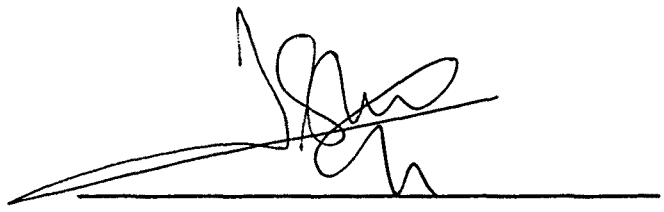
Mireia LLINAS I GRAU

VERBAL SEQUENCES: A GENERATIVE APPROACH

Tesi Doctoral dirigida pel Dr. Josep Maria Brucart

(Ponent: Dr. Joaquín Domínguez)



Departament de Filolgia Anglesa i Germanística

Facultat de Lletres

Universitat Autònoma de Barcelona

Any 1990

" *The search for my own word is really*
the search for a word that is not my own"
Vygotsky

Agraïments / Acknowledgements

" Qui no estima als seus mestres, així com qui no estima la materia de la qual disposa, erra greument " Tao Te Ting

Qui més a prop i mestre ha estat d'aquesta exploració teòrica és, el seu director, Josep M. Brucart. Com a director li he d'agrair el temps i l'atenció dedicats a aportar a la tesi les seves sempre valuoses correccions, exemples, i suggeriments teòrics; com a persona i amic li he d'agrair, i molt, la companyia, l'encoratjament, i les paraules d'ajuda en moments difícils, que han estat molts, pel curt període en que s'ha hagut d'elaborar aquest treball. Gràcies per la teva generositat, paciència i per haver-me fet participar del teu saber.

Na Joana Rosselló es una persona clau d'aquesta aventura: la meva "iniciadora" en la teoria; gran persona i gran mestre. Gràcies per la confiança!

Als altres membres-mestres del grup de Lingüística Teòrica (Sintaxi) de la Universitat Autònoma - Gemma Rigau, Maria LLuïsa Hernanz, i Anna Bartra - voldria agrair-los la simpatia i comprensió que m'han demostrat i, a més a més, que, pensant en el que em convenia, em recordéssin sovint el que havia de fer! Gràcies també al coordinador del curs de doctorat, Joan Mascaró, per la coordinació, pel suport moral i l'ajuda.

Hi ha mestres que queden més lluny en el temps, però que no s'obliden; és el cas del departament de Lingüística General de la Universitat Central. Gràcies per donar-me les "pistes" necessàries per començar.

" Those who do not appreciate their teachers, as those who do not love the material which they have at their disposal, are greatly mistaken."
Tao Te King.

Although not directly related to the particular history of this thesis, I would like to thank the members of the linguistics section of the Department of Phonetics and Linguistics at University College London, - as well as some teachers in the S.O.A.S - who may very well be regarded as direct contributors to it, as they provided me with strength to go on with a PhD in this field, and this area. Special thanks are due to Neil Smith for support there and a helpful and encouraging talk here in Barcelona, when

he visited and enriched our department with his talks and seminars. Many thanks are also due to Rita Manzini for her support and her willingness to share her ideas with me. Of special mention are my ex-syntax-teachers: Misi Brody at UCL, and Wynn Chao at S.O.A.S. Wynn first introduced me to the concept of *incorporation*, and I shall never forget that! Jamal Ouhalla, then a member of the department, was also part of a very enriching year. Thanks for your comments and support.

I would also like to thank A. Spencer for kindly sending parts of his book in print, and his encouraging comments. Thanks are also due to J. Strozer for also kindly sending her paper.

Però no només hi ha mestres al món ...

Als companys de departament, tots - Guillermina Cenoz, Hortènsia Curell, Joaquín Domínguez, Heidi Grünewald, Felicity Hand, Josep Ma. Jaumà, Andrew Monickendam, Melissa Moyer, Joaquim Oltra, David Prendergast, Alan Reeves, Anna Rossell, Ma. Josep Solé, Susan Stewart, Arantza Usandizaga, Malú van Wijk, and Choni - vull agrair, entre d'altres coses: paraules encoratjadores - I want to note Guillermina's, Josep Ma's, Melissa's-: recordatoris de treball ràpid i necessari - especially Arantza's(!)-; sentiments compartits d'esforç , etc. - especially with Melissa, David, Alan and Hortènsia -; offers of help if/when needed - Special thanks are due to Guillermina for kindly changing lecture schedule with me for my convenience; to Alan for taking care of things when I could not make it!; to Melissa for meeting up and offering to revise parts of the thesis; to Ma. Josep for providing information and also for offering to revise the thesis. I must THANK Felicity for her kindly offered very very helpful help (do not correct!) in a hasty proof-reading of parts of a drafted version, which complicated things for a non-generativist!! Thanks are also due to Joaquín Domínguez for his willingness to be the "ponent" of this thesis.
And . . . *any sign that brought a little light to the heart of a desperate "thesis-doer"*, even if just a warm smile in the corridor.

Gràcies als qui heu contestat el questionari d'"estranyes frases" que m'ha servit per veure que no havia perdut "*en algun jardí d'alguna casa bona*" la meva competència...

He d'agrair també als alumnes del curs 1989-90 que han sabut comprendre una situació difícil, que, a cops no m'ha permès donar-los la suficient

atenció. Gràcies als qui m'heu preguntat per la tesi i el seu desenvolupament, especialment els ex-alumnes del curs de Teoria Sintàctica de 1988-89.

i els altres amics ...

"I get by with a little help from my friends ..."

Quantes gràcies he de donar als amics que, lingüistes o no, heu fet lleugera la pressa, la tensió, la inseguretat, el saber que sempre queda tant per fer... Gràcies Isabel, per les paraules, el temps i el saber que participes de molt a prop dels meus daltabaixos; Guillem per ser tan a prop i pels teus sempre encertats mots; Ma. Rosa i Ma. Josep per la comprensió i la companyonia; Juan Alberto per tot això - i pels exemples! -; Josep Maria Montaner per l'estímul de la teva amistat; Josep Maria Romero per la teva solidaritat i pel teu sentit de l'humor (!); Miquel, per l'encoratjament i les teves trucades; Carme, pel mateix i per la confiança. Thanks, Joan Carles, perque encara que visquis lluny ets molt a prop i per animar-me amb aquell teu riure; Thanks, Reiko, for your constant friendship, and encouragement. Thanks Noema and Sandra for your unwavering friendship from long ago.

No vull oblidar-me dels companys de doctorat que segueixen el camí de la lingüística teòrica i que sovint també m'han encoratjat en aquest treball. Gràcies, doncs, en especial, Jaume, Joan Manuel, i Mercè.

Gràcies molt especials dedicades a Mariano de la Cruz, que ha seguit de molt a prop aquest treball. Gràcies per ajudar-me en el camí!

I quantes més gràcies he de donar a la família que ha sabut entendre un compromís de veritat. Gràcies al pare i a la mare en especial per la seva Bondat i per haver entès les meves necessitats. Gràcies, Rafael, pels consells!

La tesi la vull dedicar a la mare, per tot el que, d' ella, he après.

TABLE OF CONTENTS

CHAPTER ONE : *Theoretical Framework*

1.0 Introduction

As pointed out in a recent important proposal[1], most studies in the theory of grammar whose main aim is to construct a valid model of Universal Grammar - as is the framework of Chomskian generative grammar - imply comparison among languages. If a process is postulated for one language, reasons must be found as to why it does not apply in another language, otherwise, although descriptive adequacy may be achieved, explanatory adequacy is forsaken, a forbidden step for any theory that aims at approaching psychological plausibility. It is important to note that no reference is made in this thesis to other alternative grammatical theories, as the basic objective is not to compare, contrast or demonstrate that any one theory of grammar is more valid than another one, but to attempt an explanation of a specific linguistic phenomenon within a very particular grammatical theory, whose aims make it more interesting as scientific linguistic reasearch.

This work proposes a very specific process for two Romance languages: Catalan and Spanish, and, by comparison and contrast suggests that this process does not take place in English or French. The focus is placed where the process does give symptoms of its application, and therefore, the empirical data used to argue in favour of this process are mostly from these two Romance languages.

The work is centered on verbal sequences of <u>two</u> verbs; longer sequences are mentioned at different points, but not analysed. In this area, traditional notions such as *auxiliary* and *main verb* need obviously arise. The types of two verb sequences for which a proposal is given, suggested or considered range from those traditionally regarded as consisting of a

sequence of an auxiliary and a main verb - these I will refer to as **complex verbs** -, and certain particular verbs that select infinitives; namely sequences of causative, modal, and aspectual verbs plus their infinitive complement ,which I will refer to as **complex predicates**. The thesis' main hypothesis refers to complex verbs: the application of the recently proposed mechanism of **incorporation** - cf. Baker (1988), and Chapter 3 -. Two important gaps in the first type of sequences are *passive* and *progressive*; I have not attempted an analysis of these here as they do not seem to conform to the basic proposal for complex verbs, but they are not sequences of two main verbs; i.e. they are not complex predicates either. Further research on this area is obviously needed.

The work is organized as follows: Chapter 1 introduces the theoretical framework in which the thesis is immersed. I must note that I will not provide a historical development of each of the concepts now assumed,; each one has been posited and argued for on the basis of the analysis of different data in different languages, and has, therefore, been independently motivated. Chapter 2 has three basic aims: to review the notions of *auxiliary* and *main verb*; to distinguish between *complex predicates* and *complex verbs*; and to do this by considering the literature on the subject. Choices have had to be taken, and gaps will inevitably be found. Chapter 3 introduces the mechanism posited for complex verbs in Catalan and Spanish, presents the main proposal, and adopts an alternative analysis for complex predicates - Guéron & Hoekstra's (1988) proposal of the concept of **T-marking** as a property of auxiliaries -. Chapter 4 is a brief chapter on possible extensions, questions, and reconsiderations to be made in the most recent model - and debate - which takes a very specific direction; namely, an increase of functional nodes.

1.1 Phrase structure: from S/S' to IP/CP

In earlier models of Generative and Transformational Grammar (GTG), the base component was assumed to contain the *lexicon* - an assumption which is still maintained , but which has been reformulated - plus a *categorial component* that introduced phrase structure rules of the form: **X** --> **Y Z W**; i.e. which expanded categories showing the order and nature of the constituents which a category - the one on the left of the arrow - could contain - the ones on the left of the arrow . For instance, a VP like (1)a was generated by the rule (1)b.:

(1)a. */ VP enjoyed dinner /*

b. VP --> V NP

As is well-known, one of the drawbacks of the Standard Theory model was that it implied a redundancy of information. The information introduced by a rule like (1)b., was already contained in the lexicon; the lexical entry for *enjoy* contains the categorial types of complements that this verb may take - as specified for any predicate - in the so-called *subcategorization frames*:

(2) *enjoy*: V: [___ NP]

The present framework does away with such redundancies, basically by abolishing the categorial rules altogether - cf. Stowell (1981) , as will be sketched in what follows - and making use of *X-bar theory*, a category-neutral statement of the possibilities of occurrence of constituents in phrase structure.

The first proposal of a category neutral schema for phrase structure was posited in Chomsky (1970), later developed in Jackendoff (1972, 1977); but its basic present status was mainly proposed in Stowell (1981), who argues for an abandoning of the categorial component of previous frameworks. Whereas Chomsky (1981) still mentions "rules" - Quoting Chomsky: "The lexicon specifies the abstract morpho-phonological structure of each lexical item and its syntactic features. The *rules of the categorial component* meet some variety of X-bar theory " (italics mine) -, Stowell (1981) does not:" The major claim of this thesis is that the component of categorial rules does not exist, and that its major empirical effects can be deduced from other components of the grammar" (p.2), and also: " ... I will propose that the categorial component does not in fact exist, apart from the general category-neutral principles of X-bar theory." (p.61)

X'-theory

One of the basic proposals of X'-theory as in Chomsky (1970) and subsequent developments, is the characterisation of (lexical) categories in terms of the features [N,V] which can be given either value [+/-]. The combinatorial possibilities give rise to the four major (lexical) categories :

(3) N= [+N, -V]
V= [-N, +V]
A= [+N, +V]
P= [-N, -V]

This groups categories into sets of natural classes; i.e. it predicts that categories sharing a specific feature will behave identically with respect to a specific syntactic process. This has been long assumed and argued for. To illustrate it, (4) is an example of N and A - [+N] - grouping together with respect to their complement possibilities; i.e. neither A nor N may take NP complements.

(4) a. * N NP ; **criticism the book*

b. * A $\overline{\text{NP}}$; **fond her daughters*

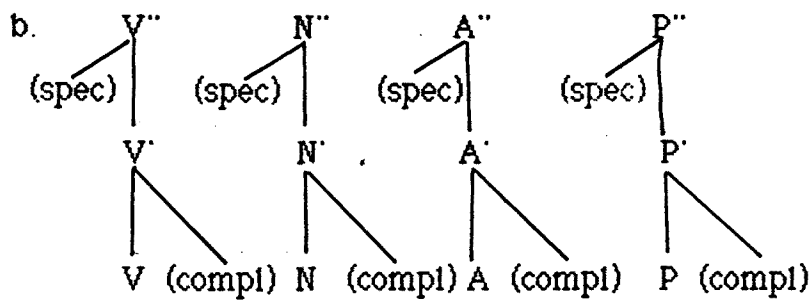
In other words, there are specific processes that apply to subsets of categories, and not to all categories alike - cf. Stowell (1981) for a detailed discussion -.

The basic claim of X-bar theory as it stands is that cross-categorial similarities and differences may be predicted by the interaction of subtheories in the model - cf. 1.2.1 - and the category neutral X-bar schema sketched in what follows. (5)a. applies to all categories alike; implies a hierarchy of projections ; ensures the identity of nature of the head and its projections; and makes the head the only non-optional element ,(5)b.:

(5)a. X'' --> (specifier) X'

X' --->X (complement)

where both, specifier and complement are maximal projections

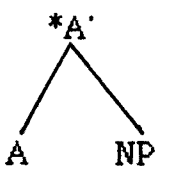


The order of complements with respect to the head is open to parametric variation - predicting the language typology: SVO, SOV, etc -; a fact labelled under head final/initial *parameter* - cf. section 1.2.1 -:

(6) a. head final language: b. head initial language:

As stated, the actual phrase structure realizations - i.e. the number and type of complements; or in other words, the value that the variables X and Y may take in the schema - are supervised by and the result of the basic interaction of the subtheories in the grammar, necessary in order to prevent overgeneration. To give an example, the Theory of Case disallows that X=A and Y=N in (6)b. above, as in (7), because there is a principle in Case Theory that ensures that NPs occur only in positions where they receive Case - cf. 1.2 - and this configuration does not have the properties needed with respect to Case, although, in terms of X', it follows the branching requirements:

(7)



fond her daughters

The X-bar (informal) schema in (5) does not indicate that both, complements and specifiers may range from zero to more than one,

depending on the requirements of their lexical head. This is shown in the schema given in Chomsky (1986) (p.3)[2]

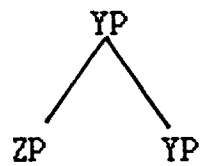
(8) a. X' ⇒ X X''*

b. X'' ⇒ X''* X'

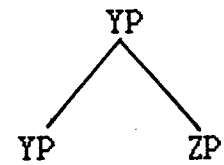
where the * indicates this possibility. Once again, it is the interaction of principles that will give rise to the grammatical configurations in any one particular language and for any particular category, and rule out impossible configurations. As the schema implies, a complement is the daughter of X' and a specifier is a daughter of X''. [3]

It is important to note that there is a mechanism - supposedly an S-structure mechanism, although many authors claim it may be the result of base-generation - which allows for a deviance of X-bar; namely, *adjunction*. Adjunction implies the creation of an identical node above the node to which a constituent is adjoined and hanging the adjoined constituent from a daughter branch as (9) shows. In principle, adjunction is allowed to the left and to the right alike - cf. 1.2.2 for Chomsky (1986b)'s constraints on adjunction -. ZP is adjoined to YP in (9):

(9)a.



b.



From AUX to INFL and Regularization of Phrase Structure

In an earlier framework of generative grammar, Akmajian, Steele and Wasow (1989) (ASW) - cf. also section 2.2.2 -, argue in favour of a universal category AUX containing modality elements, as well as inflection for tense, number and /or person. They base their analysis on the study of Luiseño and English, and observe that the two languages express these notions by means of different elements, but that both sets have morphological and syntactic similarities which make them equivalent in terms of categorial status; i.e. they claim that for both languages a different, distinct category, AUX, should be posited.

In the present framework, the category AUX has been subsumed under INFL, which contains both Tense and Agreement elements, as well as Modals - cf. also 2.2.2 for structures illustrating this -. The formal arguments to posit such a node have overridden other criteria - such as morphological criteria - in the sense that the syntactic explanations achieved by positing INFL are the essential pillars for its existence in the model - cf. also Chapter 4, section 4.2 for other functional nodes -.The phrase structure for S and for S' proposed in Chomsky (1981) was:

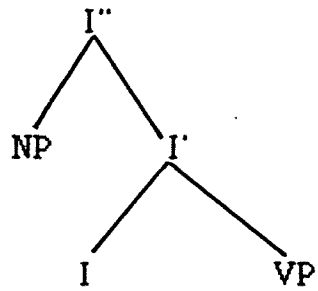
(10)a. S --> NP INFL VP

b. S' --> COMP S

In terms of X'-theory, it becomes obvious that the status of S and S' does not fit in with the X'-schema for lexical categories. As is well-known, there have been different proposals in trying to generalize the X'-schema to these two constituents. A crucial question, which Chomsky (1981) poses is whether these constitute a different system or should be made to follow

from the general X' - schema. In Chomsky(1981) there are references to the possibility of INFL being considered the head of S, and COMP the head of S'. This is argued for in other works, among which Stowell (1981) stands out. It must be noted that Jackendoff (1977) proposed that V was to be considered the head of S, and made S equivalent to a three bar V projection. This last alternative has not been pursued; the generalization of X-bar to functional nodes (INFL and COMP) being assumed straightforwardly in Chomsky (1986b). Such a claim gives NP and VP a position within the projections of I; namely Spec and Complement:[4]

(11)

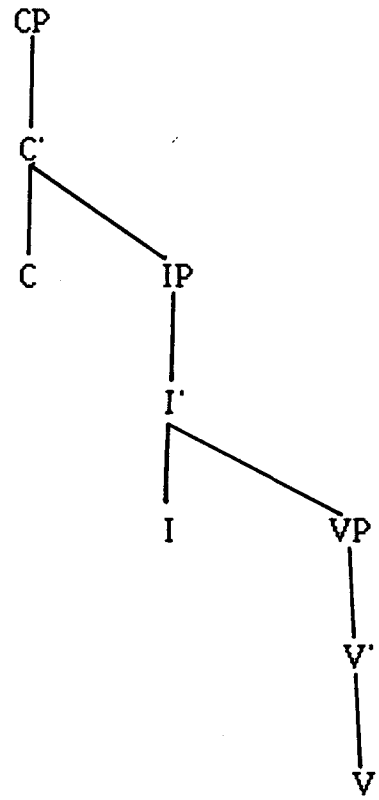


A problematic fact in this proposal is the actual nature of INFL, which does not conform to the lexical characterisation - [+/- N, +/- V] -. This has given rise to intense debate on how to distinguish functional from lexical nodes - cf. Chapter 4 -.This X' - schema generalized to clause structure leads to a revision of many concepts of the GB framework which relied on the previous assumption that S was not a maximal projection, but S' was - crucially, government cf. 1.2.1 for an explanation of this notion and 1.2.2 for a revision of some of these concepts relevant to the hypothesis in this thesis -.

On the basis of the X' - schema for lexical categories (N, V, P, A), Chomsky (1986) establishes a phrase structure where nodes branch into two all the way up the tree. As noted, the extension of the schema to non-

lexical categories is the basis to this reformulation. In the framework, both IP and CP are maximal projections. In the *barriers* framework, *movement*- cf. 1.2 - is also assumed for heads. Hence, the fact that INFL and COMP are heads of maximal projections gives them the possibility to move into other head positions - cf. 1.2.2 , Chapter 3, and Chapter 4 - as well as providing landing sites for other heads. Transformations such as Subject-Aux inversion are accounted for in the new framework by assuming that, under certain circumstances, V-moves to I and subsequently to C as in (12):

(12)



This structure accounts for processes in languages where there is empirical evidence that INFL has moved, and that V has moved. This will be later expanded in Chapter 4 when summarizing Pollock (1987)'s proposal, but , forshadowing future explanations, it may be illustrated in both French and English as in (13)a. and b:

(13)a. *A-t-il lu ce livre?*

b. *Has he read this book?*

c. **Ha ell llegit aquest llibre?*

d. **Ha el leído este libro?*

That equivalent structures are impossible in Catalan and in Spanish - (13)c.,d. - is precisely what this thesis attempts to explain -cf. Chapter 3 -, but this does not imply that verb movement does not take place in either of these languages - cf. Chapter 4 -.

It must be noted that there is another debate on this structural framework with respect to the position of the subject. As will be noted in the following section, the subject has a special status as regards several subtheories in the framework - cf. 1.2.1 -: it is a special type of *argument* (Theta Theory); it is usually assigned Case in a special way (Case Theory); it is a possible landing site for moved NPs (Move-alpha, Theta Theory, Case Theory); and it allows traces of different types (Control Theory, Government Theory, Theta Theory, Case Theory). In structural terms, the status of the subject has recently given rise to intense debate on where it is to be generated. In the schema proposed by Chomsky (1986) - cf. (8) above - it is the Spec of IP, as in many subsequent works. Nevertheless, there have been several proposals - cf. Kitegawa (1986), Sportiche (1987), Manzini (1987), Koopman&Sportiche (1988) - which argue for its base - generation in an internal VP position. For most of these proposals there is subsequent movement to the specifier position of IP required by principles of Case Theory. These proposals thus add to the regularized X' schema to functional categories, but do not conflict with it [5]. Despite the importance of these recent proposals , in his article "Subjects across categories", Stowell

(1983) - and also Stowell (1981) - already proposed a subject position internal to a VP, as he exemplified by the following - cf (26) and (27)a. in Stowell (1983) -

(14) a. *Mary had [VP her brother [open the door]]*

b. *Nobody heard [VP it [rain last night]]*

(15)a. *We all feared [VP John [killed the enemy]]*

The "bare" infinitivals - (14) - and the participle - (15) - with a subject position are considered *small clauses*, on a par with APs, PPs, NPs with subject positions - (16) - because they lack the Tense value which is what grants "large" clauses their propositional status [6].

(16) a. *I find [AP John [**hilarious**]]*

b. *She allows [PP punks [**in** her coffe-shop]]*

c. *I consider [NP him [a **friend**]]*

Note that the small clauses are analysed as categorial projections identical to the head category which predicates something of the subject - cf. also 1.2.1 on *Predication Theory* -. Quoting Stowell : " Each of the matrix verbs (...) takes a complement which is interpreted as a clause at Logical Form. But these "small clauses" contain nothing other than a predicate headed by a lexical category preceded by a subject NP." (p. 298).[7]

1.2 The models

1.2.1 The Government and Binding Framework (GB)

The development of the grammatical model on which this thesis is based has lead to a more explanatory adequate theory - the so-called *principles and parameters* approach - than earlier (merely) descriptively adequate models - the Standard Theory and following models -. This has been due to the progress achieved by the work of many scholars during decades, in an attempt to better undesirable consequences of earlier models. Instances of these undesirable consequences were: the great power that a mechanism such as *transformations* gave to the grammar; redundancy of information given in different components in the grammar; ad hoc *filters* ruling out ungrammatical structures, etc.

What follows is a sketch of the theoretical framework assumed in this work - see section 1.2.2 where important modifications are introduced, which are also assumed; i.e. Chomsky (1986b) -, namely Government and Binding (GB) or the *principles and parameters* model - see Riemdijk & Williams (1986), and Demonte (1989) for thorough introductions to the model -. Certain important concepts presented in Chomsky (1986a) will be introduced when relevant. Note that I include no revision of earlier models - cf. Brucart (1984) and (1986) -, a task that would lead the work too far astray from its main objective by introducing concepts no longer used. Nevertheless, some of these concepts will arise in Chapter 2 while summarizing some of the proposals on verbal sequences; I will leave their introduction until then.

The conceptual background

The conceptual background of the model is crucial to place it in its proper context in terms of language study. Therefore, I will summarize some of the ideas that have been of utmost importance in giving shape to the formal framework of GB.

The ultimate goal of this precise grammatical theory is to characterize *knowledge of language* by formulating a model; i.e. what is implied when it is said that somebody "knows" a language. Chomsky (1986a) introduces what he calls an "outline of research". It is an outline in the sense that "it merely expresses an interest in certain problems and offers a preliminary analysis of how they might be confronted" (p.4). This research program consists basically in trying to answer the following questions - Chomsky (1986a) (1) - :

(i) What constitutes knowledge of language?
(ii) How is knowledge of language acquired?
(iii) How is knowledge of language put to use?

Quoting Chomsky: " The answer to the first question is given by a particular generative grammar, a theory concerned with the state of the mind/brain of the person who knows a particular language. The answer to the second is given by a specification of UG along with an account of the ways in which principles interact with experience to yield a particular grammar; [...]. The answer to the third question would be a theory of how the knowledge of language attained enters into the expression of thought and the understanding of presented specimens of language, and

derivatively, into communication and other special uses of language. " (p.3-4).

In Baker (1988) the same line of research is assumed distinguishing two "subgoals" (I) and (II) - Baker (1988) p. 25 -

" (I) the knowledge which a linguistically mature person has that (among other things) underlies his use of language
(II) how that knowledge comes to be in the mature person

where "knowledge" can presumably be interpreted as "cognitive structures". An important subpart of (II) is to have a theory of :

(II') the knowledge by virtue of which the person can develop (I) "

The two basic notions that are distinguished in both (a), (b) in Chomsky (1986a) and (I),(II)/(II') in Baker (1988) respectively are the notions of *Particular Grammar (PG)* and *Universal Grammar (UG)*. The term *universal* implies a common basis to all human species and "hence the source of nontrivial and accidental similarities in their structure and properties" (p.25 Baker (1988)). The term *principle* in the framework is related to UG in that a principle is universal. A principle may be subject to parametric variation - i.e. the explanation of language variation lies in this, hence the term *parameter*. This term implies the choice of one of these options by any one particular language. The way in which a PG is assumed to be basically acquired is on the basis of exposure to the language.

As a brief illustration, a much studied parameter in the discipline, the Pro-drop parameter[8], is argued to give a language the option of allowing null-subjects if it has the value set as positive (1)a., and b. If the

language has the negative fixing, then it does not allow null-subjects (17)c., d.:

(17)a. *Tinc gana*

b. *Tengo hambre*

c. **Am hungry*

d. **Ai faim*

An important assumption in the theory is that the setting/fixing of a parameter one way or another[9] will give rise to a series of syntactic consequences; i.e. unrelated phenomena may be explained by the choice of a particular option. For instance, the choice of [+ Pro-drop] implies the possibility of postverbal subjects, among many other syntactic configurations:

(18)a. *Te gana en Miquel*

b. *Tiene hambre Carlos*

c. **Is hungry Geoff*

d. **A faim Janine*

The principles that make up UG are regarded as clustering into a set of *subtheories* or *modules*, depending on the type of linguistic data they deal with - see below for a sketch of the proposed subtheories. This is related to another basic assumption in the model; a *modular approach* to language and grammar. The modules are justified because each contains its own primitives, distinct from primitives of other subtheories. The basic *interaction* of these modules is what accounts for the well-formed structures of any one particular grammar, and what explains impossible structures.

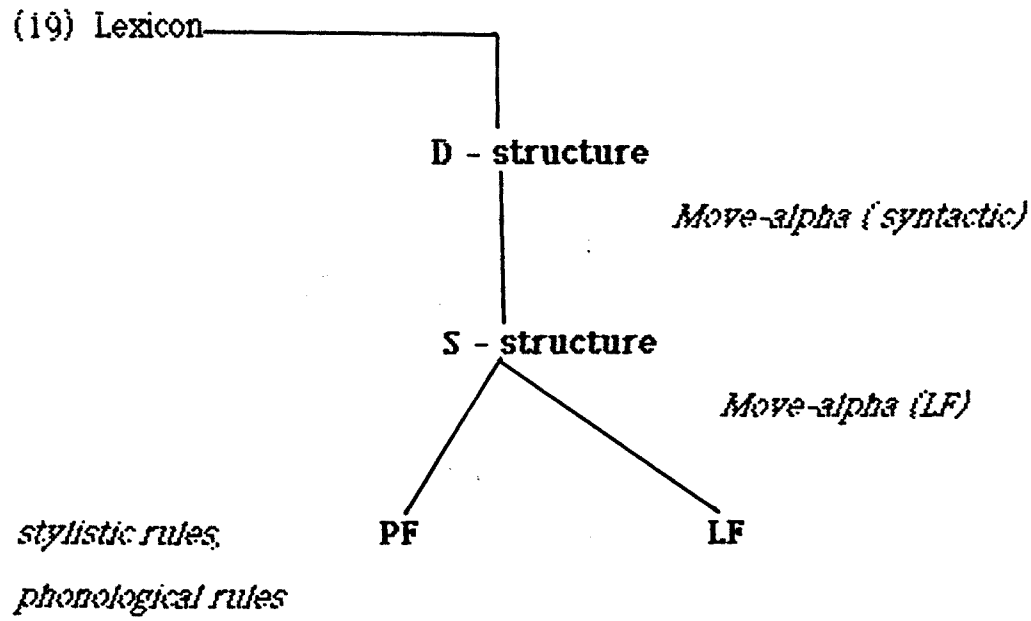
The structures that follow from the fixing of each specific option for each particular parameter are what is labelled *core grammar*, in the sense that configurations do not diverge from the set parameters. But any valid theory of language must have scope for irregularities, idioms, unexpected structures - "as a result of historical residue, contact with other languages, dialect mixture, and the like" (Baker (1988) p. 27). -, and these are considered in the present framework as the *periphery*, which together with core grammar constitute knowledge of language as in (i) and (I) above.

