe'. In the sentences in (17), the verb is clearly used as a propositional verb.

- (17) a. Jean croit qu'il a résolu le problème.  
'Jean believes that he has solved the problem'  
b. Jean croit avoir résolu le problème.  
"same reading"

But in a sentence parallel to (17b), but this time without the auxiliary *avoir*, the verb can be understood as expressing the relationship of the subject to the performance of the action denoted by the infinitival complement.

- (18) Jean croit résoudre le problème en l'ignorant.  
'Jean "intends" to resolve the problem by ignoring it'

The exact meaning of the verb is not really that of "intend" but it may be understood in such a way as indicating "intention".<sup>3</sup>

This approach to the status of the infinitival complements with propositional verbs could perhaps also account for the fact that English appears to only have IP infinitival structures with these verbs (the ECM phenomenon) and no CP structures.

The absence of CP infinitival complements to propositional verbs in English is indeed problematic for the approach to complementation put forward in this thesis. If the propositional verbs s-select  $\bar{P}$  whose CLR is COMP, then we should expect to find CP infinitival structures in English as

well as in Romance, especially given the fact that the propositional verbs in English take indicative clauses which are analyzed as projections of COMP. In the spirit of this thesis, it must be that the apparent absence of the CP infinitival structures in English follows from some independent factor(s) rather than from a language particular subcategorization for IP complements.

Let us suppose that in general, the verbs that belong to the propositional class can either be used as propositional verbs, therefore selecting a complement that will be a projection of COMP, or that they can be used as emotive verbs, therefore selecting a complement that will be a projection of INFL. Under this assumption, we would expect a priori that both the Romance languages and English should allow CP and IP infinitival complements with these verbs. But we know that the form and the distribution of the infinitival complements with the propositional verbs are almost in complementary distribution when we compare English to the Romance languages. It must then be that some other factor is involved that will account for these differences.

Here I would like to propose that the mysterious distinguishing property that accounts for these differences between English and Romance is in fact a property related to the Case-marking requirements of INFL when it is infinitival. Let us suppose that an infinitival INFL (with no AGR features) in Romance must be assigned Case, at least when it appears as the head of an IP argument. Let us also assume that an infinitival INFL in English in fact disallows the possibility of being assigned Case, perhaps as a result of the presence of *to* under INFL (see Stowell (1981)).



the matrix verb will assign structural Case to the CP complement. We can assume that since INFL is not the head of the argument CP, it will not need to be Case-marked. Furthermore, both in English and in Romance, Case assignment to the embedded SPEC-I' position is impossible given the fact that this position is not governed by the matrix verb in the case of a CP clause. In Italian and in Portuguese, the infinitival (inflected) auxiliary verb can raise to COMP and a lexical subject may then appear, assigned nominative Case, as we have just seen above. In French and in English, this raising of the auxiliary appears to be impossible. In Romance, the subject of a CP infinitival clause can be extracted and be Case-marked by the matrix verb by virtue of its movement through SPEC-C'. This appears to be the only way to obtain a CP infinitival clause in French.<sup>4</sup>

But given the account developed here, English should also have the possibility to rescue a CP infinitival complement by having recourse to the *Wh*-extraction of the embedded subject. Given that English can also take an embedded lexical subject in an IP complement, a sentence like that in (21) below should be ambiguous between two derivations and presumably also between two interpretations, if we are right in assuming that the possible CP and IP complements with the propositional verbs arise in the context of a propositional or an emotive usage of the verbs.<sup>5</sup> Sentence (21) should therefore be ambiguous between a "propositional" reading and an "emotive" reading, while the sentence in (22a) should only involve a "propositional" reading and the sentence in (22b) should only involve an "emotive" reading.

(21) The woman that John believes to be sick...

(22) a. John believes that Mary is sick.  
       b. John believes Mary to be sick.

In contrast, the following sentence in French should not be ambiguous since it can only arise in the context of a CP complement, thus in the context of a propositional usage of the verb *croire*.

(23) La femme que je croyais être malade...

Supposing that the sentences exemplified above can actually be associated with the different interpretations that would appear to be implied by this analysis, we would then have provided an explanation for the contrast between *believe* type verbs in English and in Romance.

