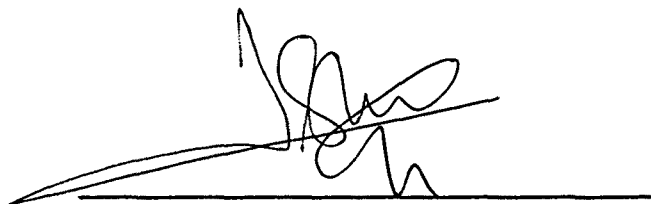


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VERBAL SEQUENCES: A GENERATIVE APPROACH

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A handwritten signature in black ink, appearing to be 'Mireia Llinas i Grau', written over a horizontal line.

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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 occurring in the same clause- as will be shown in the sections to follow-: clitics may climb to the modal/aspectual⁴³, in impersonal *si/se* constructions in Italian and -in some dialects of - Spanish objects may be preposed triggering

agreement with the modal⁴⁴, whenever aspect may be expressed by different auxiliaries there is a change of auxiliary - in Italian -, etc. This curious syntactic behaviour was analyzed by Rizzi (1982a) as being the result of a specific rule of *restructuring* that did away with a part of the structure which would otherwise make the processes impossible - as in other Control sequences -. As observed by all the proposals under review, Rizzi's account is not tenable in the present model, although his insights remain and have been reformulated into mechanisms which satisfy the principles assumed in the present model. It is of uttermost importance that none of the tests indicative of restructuring are found in English: it has no clitics, and, thus, no impersonal constructions with subject clitics - *si/ce* - either, therefore no object preposing constructions, and aspect is only expressed by *have*, so there is no *avere-essere* equivalent. Restructuring is, therefore, not a process to be considered in English.

The verbs that belong to the modal class in both English and Romance are restricted to a small set. The sets are different and only clear-cut in English; the set of modals in Romance is not definite and even considered non-existent as a different category by some linguists: "... a les llengües romàniques, és impossible delimitar formalment una categoria de verbs modals." (Ferrater (1981) p. 11). Statements of this sort are based on the fact that the characteristic morphological properties of English modals - and some of their syntactic characteristics - do not apply to verbs that have a similar or equivalent meaning in Romance. For English most authors coincide in considering (241) as an accurate list; in Catalan, (242) is only approximative:

(241) Will/would, shall/should, can/could, may/might, must,
ought to; dare, need; is to; had better; used to

(242) poder, deure, haver de; voler, gosar

Modals in English are assumed to have the properties of other auxiliary verbs - cf. section 2.1 - , plus other characteristic ones: morphologically, they do not take the -s 3psg , nor have infinitive nor gerund forms. Syntactically, they cannot co-occur, nor be preceded by other auxiliaries.⁴⁵

With respect to the morphological characteristics, Romance modals differ: they do show inflection for person and number, as well as infinitival and gerund morphology:

(243)a. * *The president cans change the constitution*

b. *Tu pots canviar la constitució*

(244)a. * *To can dance flamenco is in fashion*

b. *Podem ballar flamenco està de moda*

(245)a. * *Canning to speak English you can get a job*

b. *Podent parlar l'anglès pots aconseguir un lloc de treball*

The syntactic properties of modal verbs are not shared by modal verbs in Catalan either - nor in Romance in general - :they can co-occur or be adjacent (246)a. , and they may be preceded by auxiliaries (247)a.:

(246)a. *La Maria Rosa deu poder deixar la feina*

b. **Maria Rosa may can leave her job*

(247)a. *La Isabel ha pogut anar a Anglaterra*

b. **Isabel has canned go to England*

Nevertheless, certain relevant observations in terms of these syntactic characteristics are made in section 2.3.2.3 - cf. Picallo (1985) and (1990) -, where it is shown that the clearcut distinction between English

and Catalan modals is not precise in that not all types of modals display the differences. The crucial factor involves the distinction epistemic/root reading.