This research program inevitably leads to a comparison among languages. The positing of a process for one language must be validated by the non-application or application in another language by comparison or contrast and an explanation. As mentioned in the Introduction, this thesis mainly focuses on the study of two languages, but by contrast with the behaviour of two other languages, may be classified as a comparative work. Note, before concluding this introduction to the conceptual background, that if a process - *incorporation* - which was posited on the basis of the study of a large number of languages from many different families - Bantu, Eskimo, Mayan, among many others - is judged valid for two Indoeuropean languages - Catalan and Spanish - it gives support to the process in question as part of UG.[10]

The model of grammar the sytem of subtheories

The GB framework assumes the following model of grammar. The *levels of representation* plus the rule *move-alpha* (the transformational component in earlier models) are represented as in (19) and the *system of subtheories* includes the ones in (20).

(19)



(20) **X' Theory**

Theta Theory

Government Theory

Case Theory

Binding Theory

Control Theory

Bounding Theory

Predication Theory

As illustrated in (19), the levels of representation are related by the unique transformation in the model, move-alpha, which allows for different choices of alpha. Its general formulation needs supervision in order to prevent *overgeneration*, an obviously undesirable consequence for any grammar whose aims are those sketched above. This surveillance is the task of the principles grouped under the subtheories in (20). The different levels of representation are justified by having specific primitives and properties: D-structure is the basic level of representation where elements are generated; i.e. it represents the direct mapping of the lexicon to syntax. In other words, it contains only elements which are directly base-generated following the lexical requirements of lexical items. S-structure representations are the result of the application of move-alpha; hence, they contain *traces* left by elements which have been moved from their original position (21)b.. The relation of D-structure to S-structure is the focus of this work, since the main hypothesis implies movement in syntax. S-structure and LF are also linked by - a specific realization - of the same and unique rule, basically argued for in accounting for the interpretation of quantifiers, which is not the result of a syntactic movement.[11]. It is formalized as the result of movement from S-structure to LF, "unseen" by the PF level, and, thus, not realized at surface structure (22). The relation of S-structure to PF will not be discussed in this thesis, as it implies the Phonological Component, whose specific formulation is beyond the scope of this thesis. Consider the following trivial examples:

(21)a. *[S' [S You will pop [NP what]]]* D- structure

b. *[S' What [S you will pop [t]]]* S-structure (incomplete)

(22) a. *John likes all women*

b. *For all x, x = a woman, John likes x*

(21) is an illustration of move-alpha, where alpha equals a wh-phrase (*what*). This wh-phrase is base-generated as an object of the verb *pop*; i.e. the verb takes a direct object as one of its lexical requirements. In (21)b. I am disregarding the movement of the auxiliary, which is also an instance of move-alpha, but a case of alpha taking a head, X^0, value . This movement has received a clearer and more straightforward account in the *Barriers* model - cf. 1.2.2 -. The possible base-generation of elements, and the allowed structural relations among traces and moved elements are supervised by the modules in the theory.

(22)b. is an informal representation of the way interpretation at LF is formalized. The Quantifier *all* is assumed to move to a higher position after syntax in order to acquire its proper scope, and be interpreted appropriately. The more formal representation is usually represented by adjunction of the quantifier to the clause, the result of Q(uantifier) R(aising): *[S all women [S John likes e]]*.The result of this movement leaves a trace, which in this case is a logical *variable*, linked to an *operator*, the quantifier. The restrictions on the possible representations at LF - i.e. the allowed operator-variable relations, etc. - are also supervised by the system of subtheories, basically Binding Theory. Nevertheless, not all subtheories apply at the same level, Binding, for instance, is usually assumed to apply at LF.

Theta Theory

This module accounts for the assignment of "semantic" or *thematic-roles* - theta-roles - by a predicate to each one of its arguments, theta-roles such as AGENT, PATIENT, GOAL, SOURCE, EXPERIENCER etc. The exact labels that authors give to the different arguments are not as crucial to the

theory as the requirement that each argument is assigned a theta-role, and that each theta-role is assigned to only one argument. This requirement is what the *Theta Criterion* expresses:

(23) *Theta Criterion* (1)

(a) Each theta-role is assigned to a unique argument

(b) Each argument is assigned a unique theta-role [12]

Such a principle rules out ungrammatical structures such as the following:

(24)a. * *The football player kicked a ball a cat*

b. * *The football player kicked the ball was thrown t*

(24)a. is ruled out by the first part of the Theta Criterion; i.e. there are two arguments for one theta-role. (24)b. is ruled out by the second part of the Theta Criterion, the argument *the ball* is assigned two theta-roles, one from each of the two predicates *kick* and *throw*.

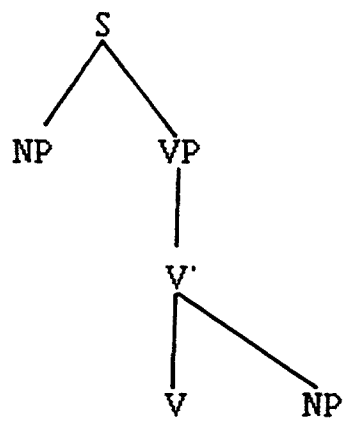
Note that the fact that LF is an interpretive component of syntactic information requires that the same arguments receive the same theta-roles throughout the derivation - from D-structure to LF - in order to obtain the intended -correct- interpretation of a proposition. This is captured by the *Projection Principle* (25), which ensures that the lexical properties of predicates are not modified in the course of the derivation.

(25) *Projection Principle*

The Theta Criterion must be met at all levels

It must be noted that theta-roles are assigned by predicates to complements directly, but, as noted in the previous section, the subject of a clause has a special status with respect to this theory: its theta-role is not assigned directly. In other words, the structural relation that the verb holds with the subject position is not equivalent to the relation that the verb holds with its subcategorized complements - (26) -. This specific structural relation is *government* - see below -. Hence the complements of the verb have the status of *internal arguments*, whereas the subject is regarded as its *external argument*. The way the subject acquires its theta-role is indirect; the usual assumption is that the VP assigns it *compositionally*, as it seems that the elements contained in the VP influence the type of theta-role that subject gets - (27) -. Other proposals have been made that fit in with the regularized phrase structure - cf. 2.4 -, where the subject gets its theta-role from the V head via INFL - I do not consider it here for simplicity reasons-.

(26)



(27)a. *Tim / vp broke the window /*

AGENT

b. *Tim / vp broke his arm /*

PATIENT

In Chomsky (1981) an extension of the Projection Principle - the *Extended Projection Principle* (EPP) - was included to account for the fact that the subject position of clauses was not required by the Projection Principle as it stands. The subject position of a clause is needed even if it is not assigned a theta-role, a fact which escapes the Projection Principle as in (25):

(28)a. * *Is raining*

b. *It is raining*

c. *It bit me!*

In (b) the element in subject position is not assigned a theta-role, it is an *expletive*, merely filling the compulsory position - as expressed by the EEP -. Note the difference in (c) where the subject is the same lexical element but it is assigned a theta-role by the predicate.

This extension of the projection principle is now related to another more recently proposed subtheory, *Predication Theory* - cf. especially Williams (1980), Rothstein (1983) -. The basic principle of this subtheory is that a predicate must be associated to a subject , and the subject must be in a very specific structural relation with respect to its predicate , *c-command* - cf. below for a definition of this concept.

The formalization of the specification of a predicate's arguments in the Lexicon is by assuming that they have a *theta-grid* ; a formal way of characterizing which arguments are linked to which predicates -cf. 2.3.1.3 for an instantiation of how these requirements may be formalized -.

Theta Theory necessitates another crucial concept, the notion of *chain* , in order to account for a phenomenon such as passive - (29)b -, where the NP in subject position is not the external argument of the verb. The direct mapping from the lexicon to syntax implies that at D-structure the NP in

subject position must be in its *original* position; i.e. in the verb's complement position:

(29) a. *The football player kicked a cat*

b. *A cat was kicked (by the football player)*

The D-structure and the S-structure of (29) are as in (30) - omitting non-relevant details at this point -, where *e* indicates an empty position, and *t* is the trace left by the moved NP:

(30) D-structure: *[S e was kicked [NP a cat]]*

S-structure: *[S [a cat]i was kicked [NP ti]]*

(30) shows how S-structure is an enriched D-structure, in the sense that it contains the trace which is coindexed with its antecedent, thus illustrating the "history of movement"; i.e. it shows the positions through which an element has moved from the A-position it originally occupied at D-structure. The concept that captures the fact that the moved NP and the trace are in a sense the <u>same</u> argument - the internal argument of the predicate *kick* - is the notion of *chain*. (*a cati , ti*) is the chain created by this movement. A chain consists of the head and all its locally *bound* traces - cf. below for a definition -. The Theta Criterion is now formulated in terms of chains:

(31) *Theta Criterion* (2):

A chain must have a unique theta role

The concepts of argument and theta-role allow us to distinguish between different types of positions, plus they allow us to explain the fact that movement is possible. A position which is usually assigned a theta-role, because it is an argument of some predicate, is called an *argument position* (A-position); as opposed to positions which are never assigned theta-roles, *non-argument position* (A'-position). A position which in a specific configuration is assigned a theta-role is a *theta-position* , as opposed to one which is not assigned a theta role [13]. By alluding to these two types of positions the possibility of passivization is accounted for: the subject position of a passive verb is assumed not to be assigned a theta-role - note that the AGENT theta-role is optional, but, if present, always realized as a *by* - phrase - so it is an A-position but, in this configuration, a non-theta position. By applying move-alpha to the NP internal argument , its choice of landing site is only and precisely this position, the subject position; i.e. the Theta Criterion is not violated - the internal argument acquires only one theta-role (PATIENT) and this theta-role is assigned to a unique argument, the chain (*a cati, ti*) -.

There are yet other important facts to be explained. One of these is the fact that movement is compulsory in a passive structure - (32) -:

(32) * *Was kicked a stone (by the football player)*

This is required by a principle of Case Theory, as will be explained below. Another fact is why movement is allowed "at this distance" and not at other distances:

(33) * *[S A stonei was believed [S it was kicked ti]]*

Binding Theory contains the principle which explains the ungrammaticality of (33). Hence, passive becomes a clear exemplification of the basic *interaction* of modules in the theory.

Government Theory

Government theory is a much more structural module - as compared to Theta Theory which is more "semantic" - in the sense that it establishes obligatory structural dependencies in order to account for grammatical configurations. The notion of *government* is intricately linked to, basically, all the modules of the theory, and it is built on another crucial structural requirement, *c-command*. The latter is less "strict" in that it may hold in a larger domain; it does not establish lower limits to a c-commanding element. The former is "stricter" in that it establishes limits on higher and lower nodes in the phrase structure for *governors*. Note that both of these have been the subject of much debate, and reformulated in several ways - cf.1.2.2 as they have been formulated in Chomsky (1986b)- The following are usual definitions of c-command and government in the GB framework, although the definitions in the *barriers* framework will be assumed in the thesis :

(34) *c-command*:[14]

X c-commands Y iff the first branching node dominating X also dominates Y, and X does not dominate Y nor Y , X, and X is not equal to Y

(35) *government*:

X governs Y iff Y is contained in the maximal X' projection of X, X";

X'' is the minimal maximal projection containing Y;

and X c-commands Y.

Note that c-command does not impose any directional requirements, and that government does only if there is another maximal projection intervening between a potential governor and a potential governee. It must be noted that in the GB-framework, pre-*Barriers*, S' was assumed to be a maximal projection, and S a non-maximal projection - as noted in the previous section -. Assuming this, government is allowed across an S , but not across an S'.

A fundamental principle of Government Theory is the *Empty Category Principle* (ECP). This principle imposes stricter requirements on empty categories (ecs)[15] than simple government; it makes ecs subject to *proper government*. This type of government may be achieved in two different ways - again, see 1.2.2 for an attempt to unify this in *Barriers* , and for further considerations on government -: either by government by a lexical category - as in the case of a moved NP complement, which is governed by the head of the maximal category in which it is contained, or by *antecedent government* , which is the case of movement of wh-movement of not lexically governed wh-phrases. In this sense, *proper governors* are either lexical categories or categories which are *coindexed* with the trace - coindexing being the result of movement -. An example of lexical government is the NP-trace of passive (36)a., and an example of antecedent government is the trace of a wh-phrase whose *antecedent* is in COMP (36)b.,c.

(36)a. *[S a stone [VP was kicked t]*

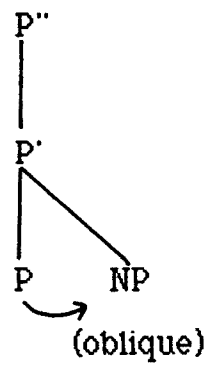
b. *[S' whoi [S ti kicked a stone]*

Case Theory

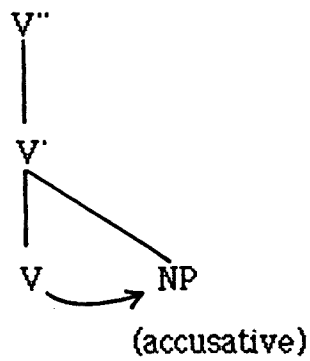
Case Theory deals with abstract Case; i.e that which is not morphologically realized, accounting for restrictions on the distribution of NPs.

The concept of government is directly linked to Case Theory; Case may only be assigned if government holds. The conditions for X to assign Case to Y are that X governs Y, and that X be a member of the set of case assigners, a lexical property, which may sometimes be lost if certain processes take place - as in *passivization*, see below -. Case assigners are those which are characterised by having the [+V] feature - V and P -. The non-lexical element, INFL (if Tensed) also assigns - a specific type of - Case. These conditions are necessary for structural Case assignment, a structural relation between a head and the complement it governs. The subject position of clauses is assigned structural Case by (Tensed) INFL. The core cases of structural government are as in (37). (38) shows that INFL governs the subject position - assigning it nominative Case to the left -.

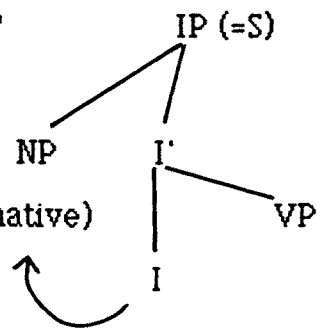
(37)a.



b.



(38)[16]



Apart from structural Case, another type of Case has recently been proposed - cf. Chomsky (1986a) - *inherent*, which is assumed to be assigned together with a Theta-role, and which only [+N] elements may assign - N, and A -. This type of Case accounts, for instance, for genitive in English NPs which may only receive it from the head Noun. The two Cases are crucially distinguished by the fact that one, structural Case applies at S-structure, and inherent Case must necessarily apply at D-structure - although its realization is at S-structure -.

As noted above, Case Theory contains the principle which explains the fact that an NP in object position must move in a passive structure - (41) -. This principle is the *Case Filter*, which restricts the distribution of NPs in such a way that no NP can occur in a position unless it receives Case:

(39) * [... NP ...], unless NP is Case-marked

This principle plus the conditions on case assignment explain many impossible (and possible) configurations. Two examples follow:

(40)a. ** I think [S' [S [NP this film] to be a masterpiece]]*

b. *I believe [S [NP this film] to be a masterpiece]]*

(41) ** Was kicked a stone*

The contrast in (40) a and b. is explained by their different structure: *think* has an S' complement, and recall that S' is a barrier to government. On the other hand, *believe* does not have an S' complement, but rather an S complement - a lexical property of the verb -. Another way to say this is that it selects an S' complement but that it is *transparent* to governement.

In this way, the NP subject of (40)a. has no way to acquire Case, as the clause is not Tensed, and the matrix verb cannot assign it Case either. The NP subject of the infinitival clause in (40)b, does get Case because the matrix verb governs it, there being no barrier to government. Note that if the complement clause of (40)a. were Tensed, the NP would get nominative Case, thus, satisfying the Case Filter:

(42) *I think that this film is a masterpiece*

Section 2.2.1 explains several of these structures further. As for passive, the ungrammaticality of (41) is not due to the fact that the matrix verb does not govern the complement - recall that it is precisely one of the core cases of Case assignment -, here the Case Filter is violated because a passive form of a verb is assumed to have lost its ability to assign accusative Case, which is usually linked to its inability to assign theta-role to the subject position; the NP complement must move to a Case-assigned position. The subject position is the only position available for it for two crucial reasons: a) INFL assigns nominative Case to it, and b) it is a non-theta position - recall that the Theta Criterion prohibits movement into positions which are assigned a theta-role , as the NP would get two theta-roles .

At this point it is important to briefly point out a proposal - cf. Chomsky (1986a) - which links Theta-role assignment to Case-assignment; it makes the Case Filter derivable from another condition, the *Visibility Condition*. This condition on LF requires an NP position - the head of a chain - to be assigned Case in order to have a theta-index. This requirement is crucial in a theory where indexing is , ultimately, an LF mechanism, needed for the interpretation of related elements. As an illustration, in passive, the

condition is satisfied because the argument chain (NP, t) is asigned a theta-role and acquires Case after movement.

Bounding Theory[17]

Directly related to movement is the Theory of Bounding; it imposes *locality* restrictions to movement of elements. Its basic principle is *Subjacency*, which limits the application of move-alpha - in one step - to take an element "too far", where "too far" is considered in GB to be further than a *bounding node* away. Bounding nodes are projections of specific categories, out of which elements cannot be extracted if more than one is crossed in the movement process. The choice of bounding nodes is assumed to be subject to parametric choice - cf. especially Rizzi (1982b). -. The choice for English is NP and S, as (43) illustrates :

(43)a. *[S' What do [S you believe [S' t [S I did t]]*

b. **[S' What do [S you believe [NP my affirmation [S' t that [S I did t]]*

Note that in (43)a. the movement of the NP never crosses more than one bounding node in each step; in (43)b. the second step involves the crossing of two bounding nodes - NP, S -, and , thus, gives rise to an ungrammatical configuration.

Subjacency applies vacuously to NP-movement structures because there is a principle of Binding Theory that makes locality requirements in these instances even stronger, disallowing movement of an NP even over one bounding node. A structure like (44)a. - where two bounding nodes are crossed - is ruled out in the same way as is a structure like (44)b. - where only one bounding node is crossed - because the binding principle that

applies to NP-traces prohibits traces of NPs and their antecedents to be "too far" away - where too far means something different in terms of binding, as will be explained below:

(44)a. *[$_S$ *A stone was believed* [$_S$ *it to have been known* [$_{S'}$ *that* [$_S$ *John kicked t*]]]

b. *[$_S$ *A stone was believed* [$_{S'}$ *that* [$_S$ *John kicked t*]]]

This again makes the basic interaction of the theory explicit in that the difference between the types of traces in (43) and (44) with respect to - in this case- Binding accounts for the different possibilitites.

Binding Theory

Binding theory groups NPs - both empty and full - into different types according to their coreferential possibilities. This subtheory refers to argument NPs - the antecedent and the bindee are both in A-positions - . In other words, it establishes possibilities of A-Binding (Argument-Binding). The notion of *bound* as opposed to *free* is crucial and as follows:

(45) X is bound by Y iff it is c-commanded and coindexed with Y
X is free with respect to Y if either of these conditions fail

There are NPs which always need an antecedent (*anaphors*); NPs which may have an antecedent (*pronominals*); and NPs which cannot have an antecedent (*R(eferential)-expressions*). The different options of anaphors and pronominals have been shown to be in - almost - complementary distribution; and therefore, the *domain* in which the

former needs an antecedent, and the latter may not have one are formalized identically. This domain is labelled as *Governing Category*.

(46) Anaphors: reflexives, reciprocals, NP-traces

a. *[Romeo and Juliet]i killed themselvesi,*j*

b. *[Romeo and Juliet]i believed that*

*[the Capulets and the Montagues]j hated themselves *i,j*

c. *[The poor cat]i was kicked ti*

(47) Pronominals: personal pronouns, pro

a. *[Romeo and Juliet]i killed them*i,j*

b. *[Romeo and Juliet]i believed that*

*[the Capulets and the Montagues]j would kill them*i ,j*

c. *La mare sap que [pro tinc gana]*

(48) R-expressions: NPs with independent reference, variables

a. **Hei admires Neili*

b. **Hei thinks that John believes that everyone admires Neili*

As illustrated by (46)b., anaphors need an antecedent "close to them" - must be bound in a specific domain -, and as illustrated by (47)b., pronouns cannot have an antecedent "close to them" - cannot be bound in a specific domain -. The notion of Governing Category formalizes this domain. (48)b. illustrates that R-expressions cannot be bound anywhere.

(49)a. *Governing Category*

X is the governing category of Y iff it contains Y, a governor of Y, and a SUBJECT accessible to Y

b. Accessibility:

X is accessible to Y iff X c-commands Y and the assignment of the index of X to Y does not lead to a violation of the i-within-i Condition

c. i-within-i Condition:

* $[_X \ldots Y \ldots]$

where X and Y have the same index

The notion of SUBJECT includes both the usual NP subject - as defined by X' Theory - in a clause or in an NP - [NP,S] or [NP,NP] -, and the AGR element of INFL.

Having classified NPs into these three different types, and defined the notion of governing category, the following Binding Principles are stated:

(50) A. *Anaphors must be bound in their governing category*

B. *Pronominals must be free in their governing category*

C. *R-expressions must be free*

The examples in (46) - (48) follow from these principles and the classification of NPs as one or another type with respect to their binding possibilities. Principle A applies to anaphors. Note that in (46)c. an empty category, an NP-trace is subject to principle A; it is bound in its Governing Category. The empty pronominal category in (47)c. is the one posited for +Pro-drop languages, and as stated in principle B, it need not have an antecedent. Principle C explains the ungrammatical structures in (48).

Control Theory

Control theory is directly related to Binding Theory. It has a very restricted domain of application - only structures of *control* - and has been posited on account of the fact that the behaviour of the empty category *PRO* cannot be made to follow binding - although cf. Manzini (1983a) -. The coreferential possibilities of the empty category PRO are not captured by the notion of binding, so the term *control* has been coined to account for its behaviour - cf. section 2.2.1 for further consideration of control structures, arguments for postulating an empty category in PRO position, and thus a clausal status of the node dominating the infinitival clause -. The basic reason is that PRO may behave either as an anaphor or as a pronominal, as illustrated in the following examples:

(51)a. *PRO to be away from the western civilization for a long time may be an enriching experience.*

b. *John$_i$ tries [PRO$_i$ to be nice to everybody]*

c. *John told me$_j$ [PRO$_j$ to consider him a friend]*

On the one hand - (51)b.,c. -, it must have an antecedent "in their governing category", on a par with anaphors.These are instances of *obligatory control*. On the other hand -(51)a.-, it may be free, a case of *arbitrary* control. Note, though, that in one case, the relationship of control is established with the subject of the matrix clause (51)b., and in the other case, the control relationship is established with an object. Subject or object control verbs are instances of the different lexical properties of each verb.

The contradiction that arises if the behaviour of PRO were to be accounted for by Binding is that it would have to satisfy both , principle A and principle B at the same time. The way to solve the problem is to

preventing PRO from having a Governing Category, and the only way this may be done is to make it inaccessible to government . The PRO Theorem captures this special condition for PRO:

(52) PRO cannot be governed

In the structures where PRO is posited, there is S' (CP) complementation which, as required, prevents government.

By the brief presentation to the model above, the picture that emerges of grammar may be regarded as an attempt to formulate principles which *license* elements in structural representations, at different levels; the principles and the levels being both independently motivated. This term was put forward in Chomsky (1986a) requiring the licensing of every element occuring in a well-formed structure. The ways in which elements may be licensed include binding theory principles for referential dependencies, lexical selection of complements by a head, etc. The Principle of Full Interpretation (FI) - introduced in the same work - requires every element in a PF or LF representation to be licensed, in order to receive the appropriate interpretation at each of the two interpretive levels of the grammar, LF and PF. This principle requires that no element in a structure may be disregarded, a property of natural languages. To conclude, one should stress the importance of interaction of modules in the theory; the supervision of general mechanisms by principles in the different subtheories; and, thus, their strict prevention of overgeneration.

1.2.2 *Barriers*

Major theoretical changes are introduced in Chomsky(1986b), Barriers, some of which directly bear upon the type of movement that I will posit for verbal sequences in Catalan in Chapter 3.[18] The main aim of the book is to find a unifying concept of locality for both, the theories of bounding and government. I will not review the subjacency effects of the *barriers* framework, but focus on the government proposals. In section 1.1 a major claim in the book was already introduced; the extension of X'-theory to non-lexical heads - or functional heads. cf Chapter 4 , especially section 4.1. for a closer consideration of how lexical and functional heads differ -.

In Barriers it is claimed that movement is of two different sorts: substitution and adjunction. Substitution implies the movement into an already existing position, and adjunction implies the creation of a previously non-existent position. Adjunction is allowed although it implies the non-satisfaction of X'-theory constraints at S-structure; X' theory holds at D-structure. Crucially, adjunction is allowed only to non-argument Xmax projections. This disallows adjunction to NP and CP arguments, but allows adjunction to VP - a new way of looking at movement of the *barriers* framework, consequence of the concept of "barrier" itself, and which has lead to posit certain specific mechanisms for adjunction structures, as will be seen below -. VP-adjunction is argued for in Koopman and Sportiche (1982) and May (1985), granting Chomsky a way to account for ECP satisfaction in certain extraction structures. The importance of adjunction leads to another crucial notion for such structrues, that of exclusion - cf (57). Moreover, May (1985) redefines the notion of dominance for adjunction structures that Chomsky follows in Barriers. In:

(53) [ß @ [ß . . .]] (11)

(54) @ is dominated by ß only if it is dominated by every segment of ß (12)

Obviously, the crucial proposal in Barriers is precisely the notion of *barrier*, which enters into the notion of government, and, thus, into whichever structure which contains an empty category resulting from movement; i.e. subject to the ECP. Crucially, movement in Barriers is assumed for both Xmax and X^0 constituents, so traces of both types will arise and will have to satisfy the ECP.

Movement of X^0 heads is shown to be narrowly constrained, a consequence of its not being licensed by theta-governement, as will be seen below. If theta-government were the only requirement for traces of heads, long steps of X^0 would be predicted, a non-attested phenomenon. The example that Chomsky gives of X^0 movement is mainly V-to-I , where the trigger is morphological: the affixal nature of elements in I make the verb move, the result being V_I, the inflected verb. Subsequent V to C movement is not triggered by morphology but by scopal reasons. An instance of V-to-I-to-C is the Verb Second phenomena of Scandinavian languages and Germanic languages - except English -, which implies the occurrence of two elements in pre-IP position : $[_{CP}$ (X'') (V_I) IP].

The actual account of possible XP and X^0 movement is based on the notion of barrier, which in turn is built on the concept of government, which relies on m- command , the Xmax choice for ¥ in (55):

(55) **c-command:**

@ c-commands ß iff @ does not dominate ß and every ¥ that dominates @ dominates ß (13)

(56) **government:**

@ governs ß iff @ m-commands ß and every barrier for ß dominates @ (14)

(57) **government for adjunction strutures:**

@ governs ß iff @ m- commands ß and there is no ¥ , ¥ a barrier for ß such that ¥ excludes @ (18)

(58) **exclusion:**

@ excludes ß if no segment of @ dominates ß (17)

The latter applies to adjuntion structures like the following, where, ¥ does not exclude @, so ¥ cannot be a barrier to the governement of @ to ß - pending on a definition for barrier below (60) -:

(59) d . . . [¥ @ [¥ . . . ß . . .]]

There are two basic ways in which a projection may become a barrier to goverment - may protect an element from being governed by another element : one implies Xmax projections having the status of barriers - either inherently or by inheritance -, the other implies any projection acquiring the status of barrier because it contains a closer governor - i.e. a *minimality* barrier -. I will mainly focus on the first type of barrier, as it is more basic for the structures to be considered in Chapter 3. [19]

In the first concept of barrier it is shown that no maximal projections are absolute barriers to government; their status as such depends on whether they are governed by a lexical head which theta-marks them or

whether they dominate a maximal projection which qualifies as a blocking category(BC), (61) - i.e. Xmax are barriers in a relative sense:

(60) ¥ is a barrier for ß iff (a) or (b):

(a) ¥ immediately dominates d, d a BC for ß

(b) ¥ is a BC for ß , ¥ ≠ IP (26)

(61) ¥ is a BC for ß iff ¥ is not L-marked a ¥ dominates ß (25)

where L- marking is defined as in (62), which is based on theta-government and a sisterhood condition of government (63):

(62) @ L - marks ß iff @ is a lexical category that theta-governs ß (28)

(63) @ theta-governs ß iff @ is a zero level category that theta-marks ß, and @, ß are sisters (27)

The sisterhood condition on theta-marking applies to the theta-marking of the subject by the VP by assuming a specific sisterhood notion: VP and the subject are sisters because they are dominated by the same lexical projections - cf. also G&H section 2.4 -. Theta-markers may be Xmax or X-heads , but direct theta-marking only occurs if @, and ß are sisters. Thus, V indirectly theta-marks the subject. Theta-government in the above definitions is assumed to be direct theta-marking - i.e. sisterhood holds.

Proper government

In his account of the ECP, Chomsky follows closely Lasnik & Saito (1984) framework where an element subject to the ECP must be assigned a

[+F] feature - the level of assignment of the feature depends on the nature of the element - in order to satisfy the ECP. Another crucial factor in the *barriers* framework is the importance of chains: links in a chain satisfy the ECP by antecedent government; feature sharing (index sharing) is also a result from theta-marking - so a chain may be created in this way -, and certain other relations among nodes within the same XP - or adjacent XPs - also give rise to coindexation; i.e Spec-head agreement, and head-head agreement. Chain extension is possible through Spec-head agreement, and a way to satisfy ECP for Xmax traces, as in the *barriers* account of passive. The ECP may, thus, be satisfied by proper antecedent government for X^0 and Xmax traces alike.

The definition of proper government with which Barriers starts is (64):

(64) @ properly governs ß iff @ theta-governs
or antecedent governs ß

Nevertheless, it seems possible, as mentioned, to subsume theta-government under antecedent government if VP-adjunction is allowed and required in wh-extraction structures. Note that VP-adjunction, does not create an improper movement since wh-movement is an instance of A'-movement. An instance of VP-adjunction required to void the VP of barrierhood, and thus, avoid an ECP violation of the NP-trace (with obvious undesirable predictions) is the following:

(65) *who did [IP John [VP t' [VP see t]]]*

If VP-adjunction did not occur, the IP would inherit barrierhood from VP, a BC as in definition (61) above. Having recourse to "exclusion", as

in definitions (57) and (58) above, VP is no longer a barrier for the government of t by t'.