It appears, however, that this cannot be the end of the story, at least in the complementation system elaborated in this thesis. Indeed, we must also account for the fact that the IP infinitival complements that appear with emotive verbs in English do not behave as the IP infinitival complements found with a verb like *believe*.

Under the proposal that emotive verbs like *prefer* s-select an  $\bar{E}$  whose CLR is INFL, the complements to emotive verbs will be projections of the category INFL. Given that an infinitival INFL in English is assumed here to not be able to be Case-marked we would predict that there should not be any "control" infinitivals possible with that class of verbs, as with the propositional verbs, and also that the emotive verbs should freely appear with ECM complements. Both predictions, however, are obviously wrong. In fact, most emotive verbs do not freely appear in structures of the ECM type. In most cases, when an emotive verb takes an infinitival complement comprising a lexical subject, the infinitival complement will be introduced by the preposition *for*. Also, all emotive verbs can appear in control structures, even a predicate like *want* which appears to allow an ECM



structure, as shown in (24a).

- (24) a. John wants Mary to leave.  
b. John wants to leave.  
c. John prefers for Mary to leave.  
d. John prefers to leave.

It thus appears that the correct generalization is that post infinitival IP complements (that is those appearing with true emotive verbs) require the presence of the preposition *for* in order to allow the presence of a lexical subject. But, this is clearly impossible with the infinitival complements to propositional verbs.

- (25) \*John believes for Mary to be sick.

I would analyze the IP infinitivals that appear with emotive verbs in the following manner. Let us assume that the emotive verb assigns structural Case to its complement, which will be a projection of INFL, either I' or IP. In the case of a control infinitival, the projection will be I', as in the case of the Romance control infinitivals to emotive verbs (see 3.1 above). The I' complement will be embedded under a KP with an empty head K which will absorb the Case assigned by the matrix verb. But English also has the possibility of allowing lexical subjects within these complements, in which case it normally also requires the presence of *for*. I will assume that the projection of the infinitival complement in this case will be IP and that this IP is also embedded under a KP whose head will be filled by *for* which will play a dual role of absorbing the Case assigned by the matrix verb and of assigning Case to the lexical subject.

The main difference between English and the Romance languages would therefore lie in the fact that the presence of a preposition under k in Romance will not have for effect of licensing the presence of a lexical

subject, presumably because the preposition in Romance is used simply as a Case spell-out for the nominal INFL (see 2.5.3 above). Thus, in Romance, only control infinitivals are allowed with emotive verbs.

This account of the infinitival complements to emotive verbs clearly undermines the analysis proposed above of the difference between English and Romance with respect to the infinitival complements to propositional verbs. In the following section, we will see that it may be more appropriate to try to relate the ECM structures of English to the fact that the propositional verbs can also appear with small clause complements.

#### 4.3 The Small Clause Complements to Propositional Verbs

A study of the complementation properties of propositional verbs could not be complete without taking into consideration the fact that many of these verbs, at least in Romance, can also appear with "small clause" complements. In fact, it seems that in general most verbs that belong to the propositional class have this property of taking small clauses as their complements.

In a language like French, we find examples like the following:

- (26) a. Jean croit Pierre vraiment fou.  
'Jean believes Pierre (to be) really crazy'  
b. Les analystes considèrent le marché très bon en ce moment.  
'The analysts consider the market (to be) very good at this time'
- (27) a. Les étudiants considèrent Marc un très bon professeur.  
'The students consider Marc a very good teacher'  
b. Les membres du parti jugeaient leur président le meilleur candidat pour les élections.  
'The party members considered their president (to be) the best candidate for the elections.'

- (28) a. Marie pensait Pierre dans le jardin.  
           'Marie thought Pierre (to be) in the garden'  
       b. Claire croyait son père en voyage.  
           'Claire believed her father (to be) on a trip'

It seems that most of the propositional verbs can appear with small clauses headed by APs as in (26), or NPs as in (27), or PPs as in (28), although it may not be the case that all verbs can appear with all types.