Nevertheless, since this does not directly bear on the subject of this thesis , I will focus on head-movement, instances of A-chains - and, thus, no recourse to VP-adjunction is called for.

One important assumption directly bearing on head movement is that I is assumed to theta-mark its VP. Nevertheless, movement of V-to-I will not satisfy the ECP by theta-government, as I and V are not sisters, in the sense assumed in the definitions above. The trace of V will satisfy the ECP by antecedent government. As was mentioned above, the movement of V head is strictly local. There are not structures where a V may move directly into C position without having previously moved into I - for instance if there is a non-affixal element in I -:

(66) [how tall]$_j$ be$_i$ [$_{IP}$ John [will [$_{VP}$ t_i t_j]]] (157)

Such a structure shows that although I theta-marks the VP selected complement, the head of the VP is not theta-marked, and thus antecedent government must hold. But antecedent government does not hold as VP is a BC because it is not L-marked, and IP inherits barrierhood from VP, so that t_i violates the ECP - recall that wh-extraction has the possibility of VP adjunction . V-to-I voids VP of barrierhood; the inflected V$_I$ L-marks VP, which is only theta-marked by I - a condition for subsequent L-marking. Antecedent government will hold if the V moves into a position from where its trace may be antecedent governed; i.e. no barriers intervene between a link in the chain. (¥ in (67) is not a barrier).

(67) . . . @ . . . [¥ . . . ß . . .] . . .

Lexical categories may only move if they are heads of complements or theta-marked categories . The *Head Movement Constraint* implies this:

(68) Movement of a zero level category ß is restricted to the position of a head @ that governs the maximal projection ¥ of ß , where @ theta-governs or L-marks ¥ if @ ≠ C (160)

The assumption here is , thus that theta-marking does not "percolate" from a category to its head. This is argued in Barriers not only on the assumption of V-to-I movement , but also on evidence from Noun incorporation structures, which also follow the HMC, moving from the head position of a NP theta-marked by a V head.

In terms of chains, V-to-I-to C creates a chain:

(69) C = (V_I , ... t)

where only the terminal D-structure position of the chain retains Case and theta-marking capacities.

The sketchy analysis proposed in barriers for the English auxiliary system is as follows. The aspectuals HAVE and BE are defective in that they select but do not theta-mark the VP they select. Since the assumption is that I does theta-mark the VP, when an aspectual verb raises to I, it L-marks the VP complement, thus voiding it of barrierhood and allowing the V trace to satisfy the ECP. Internal VPs are voided of barrierhood (for extraction) by VP-adjunction, as mentioned. The HMC prevents any other verbs apart from the first one from moving into I.

The account of passsive in the *barriers* framework shows how chain extension provides a way for satisfying the ECP by assimilating feature sharing as a result of Spec-head agreement and chain coindexation. The assumption is that this implies a unique indexing and that extended chains count for proper government:

(70) a. C = ($@_1$, . . . , $@_n$, ß) is an extended chain if ($@_1$, . . . , $@_n$) is a chain with index *i* and ß has index *i*

b. Chain coindexing holds of the links of an extended chain. (170)

In the *barriers* account of passive, the terminal element in the extended chain is properly governed by the trace of the verb with which it forms a link in the extended chain - by Spec-head agreement -, as follows 20 :

(71) $John_i$ [$_{@}$ be -I] [VP' t_j [VP killed t_i]] (171)

t_i is properly governed independently of theta-government by *killed* because @ and the NP-subject have the same index by Spec-head agreement - so *i=j* -. The two VPs are regarded as an adjunction structure and, thus not a barrier for the government of t_j to t_i . Note that this avoids the need to have recourse to VP-adjunction of the moved NP, as it would be a case of improper movement - a trace in an A'position antecedent governing a trace in an A-position. That this type of proper government must be alluded to is independently required by the fact that "super-raising" gives rise to ungrammatical structures, and it would be predicted possible if only theta-government would be needed for ECP satisfaction of the NP-trace in (72):

(72) * *a man seems [there to be killed t]* (172)

In such a structure there is no possibility of extending the chain by Spec-head agreement. The possibility of NP-raising in structures where there is more that one verb; i.e in structures like:

(73) . . . I [VP V* NP] (175)

(74) *John will be killed* (176)a.

is accounted for a mechanism of head-head agreement (index sharing) between the I and the aspectual verbs of V*- as there is no V-to-I- . This implies that there is agreement between the subject - by Spec-head- and each of the selected verbs in V*.

Raising structures - cf also section 2.2 for a non-*barriers* account - are also accounted for by antecedent government in an extended chain, and, thus, Spec-head agreement in IP plays a crucial role. The moved NP and its antecedent share index, and the same index is borne by the trace of the moved verb since I, [*seem - I*] agrees with its Spec, *John*.

(75) *John seems to be [t intelligent]* (168)

(76) *John$_i$ [$_{\emptyset}$ seem - I] [$_{VP}$ t_j [$_{JP}$ t_i to be intelligent]]* (169)

There can be no "accidental coindexing", between heads of clauses, which would permit cases like:

(77) * *John seems that it appears t to be intelligent* (168)c.

Coindexing of clausal heads depends on there being a grammatical process, such as NP-movement - which gives rise to Spec-head agreement; and head-head agreement is only assumed of the I and the V* of a clause .

In Barriers it is assumed that BE does not theta-mark its complement. This was already pointed out when BE is an aspectual verb, - and , thus, has a VP complement - but the same assumption is held for BE as copula, as in:

(78) *the meat is [$_{AP}$ cooked [how well]]*

(79) *[[how well]is the meat cooked t]* (180)

The assumption is required in order to allow extraction in such structures: the AP would count as a barrier excluding the antecedent of the trace if there were no AP-adjunction, and adjunction is only allowed to non-arguments - so the AP cannot be theta-marked by BE -.

One of the main claims in Barriers is , thus, that the ECP is a chain phenomenon; and that, possibly, antecedent government may subsume lexical government. I have focused on this aspect of the book because it is the view that Baker (1988) takes for head-movement - and that I shall be following in Chapter 3 .

Notes to Chapter 1

(1) See Pollock (1987), published in (1989).

(2) A double-bar (X") is equivalent to a maximal projection (X^{max}) or a phrase (XP).

(3) See Fukui & Speas (1988) and Chapter 4, section 4.1 for a reformulation of the notion of "specifier".

(4) It must be noted that there have been proposals that differ from this "positioning"; cf. Rosselló (1986) for Catalan.

(5) I will not consider these proposals in the rest of this thesis as they do not seem to bear directly upon its main hypothesis. In other words, it does not seem problematic to find ways in which the main verb in a verbal sequence selects the subject; hence the proposals claiming that its thematic position is VP-internal seem compatible with it.

(6) Note that Stowell instantiates VP small clauses with causative predicates, which, in English, allow a lexical NP occuring in their subject position, in clear contrast with Catalan and Spanish. This issue will be expanded especially in section 2.3.1.

(7) Although no structures are given in the article which in fact show two "consecutive" identical maximal projections (XPs), the fact that the highest XP and the head of the predicate share nature, leads to a structure like (i):

(i) [XP YP [XP X]]

In these cases, adjunction must be claimed at D-structure: if the subject is a daughter of a maximal projection but at the same time a sister of a maximal

projection, the only mechanism to posit is adjunction. - cf. also Manzini (1987), among others.

(8) There have been many different proposals that account for this phenomenon - cf. especially, Rizzi (1982d). See Rosselló (1986), and Adams (1987) for divergences from it.

(9) The parametric choice of principle options is not as simple as the formulation may imply; i.e. there are principles that are not parameterizable, and it is not always the case that the principle has two options - cf. Rizzi (1982b) for this last case. See also Smith (1988).

(10) Note that English and French are also Indoeuropean, but, in the case of complex verbs - as will be illustrated in Chapter 3 -, they do not display the behaviour that would indicate the application of the process of incorporation. The fact cannot be related to the Pro-drop parameter as both English and French have the same - [-] - option for it. Further research is needed. This thesis is an attempt to argue in favour of the application of the process, not the non-application of it.

(11) In Chapter 3, I will touch upon and try to argue against a type of LF movement - different from Quantifier Raising - proposed by Baker (1988) to account for the behaviour of complex predicates in Romance languages. Another LF mechanism proposed by Guéron and Hoekstra (1988), which does not involve movement, but rather *construal* - interpretation - will be considered sufficient to explain the behaviour of these predicates.

(12) This second part of the Theta Criterion has been recently regarded as dubious on the basis of the implications of *secondary predication* - cf.

Williams (1980) , Demonte (1989) -, which allows one argument to have two theta-roles . Nevertheless, one must still keep the part of this requirement in order to disallow two different arguments from being assigned the same theta-role, as in example (24)a. in the text.

(13) As pointed out to me by J.M. Brucart, the distinction between A and Theta positions disappears in Fukui & Speas (1988)'s framework, which crucially relies on the distinction between functional and lexical categories - cf. Chapter 4 , section 4.1 : an A position is always a Theta position, otherwise it does not exist (at D-structure). This solves the special nature of specifiers of functional categories - basically, the subject position of the clause as specifier of IP- being Non-theta but A-positions at one and the same time in certain configurations.

(14)In recent proposals - cf. especially Rizzi (1989)p. 42 fn3 - the definition of c-command is regarded only as crucial for binding, and the notion of *m-command* is crucial for government. Basically, the "branching node" requirement is disregarded and the node that counts for m-command is a maximal projection. In the phrase structure introduced in section 1.1 , where IP=S, the notion of m-command is crucial in order for the INFL head to govern the subject in its specifier position and, thus, assign it nominative Case, as required - see section 1.2.2 for a definition of c-command and m-command, as in Chomsky (1986b) -. See also (38) in text, where I' , although branching, does not count as a node preventing government for Case-assignment; thus, m-command holds.

(15) It must be noted that not all types of empty categories are subject to the ECP. This will become obvious for PRO in the brief introduction to Control Theory below. This section, though, intends no more than to

introduce the subtheories without detail or without reference to the history of the arguments for each of the concepts proposed. Hence, I will not go into the differences among the different types of ecs. Note that the main justification for this gap in the introduction is that the only type of ec, whose *licensing* - cf. Chomsky(1986a), and below for an explanation of this concept - the main hypothesis of the thesis will need to explain, are X^0 traces - cf. 1.2.2 -.

(16) cf. Note (15)

(17) Bounding Theory receives a different treatment in the most recent proposals, as in Barriers - cf. Chomsky (1986b) .

(18) For this reason I will leave out important considerations put forward in the book but which are beyond the main subject of this thesis.

(19) But Minimality also arises in verbal sequences considered in Chapter 3. The following will suffice for later considerations - (90) in Chomsky (1986b). -:

> ¥ is a minimality barrier in (i), implying (ii):
>
> (i) ... @ ... [¥ ... d ... ß ...] (19)
>
> (ii) @ does not govern ß in (i) if ¥ is a projection of d
>
> excluding @

(20) A different account is provided in Guéron and Hoekstra (1988) - cf. section 2.4 . In G&H's account, the trace is antecedent governed by the lexical verb. Note also that here Chomsky allows for VP selection of BE.

CHAPTER TWO: *Verbal sequences: nature and position*

2.0 Introduction

The fact that we find sequences of verbs in most languages is an observation as old as the hills. The treatment of such an observation by linguists throughout history inevitably differs as a consequence of the aims and assumptions of each period and school.

The aim of this chapter is to review the considerations on the nature and position of the verbal elements occurring in a sequence, among the generativist literature. I will basically refer to sequences of two verbal elements - V+V, although at certain points a sequence of more than two verbs will be considered. The considerations on the nature of these elements will necessarily lead one to the distinction between **auxiliaries** and **main verbs**. This distinction is obviously not an issue raised by generativists[1], but was tossed into the air of language study much earlier in history. So it is there to be considered. The only real significance for a generativist of wondering whether a certain verbal element fits into one or the other category is that of finding out relevant generalizations about language. This seems to be the case: it will be observed that the traditionally so-called **auxiliaries** have certain syntactic properties that traditionally so-called **main verbs** do not have. And it will be the aim of the next chapter to attempt an explanation of why this is so. Nevertheless, as is well-known, there are verbal elements that do not seem to fit strictly into either of these categories; section 2.1.2 introduces the issue and section 2.3 sketches the most significant proposals of theoretical explanations for these verbs.

The relevant fact about the nature of elements which constitute verbal sequences within a generativist point of view is that they all share the feature [+ V]. This is a consequence of the traditional assumption - cf. Chapter 1 - that categories are defined by features; they, thus, fall into natural subclasses with respect to certain processes. To mention one important source, Kayne (1975)- referring to the auxiliary/main verb distinction - : " ... *avoir, aller* et les verbes qui correspondent aux modaux anglais, par exemple, *pouvoir, devoir,* doivent etre des membres de la catégorie V, car ils se comportent comme des V par rapport à diverses transformations ... " (p. 102 fn39).

The previous statement implies that all verbal elements are to be considered as belonging to the V category, [2] and, obviously to have the [+ V] feature -, but this does not directly lead to the assumption that they must head a verbal phrase. In a theoretical framework which considers the syntax at the core of grammar , the position of the verbal elements in the phrase structure is a crucial issue. In Emonds (1978)' s words: "the question arises as *to how the grammar is to generate consecutive verbs* ..." (p.152). The alternative explanations that suggest themselves are finite but numerous; section 2.2 puts forward some of the possibilities conceived in the basic literature on the subject, and section 2.3. extends the specific proposals of section 2.2.1. The decisive question is : are two verbs which surface as a verbal sequence part of the same clause or verbal heads of two different clauses? Needless to say this issue has been raised by many linguists, and the aim of this chapter is to summarize some of the basic questions. It is in the contemplation of these issues that the terms **verbal complex**, **complex predicate**, and **complex verb** are used. It must be noted that different authors use different terms for the same phenomenon, as will become obvious in section 2.3. - for instance, in Rizzi (1978) the

term verbal complex is used for the same sequences that Burzio (1986) calls complex predicates -. Terminology-wise I should observe two things: the first is that the terms **auxiliary** and **main verb** have not been erradicated from use in this thesis - although note the quotation introducing 2.1 - for simplicity reasons. The second is that I use the term **complex verb** to refer to those sequences which have traditionally been considered auxiliary + main verb, and **complex predicate** for those verbal sequences there are important syntactic arguments to claim that the second verb in the sequence is the head of the VP of a different clause - cf. especially section 2.2.1 ; 2.3 offers a glimpse of the debate on this issue -. 3

2.1 The status of V+V

2.1.0 Introduction

> "Pour un génératiciste, quel peut-etre le sens d'une question comme "Qu'est - ce qu'un auxiliaire ?" Réponse: aucun. Un élement portant le nom d' auxiliaire ne peut se justifier que s'il permet de révéler des propriétés significatives du langage, auquel cas autant l'appeler "Gaston" ou " Chateau d'Yquem".
>
> (Wass 1988)

Assuming the sense of this quotation, I believe that a brief survey of the tests considered by different linguists at different times may be useful as a guide to find significant generalizations on the behaviour of verbal elements. The aims of the linguists using these tests are not the same: some aimed at illustrating the differences between auxiliaries and main verbs, others, regardless of the "label" given to the verbal elements, used the tests to see the degree of cohesion between two verbal elements. The fact is that some verbal sequences are more "tightly knit" than others; this has often been used as a clue to the auxiliaryhood of the first verb of a verbal sequence,but also as a clue to the application of a specific syntactic process, or of a specific configuration - cf.sections 2.2 and 2.3 -. The tests are here presented as neutrally as possible, although it goes without saying that each linguist has made use of them as arguments either for or against a specific proposal. It is worth pointing out that there are cases of tests being used to argue in favour of opposite "natures". An example of this is null complement VP - cf. no.6 below - , which is regarded as a test for main verb status in Romance, as opposed to English. In section 2.4 - Guéron & Hoekstra (1988) - it will be used to argue in favour of auxiliary status of causative verbs in

Romance, thus generalizing the test - cf. also (g) in section 2.1.2, where a "puzzle" may be solved.

The criteria used for these purposes are either semantic or syntactic. It will be seen , though, that , as Guéron and Hoekstra point out, "... generative grammar has usually taken a narrow syntactic track, restricting the concept [auxiliary] mainly to well-known English verbs which show restricted syntactic behaviour." (p.35). In the following pages I will refer mainly to syntactic tests, but I begin with a brief reference to *meaning* aspects because they seem to be implicitly assumed even by authors who refer only to syntactic criteria. - cf. section 2.2.2 for analyses of sequences of traditionally considered auxiliaries + main verbs within the generative framework.

2.1.1.General diagnostic properties of auxiliaries vs. main verbs

Traditionally, the semantic arguments used to classify certain verbs as auxiliaries basically refer to the aspectual notions of "perfect" and "progressive", which are realized by specific verbal elements considered auxiliaries because they add this sense to the whole meaning of the sequence of verbs - cf. *have* and *be* respectively (note also the "passive" auxiliary *be*). Another related semantic argument alluded to by linguists is the fact that the first element in a verbal sequence lacks "lexical" meaning; i.e. that two verbs in a sequence form a unit on the basis of the combination of the meaning expressed by each element, the first one adding aspectual or temporal nuances to the whole (i.e. grammatically modifying the second verb). Dietrich (1973) studies the behaviour of *periphrastic sequences* in Romance languages consisting of an aspectual verb and a main verb . In his work he alludes to the arguments that make the sequence of verbs

periphrastic , which coincide with the arguments used to classify a sequence of two verbs as *auxiliary + main verb* (e.g. the perfect tenses or "formes compostes"):

> "Por "perífrasis" (...) se entiende, en general, una combinación de, al menos, dos unidades lingüísticas autónomas que de un modo determinado forman una unidad. Aquí se supone generalmente que los elementos así unidos no están al mismo nivel desde el punto de vista del contenido , sino que uno o varios están subordinados al otro o a los otros." (p.35 - 36)
>
> [...]
>
> " Puesto que el primer verbo (...) modifica al segundo en sentido gramatical, se supone ya tácitamente que el primer verbo no tiene su significado léxico, sino otro que le permite la modificación gramatical del segundo verbo." (p.38)

Also from Dietrich is the following quote from Tesnière(1939):

> " ... lors du dédoublement d'un temps simple en temps composé, les caracteristiques grammaticales passent dans l'auxiliaire, la racine verbale dans l'auxilié" (Dietrich (1973)p. 47)

According to Dietrich, "la linguística tradicional había visto "verbos plenos" en los verbos auxiliares, cuyo significado (léxico) está 'desvaído' o 'perdido'" (p.67). Note the contrast in English: *have* in *I <u>have</u> (= possess) a computer* vs. *I <u>have written</u>* (present perfect of *write*) *a chapter on verbal sequences* ; in French: *avoir* in *J'ai (= possess) ton livre* vs. *J'ai lu* (passé composé of *lire) ton livre*. Note that in Catalan the verb *haver* does not have this double possibility : "possess"/perfect auxiliary. It has lost its lexical meaning and is now used only as an aspectual auxiliary; the verb *tenir* expresses the lexical meaning: *Tinc /**He el teu llibre* vs. *He llegit* (passat indefinit of *llegir) el teu llibre*. In Catalan the verb *anar* shows the contrast: *El Guillem va (= goes) a l'Ateneu* vs. *El Guillem em va trucar* (passat perfet

periphrastic of *trucar*) *ahir*. The same situation is found in Spanish where the verb *haber* has also lost its lexical meaning, which is taken up by *tener*: *Tengo;***He tu libro* vs. *He leído* (pasado perfecto of *leer*) *tu libro*. In Catalan and Spanish there is only one context in which the verbs *haver;haber* have a lexical meaning (= "there be"; i.e. the "existential" use of this verb); but they do not occur on their own: in Spanish the only form of the present *ha* is always phonologically amalgamated with a relic of a clitic of place. [4] : *Hay mucha gente* . In Catalan , the form is always preceded by the clitic *hi* - which has survived in modern Catalan - : *Hi ha molta gent*. - cf. Chapter 3 for further consideration of this -.

Thus, two semantic conditions are basic for $V_1 + V_2$ to be considered a *periphrastic* sequence: that it have a meaning of **unit**, ; and that V_1 = "grammatical modifier", and V_2 = lexical head; in other words, that it be a form of the paradigm of the lexical verb. In present generative terms, this implies a unique theta-grid in the verbal sequence; i.e. the lexical verb is the only one that assigns the arguments theta-roles, and the auxiliary does not contribute at all in this respect.[5] The following quotation from Fabra (1956) is relevant at this point:

> " (...) ... *he cantat. has cantat. ha cantat. hem cantat. heu cantat. han cantat.* Això és un temps del verb *cantar* (com ho és *canto. cantes. etc. o cantava. cantaves.etc.*,! un altre temps de *cantar* és *havia cantat. havies cantat.* etc. ; un altre . *hauré cantat. hauràs cantat* etc. Aquests temps es denominen *compostos* i el verb *haver,* al qual pertanyen les formes que s'anteposen al participi *cantat* es denomina *verb auxiliar.* "
> (Fabra (1956) p.41)

There is yet another criterion mentioned by Dietrich which refers to the fact that the first verbal element in a periphrastic sequence always

belongs to a limited set, whereas the second verb in the sequence belongs to an open set:[6]

> "En una combinación como ... *El gato HA COMIDO una sardina* ... el primer elemento léxico es el *modificante*, el segundo, *el modificado*. Aquí se puede constatar fácilmente que la parte modificante pertenece a una clase de limitado número de unidades, mientras que la parte modificada pertenece, en cambio, a una clase de teóricamente ilimitado número de unidades."
> (Dietrich (1973) p. 46)

What follows is a brief survey of the type of syntactic tests used to classify different kinds of verbal elements.

1. Order

> " A determiner is a word that patterns with a noun. It precedes the noun and serves as a signal that a noun is soon to follow, very much as the *presence of an auxiliary announces that a verb is coming.*"
> (Stageberg(1965) p.143 ; italics mine).

An obvious syntactic fact about verbal sequences is that auxiliaries and main verbs occur in a specific order. In the languages analyzed in this thesis (SVO), auxiliaries always precede main verbs.[7]

A related fact is another observation regarding the number of elements in a sequence of auxiliaries, informally: there may not be any "extra" elements; there may only be one type of auxiliary per sequence.[8]

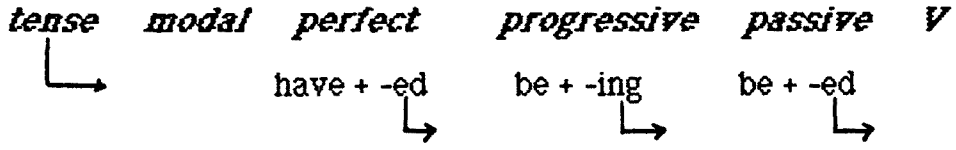
2. Morphology

A fundamental fact about morphology of verbal sequences is that the first verbal element always bears inflection. This is noted in all the versions of the "Affix Hopping" rule proposed in earlier models - cf below for a formulation of it -, by which affixes generated in AUX or INFL "hop" on to the main verb - cf. also 2.2.2 - by introducing a T element before any of the other auxilaries[9]. Consequently, a main verb following an auxiliary will bear affixes corresponding to non-finite forms of the verbal paradigm. Main verbs, though, may also be followed by infinitives - cf. sections 2.2.1, and 2.3 -:

Un bon lingüista sap trobar l'exemple adequat

Los publicitarios intentan convencer a la gente para que compren productos que no necesitan

Strict restrictions on the affixes that the elements occurring in a sequence can take are exemplified in the following version of Affix-Hopping formulation - from Wekker&Haegeman (1985) - :



" If one or more optional elements are realised, they must occur in the order given by the diagram. The arrows pointing to the right indicate that the suffixes associated with these elements are moved to the end of the next verb on the right " (p.48)

3. Tensed negative VP

In a sequence of two verbs, the negative particle "not" in English occurs between the auxiliary and the main verb in tensed negative VPs. The tensed verb is the auxiliary and the negative particle may cliticize to it.

I have not/-n't seen the film

He would not/-n't do it

She is not/-n't doing her job well.

** I have seen not the film*

** He not would do it*

In Catalan and Spanish, the negative particle "no" cannot occur between an auxiliary and a main verb:

** Va no saber què fer en aquell moment*

Intenta no parlar a classe, però no pot

Su esposa prefiere no saberlo

** Ha no superado la crisis*

A related issue is "Auxiliary Contraction" or Reduction , which may be regarded as a minor test for considering the nature of verbal elements in English. Auxiliaries may be contracted, main verbs - usually - cannot - but cf. Zagona (1988), and Kaisse (1984) for restrictions of this phenomenon -:

4. Tensed verb preceding subject (V^0 movement)

The English constructions that are formed by a verb preceding the subject require this verb to be an auxiliary [10]:

Has he told you?

Will he ever decide to ask her out?

Are you using the typewriter?

** Told he has you ?*

** Decide he ever will to ask her out?*

**Using are you the typewriter?*

Tag-question formation is a related phenomenon; i.e. only auxiliaries can appear in this construction:

You haven't looked it up in the dictionary, have you?

Reiko is keeping up with her work, isn't she?

** You haven't looked it up in the dictionary, look you?*

** Reiko is keeping up with her work, keeping not she?*

Note the contrast in Catalan and Spanish which allow main verbs in pre-subject position, where English does not:

¿Lee Juan el periódico cada mañana?

Té molta feina el teu marit?

Ha menjat bé la Sandra?

5. Tensed VP with emphatic polarity

In English, the emphatic polarity of a VP is carried out by an auxiliary:

He <u>has</u> arrived

I <u>am</u> doing my job

I do know him

Emphatic polarity in Catalan and Spanish is carried out by means of a different construction:

**Ha arribat ;/ Sí que ha arribat*

**Va portar - te l'article ;/ Sí que et va portar l'article*

6. Post-verbal ellipsis (null complement anaphora / VP Deletion)

In English, when there is a verbal elliptical head, the last non-ellipted verbal element is an auxiliary:

I don't know if Marjolein will be there, but she may

I didn't know he was cutting classes, but he has been since the beginning of the course

We didn't like the course, but most people did

**We didn't like the course, but most people liked*

In Catalan and Spanish, the verb following a main V may be omitted in the appropriate context, not the verb following an auxiliary:

L'avi sabia parlar francès i l'àvia també en sabia

**El David ha passat la tesi a màquina i la Melissa no (l')ha*

Mi hermano ha intentado cambiar de trabajo pero su mujer no lo ha intentado

**Miguel ha querido convencerla pero Ramon no ha*

7. Selectional restrictions (thematic restrictions)

It is usually assumed that the subject of the sentence involving a verbal sequence comforms with the *selectional restrictions* imposed by the main verb in the sequence:

**His teddy bear has written a book about physics*

**La cadira va cantar*

** La reunión se ha roto*

In the present framework of transformational generative grammar, predicates have certain requirements which are defined by their **theta - grid** - cf. Chapter 1-; in other words, they are specified as to which arguments they take - AGENT, PATIENT, etc. -. Selectional restrictions such as [+/- Human] are not specifically mentioned in the theta-grid, although, certain thematic roles may be associated with certain features - i.e. AGENT (+ HUMAN). What the grammar may specify, though, are the predicate-argument requirements. Note that this implies a reformulation of the consideration of "selectional restrictions" as a test for the auxiliaryhood of a certain verbal element. If a particular argument in the clause is required by a verbal element in a sequence, this verbal element is usually not considered an auxiliary, but a main verb imposing its thematic restrictions.[11]

The following examples contain two traditionally considered main verbs in Spanish: *ir (voy)* and *firmar* . In (a), the argument *el contrato* is required by the verb *firmar*, not by *ir*. In (b), however, the presence of the PP *a mi casa* is required by the verb *ir*, here there is evidence that it has a main verb status:

(a) *Voy a firmar el contrato*

(b) *Voy a firmar el contrato a mi casa*

Note that the first example is ambiguous; the sequence may be interpreted as the periphrastic future tense - *voy a firmar = firmaré* - and it does not in itself provide sufficient evidence for the status of the first verb.

The same holds for Catalan aspectual verbs which may be interpreted as either aspectuals or motion verbs - cf. also section 2.3.2.3, Picallo (1985) -:

L'estudiant va tornar a faltar a classe

(= L'estudiant va faltar a classe una altra vegada)

L'estudiant va tornar a preguntar-li si havia suspès l'examen

(= a. L'estudiant va preguntar-li una altra vegada si havia suspès l'examen,

b. L'estudiant va tornar a la classe per tal de preguntar-li si havia suspès l' examen)

8. Clitic climbing

The basic analysis of the phenomenon of *clitic climbing* [12] was first proposed in Kayne (1969) for French clitic pronouns. The rule alluded to in this work is *Clitic Placement*:

Clitic Placement

vbl	V	vbl	PRO	vbl
1	2	3	4	5
1	4+2	3	∅	5

Cliticization is regarded as the adjunction of a clitic pronoun, generated in postverbal position, to the left of the verb. A verbal sequence of two verbs may allow the "climbing" of the clitic or not; generally, if a verbal sequence is made up of an auxiliary and a main verb, a clitic corresponding to the object of the main verb may climb to the auxiliary position. Note that if the second verb in the sequence is an infinitive or a gerund, the clitic may stay in postverbal position:

La Susana ha tornat a l'MIT
La Susana hi ha tornat

Jaime está fotocopiando los artículos
Jaime está fotocopiándolos
Jaime los está fotocopiando

Piero decidirà di parlar-ti di parapsicologia
**Piero ti decidirerà di parlare di parapsicologia* (Rizzi(1978)(1)c,d))

Ens va invitar a veure-la
**Ens la va invitar a veure*

Nos disuadió de verla
**Nos la disuadió de ver*

9. Clausal complements (complementation)

The non-finite form of the lexical verb which follows an auxiliary may not be substituted by a finite clause, an alternation which is possible only for (some) main verbs followed by an infinitival clause . Note that the different

interpretation of the +Tensed and the -Tensed complement clauses is not a relevant issue here; the -Tensed correlate is not possible for auxiliaries irrespective of their interpretation. In the present framework, this test is also related to the fact that complex verb sequences have a unique theta-grid; i.e. the auxiliary does not have a theta-role to asign - cf. also thematic restrictions - test 7 -, and the "semantic" arguments for auxiliary + main verb sequences above -.