One issue raised by the existence of these complements is that of whether they should be analyzed as instantiations of the semantic category "proposition" or not. And if so, should they then be analyzed as instances of the same CLR than that posited above for the indicative complements of the propositional verbs, namely the category COMP? These are important questions that may also well have some bearing on the issue of the ECM phenomenon, as it was mentioned at the end of the preceding section.

Chomsky (1986a) suggests that in the case of a small clause complement like that given in (29), it may be the case that the matrix verb *s*-selects proposition and that the main verb and the predicate of *q* together *s*-select the subject of *q*.

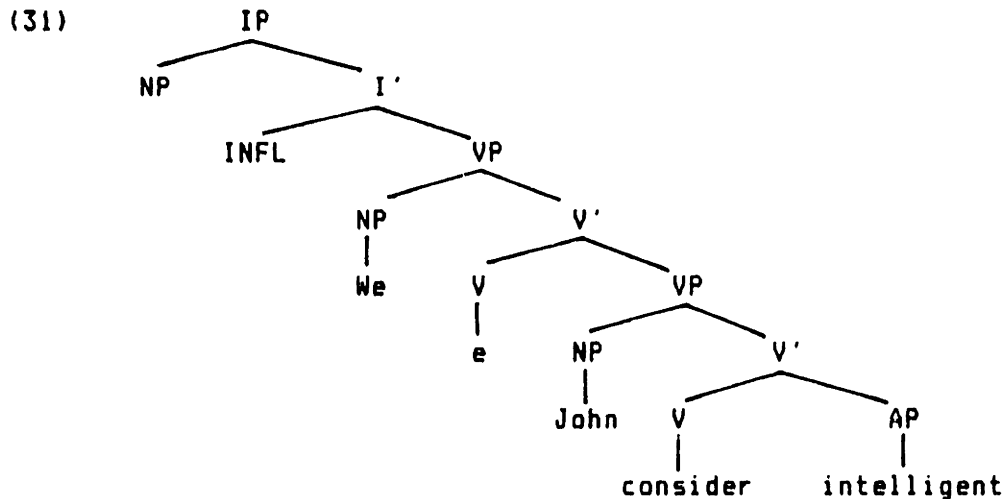
- (29) We consider [ John intelligent ]  
                   *q*

It may be possible to extend this approach to the small clause complements of verbs like *consider* to also include the case of an ECM structure like the following, where we could say that *consider* *s*-selects *p* and that *consider* and the predicate of the propositional complement together *s*-select the subject of the complement.

- (30) We consider John to be intelligent.

Let us in fact assume, as mentioned at the beginning of this chapter, that

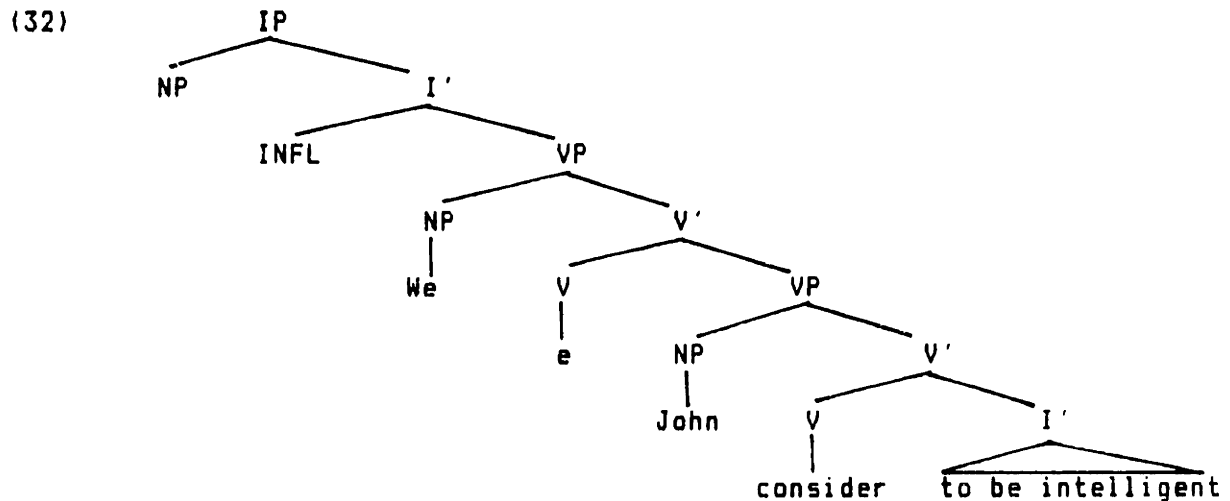
a possible CLR for the semantic category  $\bar{P}$  is not only COMP but also any major lexical category, that is N, A, P and V. Let us further adopt the proposal made by Larson (1987), concerning the D-structure of a sentence like (29) which would be as in (31).



In this D-structure, *John* is the subject of the predicate phrase *consider intelligent*. The verb *consider* will raise to the empty V position and will assign Case to *John*.

As just mentioned, a possible analysis of the ECM infinitival clauses could presumably be that they also constitute an instance of a small clause structure. This proposal would in fact fill in the gap in the paradigm that is found with small clauses. Indeed, we saw at the beginning of this section that small clauses can be headed by NP, AP or PP predicates, but we tacitely assumed that there cannot be any VP predicates heading a small clause complement. Let us suppose, however, that there is a priori no such gap in the paradigm. We would then expect to find structures parallel to that given in (31) above but where the predicative complement will be a VP, rather than an AP for instance. We know, however, that VPs must normally be associated with an INFL node since their E-position must be discharged by

INFL. It must therefore be the case that a VP complement, that is a complement headed by V, will have to surface as an I' complement (see chapter 2 above). Thus, a sentence like that in (30) could presumably have the D-structure representation shown in (32).



Here again, the NP *John* will be the subject of the predicate phrase *consider to be intelligent*, therefore accounting for the complex s-selectional properties of *consider* type verbs with their predicative complement. The verb *consider* will raise to the empty V position and assign Case to *John*.

Under this analysis of small clauses and ECM structures, we must now explain why the Romance languages appear to lack the construction exemplified in (32). Again, we can have recourse to the assumption that infinitival INFL requires Case in Romance, contrary to English infinitival INFL which, being headed by *to* cannot be Case-marked. Thus, in the French structure equivalent to (32), the embedded I' complement will require to be Case-marked by the verb *considérer* and since that verb has only one structural Case to assign (since it selects only one internal argument), it will be impossible for the I' complement to be associated with a lexical

subject.

The analysis of the small clause and ECM complements proposed here will handle many puzzling facts concerning the so-called "object" behavior of the subject of the predicative complement in these structures. I will not however review any of these facts here.

There remain, however, several problems concerning the Case analysis provided here to account for the difference between English and French. A first problem arises in connection with the assumption that the infinitival complement in French must be assigned Case. If a predicative I' complement needs to receive Case, then presumably a predicative NP complement will also need to be assigned Case. Also if we consider that these predicative phrases are actually arguments selected by the matrix propositional verbs and that their subject is selected compositionally by the main verb and the predicative complement, it must then be the case that these predicative complements are assigned a  $\theta$ -role by the main verb. But then, we would even more expect that in a sentence like (33), the predicative NP should be assigned Case in order to be visible for  $\theta$ -marking.

(33) Jean croyait Pierre un bon professeur.  
'Jean believed Pierre (to be) a good professor'

A possible solution to this problem, which I will not really explore here, would be to assume that there is an abstract verb *to be* present in the case of the AP, NP, and PP complements (as it was argued for in the early days of generative grammar). The function of this abstract verb would be on the one hand to assign Case to the arguments and on the other hand, perhaps, to provide an *Event*-position for the complement.

Another problem raised by this analysis concerns the absence of small clause complements with many of the propositional verbs that appear with ECM complements in English. For instance, a verb like *believe* in English cannot appear with the full range of small clause complements that the equivalent French verb *croire* can select. In fact, the verb *believe* appears to only take an "infinitival" small clause. It may be that verbs will have to be specified as to whether they allow the possibility of an abstract verb *to be* in these structures, although again I will not investigate this issue any further here.