Jan expected to win
Jan expected that he would win

En Joan esperava guanyar
En Joan esperava que la Carme guanyés

Iñaki esperaba ganar
Iñaki esperaba que Javier ganase

Jan has won
** Jan has that he would win*

En Joan ha guanyat
** En Joan ha que ell guanyés*

Iñaki ha ganado
** Iñaki ha que él ganase*

10. Interruption by lexical elements

In Catalan and Spanish, a sequence of main verbs may be "interrupted" by lexical elements such as adverbs[14], but not a sequence consisting of an auxiliary and a main verb:

** Hem només arribat fins la lliçó tres*

** Pedro ha siempre hecho películas interesantes*

Intenta siempre llegar pronto

No decideix mai anar al cinema

In English, an adverb occurs after auxiliaries in a sequences of verbs:

He will never decide to tell her about it

They have always known that there was something between them

11. Preposing and postposing

In Catalan and Spanish, a sequence of two main verbs may be broken up by the application of the rule of move-alpha, which may either prepose a part of the sequence or postpose it; this is not possible if the sequence contains an auxiliary:

** Ens pensavem que es casaria però casat no s'ha*

** - ¿Fel libro? - ¡Comido no me lo he! -*

De preparar menjars bons, la mare en sap molt

Tenía que acabar la tesis pronto y, al final, a acabarla me puse

English also allows preposing, but, as in the cases of VP-anaphora, auxiliaries are always "left behind":

We thought he would get married, but marry he didn't

The following two tests are not applicable to English, and only the first one is relevant for Catalan. They have been proposed for the analysis of Italian verbal elements - cf. section 2.3.2.1 , Rizzi (1978) -.

12. Impersonal "si/se construction"

The impersonal "si/se" construction is available in Italian, Catalan and Spanish :

Quan s'està fent la tesi, s'ha de dormir poc
Cuando se está haciendo la tesis, se tiene que dormir poco

All of these are equivalent to the following construction with a lexical subject instead of the subject clitic "si/se":

Quan s'està fent la tesi, un ha de dormir poc
Cuando se está haciendo la tesis, uno tiene que dormir poco

In Italian, when the verb is transitive, there is a corresponding structure where the object of the verb may, optionally, raise to subject position and trigger agreement with the verb:

Si construisce troppe case in questa città

Troppe case si construiscono in questa città (57)(Rizzi (1982)

Note that in Catalan and Spanish the non-agreement construction is not possible - although in some dialects it is -, and the preverbal or postverbal position of the object is not the relevant: [14]

**Es construeix moltes cases en aquesta ciutat*

Es construeixen moltes cases en aquesta ciutat

**Se construye muchas casa en esta ciudad*

Se construyen muchas casas en esta ciudad

If there is a verbal sequence, auxiliaries and some main verbs exhibit agreement, but other main verbs do not.

Finalmente si comincerà a construire le nuove case popolari

Finalmente le nuove case popolari si cominceranno a construire

Finalmente si otterrà di construire le nuove case popolari

**Finalmente le nuove case popolari si otterrano di construire*

(Rizzi (1978) (2))

**Les cases barates s'han permès edificar aquest any*

Els problemes urgents s'han començat a discutir ara

(H&R (1981) (42))

13. Auxiliary selection

In Italian , there are two aspectual auxiliaries, *avere* and *essere*.

Mario ha / è voluto un costoso regalo di Natale*

Mario è/ ha tornato a casa* (Rizzi(1978)(3))

When the construction involves a sequence of verbs, main verbs maintain their requirements and the structure disregards the requirements of the embedded verb:

Mario ***ha*** */* * *è* ***promesso*** *di tornare a casa*

(Rizzi(1978) (4))

Nevertheless, modal verbs, which take *avere*, optionally allow *essere* if the second verb in the sequence requires *essere*

Mario ha / è voluto / dovuto / potuto ***venire*** *con noi* (Rizzi(72)

2.1.2 Some observations: puzzles in the classification

Hernanz and Rigau (1984) observe that an attempt to classify verbs into main and auxiliaries will invariably leave us with a set of verbal elements which are halfway between each of the two groups. This set includes *modals* and *aspectuals* (M-A) - cf. Section 2.3.2 -. H&R follow Rizzi's (1978) observation but they add to it by considering another syntactic construction -cf. b. below - . Some of these constructions characterize these halfblooded verbs as auxiliaries, others characterize them as main verbs.

The following show that the two verbs in a sequence have a close relationship and that this can be compared to the relationship which hold between auxiliaries and main verbs:

a. Transparency of selectional restrictions (7):

La Maria pot cantar

La cadira pot trencar-se

**La Maria pot trencar-se*

**La cadira pot cantar*

b. Discontinuous passive:

This test shows that the passive-rule, a rule which applies only within sentences, is possible with M-A verbs , not with other "main" verbs:

Maria debe cantar Aida ./ Aida debe ser cantada por Maria

El metge començà a operar en Pere ./ En Pere començà a ser operat pel metge

*Maria prometió cantar Aida ./ * Aida prometió ser cantada por Maria*

*El metge anhela operar en Pere ./*En Pere anhela ser operat pel metge*

c. Non-personal verbal complements (9):

**Pedro suele que bailen*

** La Joana tornarà que en Pere balli*

d. No double negation(3):

The examples in test (3) where the negative particle occurs between an auxiliary and the following verb are also ungrammatical if there is another negative particle:

**No va no saber què fer en aquell moment*

**No ha no superado la crisis*

As H&K point out, a double negation is possible if there are two main verbs, each associated with a different verbal form:

Maria no lamentó no haber cantado

En Pere no va dir que no sabia francès

This is not possible with M-A verbs:

**Pedro no vuelve a no dormir*

**En Pere no sol no fumar*

e. Clitic climbing (8):

This is one of the main pieces of evidence considered by Rizzi - cf. 2.3-. M-A verbs allow clitic climbing as opposed to main verbs[15]:

La puede pegar

Hi començaré a pensar

**La lamentó pegar*

**Hi lamento pensar*

M-A verbs typify main verbs with respect to other syntactic processes:

f. Placement of negation(3):

En Pere podria no saber-ho

Pedro deberia no contestar la carta

g. Null complement anaphora (6):[16,17]

La Maria ha decidit pintar la casa, però encara no ha començat

Juan deberia dejar de fumar, pero no puede

h. "Free" order (1):

The order is not fixed - as with auxiliaries and main verb sequences -, but there is an obvious change in meaning when the verbs appear in different position:

Haig de poder cantar

Puc haver de cantar

Sigue teniendo que trabajar

Tiene que seguir trabajando

i. Interruption of verbal unit (10) (11):

Debí hace mucho tiempo comentar este lamentable incidente

Solia durant l'estiu parlar de les seves velles amistats parisenques

Besides this "double nature" displayed by M-A verbs with respect to (a) - (i) , as H&R observe, the situation is yet more complicated when we bear in mind that within the subset of M-A verbs not all items show a consistent behaviour with respect to (a) - (i) ; for instance, *voler* allows clitic climbing:

La Isabel hi vol anar

but is not transparent to selectional restrictions:

**La cadira vol trencar-se*

poder is transparent (a) but allows double negation:

La Maria Rosa no podia no acceptar-ho

2.2 The structure of V+V

2.2.0 Introduction

That certain sequences of V+V form both a syntactic and a semantic unit has been observed in section 2.1. A fundamental syntactic fact about V+V sequences is that the verbs are adjacent. This superficial order of two verbs in a sequence may be the result of several different structural possibilities. Two verbs may be consecutive if they are base-generated in consecutive structural positions ([$_{VP}$ V [V]); verbs may also be only superficially adjacent, i.e. there may be an empty category intervening ([V [ec V]) ; and yet, another possibility is for the second verb to have moved from a non-adjacent position to an adjacent position ([V ([) V [... t_V ...]). Each of the three options corresponds to a different possibility of formation of a "complex predicate" or a "complex verb": it may be base-generated as such, or its formation may be the result of modifications in the course of the derivation. This section puts forward the input structures to the formation of either complex predicates or complex verbs.

As noted, I will use the term **complex predicate** to refer to instances of sequences for which reasons have been put forward to postulate a clausal complementation; i.e. reasons mainly based on some of the tests in 2.1. The two verbs forming a complex predicate may be verbal heads of different clauses, thus forming a bisentential structure. Alternative proposals have also been considered, as will become clear in section 2.3.

I will use the term **complex verb** for those sequences of two verbs which have not been claimed to be in a bisentential configuration. Again, the reasons come from considering some of the tests in 2.1. The two verbs are part of the same clause. In section 2.2.2 it will be made evident that

this linguistic fact implies a greater distortion of initial assumptions of phrase structure: if two verbs are consecutive and there is no clausal boundary intervening, one must have recourse either to a richer phrase structure by adding nodes of a different sort - generally, functional nodes -, or one must find ways to allow VP selection by verbal heads. The richness of the present model allows ways to ensure that consecutive verbs do not imply violations of fundamental principles.

2.2.1 Raising, Control and ECM[18]

Let us first consider the different proposals in the framework which lead to a postulation of an empty category intervening between two verbs. Given the different types of empty categories that have been so far postulated - *PRO, pro, trace* - , and given the possible form of verbs that follow other verbs - only non-finite forms -, there seem to be only two choices: *PRO* or *trace of NP*. It is generally assumed that the choice of *pro* is subject to the condition of *licensing* . *AGR* in *INFL* must have the required properties to license the *pro* subject. It is also generally assumed that tenseless clauses do not have AGR features that would otherwise license a *pro* subject. If *AGR* is present, the verb will no longer be non-finite and there will no longer be a sequence of two verbs. The following contrast illustrates this:

(1) a. *pro vull PRO venir*

b. *pro vull que pro vinguis*

English does not have the choice of *pro* ; a phonetically realized subject must occur if it is not a *PRO* context:

(2) a. *I think PRO going there would be dangerous*

b. *I think that they will go there anyway*

c. **I think that pro will go there anyway*

The following exemplify the different structures where two superficially consecutive verbs are separated by an empty category:

(3) a. *I want PRO to finish this thesis*[19]

b. *This student seems t to like the subject*

c. *He is believed t to know a lot about the subject*

Only two of these constructions are possible in Catalan and in Spanish:

(4) a. *He decidit PRO anar a Londres*

b. *Aquell noi sembla t entendre molt bé l'assignatura*

c. ** En Pep és cregut t saber-ne molt*

(5) a. *Mi sobrino ya sabe PRO leer*

b. *Tu marido parece t tener buen caracter*

c. **Pepe es creído t conocer a fondo el tema*

The structures illustrated by these examples correspond to the so-called *Control, Raising and Syntactic Passive*[20]

This last possibility is not found in either Catalan or Spanish, but, nevertheless, the second examples in both languages illustrate the fact that an empty category (*trace*) may intervene between two verbs. These three possibilities are the result of the interaction of different subtheories; the fact that the empty categories intervening are of a different nature in

Control and in *Raising* is the consequence of principles of *Case Theory, Theta Theory, Control Theory,* and *Government Theory* as will be explained in what follows - cf. also Chapter 1 -. The fact that we postulate a subject position occupied by an empty category implies that we are granting the node dominating it a clausal status. This analysis is proposed on the basis of evidence from different linguistic facts, which will be presented in what follows. The S' (CP) / S (IP) status of the clausal node dominating the empty category will also be briefly discussed.

Consider the following English sentences:

(6) a. *The students seem to want a strike*

b. *It seems that the students want a strike*

and their corresponding Catalan and Spanish equivalents:

(7) a. *Els estudiants semblen voler una vaga*

b. *Sembla que els estudiants volen una vaga*

(8) a. *Los estudiantes parecen querer una huelga*

b. *Parece que los estudiantes quieren una huelga*

The two structures in the three languages are equivalent in meaning; the difference lies in their structure. The relationship between infinitive complements and complement finite clauses has been pointed out by many linguists outside and within the framework of generative grammar (c.f. Brucart (1985) and references cited there, Rosenbaum (1967), among others) . This fact is already a clue as to the clausal status of the node dominating the infinitive. Also, postulating a parallel D-structure for both

verbal complements would capture the parallelism and greatly simplify the grammar, as long as the principles used to explain the differences were independently required. Since this seems to be the case, I will assume it for the time being and devote only a part of this section to put forward some of the arguments for this analysis.[21]

Before I explain the structures above within the GB framework, it must be noted that the Standard Theory account differed in important respects, and that linguists, such as Brame (1976) and Bresnan (1978), who criticized the earlier explanations relied precisely on arguments that have now been revised. The Standard Theory made use of mechanisms that have now been abandoned in favour of a model which is closer to achieving explanatory adequacy. These mechanisms include the separately stated and not independently required rules of *Equi-NP Deletion* - Ross (1967) - , *Raising-to-Object* - Kiparsky and Kiparsky (1970) -, and *Raising-to-Subject* Of these three rules only the third one is still maintained. Nevertheless, it is subsumed under the general mechanism of *move-alpha*, where *alpha* is an NP. The structures which these rules accounted for are now explained in a unified fashion. It is the basic property of interaction of modules of the present model that allows this.

The first accounts of structures like (3)a., (4)a., and(5)a. above focused on a basic property: the equivalence of the subjects of both clauses. Note that in (1), only the *pro* choice ((1)b.) allows - and requires - the subject to have a different reference - cf. Picallo (1985) for an account of this phenomenon -. This does not apply for English as it is a [- pro-drop] language. Note, though, that in (2)a. the subject of the infinitival clause may be coreferential with the subject of the matrix clause. Nevertheless, this example illustrates the so-called cases of *arbitrary control*, where PRO may

have an arbitrary reference (= "for anyone") As example (2)b. shows, if there is a finite embedded clause, the subject may be non-equivalent, but it may also be equivalent:

(9) *I think that I will go there anyway*

On the basis of the identity of the subjects in the two clauses - where there is an infinitival clausal complement -, Ross (1967) postulated rule (10) of *Equi-NP Deletion* by which an NP identical with another NP was deleted if the structural description applied. The condition for deletion was that the two NPs be coreferential :

(10)	X	-	NP_1	-	V	-	[S	NP_2	-	VP	]	-	Y
S.D.:	1		2		3			4		5			6
S.C.:	1		2		3			$\emptyset$		5			6

The examples above are straightforwardly accounted for in this fashion within the Standard Theory model. Nevertheless, there are cases where the infinitival clause subject is not coreferential with the subject of the main clause, but rather with one of its objects:

(11) *Mary persuaded Johnj [PROj to cook dinner]*

In Spanish the infinitival clause subject may even be coreferential with an NP which is not a complement of the main verb - c.f. Brucart (1985) (21) a.,b.- Note that the clitics in these examples take either the form of the direct or indirect object :

(12)a. *Luis lo vio venir*

b. *Luis vio venir a María*

c. *Luis le vio dar una bofetada*

For structures such as this a rule of *Subject-to-Object Raising* was postulated - c.f. Kiparsky and Kiparsy (1970) -. For such an analysis the NP in object position in (12)b is base-generated in infinitival subject position and raised to the clause-final object position. Such a rule constitutes a clear violation of the *Theta Criterion* in the actual framework, and it was soon left aside. - cf. section 2.3.2.2 for discussion on these structures -.

The third rule mentioned above is *Raising-to-Subject* which was proposed for structures such as (3)b.- c. ,(4)b. and (5)b.. Note that these show a contrast with the *Equi-NP- Deletion* examples; it is not possible to find a structure involving a verb like *seem* with two lexical subjects:

(3)b' * *This student seems that this girl likes the subject*

(4)b.'* *Aquest noi sembla que aquesta noia entén molt bé l'assignatura*

(5)b.'* *Tu marido parece que Pepe tiene buen carácter*

(3)a.' *Arantza wants us to finish our theses*

(4)a.' *La Marta ha decidit que la seva filla anirà a Londres*

(5)a.' *Mi sobrino sabe que su padre lee poco*

This contrast indicates that these two types of structures are not equivalent. Constructions with a phonetically realized subject in the embedded clause must take the form as in (6), (7), and (8), where in English an *expletive* occupies the matrix subject position and in Catalan and Spanish, the position is empty. If the matrix subject position is not

empty , nor occupied by an expletive, the two positions were assumed to be related by a transformation. The details of the transformation which applied in these cases differed from the *Raising* process postulated in the present framework. They, nevertheless, share the basic property of a subject-to-subject NP movement. In what follows I will consider the explanation of these structures given in GB terms.

Some of the mechanisms postulated in Standard Theory analyses - as has been noted in Chapter 1- are undesirable for independent reasons of the general aims of the theory. The rules mentioned above conflict with fundamental assumptions of theta - role assignment, movement, and the relationship between the different levels of the grammar, D-structure and S-structure. Furthermore, the postulation of base-generated empty categories has been extensively argued for and it has been shown that, other things being equal, it is theoretically more desirable to postulate one such empty category occurring in subject of infinitival position than to allow deletion of identical NPs. [22]

The characteristics of structures like (3)a., (4)a. , and (5)a. , repeated here, will rely on the specific status of the subject position of infinitival clauses:

(3)a. *I want [PRO to finish this thesis]*

(4)a. *He decidit [PRO anar a Londres]*

(5)a. *Mi sobrino ya sabe [PRO leer]*

It is a crucial characteristic of the GB model that the interaction of subtheories accounts for the range of well-formed structures in language. This is what keeps a powerful mechanism like empty category base-

generation from overgenerating. The characteristics of *Control Theory* were sketched in Chapter 1, and are basically summarized in the *PRO Theorem* which prohibits government of PRO. As explained, this avoids the *Binding* contradiction of an element, such as PRO, being [+anaphoric] and [+pronominal] at the same time. The subject position of the infinitival embedded clause in the examples above must not have a governing category, and therefore must be ungoverned -cf. Chomsky (1981). This is straightforwardly achieved if the node intervening between the matrix verb and the complement clause is a maximal projection blocking government, i.e. CP, not IP. In other words, the verbs above select a CP, and not an IP. This captures the fact mentioned above that *that* - complement clauses and infinitival complement clauses have something in common, namely, the status of their clausal node. If the subject position is not governed , the *Case Filter* disallows a lexical NP. This is illustrated in the following examples:

(12) * *I tried Felicity to persuade Andrew*

(13) * *En Guillem ha decidit la Gemma agafar un pis*

(14) * *Sandra intentó Carmen llamar a Ramón*

Nevertheless, there are mechanisms in the languages considered which allow a lexical NP occurring in such positions. These mechanisms must involve case-assignment of the subject position. English has a prepositional complementizer, *for,* which may have this function:

(15) *I want very much for you to stay here until I come back*

In this sentence, the lack of adjacency between the verb and the subject of the infinitival prevents case-assignment. The *for* - mechanism

has been a debated issue since data of this sort were taken into account - c.f. Chomsky (1981), and references cited there -. From the following list of structures - Koster and May (1981) (13) (a-i) - only the first six are well-formed; NP subjects are assigned case by *for* - in (a-c) -, and empty categories are not subject to the *Case Filter* - in (d-f) -.

(16)a. ... A [for NP to VP]

b. ... V [for NP to VP]

c. ... N [for NP to VP]

d. ... A [*e* to VP]

e. ... V [*e* to VP]

f. ... N [*e* to VP]

g. ..A [NP to VP]

h. ... V [NP to VP]

i. ... N [NP to VP]

where *e* stands for *empty category* - i.e. PRO in the cases under analysis -. N and A are not structural case- assigners, and V in the structures above does not govern the NP subject, case-assignment, thus, being blocked.

The contrast is illustrated with the following sentences:

(17) a. *It is illegal [PRO to imitate somebody else's signature]*

b. *It is illegal [* (for) you to imitate somebody else's signature]*

(3) a. *I want [PRO to finish this thesis]*

a' *I want [(for) John to finish his thesis]*

(18)a. *The desire [PRO to finish this thesis]*

b. *The desire [* (for) you to finish your thesis]*

As (3)a/a'. indicate, there are verbs like *want* which allow a phonetically null subject as well as a phonetically realized subject. - (16) e. - h.-. This is a lexical property of these verbs : they select a *for* - complement, but they allow *for*-deletion, which accounts for the possibility of having a lexical NP subject in the subject position of the infinitival clause not preceded by *for*. [23]

There are also verbs which have the possibility of governing the NP subject of the complement clause or not, because they have a double-selection (IP/CP). IP does not block government. This is the case of the other structures considered above, where two superficially consecutive verbs were separated by an intervening trace - (3)b.-c., (4)b., and (5)b.- . Note, though, that when there is no possibility of alluding to government by the verb, the only mechanism available is *for*. This is the situation of subject infinitival clauses where a lexical subject cannot be governed by a tenseless AGR:

(17) *For John to arrive on time is almost unthinkable*

Catalan and Spanish do not have a parallel mechanism; (13) and (14) above would require the embedded clause to contain AGR, therefore allowing a lexical NP in subject position:

(13)' *En Guillem ha decidit que la Gemma agafés un pis*

(14)' *Sandra intentó que María llamara a Ramon*

The other structures which involve a verb followed by an infinitival clause whose subject position is occupied by an empty category are those in (3)b.-c., (4)b., and (5)b., repeated here:

(3)b. *This student seems [t to like the subject]*

c. *He is believed [t to know a lot about the subject]*

(4)b. *Aquell noi sembla [t entendre bé l'assignatura]*

(5)b. *Tu marido parece [t tener buen caracter]*

The different nature of the element in subject position of the embedded clause is determined by the interaction of *Case Theory*, *Theta Theory*, and *Government Theory*. Leaving aside the *syntactic passive* example, and as (7), (8) and (9) above show, these structures may be paraphrased by a construction where the lexical subject occurs in the embedded subject position and the matrix subject position is either occupied by an expletive (English), or left phonetically unrealized (Catalan and Spanish). The characteristic of *expletive* elements as opposed to *arguments* is that they do not bear a thematic-role . The subject position of a verb like *seem* is , thus, a non-theta position and, therefore, allows movement of an NP without leading to a violation of the *Theta Criterion* . The NP occupying the matrix subject position in each of the above structures is , therefore assigned its theta-role in the embedded subject position. As was sketched in Chapter 1, the notion of *chain* captures the fact that the NP and its trace are "one" argument; and the *Visibility Condition* links Case assignment to theta-marking in the sense that an NP is "visible" for theta-marking only if it is in a position where it is assigned case. It is, thus, assumed that the embedded NP-subject position is not case assigned. Nevertheless, *Government Theory*, and specifically the *ECP* , disallow non-properly governed traces. The only way the trace in the embedded subject position may satisfy this principle is via government by the matrix verb. This is only possible if the intervening node does not block government; i.e. it is IP and not CP. This is a lexical -and thus idiosyncratic-

property of verbs like *seem* ; they also have an optionality of subcategorizing for either IP or CP. CP subcategorization must be assumed for sentences like : *It seems / that this student really enjoys the subject/* This is also assumed to be a property of a verb like *believe* in English, and which accounts for the satisfaction of *ECP* in (3)c. by the trace, and for the possibility of occurrence of a lexical subject in the infinitival clause. Optionality of selection is shown by a/b:

(19)a. *I believe / him to know a lot about the subject /*

b. *I believe / that he knows a lot about the subject /*

(19) is an illustration of the structure in (16)h. where V has the property of assigning case directly to the NP infinitival subject position, by virtue of its possibility of IP selection. Verbs of this sort are *exceptional case-marking verbs (ECM)* and they differ, as noted, from *Control* verbs, and verbs which take *for* complements.

The lack of such structures as (19) for Catalan and Spanish, as (4)c. and (5)c. show - repeated here:

(4)c. **En Pep és cregut saber-ne molt*

(5) **Pepe es creído conocer a fondo el tema*

might lead one to assume that these languages lack ECM structures. Nevertheless, considering (20), the verbs subcategorizing for the complement clause must be assumed to directly case mark the subject - as there is no other way for it to be assigned case:

(20)a. *Va veure / la noia baixar del tren /*

b. *Las paredes son tan delgadas que hasta oye / a sus vecinos*

hablar en voz baja /

These and other structurally equivalent configurations are analyzed following the literature in section 2.3.1. Therefore, an input structure to the formation of complex predicates may also be an ECM construction; i.e. V [NP VP]

It was noted above that certain scholars - Bresnan (1978) , Brame (1976) - have criticized the assumption that infinitivals are dominated by an S' node. They adopted an analysis involving a VP' node , and assumed the grammar contained the rule:

(21) *VP' --> to VP*

A typical *Control structure* would, thus, have the following analysis:

(22) *John tried [VP' to call her /*

One of the basic arguments to postulate such an analysis was the systematic lack of lexically realized subjects in infinitivals; if they were not granted a clausal status, this would follow since VP' crucially does not contain a subject - nor a COMP - position. This straightforward observation for English encounters problems in Catalan and Spanish - cf. Brucart (1984), Hernanz (1982) - where the subject position is full in certain contexts:

(23) *¡Mira que caer Juan en las redes de Julia!* (Brucart (1984)(112))

(24) *Parar ell la taula? Mai de la vida!*

Phenomena of this sort have been analyzed as instances of verb movement - cf. especially Rizzi(1982c) -. If this is so, then their status as counterexamples to the claim that infinitivals are not clauses is not as straightforward. Nevertheless, the fact that there is V-raising does not change the existence of a subject position at D-structure, and does not give support to a VP-complementation. Moreover, as was already observed, infinitival complements in English do allow lexical subjects if certain conditions hold - case assignment -, in these cases, the infinitival must have an NP subject position.

Apart from the fact that lexical subjects in infinitives are allowed in some languages, there is evidence from different subtheories corroborating the claim that there is a subject position in infinitives - cf. Koster and May(1981), Brucart (1984) and references cited there-, and, consequently, that infinitival complements have the status of clauses (S'/CP). I will only mention three facts that point in this direction: the occurrence of subject-oriented adverbs in infinitival complement clauses related to an object of the matrix verb; the occurrence of secondary predicates that refer to the subject position; and evidence from *Binding Theory*.[24]

According to Jackendoff (1977), certain adverbs like *intentionally, carefully* are subject oriented because they are construed as predicated of the subject. In the following sentence, the adverb refers to an object and not to the subject; this is explained if there is an empty category in the subject position which is, in turn, controlled by the object:

(25) *Mary persuaded John$_i$ [PRO$_i$ to carefully dress the baby]*

The predication argument for positing subjects in infinitivals refers to Williams (1980) condition on predication; i.e. that there must be a

coindexed argument by which the predicate is c-commanded. Unless an empty category occupies the subject position, the condition does not hold for the predicate *nude* in the following sentence - (87) in Koster and May (1981) - :

(26) *[PRO eating the meat nude] made David famous*

One of the arguments from *Binding Theory* is the condition on anaphors; namely, Principle A. Unless there is a subject in the infinitival clause in the following sentence, a Principle A violation arises; i.e. the anaphor is bound outside its *governing category*. The example is grammatical, and, thus, the analysis involving a subject position makes the correct prediction:

(27) *Mary thinks [it is a pain in the neck [PROj to shave herselfj]*

The same holds for the following example where there is no antecedent for the anaphor unless we posit an empty category in subject position:

(28) *Mary thinks that it is a sin [PROj to admire oneselfj]*

Parallel arguments hold for the absence of COMP in a VP' analysis. There is evidence that a COMP position is needed in pre-infinitival position and if it must be introduced in rule (21) above it clearly implies an undesirable move: an extension of base-rules and, thus, a clear complication of the grammar. In the actual framework this would not conform to the phrase structure possibilities given by X'-Theory . That a COMP position is

needed preceding infinitivals is made clear by an example such as the following:

(29) *John wonders [what [to give Mary for her birthday]]*

As Koster and May(1981) point out, there are languages where infinitivals are introduced by ordinary complementizers. Catalan has this possibility:

(30) *Només vol [(que) [PRO estar amb ell]*

Following their arguments distinguishing prepositions and complementizers - ""deletion" is typical of complementizers, but not of prepositions" (p.18) -, the otherwise preposition *de* in Catalan can also be considered a complementizer by virtue of its possible omission in structures like the following:

(31) *En Joan intenta (de) fer-ho tot amb cura*

(32) *He decidit (d') anar a Londres*

The evidence considered crucially follows from a S' (CP) analysis and is problematic for a VP' analysis. Assuming that infinitival complements are clauses *implies* that there is a Comp position and a subject position. Apart from these arguments, though, the criticisms made against an S' analysis have been shown to be irrelevant for the GB framework - cf. Koster and May(1981) and Brucart(1985) -. Arguments against *Equi-NP-Deletion*, ordering of rules and domain of rules no longer hold. As mentioned , *Equi-NP-Deletion* has been subsumed by *Control Theory* . Furthermore, in the present framework there is only one rule, namely *move-alpha*, whose

application is surveyed by the different *subtheories*. It is, thus, obvious that *order* and *domain* of rules have been voided of theoretical content.[25]

2.2..2 Complex verbs

The previous section dealt with structures that can be the input to the formation of **complex predicates**. This section will review those structures which have been traditionally considered instances of **complex verbs** [26]; sequences of verbs made up of auxiliaries and main verbs. [27] Note that the order instantiated in (1) is introduced by a specific PS rule in the first models of generative grammar, as will be observed below, and later made to follow from general principles - two crucial proposals of this are Guéron & Hoekstra (1987) - cf. section 2.4 - and Zagona (1988) -.

(33) MODAL - PERFECT (HAVE) - PROGRESSIVE (BE) - PASSIVE (BE)

(34)? *The missing candies may have been being eaten by the children while we were not watching them!*

(35)a. *Els nens deuen haver estat menjant els caramels que no trobem*

b. *Els caramels poden haver estat menjats pels nens*

(36)a. *Los niños deben haber estado comiendo caramelos*

b. *Los caramelos pueden haber sido comidos por los niños*[28]

These sequences of verbs share the property that each of the verbal elements before the main verb may precede it and form a complex verb with it - cf. (37), (38), (39) - without there being any reason to postulate a biclausal structure - cf. section 2.1 and all the diagnostic properties. It is a fact that modals in Catalan and Spanish do offer this possibility - cf. section 2.2.1. and 2.3.2. I will leave this issue open in this section and consider the structure of the sequences formed by the other verbs.