It would be interesting to extend the analysis just outlined here to also cover the case of a raising verb like *seem* which appears to take infinitival complements as well as small clause complements both in Romance and in English.

- (34) a. Jean semble être malade.  
           'John seems to be sick'  
       b. Jean semble malade.  
           'John seems sick'

Here again, we could assume that the main verb *seem* selects the predicative complement (*to be*) *sick* and that *seem* and the predicative complement together select the subject *John*. Given the fact that *John* must necessarily raise to subject position in these structures, it must be the case that *seem* cannot assign it objective Case. The question, however, is that of whether the predicative complement is assigned Case by the matrix verb in these structures. To the extent that we want to account for the impossibility of infinitival small clause complements to verbs like *croire* in Romance, as following from the fact that infinitival complements require Case in these languages, it would seem that the infinitival phrase *être*

malade in (34a) must be assigned Case. Another possibility that could be explored is that sentences like those in (34) are in fact instances of an effective use of the verb *sembler*. But again, I will not pursue this matter any further here.

At this point, a more thorough study of these ECM and small clause constructions would be required before we can adequately answer all the questions raised in this chapter. The main purpose of this section was to outline a possible avenue for an explanation of the differences found between English and the Romance languages with respect to the form and distribution of their "sentential" complements. The basic idea that is defended here is that the propositional verbs of these languages should share the same semantic selectional properties and presumably also the same possible CLRs, whatever these may turn out to be. It appears likely that the explanation for the differences found between English and Romance will be contingent on Case requirement differences for infinitival verbs in these languages.



## Notes to Chapter 4

1. There are also some interesting cases of subjunctive complements with some propositional verbs like *sembler* 'to seem' which could perhaps be analyzed as following from an emotive usage of the verb.

2. See Kayne (1981) for an analysis of this difference between English and French, which does not postulate different structures for these complements. See also Massam (1985) for an analysis of the difference between English and Romance that is based on the hypothesis that the infinitival verbs in Romance need to be Case-marked. An analysis based on the same assumption will also be developed here.

3. The hypothesis made here that some propositional verbs can be used as effective verbs would account for the fact that restructuring used to be possible with verbs like *croire* in Old French. I would analyze such cases as following both from the fact that the infinitival complement of the verb *croire* can be realized as a projection of V, when *croire* is used as an effective verb, and also from the fact that *croire* is not a verb of strong semantic import, compared for instance with *considérer* 'to consider'. It is interesting to note that the propositional verbs that appear to be possible in restructuring contexts are those that add little semantic information to the sentence. These are verbs like *croire*, *penser*, *sembler*. See sections 2.2.3 and 2.8.1 above.

4. As it was mentioned above, it appears that infinitival verbs in French do not raise under INFL. There are however some cases where the infinitival auxiliary *avoir* appears to have raised under INFL, as indicated by the placement of the negation in the following sentence.

(i) Jean croyait n'avoir pas réussi.

It may then be the case that the AUX-to-COMP is perhaps also marginally possible in French, but it would crucially not permit the realization of a lexical subject contrary to Italian. I will not investigate this possibility here.

5. It may be the case, however, that extraction from the Spec-I' position of an IP complement is disallowed, as we saw in 3.3.1 above, in which case the sentence in (21) would not be ambiguous and would only convey the propositional reading of the verb. The few native speakers whose judgments I asked about the sentences in (22) agree that there seems to be a difference in the interpretation of these sentences. Obviously, this matter deserves a more thorough investigation which, however, will have to await some further study.

6. The *for*-to complements of English appear to be more or less the pendent of the subjunctive complements of Romance, with the emotive verbs. See Emonds (1976) and Kempchinsky (1986).

7. Massam (1985) points out, following an observation of I. Haïk, the existence of sentences like the following.

- (i) Je crois être intelligents tous les gens de cette classe.  
'I believe to be intelligent all the people in this class'

It could be that the predicate *être* is capable of assigning (nominative?) Case to the NP *tous les gens de cette classe* if it is raised with the verb *croire*. This would be a case of directional Case assignment like that involved for objective Case, rather than a case of Spec-head agreement like I assume for nominative Case assignment.

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