(37)a. *The children have eaten the candies*

b. *The children are eating the candies*

c. *The candies are eaten by the children*

(38)a. *Les criatures s'han menjat els caramels*

b. *Les criatures s'estan menjant els caramels*

c. *Els caramels són menjats per les criatures*

(39)a. *Los niños se han comido los caramelos*

b. *Los niños se estan comiendo los caramelos*

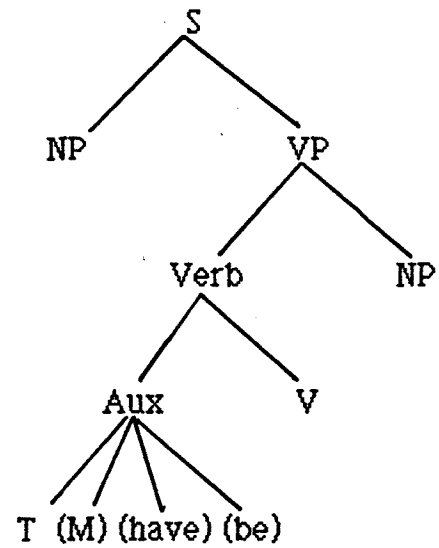
c. *Los caramelos son comidos por los niños*

The main question that this section addresses is: What is the structure of these sequences? I will first briefly mention some of the earliest proposals focusing - but not reviewing in depth - two important constributions to the subject: Emonds (1978) and Akmajian, Steele, and Wasow (ASW) (1979). I will briefly note that they are not valid proposals in the present framework and refer to Zagona (1988) for a revision and arguments against each of these proposals. I will then consider Zagona (1988) and assume her claim that auxiliaries have full phrasal structure, which will provide a basis for the analysis in chapter 3.

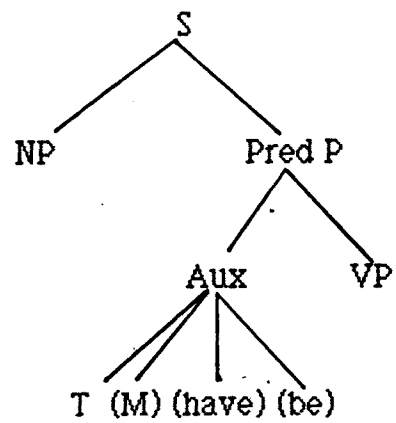
In the article by P. Wass (1988) *Histoire d'AUX* the history of the development of the node AUX -and the elements generated under it- is traced back to its origins in Chomsky (1957). Wass highlights several important points which indicate how the development of the model has resulted in a reorganization of the auxiliary elements in the phrase structure. A crucial difference is the fact that in the earlier models - cf. Chomsky (1965), as a representative of the Standard Theory model -, the use of phrase structure rules permitted auxiliaries to be introduced by phrase structure rules directly. Another basic change is the introduction of the X'-convention - in "Remarks on nominalization", Chomsky (1972) -,

which lead to a new way of representing syntactic structure, and, thus, paved the way for attempting to introduce sequences of verbs in a fashion satisfactory to the format imposed by the X' - schema. As will be made evident this is a crucial aim in Zagona (1988). In Chapter 1 - section 1.1 - we already noted how the node previously preserved for auxiliaries, AUX, gained importance in the phrase structure, was renamed as INFL, and finally became the head of S, IP. The following structures adopted from Wass(1988) summarize " la décomposition de l' Aux et l' ascension de ce qui en reste vers le sommet de la phrase" (p. 126). I will use this as an introduction to and an illustration of proposals for the auxiliary position:

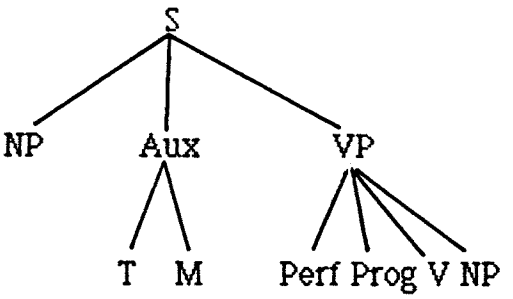
(a) Chomsky (1957):



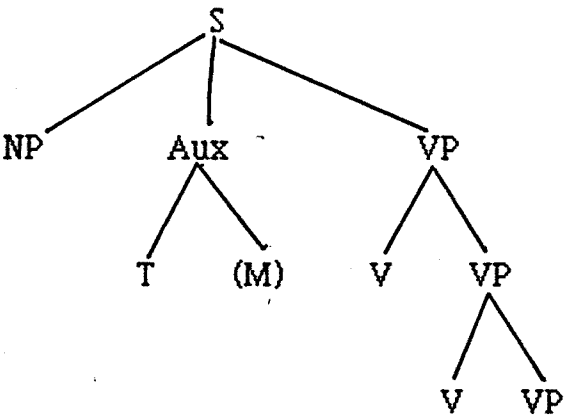
(b) Chomsky (1965):



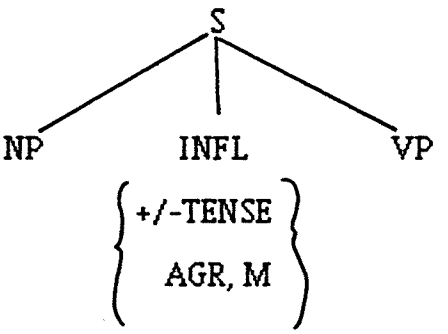
(c)Jackendoff(1972)/
Culicover(1976)



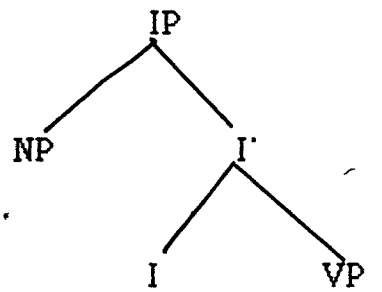
(d) Chomsky(1973)
Emonds(1976)



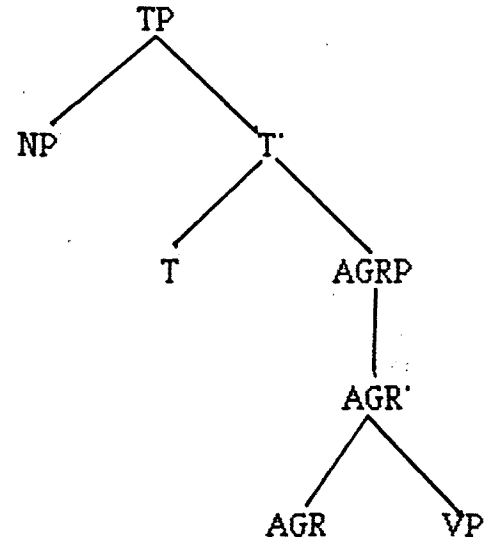
(e) Chomsky (1981) :



(f) Chomsky (1986b):
(Stowell (1981))



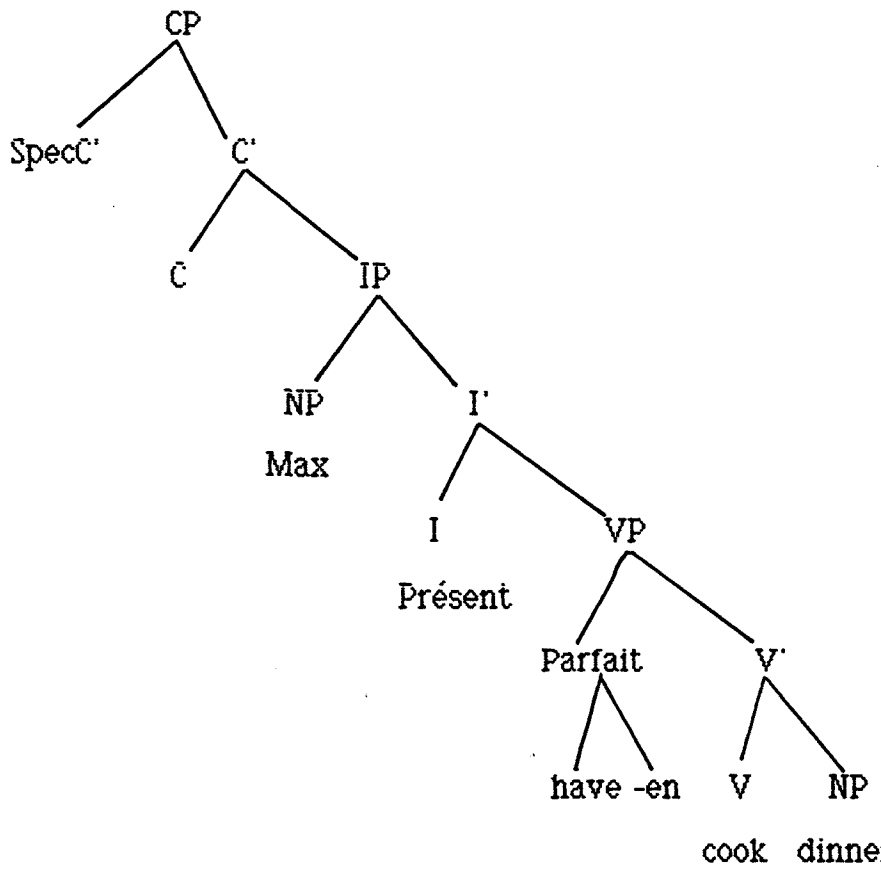
(g) Pollock (1988):



In (a) and (b), Chomsky (1957), and (1965), all the auxiliary elements were generated under the same node, and introduced by PS rules. In (b), though, Aux modifies VP. (c) indicates that progressive and perfective auxiliaries are generated under VP, differently from modal auxiliaries and Tense, which are considered a different constituent. (d), Chomsky (1973) and Emonds (1976), maintain a different status for modals, but grant the other auxiliaries an independent position external to the VP of the main verb. Both (c) and (d) imply a verb movement to Aux for affixation, instead of Affix Hopping as in previous models. Restrictions on transformations were needed to prevent verbs other than *have* or *be* to move to Aux. A major change is Chomsky (1981), (e), where INFL is taken to be "the collection of features [[+Tense], (AGR)]. " (p.52), and modals are assumed to be possibly also generated under INFL, but again, not the other auxiliaries - the matter is explicitly left open (p.140 fn 28). (f), Chomsky (1986b), following a proposal by Stowell (1981), represents the regularization of phrase-structure discussed in Chapter 1, where functional nodes are granted a head position. Again, as a consequence of generating auxiliaries under a V node, in such a structure both, a version of

"Affix Hopping" together with V to I are needed as the following structure from Wass (1988) illustrates (p.125):

(40)



Pollock (1988), (g), constitutes the first proposal of further decomposing I into distinct Tense and Agr nodes precisely to account for important parametric variation with respect to order of verbal elements - among others - in English and French. [30]

(a) -(g) are an illustration of the intense debate on auxiliaries and their position in phrase structure within the generative field. Next I will briefly consider three other important alternatives proposed which specifically account for complex verb constructions: Emonds (1978), ASW(1979), and Takezawa (1984). Emonds (1978) differs from Emonds (1976) (d) in that he argues for a verbal complex for French *avoir/etre*

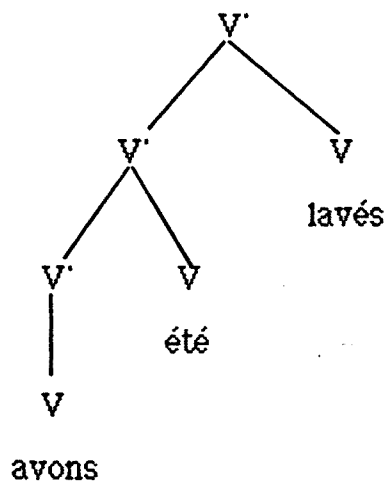
auxiliary constructions with an intermediate V' level between V and VP. Of the two possible structures following this idea:

(41) a. V' --> (V') V (Left-branching hypothesis)

b. V' ---> V (V') (Right-branching hypothesis)

Emonds chooses the left-branching hypothesis for French, which gives rise to the following structure:

(42)



Emonds argues for this structure on the basis of several rules - Past participle context rule, Exclusion of verbs in auxiliary position, Specification of clitic position, etc. - which are all predicted by this hypothesis and not completely by any of the other competing hypotheses. It must be noted that most of these rules are explained differently in the present framework - and some are not regarded as rules. In order to argue for his proposal, nevertheless, Emonds must make use of several definitions which clearly violate present assumptions. As an illustration, structure (42) violates X'-theory assumptions: complements are always X-max, daughters of X', and selecting heads precede their complements in a head-first language such as French. Emonds makes use of several - ad hoc - definitions that ensure the

status of head for the main verb, and at the same time grant it a special nature in order to prevent the insertion of a main verb in auxiliary positions - (45) -:(p.159-160).

(43) (i) In the bar or prime notation, let B^n = B with *n* bars or primes.

(ii) The daughter Bj of B^n that has the fewest bars (primes) is the head of B^n .

(44) The lexical head of B^{max} is that B such that there exist $B = B_1$, $B_2, \ldots, B_k = B^{max}$ in which each B_i is the head of B_{i+1} .

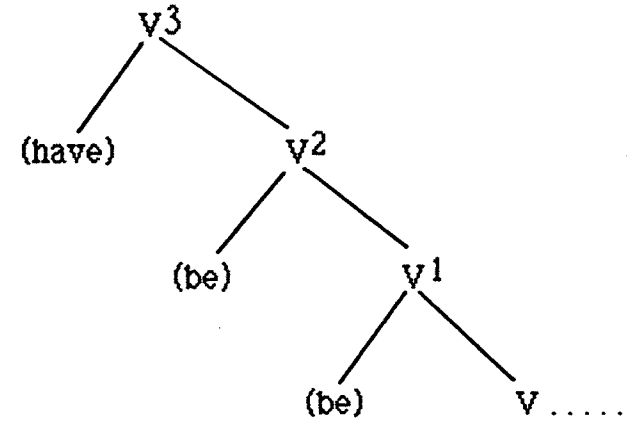
(45) *Restriction on lexical insertion*

A lexical formative of category B can be inserted under B only if B is the lexical head of B^{max} .

All these additional statements and assumptions are subsumed by X'-Theory , and the status of lexical versus grammatical (or functional) verbal elements is still a matter of debate. Chiefly, though, as noted, modals are non-lexical in English, and thus granted a different position- cf Zagona (1988) for arguments against the left-branching hypothesis.

ASW(1979)'s main aim in their article "The category AUX in Universal Grammar" is to provide evidence for positing an AUX node in English. Their article is relevant for this section in that it proposes a very specific structure for VP in English and focuses on subcategorization in accounting for the distribution of auxiliaries in English. The basic argument that they give for a layered VP as in (46)- (p.21 (61)) - is that certain syntactic rules and subcategorization frames must crucially make reference to each if the levels, thus, justifying their existence .

(46)



ASW assume that subcategorization frames for *have* and *be* are different; namely ___ V^2 , and ___ V^1 (prog) and ___ V (pass), respectively. They account for rules such as VP-deletion, Fronting, Right Node Raising, *not* Contraction and Aux Reduction by making use of the layered VP structure, plus several minor rules with which they implement their analysis. A formulation of VP-Deletion as in (47) plus the specific subcategorization frames, would account for the possibilities noted in (48) - (Takezawa (1984) p.677):

(47) Delete V^n, n 1. Optional

(48) *John couldn't have been studying Spanish, but*

a. *Bill could have been studying Spanish*

b. *Bill could have been*

c. *Bill could have*

d. *Bill could*

Takezawa (1984) argues that ASW's proposal [31] is not valid in that , although it provides a description of facts, the layered analysis of the VP has no cross-categorial motivation, plus it has no generality in that it needs specific PS rules and specific subcategorization frames. Takezawa argues for

a more general way of accounting for the distribution of perfective *have* in English - although, as noted and revised in Zagona (1988), it is not sufficiently explanatory either -. Takezawa's proposal is a *filter* constraining the distribution of *have*:

(49) * . . . *have*[+ perfective]
unless preceded by a [+ Aux] element

In other words, the filter precludes ungrammatical constructions where *have* appears bare - for instance, imperatives, not preceded by modals, or to, and non-tensed (affixed) contexts:

(50)a. **Have finished your work by the time I get home!* (22)a
b. *Please, do have made the effort at least once!* (31)d
c. *He may have been hurt* (28)a
d. *I hereby order you to have left the room by the time I get back* (26)b.
e. *He has seen that actress twice* (32)b.

Takezawa's Filter is a move towards explanatory adequacy in that it is not a construction-specific approach - as ASW's-, but rather predicts a wide range of constructions .

Zagona (1988)

Zagona (1988) proposes that all auxiliary verb structures have full phrasal structure, in line with X'-theory , and argues against proposals of enriched VP structures such as Emonds(1978) and ASW (1979) . Her proposal is specifically within the *Barriers* model and her explanation is

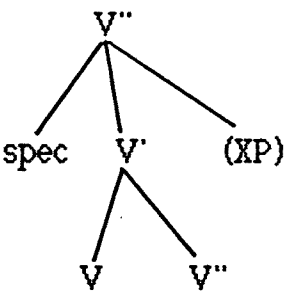
based on concepts within that model - cf. Chapter 1 - , making crucial use of licensing, proper government, theta-marking, indexing, and head-movement . It is one of the major claims in this work that NP and VP have parallel licensing properties: i.e. they are both subject to the ECP when empty, and they both must be licensed when lexically realized, although VPs require an extra licensing mechanism - they require subcategorization, like NPs, and also Predication - as is standardly assumed , cf. Rothstein (1983), and the EPP . The way in which Zagona achieves this parallelism is by postulating a specific kind of proper government for VP-trace, which requires not only a specific kind of government , but also a specific type of identification and role assignment for VPs. Zagona's study provides an explanation within her theory of the different distribution of VP and V-0 processes in Spanish and English. Her main claim is that differences follow not from a different structure of VP in each language, but from subtheories other than X'; namely Theta-theory (a different role assignment choice for each language). In what follows I will sketch Zagona's analysis, and assume a full phrasal structure for all auxiliaries, since this will provide the structure to use in chapter 3. [32]

1. Full phrasal structure for auxiliaries

Zagona uses the same type of evidence to claim that auxiliaries are dominated by all bar-projections and have both specifier and modifier positions in English and in Spanish. I will allude only to her reference to the ambiguity of temporal adverbs as evidence for a modifier position, and her reference to preverbal adverbs as evidence for a specifier position. It must be noted that the rest of her proposal - namely licensing of VP by subcategorization - provides sufficient evidence for a complement V'' position for auxiliaries.

The structure posited is as in main verb VPs:

(51)



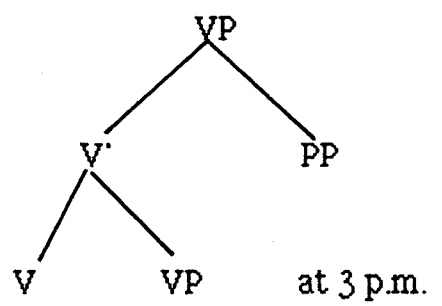
The ambiguity of the following example, as expressed in (21), - from Hornstein (1977) - cf. also (55) below - is structurally explained if the PP, an adjunct modifier, may modify either the perfective VP or the main VP, as in (54):

(52) *The secretary had eaten at 3 p.m.* (20)b. p.33

(53)a. The time that the secretary ate was 3 p.m.

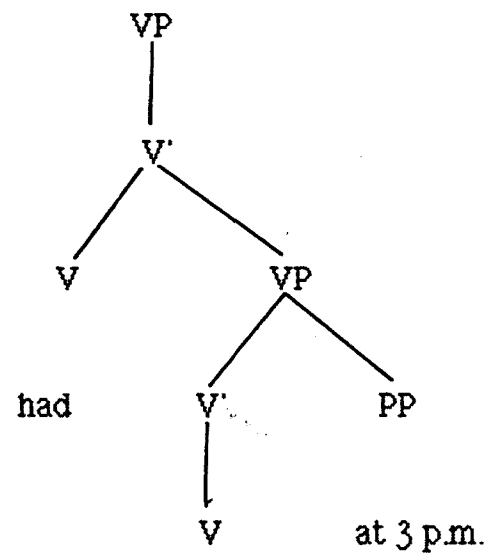
b.The secretary had already eaten by the time 3 p.m. arrived(21)

(54)a.



had eaten

b.



Zagona notes that the same phenomenon occurs in Spanish, and the same structure is thus validated:

(55) *Elena había comido a las tres* (35)p.145

(56)a. At three o'clock, Elena ate

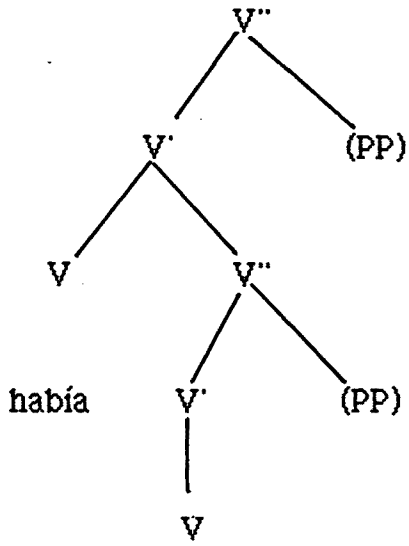
(= PP generated under lower VP)

b. At three o' clock Elena was finished eating (She ate earlier)(sic)

(36)

(= PP generated under higher VP)

(57)



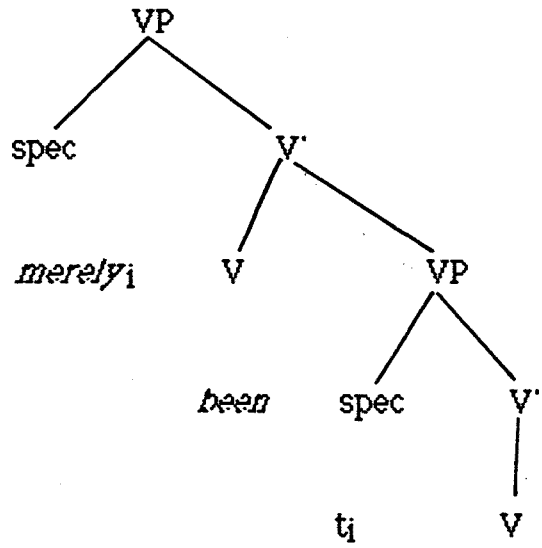
comido

Zagona argues that the pre-verbal adverbs of the *scarcely* type ,(58), are generated in the specifier position of the main VP. If they occur in a structure with auxiliary sequences, they may occur to the left of any of the auxiliaries in the sequence - as is shown by the blanks in (59) -. This is taken to indicate a leftward movement of the adverb and the assumption is that this is a structure preserving movement to a sepcifier position of the auxiliary VP , (60).

(58) *simply, merely, really, hardly, barely, scarcely, nearly* (26)

(59) *John ___ would ___ have ___ been* ***merely*** *questioned by the police* (36)

(60)



questioned (37)

The same type of evidence is used for positing a specifier position for Spanish auxiliaries. The position is shown to be necessary in all verbal projections by sentences with auxiliary sequences such as (61) -(63), and the type of leftward movement of the adverb is assumed to be again structure preserving: from the specifier position of the main VP to the specifier position of the corresponding auxiliary:

(61) a. *? Los estudiantes habían* ***meramente*** *hecho la tarea*

b. *Los estudiantes* ***meramente*** *habían hecho la tarea* (49)

(62)a. *Los estudiantes están* ***meramente*** *leyendo*

b. *Los estudiantes* ***meramente*** *están leyendo* (50)

(63)a. *Esos libros fueron* ***meramente*** *leídos*

b. *Esos libros* ***meramente*** *fueron leídos* (51)

2. Summary of the theoretical framework

The following is only a summary of Zagona(1988)'s theory of VP licensing. A fundamental assumption is that VPs must meet both requirements of the Principle of Full interpretation:

(64) *Principle of Full Interpretation:* At PF and LF, every element must be licensed by some appropriate interpretation, where interpretation can be achieved through:
(i) Subcategorization
(ii) Predication (1)p.57

(ii) is not a sufficient licensing condition for VPs mainly because it does not exclude adjunct or "secondary" VP predicates - the condition is sufficient for other "secondary" predicates; a sign that VPs have stricter conditions on their occurrence than other predicates:

(65) a. *They bought [the carsj [AP old l_j]*
b. *They [bought the carj [PP in good condition l_j]*
c. * *The [bought the carj [VP run (s) l_j]* (8)p.60
(66)a. *Comieron la carne [cruda]*
b. **Comieron la carne[pensar/pensaron en las vacaciones]*(9)p.61

The distribution of VP follows from the additional licensing requirement (i) in (64). Zagona assumes, following Chomsky (1986b), that INFL theta-marks VP. The type of theta-marking that she uses, nevertheless, provides an interpretive framework to Chosmky's assumption. She follows Hornstein (1977)'s *tense construal* mechanism; a parallel in terms of temporal interpretation to the relations among

predicate and nominal arguments in clausal structure. Following Hornstein(1977) - which is based on Reichenbach (1947); cf. also (52), (53) above - there are three temporal entities with respect to clause interpretation : S (moment of Speech), R (Reference point) and E (time of Event). Zagona argues that the assumption that each of these has a specific syntactic realization as a temporal-role to be assigned by a specific verbal element or INFL provides a more restrictive theory than other accounts which take Tense as an unanalyzed primitive clausal operator.33

Taking E, R, and S as temporal - roles each one is assigned as follows: E is assigned by INFL to its internal VP complement; S is assumed to be the external argument of the INFL (assigned indirectly by INFL to CP); and R comes into play in perfective sequences. It is assigned indirectly by INFL to VP headed by *have*. INFL is, thus, a lexical entry - cf. Section 2.3.1.3 for the model of lexical entry assumed by Zagona -, and has the following form:

(67) INFL: argument (S), argument (E)

{ ___ VP } (42)p.70

if the clause contains an R role, then INFL may be regarded as having an indirect temporal role, and not being strictly transitive, but then the head of the VP - *have* - is transitive in that it assigns an internal E role:

(68) INFL: arg (S), arg (R)

{ ___ VP}

have: arg ( ) ,arg (E)

{ __ VP} (43)p.70

This framework, thus, provides an account of the additional requirement of VP predicates to be licensed by subcategorization.

In the barriers framework there are several theoretical problems that arise and which need specific stipulations for this account. One of these is the fact that, if VP is an argument at S-structure, then adjunction to VP is predicted impossible. Adjunction to VP is, on the other hand, crucial in the barriers account of wh-movement in order to avoid an ECP violation of extracted objects by there being a VP barrier preventing proper government of the trace in the VP. Zagona allows for a subcategorization licensing of VPs after S-structure. Another important question is how to prevent main verbs from moving to INFL - and subsequently to COMP - in English. The solution is to prevent the VP from being L-marked at S-structure which in turn provides evidence for Zagona's claim that VPs are not to be subcategorization licensed until after S-structure -, and thus not allowing movement of the main VP out of its VP. This is achieved by assuming (69) and thus preventing L-marking as in (90) for main verb VPs at S-structure:

(69) A non-defective V-0 does not T(emporally) agree with its maximal projection (58)

(90) *L-marking*: where @ is a lexical category, @ L-marks ß iff ß agrees with the head of ¥ that is theta-governed by @ (56)

Zagona must provide for a mechanism allowing non-main verbs to move to INFL - and to COMP - , as a crucial property of English non-main verbs. She follows Chomsky (1986b) in assuming that these verbs are defective and undergo Head-Head agreement:[34]

(91) Head-Head Agreement: [X-0_i [VP V-0_i . . .]] (possible for defective verbs only) (87)

I will not go into the details of Zagona's mechanisms for Head-Head agreement, but rather put forward her version of VP-trace ECP. In parallel to Theta-marking, theta-government, and proper government , she postulates the following temporal and Tense correlates; (96) if the ECP version for VP ecs :

(92) *Temporal - marking:* @ temporally- marks ß if @ assigns a temporal role (S,R,E) to ß as a lexical property

(93) *Temporal government:* @ Temporally-governs ß iff @ is a zero level category that Temporally-marks ß , and @,ß are sisters

(94) *@ Tense - identifies ß* iff @ assigns [+/- PAST] to ß

(95) *Tense government:* @ Tense- governs ß iff:

(i) @ Temporally governs ß , and

(ii) @ Tense- identifies ß.

(96) Null VP must be tense-governed

Zagona's account of a structure like (97) will be as follows:

(97) a. *I will die and you will* $_{E}$*[vp e] too*

The null VP is Tense-governed because it is Tense-identified by the assignment of [- PAST] of the modal in INFL, and it is Temporally-governed by the modal in INFL which assigns to it the E Temporal-role under sisterhood, as a lexical property of INFL.

A crucial, an otherwise standard - cf. Chomsky (1981) - assumption in the framework - as will also be seen below in the explanation of the parametric differences between Spanish and English - is that INFL contains both TENSE and AGR. There are three possible structures for English INFL if *do* is assumed to be the lexical realization of AGR:

(98) a. [INFL [do] -af] __] (if *do* moves to the +TENSE head position)

b. [INFL [[+TENSE] -af] DO]

c. [INFL [modal] DO]

DO is not phonologically overt in (98) b. nor c. It is only phonologically overt when it moves to the head position +TENSE as in (48)a. . This movement is prevented in c. because there is already a zero level lexical item in [+TENSE] position ; movement does not take place in b. *do* , a zero level lexical item, in [+TENSE] position, as in (98)a. Tense-governs a null VP (99), on a par with (97) . A structure like (98)b. does not (100).

(99) *Bill studied and John [did] E[vp e] too* (5)b.p.94

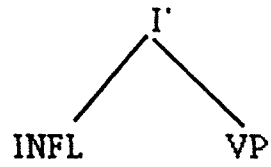
(100)a. *[John INFL left]*

b. **[John INFL [vp e]]* (10)p.95

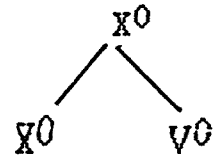
3. The parameter

As outlined above, the structure of verbal sequences containing auxiliaries in Spanish and English is assumed to be identical in both languages; the difference is taken to be a consequence of different Temporal-role assignment by INFL : under sisterhood - INFL directly theta-marks its VP complement ,(101) - ; or after V^0 movement to AGR - [+TENSE] theta-marks its V^0 sister, (102). The choice is possible because feature assignment is allowed either to an XP sister or an X^0 sister.

(101)



(102)



The choice for English, as outlined in the previous pages, is (101); the choice for Spanish, as I proceed to sketch is (102).

A piece of evidence for claiming that temporal-role is assigned internal to INFL in Spanish is the contrast between (103)a. and b., which is taken to show that incorporation of the participle to *have* is required.35

This is in clear contrast with the copular verb, and the progressive auxiliary (*ser*), which, for Zagona, do not assign a temporal - role to a complement, and thus may move independently to COMP (104):

(103) a. * *¿Ha Marta leído ese capítulo?*

b. *¿ [Ha leído] Marta ese capítulo?* (35)p.176

(104) a. *¿ Está] Marta tj [tj [leyendo ese capítulo]] ?*

b. *¿ Está Juan tj [tj [en la oficina]] ?*

c. *¿ Es Juan tj [tj [profesor de lingüística]] ?*

The movement of the auxiliary *have* independently to COMP does not violate the ECP with respect to its traces :

(105) [CP [hai] [IP NP [I-0 ti] [VP-1 [V-0 ti] [VP-2 V NP]]]]

(39)p.176

What violates the ECP in such a structure is the extended chain created by temporal-role assignment by Head-Head Agreement, as in (106). The (t_i, V_i) chain is not well-formed because the VP-2 is not L-marked.

(106) [[ha] [NP [t] [[t_i] [VP-2 V_i NP]]]]

The incorporation of the participle to V^0 in (107), on the contrary, gives rise to a well-formed chain: it follows the Head Movement Constraint, and the trace of the participle is antecedent governed. VP-2 is not a barrier because it is L-marked by agreement with the participle, which is theta-governed by *haber*. The syntactic compound created by V-to-V movement moves further to INFL, where it is assigned a temporal role by INFL (108). And the trace of VP-1 is antecedent governed because VP-1 is not a barrier; it is L-marked by agreement with V^0 + AGR .The temporal roles are assigned head-internally; the derived chain is, thus, prevented from bearing multiple theta-roles.

(107) [CP [ ] [IP NP INFL [VP-1 [V-0 [ha] [leído$_i$]] [VP-2 t_i NP]]]]

(temporal marking) (42)

(108) [[ ] [IP NP [I-0 INFL [V-0 ha leído]$_i$] [VP-1 t_i [t NP]]]]

(temporal marking)

As sketched, incorporation of the participle for English is not necessary because of the choice of the way in which temporal roles are assigned; VP may be temporally-marked directly by its INFL sister, a possibility assumed non existent in Spanish.

This section has outlined some of the basic proposals in the generative literature regarding base-generated V+V sequences, focusing on one of the most recent proposals within the barriers framework. In section 2.4 another proposal within these lines will also be reviewed, Guéron and Hoekstra (1988). It has not been included in this section as it also deals with structures of complex predicates. Before closing this section, it must be noted that several of the proposals summarized in section 2.3 are also instances of base-generated V+V sequences; namely, main verbs taking VP complements and not S complements. This is the case for the *faire-par* causative constructions in section 2.3.1.2 - Burzio (1986) -. Another instance where a sequence of a verb - not traditionally considered auxiliary- plus a main verb is analyzed as a base-generated V+V sequence is considered in section 2.3.2.3 for some *restructuring* complexes - Picallo (1985) -.

2.3 Complex predicates : a digest

2.3.0 Introduction

In sections 2.3.1 and 2.3.2 , several proposals for the analysis of causative sequences (C-sequences) and modal/ aspectual (M- A sequences) sequences are reviewed. These two structures share the characteristic that they are made up of two verbs most of which in other contexts function as unique predicates in a clause - cf. 2.2 and their " main V" characteristics -, but in these contexts they are one semantic unit .

(109)a. V-C NP

Fa un dibuix

b. V-C S'

Fa que els seus estudiants escriguin moltes redaccions

c. V-C [X36 V]

Fa llegir (als nens)

(110)a. V-M NP

Vol un dibuix

b. V-M S'

Vol que els seus estudiants escriguin moltes redaccions

c. V-M [X36 V]

*Vol llegir (*als nens)* (interpreted as subject of *llegir*)

The possibilities illustrated for Catalan in (109) and (110) are by no means systematic: not all verbs classified as either causative or

modal/aspectual allow all possibilities in any one language - for instance consider **Pot que els seus estudiants escriguin moltes redaccions* - ; and there is language variation - English crucially lacks structures like (1)c -. The structures considered in this section are those in (1)c and (2)c., the proper C-sequences and M-A sequences for they are instances of V+V. The other possibilities are only taken into account if the different authors use them to argue in favour or against a specific structure. As noted, different authors use different terms to refer to the sequences: the usual labels are either *complex predicates* or *verbal complexes*. Both terms emphasize the close relationship of the verbal elements in these configurations. As the title to the section implies, I will refer to them as complex predicates - cf. also 2.2.0 -.

Several facts should be considered before dealing with each sequence in turn. Firstly, note that the second verb in the sequence is always an infinitival, and it is the first one that bears inflection. The issue is to provide sufficient arguments for a specific status of the node dominating the infinitive and its subcategorized arguments.Different options arise for both C- and M-A sequences; basically monosentential analyses if the node is not a clause, and bisentential analyses if the node is granted a clausal status. A simultaneity of both options is also proposed -cf. section 2.3.1.3 -

A crucial difference between C- and M-A sequences is that only in the former is the presence of an independent lexically realized subject of the infinitival possible - as noted by the asterisk inside the parenthesis in (2)c. -. The satisfaction of principles of Case Theory and Theta Theory by the lexically present subject is a major concern for linguists analysing this phenomenon. On the other hand, for those authors who postulate a biclausal analysis of M-A sequences, the licensing conditions for an empty category in the subject position of the embedded clause is also a major issue . Note that in this case both Raising and Control structures are possible - and

proposed -. One must mention the fact that ECM is also considered as a possibility for C - sequences of perception predicates as in *Veig els nens jugar al jardí*.

The main criterion for the selection of proposals to consider has been the choice of significant studies of specific theoretical analyses. In both cases I have focused on the mechanisms by which the different linguists explain the cohesion of the two verbs; other not less important matters which they may touch upon and provide evidence for have been left unreviewed or only mentioned if they are not directly related to the subject matter of this thesis.

In the case of causatives, Rouveret&Vergnaud (1980) is the point of departure as one of the major articles on the topic. It must be noted that the first important study on the topic, Kayne (1975) is briefly considered in the Introduction to the section and in the proposals which build on its ideas - cf. Burzio (1986) especially -. Kayne (1975) is relevantly immersed in the Standard Theory model, the reason why I have not considered it in more depth.

In the section on modal and aspectual sequences the departing article is Rizzi (1982a). The proposals reviewed represent either a reconsideration of Rizzi's work within a more recent model - Burzio (1986) - or a diversion from Rizzi's work - especially Picallo (1985), and also Strozer (1981) -. Generally, the different proposals are paradigmatic examples of different theoretical analyses: monosentential versus bisentential or base-generation versus movement - or deletion in Rizzi's case -.It must be stressed that the proposals reviewed are often within earlier models and for this reason, the mechanisms used may have been

later discredited. Section 2.5 briefly indicates some revisions, and Chapter 3 is an attempt to provide an explanation within the present model.

Section 2.4 is devoted to a revision of the work of Guéron & Hoekstra (1987) (G&H). This proposal has been granted a separate section because it represents an alternative analysis of all verbal sequences. It was already noted in the previous section - cf. 2.2..2 - that Zagona (1988) and Guéron & Hoekstra (1987) constitute approaches to the way in which verbal sequences can be licensed. G&H's proposal is more inclusive in that it touches upon more types of verbal sequences, and thus the reason for granting it a separate section.

It remains to emphasize that this "digest" is merely a glimpse of the sea of proposals on the subject.

2.3.1 C- sequences

2.3.1.0 Introduction

The verbal sequences that constitute causative constructions consist of a causative verb and an infinitival complement. The set of verbs classified as "causative" includes proper causatives such as MAKE [37] and LET, as well as perception verbs such as SEE - some authors also include epistemic verbs and verbs of cognition such as BELIEVE and CONSIDER. It must be noted - and it will be further exemplified in Chapter 3 - that there are languages which have specific morphological affixes for the causativization phenomenon - Bantu languages, Eskimo languages, Japanese, Arabic - a fact which relates to the proposals of linguists who consider

causative verbs non-syntactic words, but rather affixes - cf. Zubizarreta (1985) -.

The syntax of causative constructions is what grants them a special status among other types of verbal complements. The semantic unit represented by the C-sequences is reflected in the syntax in Catalan, Spanish, French and Italian, as opposed to English - In English, thus, we cannot refer to a C-sequence, and the differences will call for an explanation:

(111)a. ** Lady Macbeth made kill the king "to" by her husband*

b. *Lady Macbeth made her husband kill the king*

(112)a. *Lady Macbeth va fer matar el rei al seu marit*

b. ** Lady Macbeth va fer al seu marit matar el rei*

(113)a. *Lady Macbeth le hizo matar al rey a su marido*

b. ** Lady Macbeth le hizo a su marido matar al rey*

(114)a. *Lady Macbeth fit tuer le roi à son mari*

b. ** Lady Macbeth fit son mari tuer le roi*

(115)a. *Lady Macbeth feci uccidere il rege a il suo sposo*

b. ** Lady Macbeth feci a il suo sposo uccidere il rege*

The examples (111) - (115) show an essential contrast between English and Catalan, Spanish, French and Italian: the complements of English causative constructions follow the standard word order of finite complement clauses; the two verbs cannot be adjacent - (109) b. - , whereas in the Romance languages considered, the adjacency of the two

verbs is obligatory, except for a few lexical items, such as *laisser* in French, which accepts non-adjacency, and Catalan and Spanish *deixar/dejar* do marginally - this fact is contemplated in Section 2.3.1.4, Manzini (1983b) - Causative-perception predicates also allow non-adjacency - Section 2.3.1.2 , Burzio (1986) provides an account of this fact -:

(116)a. *Le professeur a laissé ses étudiants copier les textes*

b. *? El professor ha deixat els seus alumnes copiar els textos*

c. *? El profesor ha dejado a sus alumnos copiar los textos*

(117)a. *Le professeur voit ses étudiants copier les textes*

b. *El professor veu els seus alumnes copiar els textos*

c. *El profesor ve a sus alumnes copiar los textos*

The embedded verb in a C- sequence may belong to any of the attested classes: transitive (111) - (115), transitive with object deletion - (118)a. -, intransitive - (118)b. -, and ergative (118)c:

(118) a. *Un bon professor fa llegir als seus alumnes*

b. *Els polítics sovint fan riure als electors*

c. *L'aglomeració de tràfic va fer arribar tard als convidats*

Another important fact about C- sequences is that the subject of the infinitival must be preceded by a preposition if there is a lexically realized object in the infinitival complement. In the a. examples of (112), (113), (114) and (115) , the preposition is *a* , but there is another option which is fully grammatical in French and Italian and only marginally so in Catalan and Spanish:

(119)a. *Lady Macbeth fit tuer le roi* **par** *son mari*

b. *Lady Macbeth feci uccidere il rege* **da** *il suo sposo*

c. ? *Lady Macbeth va fer matar el rei* **pel** *seu marit*

d. ? *Lady Macbeth hizo matar al rey* **por** *su marido*

These two possibilities are distinguished in the literature and even analyzed by some authors - cf. Burzio (1986) - as having a different structure.

The peculiar syntax of causative verbs and their infinitival complements allows for different alternative explanations, as will be made evident in the following sections. The most striking facts about these structures are that the two verbs are adjacent, and that the subject of the infinitive is almost always postverbal in Romance. When this is the case, it may be taken to reveal either a movement operation or a base-generated constituent with special properties. In the former option, proposed movement analyses tend to move a verbal projection to the left of the subject and not the subject to postverbal position. The first linguist to propose a movement analysis of this sort was Kayne (1975). Rouveret& Vergnaud (1980) are also exponents of this idea, together with Burzio (1986) who assumes it for one class of causative constructions. The base-generated accounts either propose a VP subcategorization - cf. Burzio (1986) - or a small clause subcategorization - cf. Manzini (1983b) who necessitates a PF rearrangement rule to account for the actual word order -. Zubizarreta (1985) unites both options into one by positing parallel and simultaneous structures for these constructions - a clausal one and another one involving a complex verb. In the proposals reviewed, the process linking both verbs is given in terms of direct structural position -i.e. base-generation - (Burzio 1986); movement and coindexation (Rouveret and

Vergnaud 1980); just in terms of movement (Burzio 1986); positing a special nature for the causative verb - affixal - (Zubizarreta (1985); or by means of a specific lexical feature - + reanalyzer - (Manzini (1983b).

An accurate analysis of causatives must not only explain why the verbs must or may be adjacent , but also consider theta-role assignment and Case assignment of the NP objects and subject - if present - of the infinitive. Many of the analyses propose that the complements of the infinitival become objects of the main verb as well, a "reanalysis" 38. This is only the case in those proposals which do not defend a base-generated VP original-structure, as is the case in Rouveret & Vergnaud (1980) and their mechanism of *Thematic Rewriting*.

As an illustration of how this reanalysis of objects may function, let us consider how Brucart (1984) accounts for some asymmetries in the cliticization of the embedded indirect objects of causative constructions in Spanish. The fact that the two verbs behave as a syntactic unit predicts that the arguments of the embedded verb will also function as arguments of the matrix verb 39. This complex predicate formation makes cliticization possible.

Note that the example given- (121) - is only marginally acceptable due to the successive occurrence of several datives. Nevertheless, the contrast observed is indicative of reanalysis under causativization. Note that in the examples, the accusative is also preceded by *a* , a language-particular fact of Spanish, which has prepositional accusatives. The non-causative example shows the relevant interpretation for the causativized example.

The following schema for reanalysis of the complements in (121) predicts the asymmetry mentioned, given the fact that there are no other

subcategorized complements apart from direct and indirect objects, and that there may be no more than one of these objects per predicate:

(120)	Respecto del infinitivo	R. del complejo verbal
[a María]	objecto directo	objecto directo
[a Isabel]	objecto indirecto	?
[a Luis]	sujeto	objecto indirecto

(71)p.578

(121)a. *Luis presentó (a) María a Isabel*
AGENT THEME PATIENT

b. ??*Antonio hizo presentar a María a Isabel a Luis* (67)

c. *Antonio le hizo presentar a María a Isabel* (68)b.

d. **Antonio le hizo presentar a María a Luis* (70)

(121)d. shows that the indirect object of the infinitive cannot be cliticized to the matrix verb. This is a consequence of the fact that on the one hand the reanalysis of the embedded subject as an indirect object of the complex predicate is obligatory - otherwise there would be two subjects in the clause, once the two verbs are a unique predicate -, and on the other hand, the indirect object cannot be considered an indirect object of the complex predicate as well, otherwise there would be two indirect objects. It follows that it cannot be cliticized to the matrix verb, as it has not been reanalyzed as one of its objects.

In the following sections the cliticization possibilities are not the focus of attention., and mostly considered as tests - cf. also 2.1 - for the special structure of C- sequences.

A brief sketch of Kayne (1975) causative analysis is in order before considering the analyses that either redefine it in terms suitable for the model or diverge from it . As pointed out above, Kayne(1975) accounts for the non-standard word order found in causative constructions in terms of movement of the infinitive - plus direct objects if there are any -. The rule is the following:

(122) X - *faire* - NP - V - / NP / - Y
1 2 3 4 5 6
1 2 4 5 /à/ - 3 6

(Kayne (1975) p.200)

This is the *Faire*- Infinitive rule (FI) - cf. also Burzio (1986) - and it includes *à* - insertion whenever a direct object is present - the dashes indicate that the /à/ is only inserted - before the NP subject -if /NP/ - a direct object - is present -. The basic motivation for the analysis is that the *à NP* constituent functions as a specified subject and therefore displays SSC effects in, for instance, the cliticization of an indirect object out of the complement clause. The indirect object is crucially assumed in Kayne (1975) to remain in its original position and not be affected by the FI rule:

(123) * *Je lui ferai écrire [mon ami V__]*

Mon ami here blocks extraction of an object in the clause. Obviously, if this is the case, the causative verb subcategorizes for a clause and the V+NP sequence undergoes a transformation in the course of the derivation - cf. Burzio (1986), section 2.3.1.2, for arguments in favour of a sentential complement and a **VP**-movement transformation -. The analysis that Kayne proposes nevertheless implies several structural alterations that are not

allowed in the present framework. As Burzio (1986) points out a crucial one is that the element that moves is not a constituent. Note also that the structural modifications would imply changes in argument structure. For instance, the subject, which is assigned a theta-role by the VP, is no longer able to acquire it if the VP has been decomposed by the application of FI transformation. Important consequences such as this one have led linguists to keep the insights of Kayne's proposal but posit other theoretically appropriate mechanisms.

2.3.1.1 Thematic Rewriting Rules (Rouveret & Vergnaud 1980)

The article "Specifying reference to the subject: French causatives and conditions on representations", by Rouveret and Vergnaud(R&V) is above all a major discussion on infinitival complements. Nevertheless, their analysis goes beyond this and develops notions relevant in the pre-GB model in which it is set - as will be seen in what follows. It represented a major contribution to crucial concepts then analyzed such as: the distribution of lexical NPs and traces - the NP-Filter, Control vs. noncontrol structures- , rule formulation and application - cyclicity -, the level of application of conditions - the *Specified Subject Condition*, or *Opacity Condition* -. In their analysis of the syntax of French causative constructions, R&V give a solid basis for these mechanisms and put forward several modifications. I will focus only on those mechanisms which are directly relevant to the explanation of the causative construction.

A fundamental mechanism, which they argue extensively for, is the *NP-Filter*. They show that this general condition on the distribution of NPs is to be preferred over the *NP-to-VP* Filter - cf. Chapter 1 -. Their proposal differs from others - cf. Chomsky (1980) - in that they state it as a list of adequate contexts where NPs may occur:

(124) * NP , unless (a) NP is governed by Tense
(b) NP is governed by -WH or +WH
(c) NP is governed by A nondistinct from [-N],
where A dominates lexical material

(125)

The inclusion of the terms "lexical material" is intended to rule out the possibility of a trace of a moved [-N] element to allow an NP to pass the Filter. Clause (c) is essential in the explanation of causative constructions. They also specifically propose that traces must also be subject to the Filter.

R&V' s work is set in a model which had recourse to different transformational rules for specific constructions, and relied basically on the notion of cyclic application of transformational rules. They add to the list of rules already postulated as will be seen in what follows, and make specific use of a subcase in the application of cyclic rules, as proposed in Mascaró (1976) - as will be illustrated below (151), (152) -:

(125) A cyclic rule R applies properly on cycle j if it makes specific use of information assigned on cycle j by a rule P which applies before R and makes specific use of material not contained in a proper subcycle of j (232)

Their explanation, nevertheless, relies crucially on the assumption that argument relations may change throughout the derivation, giving rise to different predicate-argument relations at different levels. Their notion of *argument-of* is structural and defined in the following terms:

(126) An NP is an argument of p in surface structure, if and only if it bears the superscript p (222)

The superscript is assigned to an argument by the application of the *Argument Indexing Convention:*

(127) *Argument Indexing Convention*

NP --> NP^p if NP is governed by $[\ -N\ ]^p$

(221)

This grants that under certain circumstances, verbal complexes which are not base-generated as such are created. This important insight is the clue to the explanation of French causative constructions. The fact that certain arguments change status by the application of a specific rule will make them transparent to the effect of the Opacity Condition - as will be exemplified in what follows - cf. (153), (156) . R&V assume and give evidence for the claim that proposed constraints on rule application - cf. Chapter 1 and 2.3.1.1 - should be regarded as "output" conditions; i.e. conditions on representations and not as constraints on the application of transformational rules. For them, the *Specified Subject Condition* (SSC), is - following Chomsky(1980)'s approach to it - a " constraint on anaphoric relations operative on logical form". It is referred to as the *Opacity Condition* - italic print shows the proposed modification by R&V (see below) -

(128) *Opacity Condition*

In the structure:

. . . [a . . . Y . . .] . . ., a= S' or NP,

where Y is a trace or a bound anaphor in the domain of the subject of a, there must exist an element X in a such that X binds Y , *or the subject of a must be an argument of some verb*

(214)

A representation containing a trace will be allowed if an intervening subject is co-superscripted - and, thus, *transparent* - with the verbal complex which contains the antecedent of the extracted element - i.e. a clitic attached on a verb - . Consequently, an otherwise opaque domain

becomes non-opaque by the effect of (127), but this will be contingent on their definition of verbal complex and rules which allow for "re-thematization" relations - cf. (147) -.

The causative construction in French.-

It is argued by R&V- following Kayne (1975)'s proposal of the *Faire* - Infinitive rule, but differing from it in several respects - that a causative construction like:

(129) *Janine a fait porter sa valise à Claude*

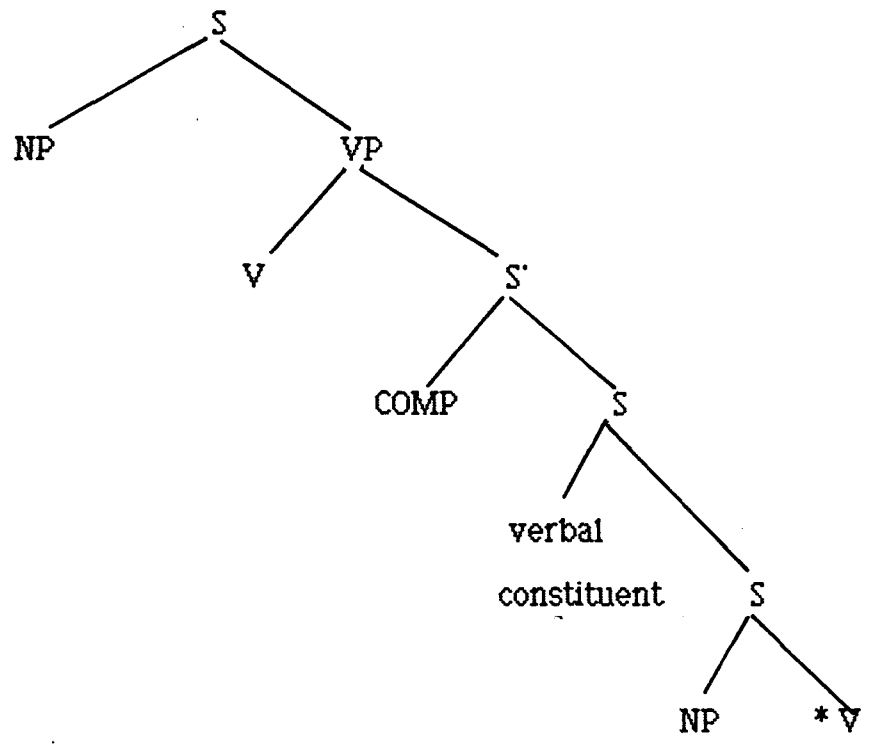
is not base-generated as such; the fact that the subject appears postverbally implies that it involves a rule which preposes a verbal projection and which is formalised as follows:

(130) *VP Preposing*

Chomsky-adjoin *V to S, where *V is some projection of the category V (117)

This rule is assumed to apply after all other cyclic rules, and its effect is the following:

(131)



(118)

The verbal projection which is preposed is not V nor V''; it is V' as is illustrated by the following examples:

(132) a. **On fait [Marie sortir du bureau]*

b. *On fait [sortir Marie V du bureau]* / V=trace of *sortir*

c.* *On fait [sortir du bureau Marie V'']* / V''= trace or *sortir du bureau*

(120)

(133) a.* *Marie fera [Jean lire ce livre]*

b.* *Marie fera [lire Jean V ce livre]*

c.* *Marie fera [lire ce livre Jean V']*

d. *Marie fera [lire ce livre à Jean V']*

(124)

The a. examples show that the non-application of VP-preposing gives rise to ungrammatical configurations. Namely, the NP subject does not satisfy the NP-Filter (124). The b. examples illustrate that V-preposing is not sufficient since, although (132)b. is grammatical - the configuration passes the Filter -, (133)b. is not - there is a NP which, since non-lexical material does not ensure the satisfaction of the Filter, violates it - *ce livre* -. (132) c. shows that V" - preposing leaves an unattended NP, and (133)c. shows that another rule is required for all the NPs in the structure to pass the Filter; the rule of *à* -Insertion:

(134) *à- Insertion*

V NP NP --> 1 2 [pp PREP 3]

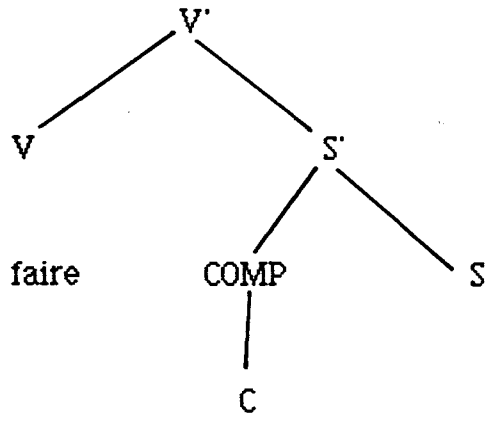
1 2 3

Conditions: (i) 2 is [+ Accusative]

(ii) Prep is nondistinct from *à*: it is *à* if 3 dominates lexical material; otherwise, it is the identity element (122)

If the rule applies, the subject of the embedded verb satisfies the NP-Filter (124). Moreover, (132) and (133) illustrate the basic contrast between intransitive and transitive verb structures in embedded causative contexts in French: the subject of the embedded clause in (133) c. passes the Filter as explained , but the subject of the embedded clause in the intransitive structure (132)b. requires some explanation. R&V assume that the causative verbs have the following structure:

(135)



(180)

where C is the causative affix and may undergo affixation to the nearest verb; a rule which is an extension of Affix Hopping - cf. Chapter 1-:

(136) AFFIX *vbl* V -> 2 3 +1

1 2 3

Condition: The minimal bounding node dominating V must dominate AFFIX

This rule is what allows Case-assignment of the embedded subject via the lower verb in structures like (132) b.

English causative constructions.-

The Condition included in rule (136) is assumed to be involved in the explanation of the language variation in causative structures found in English:

(137) * *He made cry Mary* ; *He made Mary cry*

The assumption is that VP-preposing does not take place in English because S is a bounding node. S, on the contrary, is not a bounding node in French, so the rule may apply. Their analysis, thus, relies crucially on the proposal by Rizzi (1982b) that bounding nodes are subject to language variation; subject to parametric choice. It also relies on a specific conception of bounding node: a bounding node may cease to be one by the application of a rule. For instance, the lack of a head - after deletion - in S may trigger the loss of its bounding node status in English. Assuming that (138) is the structure after VP-preposing takes place in English, the Condition on rule (136) is not met, and Affix-Hopping cannot apply.

(138) NP *make* [S' [COMP C [S1 V [S2 NP . . .]]]

(C is the causative affix) (186)

If we assume that (138) is another rule in the grammar of English, the structure (140) is available. The S, thus, ceases to be a bounding node because it no longer has a head.

(138) AUX --> $\emptyset$ / ____ Infinitive verb (188)

(140)a. NP *make* [S' [COMP C [S NP *to* VP]]

b. NP *make* [S' [COMP C [S NP [AUX $\emptyset$] VP]]

(187)

The derivation and surface structure of English causative constructions is, hence, fundamentally different from French causative constructions.

Interaction of clitic placement and causatives.-

The rule that is assumed to be involved in the derivation of (141)b. is basically (142) - cf. also Section 2.3.1.1 for Kayne (1975)'s rule of Clitic Placement-:

(141) a. *Jean fera acheter ces livres à Marie*

b. *Jean les fera acheter à Marie* (208)

(142) *Clitic Placement (Cl-Pl)*

Cliticize X onto V (135)

R&V follow Kayne(1975)'s insight that the SSC is involved in the distribution of clitics in French. The SSC, for instance, predicts the following ungrammatical constructions; the clitic must bind its trace in the lower clause:

(143) * *Jean y a laissé* ***Pierre*** *monter* (215)

(144) * *Marie les a laissé* ***Paul*** *lire* (193c.)

Nevertheless, there are constructions which clearly violate the SSC such as (141)b. above or (145) and are grammatical:

(145)a. *Jean fera aller Marie à Paris*

b. *Jean y fera aller* ***Marie*** (209)

According to R&V these should not be taken as evidence against the SSC, since there are constructions which are accounted for by it (143)-(144). Their proposal is that the subject does not function as a subject in

certain environments. Rather, they introduce *Thematic Rewriting Rules* which capture the fact that the arguments of the embedded verb behave like arguments of the verbal complex *faire*-V; " the causative verb and the embedded verb combine into a complex verb of which the embedded subject becomes an argument" (p.157). This is the reason why they modify the *Opacity Condition* - SSC - and make it sensible to the argument status of the embedded subject, as shown in (128) repeated here:

(128) *Opacity Condition*

In the structure:

. . . [. . . Y . . .] . . ., a= S' or NP,

where Y is a trace or a bound anaphor in the domain of the subject of a, there must exist an element X in a such that X binds Y, *or the subject of a must be an argument of some verb*

(214)

(146) shows how the Opacity Condition allows the representation where binding is rendered possible by the transparency of the embedded subject achieved only when the sequence is a unit *laisser*-V:

(146)a. **Pierre y a laissé Jean monter*

b. *Pierre y a laissé monter Jean*

c. **Pierre y a laissé se rendre Jean* (215)

The exact formalization of the loss of *opacity* of the embedded subject is achieved by the *Thematic Rewriting Rules* (147). These, though, bear on the notion of "verbal complex" and the *Argument Indexing Convention (AIC)* (126) and (127) above. The [-N] elements that constitute a verbal complex all bear a superscript . By the AIC superscripts are shared

by NP arguments. The interpretation of the superscripts is nevertheless different for [-N] and NP elements: for [-N] elements it indicates the name of the verbal complex to which they belong; for NPs it indicates the argument relations that hold.

Apart from the AIC, which assigns the same superscript to a governed argument of a [-N] category , the *Thematic Rewriting Rules* modify the indices of the [-N] categories of the complement of a causative verb. The result is that *faire* and its embedded V have the same superscripts:

(147) *Rule I*

FAIRE^{q} [-N]^{p} NP -> 1 [-N]^{q} 3

1 2 3

CONDITIONS: (i) [-N]^{p} does not branch

(ii) NP is the Theme of [-N]

Rule II

[-N]^{p} -> [-N]^{q}

Conditions: (i) [-N]^{p} does not branch

(ii)[-N]^{p} is in the domain of, and S'-subjacent to, FAIRE (i.e. is in the complement of FAIRE)

(iii) q is the lowest verbal complex that commands [-N]^{p}

(225)

The notion of Theme that they make use of refers to the relation which may be filled by the direct object of a V in all cases. The two rules are optional and this will ensure two derivations for each structure. This double possibility is directly related to the interaction of causatives and

clitic placement - as is the case with *restructuring* -cf. Section 2.3.2.1. In structures where a clitic is attached to the causative verb, only one derivation is allowed - cf. (153), (156). The following sentence, without any clitics, allows two derivations from the input structure where VP-preposing has applied (149):

(148) *Marie a fait parler Jean* (226)

(149) *Marie faire^{2} [parler^{1} Jean]* (228)

The optionality of Rule II allows (150) if it applies, and (151) if it does not apply. Note that the AIC also has applied in (150):

(150) *Marie faire^{2}[parler^{2} Jean^{2}]* (230)

(151) *Marie faire^{2} [parler^{1} Jean]* (231)

The explanation for the fact that the subject in (151) does not bear an index stems from the use of *cyclicity* as in (125) above repeated here:

(125) A cyclic rule R applies properly on cycle j if it makes specific use of information assigned on cycle j by a rule P which applies before R and makes specific use of material not contained in a proper subcycle of j (232)

The AIC - which precedes VP-preposing, assumed to apply after all rules of the S-cycle- may only apply when it makes specific use of information assigned on the same cycle by Rule II.

If the construction contains a clitic attached to the causative verb, the embedded subject will have to become transparent in order to ensure

the satisfaction of the *Opacity Condition*. The joint effect of the application of Rule II, and the AIC achieve this:

(152) *Marie y a fait monter Jean* (233)

(153)a. *Marie y faire*^{2}*[monter*^{1} *[Jean V PP]]* after VP-prep (234)

b. *Marie y faire*^{2} *[monter*^{2} *[Jean V PP]]* after Rule II (235)

c. *Marie y faire*^{2} *[monter*^{2} *[Jean*^{2} *V PP]]* after AIC (236)

The effect of all of these rules is to make the embedded subject *an argument of some verb* - cf. (128)- and thus extend the domain in which an anaphor - in this case the trace of the clitic - may be bound. The anaphoric relation between *y* and PP is legitimate.

(154) illustrates the non-application of Rule II because the [-N] category branches. The *Opacity Condition* disallows the logical form of the structure.

(154) * *Marie y a fait se rendre Jean* (237)

Note that the example mentioned to illustrate the change of argument relations by the use of the *Thematic Rewriting Rules* involves an intransitive verb. Clitic climbing is also allowed in complement transitive verb structures:

(155) *Jean les a fait acheter à Marie* (246)

The structure involves *à-Insertion* - cf. (133) and (134) - and the subject must also be transparent to the anaphoric relation between *les* and NP, its trace. This, R&V achieve by the use of the *Thematic Rewriting Rules*, as above: rule II applies to *à* in (156) and the NP trace of the clitic is

assigned the same superscript by the AIC. The clitic itself is assigned the index by the revised AIC , (157):

(156) *Jean les^2 faire^2 [acheter^2 NP^2 [à^2 Marie^2 V']]* (247)

(157) *Argument Indexing Convention* (revised)

X --- X^p if X is in the domain of p and either X is governed by [-N]^p or X binds Y governed by [-N]^p

(249)

The result is a well-formed logical form where the trace NP of the clitic may be bound in the larger domain.

2.3.1.2. Derived and base-generated causatives (Burzio 1986)

Burzio (1986)'s analysis of causative structures is set within his more-inclusive study of Italian syntax, and consequently bears upon many other matters , which I will not review here. The study is, nevertheless, a corroboration of his central proposal that there exists a class of verbs , the *ergative* verbs - *andare, venire,* etc - , which only have an internal argument and no external argument, so that when the subject is preverbal it is assumed to have undergone NP-movement as in *[e] arriva Giovanni* - --- *Giovanni$_j$ arriva t$_j$*. The assumption that this class of verb exists will crucially bear upon the analysis of both causative sequences and "restructuring" sequences (cf. section 2.3.2.2) as will be shown below.

Burzio's work provides many other insights on the model, for instance, his analysis of causative constructions provides an argument for the corroboration of an LF level, as will be pointed out below. His specific and differentiated analysis for perception verb complements is also sketched. It must be noted that in his analysis, Burzio follows, draws upon and/or argues against the work by Kayne (1975) - cf. Section 2.3.1.0 -. As was pointed out in the introduction to this section, the proposals in Kayne (1975) are crucial for the analysis of causative sequences , but his proposals are set in a framework - ST - previous to GB. Burzio reconsiders Kayne's proposals, and rephrases them in terms of the EST-GB framework.

The different causative constructions considered in the literature - and illustrated in (158), (159) and (160) - are given different analyses

(158) a. *Maria ha fatto riparare la macchina da Giovanni*

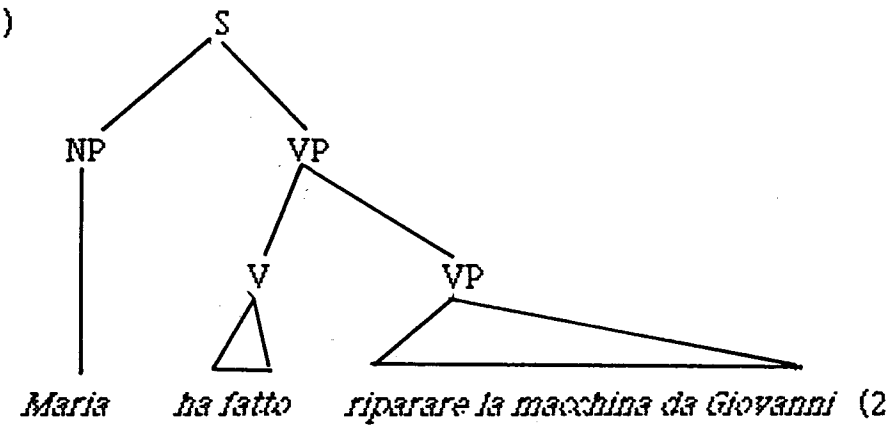
b. *Maria ha fatto riparare la macchina* (1a.b.)

(159) *Maria ha fatto riparare la macchina a Giovanni* (1c.)

(160) *Maria ha visto Giovanni riparare la macchina* (4)

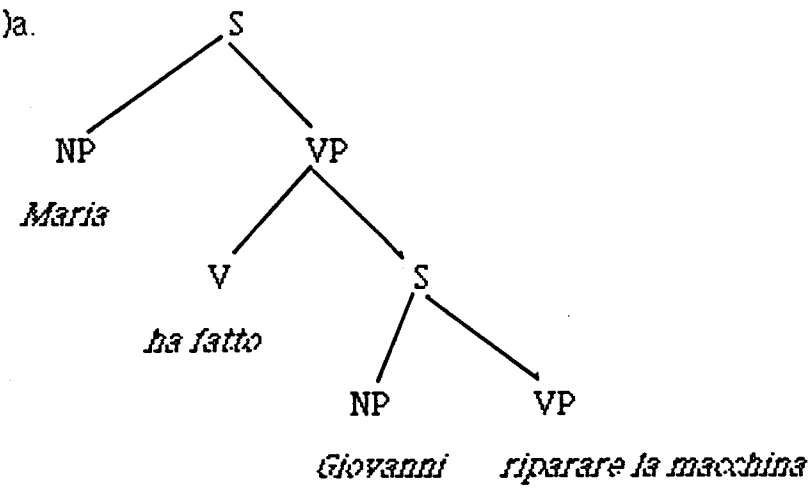
(158) - the so-called *faire-par* (FP) in Kayne (1975) - is assumed to be an instance of a base-generated VP-complement - with an optional *by*-phrase - ; (159) - the *faire* - Infinitive (FI) in Kayne (1975) - a derived structure via VP-movement ; and (160) as a subcategorized NP complement. The following are the structures that correspond to each of the "proper" causative examples:

(161)

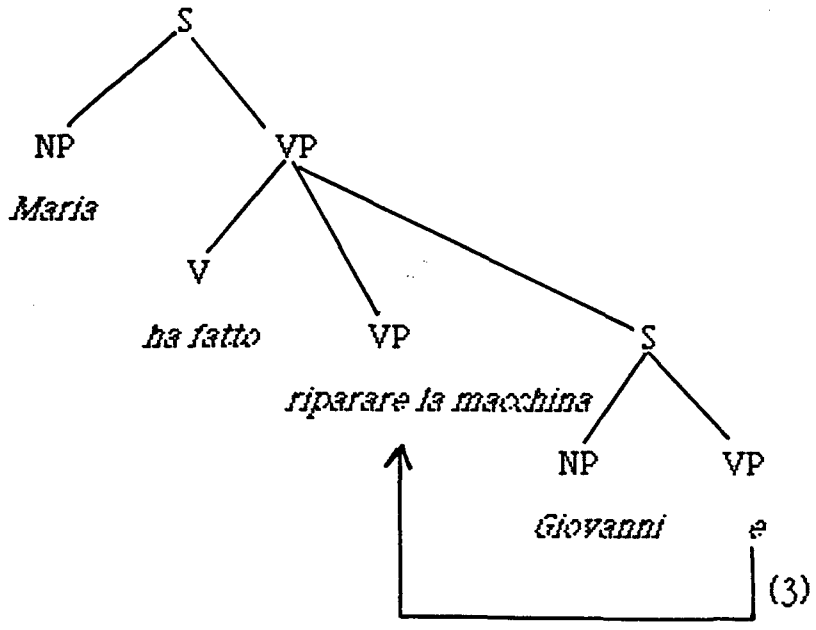


(2)

(162)a.



b.



The FI and the FP structures are shown to be basically different in terms of D-structure, but the fact that they both have similar S-structures grants them some identical properties. As will be pointed out, the mechanism of LF reconstruction is crucial for Burzio's account of some of these differences/similarities in that only the configurations which have undergone movement allow for reconstruction at LF.

The *Faire*-Infinitive (FI) construction:

The FI construction (159), (162) is argued to be a derived structure: from a ___ S subcategorization frame, the VP is moved as in (162)b. The basic arguments are taken from the status of the dative NP: the phrase *a NP* functions as a subject thematically - the V assigns it the thematic role that the subject takes -, with respect to selectional restrictions - which apply at D-structure -, and as an antecedent to certain anaphoric relations:

(163) *Con le minacce fecero accusare se stesso a Giovanni* (p.230)

The fact that the *faire* of FI constructions is subcategorized for a clause is the null-hypothesis in view of other structures:

(164) *Fa [S che Giovanni ritorni]* (6)

From this D-structure, the verbal projection assumed to undergo movement is VP - (162b.)-. Burzio argues against Kayne's non-unified - in the sense that it is not the same constituent that moves in all causative structures- V-movement account. Kayne assumes that V NP - if there is a direct object - or V move on the basis of the linear ordering found in causative constructions which contain indirect objects: direct objects precede the embedded subject, but indirect objects follow it:

(165) *Je ferai écrire mon ami à sa soeur malade* (26)

The fact that indirect objects cannot be cliticized (166) also follows in Kayne's account from the SSC : if the indirect object remained in the VP, the subject would block movement - several aspects of the possibilities of cliticization are overlooked in this review. It must be noted, though, that Burzio does not provide an account of the possibility of cliticization when the object is not dative cf. *J'y ferai aller mon pere*- and that he accounts for the impossibility in (166) in terms of reordering of object/subject - assuming that there is a canonical order accusative/dative - and impossibility of cliticization after reordering :

(166) **Je lui ferai écrire mon ami* (27)

Burzio posits a VP-movement rule and accounts for the linear order of constituents by a late reordering rule, which follows from dative / accusative ordering constraints. The advantages of postulating a VP movement rule are mainly the following: a whole constituent is moved; there is a maximum degree of structure preservation; and all theta-roles are assigned at D-structure and S-structure as required by the Projection Principle. The subject theta-role is assigned by the whole VP, so the movement does not give rise to problems for the subject position. Kayne's analysis, on the contrary, involves structural alterations that are not allowed in the present framework. For instance, an NP not dominated by a V projection can no longer be its direct object; no theta-role can be assigned to it at S-structure. Likewise, the NP-subject and the stranded indirect object will fail to get theta-role by a decomposed VP.

When the causative structure contains a direct object apart from the subject as in (159), repeated here, Burzio assumes a rule of *dativization* (167):

(159) *Maria ha fatto riparare la macchina a Giovanni* (1c.)

(167) *Dativization:*

NP NP --> NP *a* NP (14)

This rule reflects the fact that in causative constructions, NP objects of the embedded verb behave like objects of the main verb in that they neutralize their ability to assign case. Even if the lower verb assigns accusative, the main verb is deprived of its ability to assign case by the object of the lower verb, and the subject, thus, undergoes the rule.

Burzio assumes that the causative verbs trigger S' deletion mainly, on the basis of the lack of Control:

(168) **Giovanni$_j$ fece [PRO$_j$ riparare la macchina]* (7)

Other qualifications are needed to explain the impossibility of structures like:

(169) **Maria ha fatto [$_S$ Giovanni riparare la macchina]* (8b.)

(169) shows that S' deletion is not sufficient for Case-assignment across an S-boundary. But structures like:

(170) *Maria ha fatto [lavorare [$_S$ Giovanni --- //* (18b.)

allow for case-assignment across an S-boundary. What is crucial in such a structure is the fact that VP-movement has applied, and, thus, the rest of the S is phonologically empty. Case-assignment mechanisms are assumed to detect only phonologically realized material, and in (170), NP and S coincide. Therefore, case-assignment across S-boundaries in Italian is only possible if VP-movement has applied. If it applies, it is the main verb which assigns case to the NP subject. Note that the following examples suggest that if the subject is null, VP-movement is not required - presumably because empty categories do not need Case :

(171) *?Maria lo ha fatto [$_S$ e riparare la macchina]* (8a.)

(172) *Giovanni fu fatto [$_S$ t riparare la macchina]* (9)

The *faire-par* construction:

Burzio analyzes the constructions in (158) - repeated here - as instances of base-generated VP-complements:

(158) a. *Maria ha fatto riparare la macchina da Giovanni*

b. *Maria ha fatto riparare la macchina* (1a.b.)

This is basically argued on the basis of the fact that the by-phrase takes up the thematic-role of the subject - a property that it shares with the passive construction -, together with the observation that such a process is only possible in two cases: either the subject thematic role is not assigned to the subject position - a property of passive morphology -, or there **is** no subject position. Burzio argues for this second option in the causative structures considered. He notes that this analysis is possible in the present framework because the by-phrase is base-generated, and not the product of NP-postposing -as in the model in which Kayne made his proposal, and the reason why, Burzio suggests, he did not go beyond noting the similarities between passive and FP structures -. There are several arguments that invalidate a biclausal structure - i.e. an ___S subcategorization frame -. The basic one is that there are no SSC effects (173)a. (as opposed to FI structures (171)b.) :

(173) a. *Maria si$_j$ è fatta [$_{@}$ accusare [e$_j$] [da Giovanni]]*

b. **Maria si$_j$ è fatta [$_{VP}$ accusare [e$_j$] [$_{S}$ a Giovanni ----]* (46)

@ in (173)a. cannot be S, otherwise the structure would be predicted ungrammatical. Furthermore, no empty category in the present typology can occur in the subject position: if there is a by-phrase, the subject position has no theta-role, thus, PRO is ruled out. But if the subject position is not assigned theta-role, then movement into it is predicted, an undesirable result - cf. **Maria è fatta Giovanni accusare*; if there is no by-phrase, the subject cannot be a trace since it would lack an antecedent, pro

is also ruled out because there is no pronominal reading, and PRO is also impossible because it would not give rise to Control in a Control environment.

Ergative verbs in causative constructions are argued to be cases of FP and not FI. The basic argument is that the trace of the subject of the ergative verbs will not be properly bound in (174)b. The conditions on the relation between NP-trace must be satisfied at all levels, including S-structure - i.e. there are other relations that may be satisfied only at LF cf. (175a.)-

(174)a. *Maria fa [vp intervenire Giovanni]*

b. *Maria fa [vp intervenire tj] [Giovannij -----]*

The only possible analysis for this type of construction is, thus, a VP-base generated complement, (174a.) . Burzio shows that this analysis makes correct predictions.

The different derivation for the two structures accounts for the different possibilities of occurrence of lexical anaphors :

(175)a. *Giovanni farà [vp invitare una ragazza ciascunoj]*

[S ai suoi amicij ---]

b. **Giovanni farà [vp invitare una ragazza ciascunoj*

(dai suoi amicij)]

The proposal of reconstruction at LF makes this difference between FI and FP follow naturally. Reconstruction is only possible in the FI construction; at LF the lexical anaphor has a proper antecedent, once it has

been reconstructed into the S. Such a process is not possible in the FP case, since nothing has moved - note that (174b) shows that reconstruction is not sufficient to license an NP-trace relation -.

As was noted above, the FI and the FP structures have certain similarities which reflect the fact that, although they have different derivations, their S-structure is, in fact, similar. Apart from the behaviour of reflexive clitics, other clitics show a parallel pattern:

(176) a. *Laj farò [vp riparare [j e]][S a Giovanni - - -]*

b. *Laj farò [vp riparare [j e] (da Giovanni)]* (59)

Past participle agreement also emphasizes the structural similarity of the two constructions:

(177) a. ***Laj*** *ho fatta [riparare [j e] [a Giovanni - - -]*

b. ***Laj*** *ho fatta [riparare [j e] (da Giovanni)]* (63)

The rule for past participle agreement is defined by Burzio as follows:

(178)a. PAST PARTICIPLE AGREEMENT:

a past participle will agree (in gender and in number) with an element holding a *binding relation* with its ' direct object'

(86b. p.55)

b. PAST PARTICIPLE AGREEMENT:

i. . . . cl-V-NP . . .

ii. NP V NP . . . ((89)p.56)

Thus, the clitic and the direct object trace in (20) instantiate one of the possible relations that trigger agreement [40].

A note on perception verb complements.-

The structure in (160) - repeated here-, is not accounted for in parallel with any of the other two causative structures:

(160) *Maria ha visto Giovanni riparare la macchina* (4)

On the basis of the identity between (160) and (179) below, Burzio analyzes these instances of perception verb predicates as having ___NP subcategorization frames.

(179) *Ho visto Giovanni che parlava con Maria* (162)

He follows Kayne (1981) in assuming that the elements following the perception verb form a constituent, and that this constituent is a NP. The structure in (179) is assumed to be similar but not identical to a relative clause. The non - identity is associated with a special rule that coindexes the N and the empty element in subject position via the complementizer, as in:

(180) *Ho visto [NP Giovannij [chej [j e] parlava con Maria]*

(163)

(160) would , thus, be the untensed counterpart of the tensed NP in (179). Burzio argues this analysis to be superior to the other two

alternatives , which he reviews and invalidates. Namely, the two possible subcategorization frames for perception verbs : ___ S, and ___ NP S. What the first analysis shares with Burzio's is that it grants the elements following the perception verb a constituent status, but there are arguments against it; crucially, the non-synonymy of the tensed/untensed counterparts:

(181)a. *Ho visto che Giovanni ha finito la tesi*

b. *Ho visto Giovanni finire la tesi*

Only in (b.) is the NP the "object of direct perception" of the main verb. The second alternative can be invalidated mainly because of the lack of independent motivation for the subcategorization frame ___ NP S; moreover, these constructions cannot be parallelled with other verbs subcategorized for ____NP S:

(182)a. *I persuaded John [PRO to leave]*

b. *I persuaded John [that Mary would leave]* (152)

(183) **Ho visto Giovanni [che Maria era uscita]* (151)

Note that the difference between English and Romance in these constructions - i.e. the lack of structures like (179) - follows from the assumption that English lacks the special rule which coindexes the NP head of the construction and the empty subject position.

2.3.1.3 Parallel structures (Zubizarreta 1985)

Zubizarreta (1985) accounts for the different types of causative constructions in Italian, French and Spanish firstly, by putting forward a very specific theory of lexical structure, and secondly, by allowing a parallel structure analysis of some verb-infinitival complement constructions in French and Spanish. One of the main insights of her work is the fact that some "words" are not always "words" ; they are affixes. As she puts it " Romance causatives, although morphophonologically words (in the technical sense of phonology), function morphosyntactically as bound morphemes" (p.247). The status of *faire,Yare,thacer* - together with other causative and perception verbs - is double: sometimes they function as main verbs, others as heads of complex verbs; i.e. as bound morphemes.

The basic different types of causative constructions considered are the *faire-par* construction and the *faire*-object construction. According to Zubizarreta, the main difference between them is related to the status - a result of the processes undergone by it - of the external argument of the embedded verb. As will be explained below, the lexical theory that Zubizarreta assumes makes crucial distinctions between internal and external arguments. The external argument of the *faire - par* construction is not syntactically present ; the external argument of the *faire object* construction occurs is in an object, not subject, position of the embedded verb. There is yet another construction where the external argument is deleted and this gives rise to an anticausative interpretation - cf. also (192) , (199) (200)-. (184), (185) and (186) are examples of each of the causative constructions, respectively:

(184) *L'architecte a fait tracer le plan méticuleusement par son*

associé

(46b.)

(185)a. *Pierre fera travailler Marie* (61a.)

b. *Pierre fera nettoyer la chambre à Marie* (62a.)

(186) a. *Il vento a fatto dissipare le nubi* (57a.)

b. ** Le vent a fait dissiper les nuages /*

Le vent fait se dissiper les nuages

c. ** El viento hizo dispersar las nubes /*

El viento hizo dispersarse las nubes (58a.)

The ungrammaticality of 186b. and 186c. follows from the parallel structure analysis that these constructions have in French and Spanish - cf.(203) -. It must be noted that Zubizarreta assumes the status of the *par* - phrase to be that of an adverbial. This is argued for at length on a par with the adverbial status of the *by* - phrase in passives. Its occurrence - optional - is thus not a sign that the external argument of the embedded verb is present.

A summary of the fundamental characteristics of Zubizarreta's conception of *Lexical Structure* is as follows. The lexical structure of a verb specifies the number of arguments that each verb takes and their semantic roles; it also specifies the syntactic frame in which internal arguments are realized - but this frame does not include the external argument -. As a consequence, internal arguments must obligatorily be realized in the syntax, but external arguments may remain unrealized. Arguments are variables at the level of lexical representation; constants are only included in the case of idioms or "frozen" expressions - such as " kick the bucket"-. The following are partial lexical specifications for *cry, hit, hand, kick*:

(187) cry: arg

hit: arg, arg

{ ___ NP }

hand: arg, arg, arg

{___ NP} {to ___}

kick: arg, arg (nonidiomatic)

{ ___ NP}

arg, the bucket (idiomatic)

{ ___ NP }

(5)

Giving the external argument of a verb a different lexical status than the internal argument predicts that it may be subject to rules which, in the mapping from the lexicon to the syntax, treat it differently from the internal argument. There are three basic processes that achieve this: passivization, causativization and anticausativization. The external argument is either blocked from syntactic realization, internalized, or deleted - not respectively, as will be exemplified below; i.e. there are causative processes that imply "blocking", others that imply "internalization", and yet others where there is "deletion" . The morphology associated with each of these processes is assumed to be responsible for the change in argument structure. Hence, crucially, affixes may change the argument structure of a verb.

Lack of syntactic realization of the external argument is attested, for instance, in the passive construction. It is usually assumed that the passive morphology takes up the external argument of the passivized verb, but that it is nevertheless present. Evidence for this, as Zubizarreta points out, is the

fact that a passive construction can contain a purpose adverb or clause , which can only modify agentive predicates :

(188)a. *The boat was sunk voluntarily*

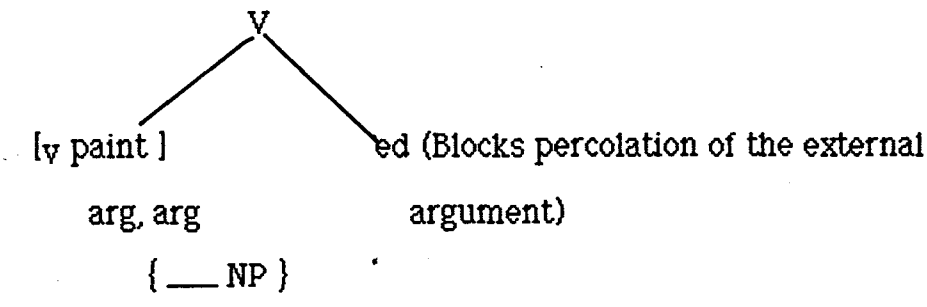
b. *The house was burnt in order to collect insurance* (13)

The fact that the external argument must be syntactically realized in active constructions is ensured by predication - cf. Williams (1980), Rothstein (1983) - :

(189) If the head of a VP has a lexically designated external argument, the VP must be predicated of this argument.

It must be noted that the processes which are the focus of the work here summarized are cases where the morphology acts upon the lexical "designation" of the embedded verb, so that the condition will apply only with respect to the external argument of the causative verb - as will be shown below . In passive, the morphology blocks percolation of external argument, so the condition does not apply . (8) is the formal instantiation of the fact that the passive verb does not inherit the external argument from its active counterpart:

(190)



There are other morpholexical processes that affect the external argument of a verb, as mentioned. One of these processes is anticausativization. The process deletes an external argument of a transitive verb. This is only possible if the transitive verb is semantically causative; i.e. it may be paraphrased by a "make-" construction: *John grows tomatoes- John makes tomatoes grow* . French has a clitic "se" which is responsible for triggering an anticausative process, English does not:

(191) a. *Pierre a brisé la glace*

b. *La glace s'est brisé* (35)

Another morpholexical process illustrated by Zubizarreta is causativization. This process affects adjectives that take the causative affix *-ize*. As will be shown in what follows, the Romance causative construction is also taken to be another morpholexical process when the causative is an affix that triggers argument structure changes. The suffix *-ize* triggers internalization of the external argument, and adds an agentive external argument:

(192)a. *The city is modern*

b. *The architect modernized the city*

(38)

Romance causatives .-

Significantly, there are causative constructions where there is a "missing argument"; in other words, the external argument of the embedded verb is not syntactically present. There are two possible alternatives to account for this: either the syntax provides no position for

this argument - cf. VP- subcategorization, Burzio (1981) - or the morphology affects the embedded verb lexical structure. Zubizarreta shows that the second alternative explains the constructions given the framework just sketched. She postulates the *Complex Verb Hypothesis* - contrasting it with the *VP Hypothesis* - which implies that a causative verb plus an embedded verb in a sequence constitute one verb containing an affix (the causative), which also functions as the head of the word. The properties of this derived word are determined by the following *Percolation Conventions*:

(193) *Percolation Conventions*

a. If the head of a word is specified for feature @ ,
then @ percolates up to the mother node.

b. If the sister of the head of a word is specified for feature ß
and the head is not, then ß percolates up to the mother-node
(unless the head specifies otherwise)

(73)

These conventions, together with the assumption that the affix is the head of the word, ensure that the external argument - feature @ - of the affix *fare/faire/hacer* percolates up to the mother node (193a.). They also ensure that the internal arguments - feature ß - of the embedded verb percolate up , since the head is not specified for any internal arguments (193b.).

Italian causatives

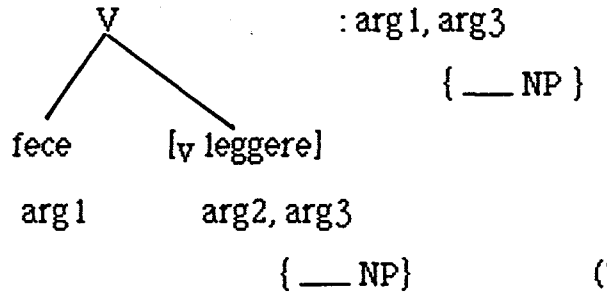
The Italian causative constructions are all accounted for by this analysis. It is crucial to point out, nevertheless, that the causative verbal element is not *lexically* specified for any of the processes that it triggers;

the result is indirect in the sense that it is the joint effect of the Percolation Conventions plus the head status of the affix that ensures the expected effect on the external argument of the embedded verb. In this, it crucially differs from passive, anticausative and causative morphology , which are all lexically specified for the processes.

Fare has the double status noted above: it is a word from the morphophonological point of view, but it behaves like a bound morpheme from the morphosyntactic point of view. The *fare - da* construction involves the syntactic absence of the embedded external subject . The affix, by (193a)., percolates its external argument to the mother node; the internal arguments of the embedded verb are also percolated (193b.):

(194)a. *Piero fece leggere quei brani (da Giovanni)* (74a.)

b.



(75)

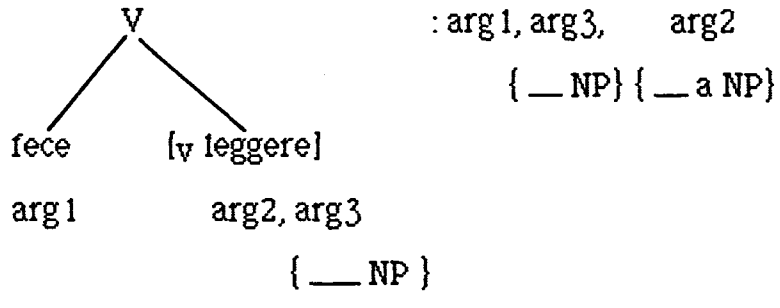
The external argument of the embedded verb, arg2, remains lexically present and assigned the referential value of the NP in the *da* - phrase, if there is one.

There is another possible structure for the constructions above:

(195) *Piero fece leggere quei brani a Giovanni* (79)

This is an instance of the *fare* - object causative, which involves an internalization of the external argument of the embedded verb; it is realized as an object.The lexical process is the following:

(196)

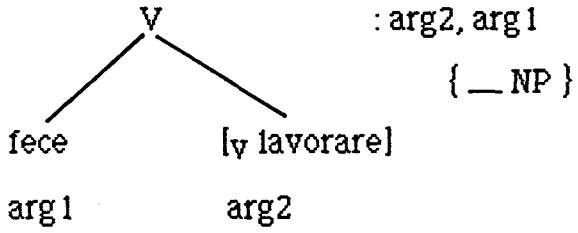


(80a.)

This is the case if the embedded verb already has a direct object. There is also the possibility that the embedded verb has no direct object, and in this case, the external argument occurs in direct object position:

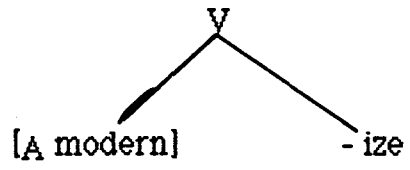
(197)a. *Piero fece lavorare i prigionieri nelle miniere* (79b.)

b.



These two examples of internalization are related to the causative suffix -*fa*ᵽ , which is lexically specified for the internalization of the external argument - cf. (192) -:

(198)

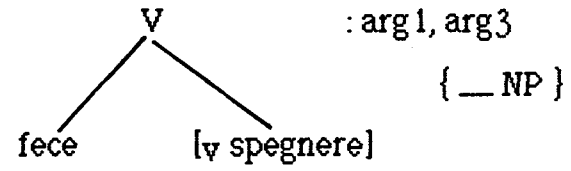


Internalize
external
argument (81)

There is one other process available for the external argument of the embedded verb, deletion. If this is the case, an anticausative interpretation arises - cf. (191) -:

(199)a. *Piero fece spegnere la candela* (76)

b.

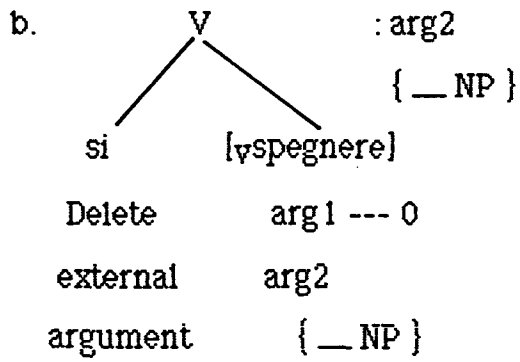


(77)

This process is linked again to the corresponding lexically specified process which, in Italian, is taken up by the *si* clitic - cf. (191)-:

(200)a. *si spegnere*

b.



Zubizarreta refers to the two related phenomena - the lexically specified morpholexical processes and the lexically unspecified ones - in terms of functional substitution: *fare* is assumed to substitute for passive and anticausative morphology. This predicts the lack of the two corresponding structures given the following redundancy principle:

(201) *Principle of Morphological Nonredundancy*

Attachment of redundant morphology is prohibited

(83)

The causative and the passive may both block the embedded external argument from percolating in (202)a. ; the causative and clitic *si* may both delete the external argument in (202)b.: their co-occurrence is, thus, redundant:

(202)a. * *Piero fece (essere) letti quei brani*

b. * *Piero ha fatto spegnersi la candela*

(82)

French and Spanish (F/SP) causatives.-

The *faire-par*, and the *faire*- object constructions are both attested in French and Spanish - cf. (184), (185) -. The similarities between French/Spanish and Italian imply that causative verbs may also function as affixes triggering the same morpholexical processes. Nevertheless, Zubizarreta notes some differences which lead her to postulate a different analysis for causatives in these languages. One of the differences is illustrated by the contrast note in (186)a/b.c repeated here:

(186) a. *Il vento a fatto dissipare le nubi* (57a.)

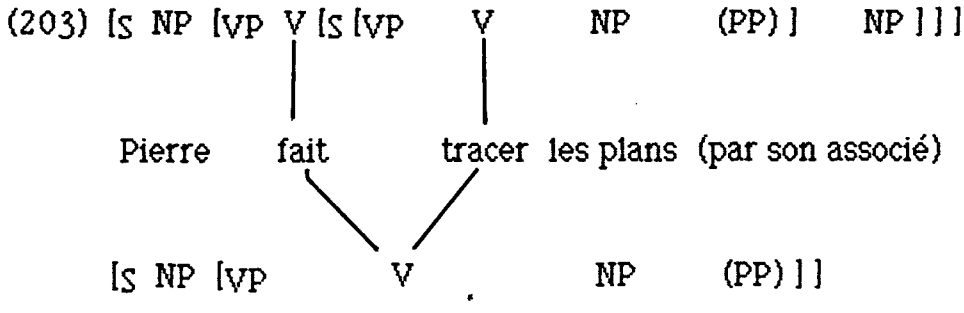
b. * *Le vent a fait dissiper les nuages /*

Le vent fait se dissiper les nuages

c. * *El viento hizo dispersar las nubes /*

El viento hizo disiparse las nubes (58a.)

This constrast shows that the F/SP causative cannot substitute for the anticausative morphology, and is accounted for by Zubizarreta with the association of these constructions "in parallel with two syntactic structures" (p.280), as shown:



(87)

The sequence *fait-tracer* functions at the same time as a unit, a complex verb with the morphosyntactic properties described above for the equivalent Italian complex verb - the result is a monoclausal, reduced, structure-, and as a sequence of two main verbs - a biclausal structure-. Zubizarreta assumes that different principles apply in the different structures. Predication (7) applies only in the reduced structure: the VP with the head *faire* is predicated of the external subject of the head. The external argument of the embedded verb in the biclausal structure is assumed to be a dummy element; it may remain unrealized because it is an external argument.

The simultaneous behaviour of the causative as an affix and as a main verb accounts for the contrast in (186) as follows: on the one hand, the biclausal structure implies that the verb embedded under the causative is transitive, agentive; on the other hand, the monoclausal structure implies that the embedded verb is bereft of one argument, it is, thus, intransitive and nonagentive. The result is a contradiction: a verb cannot be interpreted at the same time as agentive and nonagentive. Hence, the structure is uninterpretable. The grammatical counterparts in F/SP "anticausative causatives" are explained by the fact that the anticausative morphology - the clitic *se*- triggers - by lexical specification- the deletion of the external argument. The embedded verb , thus, functions as an intransitive in its two parallel structures.

A note on English

It has already been pointed out - Introduction to this section - that English causative constructions are radically different from Romance causatives: the external argument of the embedded verb occurs in pre-verbal position. Zubizarreta's analysis accounts for this by granting the

Romance causatives the properties described above. Although Zubizarreta does not explicitly state it, it is implicitly claimed that English causatives do not have the double status that Spanish and French causatives have. This would account for the lack of all the morphosyntactic processes which are triggered by the causatives analyzed, and would account for ungrammaticalities like the folowing:

(204)a. **Mary made cook the omelette by John*

b. **Mary made sing John*

c. **Mary made eat the omelette to John*

2.3.1.4 Reanalysis (Manzini 1983b)

Within her general theory of *restructuring* and *reanalysis* , Manzini (1983b) exemplifies the functioning of reanalysis in causative constructions basically in French, extending the analysis to Italian and English. Her basic aim is to subsume several notions which involve structural relationships among elements in the phrase structure into one general notion, Case. The general properties of causatives attested in these three languages follow from general principles assumed to be at work in the grammar, and the language variation observed follows from different lexical properties of causative elements in each language.

The redefinition of the notion of Case Manzini proposes is as in (205) , where the structural relations of Case-assignment, cosuperscripting, and reanalysis are subsumed:

(205) If Case (@ , ß),
@ Case assigns ß, or
@ is cosuperscripted with ß, or
@ reanalyses with ß (10)

Case-assigners and reanalyzers are Case-elements, and whether an element is one or the other , or none, is assumed to be either a lexical feature of the element, or a feature it may acquire independently of the lexicon, as a consequence of reanalysis. This explains the possibility of non-Case assigning verbs becoming Case-assigners in the syntax under reanalysis:

(206) If @ is a Case assigner
@ must be a Case assigner in the lexicon
or for some reanalyser ¥, ¥ must
reanalyze with @ (9)

The basic condition for Case is, as is standard, government:

(207) If @ is a Case element and
Case (@, ß) or Case (ß, @)
@ must govern ß (12)

This will require some qualification when considering the structure of causative constructions since reanalysis , a relation between two Case - elements, requires mutual government, and this is only possible if the intervening projection between the reanalyzer and the reanalysed element is a non-maximal projection - cf. (215).

There is another condition which must be satisfied by Case-assigners and reanalysers alike; a condition which implies a one-to-one relation between Case-elements and the elements they enter Case with:

(208) If @ is a Case element
there is exactly one @ such that
Case (@, ß) (14)

This requirement is parallelled to the Theta-Criterion section stating that every theta-role must be assigned to one argument only. This will rule out identical causative constructions in English and in French - cf. (228) - (231) -, and other constructions - cf. (227).

A Case relation demands adjacency of the elements that enter the realtion, but Manzini assumes it is PF adjacency (210) - as opposed to it being an S-structure requirement as in Chomsky (1981) - on the basis of Case-assignment of embedded verbs under causatives and their subjects when there is another complement in the structure as in (209):

(209) *[S Je [VP ai fait [VP [VP écrire à Pierre / Marie]]]*

(210) If P is a phrase-marker and in P case (@, ß)
and @ or ß is a Case element, if P' is the PF- marker
of P , in P' @ and ß must be adjacent

The order of elements in S-struture is , thus, assumed to be apt for rearrangement from S-structure to PF.

In her analysis of French causative constructions, Manzini distinguishes between those causative constructions which allow for standard word order and case-marking - (211), (214) - , those which do not - (212) - , and those which allow both alternatives - (211),(213). (211) , (212), and (213) are instances of non-finite complement clauses; finite complement clauses always display standard word order and Case-marking properties (10):

(211)a. *J 'ai laissé Marie écrire une lettre*
b. *J 'ai laissé Marie écrire*
c. *J 'ai laissé Marie rire*
d. *J 'ai laissé Marie s'en aller* (3)

(212)a. *J 'ai fait écrire une lettre à Marie*

b. *J 'ai fait écrire un lettre par Marie*

c. *J 'ai a fait écrire Marie*

d. *J 'ai fait écrire une lettre*

e. *J 'ai fait rire Marie*

f. *J'ai fait partir Marie*

(213)a. *J 'ai laissé écrire une lettre à Maire*

b. *J 'ai laissé écrire une lettre par Marie*

c. *J 'ai laissé écrire Marie*

d. *J 'ai laissé écrire une lettre*

e. *J 'ai laissé rire Marie*

f. *J 'ai laissé partir Marie*

(214)a. *Ça a fait que Marie écrit une lettre*

b. *Ça a fait que Marie écrit*

c. *Ça a fait que Marie a ri*

d. *Ça a fait que Marie s'an est allée*

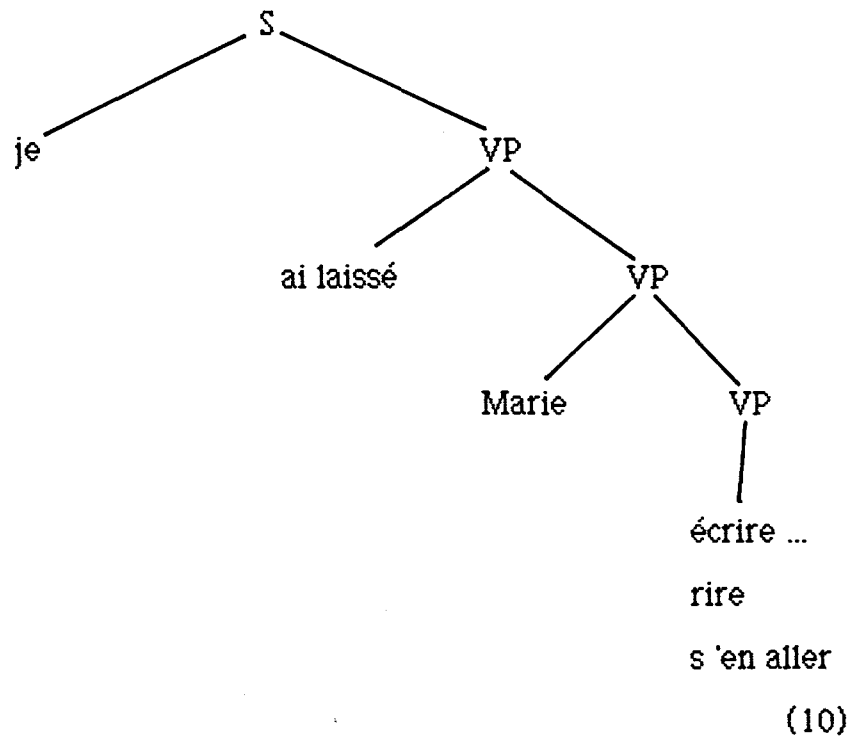
Manzini considers each of the non-finite examples in turn, exemplifying how each follows from the assumptions made above, the structure assigned, plus the lexical properties of the verbs.

Among those which allow a standard word order are clauses embedded under perception predicates, which Manizini terms causative-like constructions. Her analysis focuses on causative constructions proper with non-standard word order and Case-marking properties (212) and (213).

The structure of causative structure with standard word order is assumed to be as in (215); the verb subcategorizes for a VP small clause[41] and not an S' deletion clause. The basic argument is that small clauses are

independently attested in French (216), but that S' deletion structures are not independently attested in French (217):

(215)



(10)

(216) *Je crois [$_{AP}$ Marie [$_{AP}$ fatiguée de ça]]* (7)

(217) **Je crois [(S') Marie etre fatigue de ça]]* (8)

The qualification needed with respect to the condition on mutual government (207) is that small clauses are not maximal projections; i.e. they do not block government. The first projection above *écrire ... rire ... s'en aller* must be V', and it is precisely the first VP in (215). Thus, in absolute terms the projection above it, being identical, is also a non-maximal projection. In relative terms, they are both possible maximal projections, as indicated in the structure, because they are both dominated by another maximal projection, but not higher in absolute terms than they are. The lowest, most fundamental one, must be assumed to be a maximal

projection. The highest VP is a maximal projection, it is also assumed to be so, not being dominated by any other verbal projection.

These considerations imply that the NP subject in the small clause is governed by the causative verb. The non-occurrence of empty categories in this position follows if we consider that the pronominal *pro* cannot be identified , and an anaphoric trace or *PRO* are impossible because they would be Case-assigned. Corroboration for this comes from the observation that when the subject position is not Case-assigned , as in constructions where the causative verb is passivized, an anaphoric empty category is allowed:

(218) *Marie a été laissée [vp t [vp écrire une lettre]]* (12a.)

The English counterparts of the French examples (211) show that the English facts follow if the structure assumed is identical:

(219)a. *I let [vp Mary [vp write a letter]]*

b. *I let [vp Mary [vp write]]*

c. *I let [vp Mary [vp laugh]]*

d. *I let [vp Mary [vp go t]]*

The main proposal in Manzini (1983b) is that causative verbs in causative constructions proper are reanalysers. The optionality of the verb *laisser* of having or not having this feature explains the double possibilities that it displays as opposed to *faire*, as in (211), (212) and (213) repeated here:

(211)a. *J 'ai laissé Marie écrire une lettre*

b. *J 'ai laissé Marie écrire*

c. *J 'ai laissé Marie rire*

d. *J 'ai laissé Marie s'en aller* (3)

(213)a. *J 'ai laissé écrire une lettre à Maire*

b. *J 'ai laissé écrire une lettre par Marie*

c. *J 'ai laissé écrire Marie*

d. *J 'ai laissé écrire une lettre*

e. *J 'ai laissé rire Marie*

f. *J 'ai laissé partir Marie*

(212)a. *J 'ai fait écrire une lettre à Marie*

b. *J 'ai fait écrire un lettre par Marie*

c. *J 'ai fait écrire Marie*

d. *J 'ai fait écrire une lettre*

e. *J 'ai fait rire Marie*

f. *J'ai fait partir Marie*

By analogy to the structures which display standard word order, the structure assumed for causative constructions proper is a small clause complement; *faire ,' laisser* subcategorize for a VP small clause. Their lexical properties shown by the lexical entries :

(220) laisser : / laisser / (phonological props)

" laisser" (semantic props)

V,

theta-role assigner

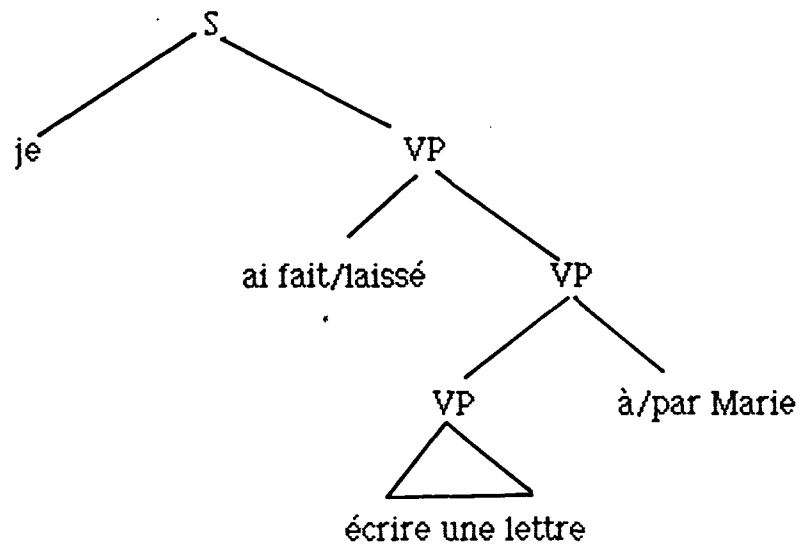
Case-assigner or reanalyser

(221) faire [42]: / faire /
" faire"
V,
theta-role assigner
reanalyser

The fact that they are both reanalysers accounts for the adjacency needed in causative constructions, given condition (210) above; and the fact that *laisser* is also a Case-assigner, optionally, accounts for its possibility of entering into satndard word order and Case-marking constructions as in (211).

Each of the possible constructions in (212) and (213) is explained by the analysis skecthed above plus conditions on Case and theta-role assignment. The verbal head of the small clause embedded under causative verbs may be transitive (222), transitive with "object deletion" (223), intransitive (225), or ergative (226). The structure for transitive VPs is as follows:

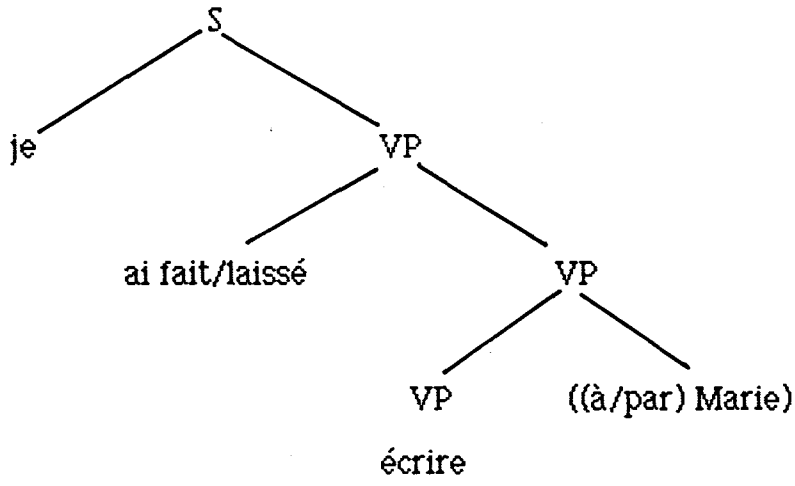
(222)



In both *à* /' *par* structures, the preposition assigns Case to the NP subject, and the VP assigns it theta-role. There is mutual government between the two verbs on the assumption that there is only one maximal projection for both heads, since they hold a relation, reanalysis (Case). The small clause is assigned object theta-role by the causative verb.

The assignment of subject theta-role is assumed not to be obligatory; the Extended Projection Principle is interpreted as requiring a subject position only for sentences which are projections of INFL, but small clauses do not need a subject position. Therefore , the structure for transitive verbs used intransitively under causatives is the following:

(223)



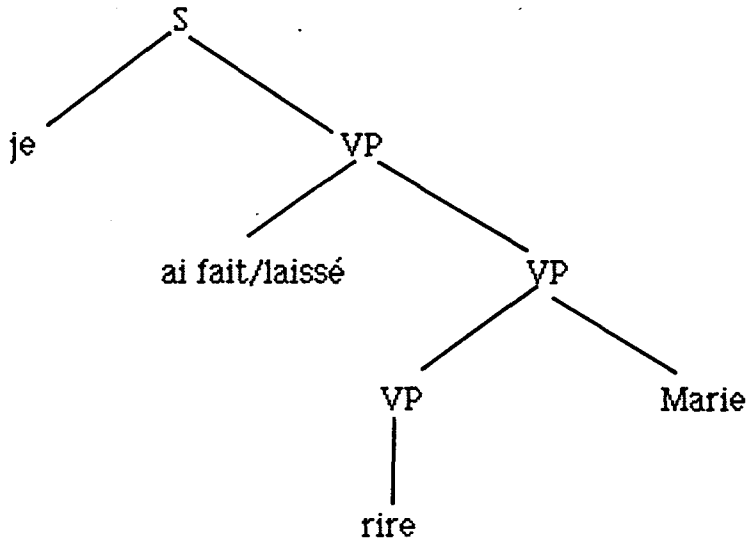
If there is a lexical subject, it is always assigned theta-role by the VP, but it may be assigned Case in different ways, either by *à* or *par* or by the verb itself. The Case and Theta-role assigning possibilities for object deletion verbs in causative constructions are as follows:

(224)	THETA-ROLE	/	CASE	
A.	+		+	(17), (9)a,b,d,(8)a,b,d
B.	-		-	(8)c,d, (9)c.d with object deletion
C.	-		+	(8)c, (9)c
D.	* +		-	

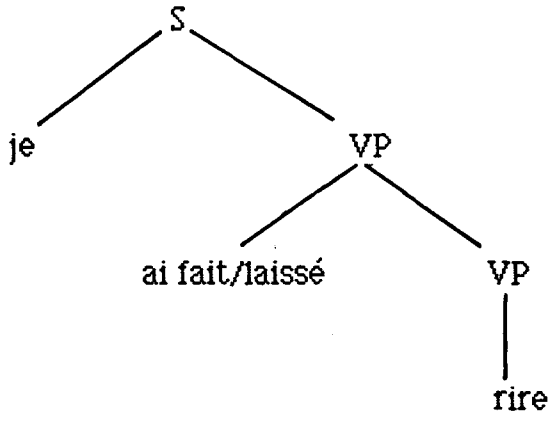
A. implies the presence of a direct object; the verb assigns Case and direct theta-role to it. B. implies the absence of either a direct object or subject; the verb does not assign Case or theta-role. C. implies the absence of a direct object but the presence of a subject to which the verb may assign Case. D. is dissallowed given the fact that if the verb has a direct object, to which it assigns theta-role, it must also assign Case to it. The element which may alternatively be assigned case by a preposition is the subject. The fact that the subject cannot occur preverbally follows from the fact that *faire* is obligatorily a reanalyser and from the head-first parametric option for French.

The possibility of intransitive - (225) - and ergative - (226) - verbs occuring under causatives is assumed to follow from the fact that an element can become a Case-assigner in the syntax under reanalysis. In structures with intransitive verbs, when there is no subject, this property is assumed to be optional, as in (225b); when the Case- assigning feature is not linked to a theta-role assigning feature, it is considered optional:

(225)a.

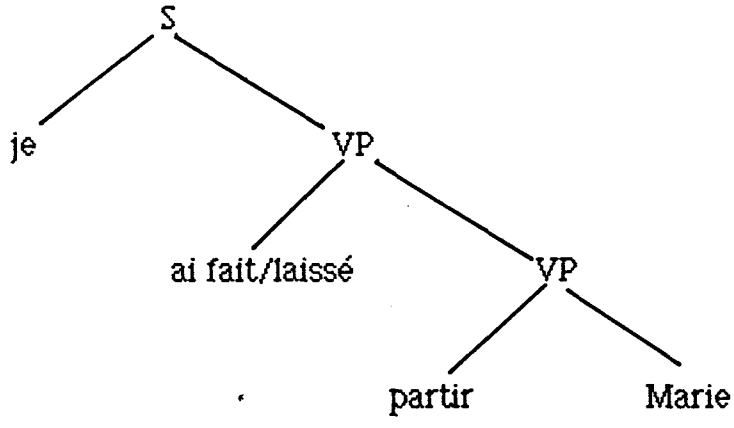


b.



(37)-(38)

(226)



(44)

The assumption for ergative verbs is that the subject is in its original position; i.e. that the small clause has no external argument position. The relevant requirement in this case is that if a verb Case-assigns and theta-role assigns an NP , it must do both to the same subcategorized position.

A corroboration of the one-to-one correspondence condition on Case-elements and the elements that they enter Case with - cf (208) - comes from the lack of structures as the following, which are accounted for by assuming this condition: two case-assigning elements for the same NP:

(227)a. ** J'ai fait [vp [vp partir t] à Marie]*

b. ** J'ai fait [vp [vp partir t] par Marie]* (47)

English causative structures behave like French *laisser* structures of the sort illustrated in (211); i.e. when *laisser* is a Case-assigner and not a reanalyser. In other words, *made* can only occur in constructions with standard word order and not with the proper causative order:

(228) a. ** I made write a letter "to" Mary*

b. ** I made write a letter by Mary*

c. ** I made write a letter*

(229)a. ** I made write Mary*

b. ** I made write "to" Mary*

c. ** I made write by Mary*

d. ** I made write*

(230)a. ** I made laugh Mary*

b. ** I made laugh*

(231) ** I made go Mary* (1) - (4)

Proper causative order requires the verb to have a +reanalyser feature in the lexicon, and English *make* lacks it:

(232) make : /make/
"make"
V,
theta-role assigner
Case-assigner

The fact that *make* is a Case-assigner implies a violation of the one-to-one correspondence condition (208) in (228), (229)b,c,d and (230)b since there is no nominal phrase with which it can enter Case; the other NPs in the structure are not governed by it, and the small clause does not qualify as an NP for the condition - (233) - on Case-assignment to be satisfied:

(233) If @ Case assigns ß
@ must be a Case assigner and
ß must be a nominal phrase (1)Chp.2

In (229)a., (230)a., and (231) *made* governs *Mary*, but in order for Case assignment to take place, adjacency must hold - cf. (210) -, and it is blocked by the embedded verbs.

Manzini observes that passivization of the causative verb is impossible in French, but possible in Italian. On the other hand, neither French nor Italian allow passivization of the embeddded verb, both facts follow from the analysis plus some qualifications.

(234)a. **Marie a été faite écrire (par Pierre)*

b. **Marie a été faite rire (par Pierre)*

c. **Marie a été faite partir*

d. ** La lettre a été faite écrire à Marie (par Pierre)*

e. **La lettre a été faite écrire par Marie (par Pierre)*

f. ** La lettre a été faite écrire (par Pierre)*

(6)-(9)

(235)a. *Maria fu fatta scrivere (da Piero)*

b. *Maria fu fatta ridere (da Piero)*

c. *Maria fu fatta andare (da Piero)*

d. *La lettera fu fatta scrivere a Maria (da Piero)*

e. *La lettera fu fatta scrivere da Maria (da Piero)*

f. *La lettera fu fatta scrivere (da Piero)*

(10)-(13)

The French examples are explained by assuming that passive morphology does not eliminate the +reanalyser feature of a verb when it is passivised, only the +Case assigning feature. If this is the case, in (234) reanalysis implies that all verbs in these structures must Case-assign the embedded subject - (234) a-c -or object - (234) d-f -, but then, the movement of the corresponding NP matrix subject position is not allowed.

The relevant difference for structure (235) is that in Italian, causative verbs and the verbs they reanalyse with behave like one verb with respect to Case-assignment. The lexical entry of *fare* includes this information:

(236) fare : / fare /
" fare"
V
theta-role assigner,
reanalyser,
if Case (fare, @), then Case (@, ß)
if and only if Case ((fare, @), ß)

The account of the possible structures in Italian is as follows: if passive morphology does not eliminate the Case-assigner property of Italian *fare*, it reanalyses with the embedded verb. Since the embedded verb enters Case with a nominal phrase only if the causative verb and itself enter Case together and *fare* is associated with passive morphology, the Case-assignment property of *fare + V* is eliminated. If this is the case, the NP in object or subject position may move into matrix subject position under usual assumptions.

If it is the embedded verb which is passivised, there is no language variation, both are equally ungrammatical:

(237) ** J 'ai fait etre invité Pierre par Marie*

(238) ** Feci essere invitato Piero da Maria*

Passive morphology equally eliminates the Case-assigning property of the embedded verb and the NP in object position is not Case assigned.

2.3.2 M-A sequences

2.3.2.0 Introduction

I will consider M-A sequences to be those basically including a modal or aspectual verb and an infinitive. The syntax of these sequences in Romance has been the issue of much debate essentially because the two adjacent verbs display a syntactic behaviour which indicates that the structure in which they occur is "anomalous" - as will become clear in what follows, French differs from other Romance languages in important respects; i.e. in not allowing clitic climbing in these constructions - ; it differs from the structure in which non-modal/aspectual verbs plus and infinitive occur. A crucial characteristic of M-A sequences is that the subject of the infinitive - obviously, if it is granted a clausal status - must coincide with the subject of the M-A verb - a clear difference with the C-sequence -:

(239)a. *Els yupies poden llençar els diners*

(240)a. **Ell yupies poden les seves dones llençar els diners*

b. *Les dones dels yupies poden llençar els diners*

The structure is one of Control, and thus, the possibility of analyzing it as such is reasonable - cf. Section 2.2 - . The structure, though, displays characteristics that indicate that it is not a normal Control structure. The difference lies in the processes which are permitted to elements occuring in the same clause- as will be shown in the sections to follow-: clitics may climb to the modal/aspectual[43], in impersonal si/se constructions in Italian and -in some dialects of - Spanish objects may be preposed triggering