The distinction *root* vs *epistemic* in the use of modals is found both in English and Romance.⁴⁶ An epistemic reading implies judging a proposition possible or necessary; a root reading implies either ability, volition, permission, or obligation of the subject. The following exemplify the difference:

(1) EPISTEMIC:

- a. *The end of the world may be approaching*
The end of the world must be approaching
- b. *La fi del món es pot estar apropant*
La fi del món es deu estar apropant

(2) ROOT⁴⁷

- a. *The governments must put an end to injustice*
The governments can put an end to injustice
- b. *Els governs han de posar fi a la injustícia*
Els governs poden posar fi a la injustícia

It is obvious by the use of the same lexical item in the second example of (1)a. and the first example in (2)a for English, and the first example in (1)b. and the second example in (2)b. for Catalan, that the same lexical items may have different readings. This is not true for all modals as instantiated by the verb *deure* in Catalan which has only an epistemic reading (1)b., as opposed to the Spanish "equivalent" *deber*⁴⁸:

(248)a. *El fin del mundo debe (de) estar cerca* (EPISTEMIC)

b. *Los gobiernos deben poner fin a la injusticia* (ROOT)

- See section 2.3.2.3 for relevant conclusions regarding this fact-.

With regards to aspectual verbs in Romance and English, they may add a certain temporal aspect to the complex predicate they are part of -i.e. when they are followed by an infinitival verb⁴⁹. For this reason, they are often considered modifiers of the predicate phrase, not imposing restrictions on the subject of the clause . They have been analyzed as having an adverbial function - cf. Picallo (1985), Zubizarreta (1982) -. Note the possible paraphrases of the following examples:

(249)a. *Els militars han tornat a amenaçar la democràcia*

b. *Els militars han amenaçat la democràcia una altra vegada*

(250)a. *Els polítics solen dir mitges veritats*

b. *Els polítics molt sovint diuen mitges veritats*

(251)a. *The army keeps threatening democracy*

b. *The army threatened democracy once again*

Aspectual verbs are usually kept apart from aspectual auxiliaries - *have, be* cf. Section 2.2.2 -. In this sense it is worthwhile noting that they have non-aspectual interpretation, as in the following examples, where they may be interpreted as motion verbs 50,51:

(252)a. *Ha tornat a dir-li que no podia viure sense ella*

b. *Ha vuelto a decirle que no puede vivir sin ella*

(253)a. *Ha vingut a dir-me que no considerava l'article prou bo per la seva revista*

- b. *Ha venido a decirme que no considera mi artículo lo suficientemente bueno para su revista*

The semantics of English aspectual verbs is, thus, equivalent to Romance aspectual verbs, but there are, once again, no tests that would point to a possible application of restructuring.

Note that the use of an aspectual verb does not change the relations between the predicate and its internal/external arguments:

(254)a. *Israel kills Palestinians*

b. *Israel has not ceased to kill Palestinians*

c. *Israel keeps killing Palestinians*

(255)a. *Els països rics s'obliden del Tercer Món*

b. *Els països rics tornen a oblidar-se del Tercer Món*

c. *Els països rics solen oblidar-se del Tercer Món*

As is suggested by the preceding observations, the kind of syntactic variation in M-A sequences is more fundamental than the contrasts observed in C-sequences - cf. 2.3.1 - : it not only involves a different order of constituents but there may be reasons -cf. especially 2.3.2.3 - to posit a distinct category for some modals - a "traditional" consideration for English modals. As already observed in section 2.2.2, modals are assumed to be generated in INFL - cf. especially Chomsky (1981) p.140 fn. 28 -. Therefore sequences of modals and infinitives in English are not considered in this brief introduction to the proposals considered in this section, as they do not constitute complex predicates.

The relevant factor of M-A sequences - as with C-sequences - is that they constitute an instance of V+V:

- (256)a. *Lady Macbeth va voler convèncer al seu marit*
 b. *Lady Macbeth quiso convencer a su marido*
 c. *Lady Macbeth ha voluto convincere il suo sposo*

In the sections that follow, the authors focus on the explanation of the processes - if any - that relate the two verbs and allow them to function as a unit with respect to certain syntactic phenomena - alternatively, the process erases the clausal boundary between the two verbs -. The validity of the processes will ultimately depend on whether they satisfy the principles in the grammar, and whether they are, independently required, since the structure gives way to no changes - cf. C-sequences and the non-standard word order -. In (256) the postulation of a process is PF vacuous, in (257), cliticization of the embedded object is seen as a consequence and, therefore a signal, of the application of the process - cf. Section 2.3.2.1, 2.3.2.2 -:

- (257)a. *Lady Macbeth el va voler convèncer*
 b. *Lady Macbeth lo quiso convencer*
 c. *Lady Macbeth l' ha voluto convincere*

Note that French does not allow the same structure. A fact which is not explained in the proposals in this section. Several of the proposals summarized attempt explanations to this fact -especially section 2.4 -:

- (258)a. *Lady Macbeth a voulu convaincre son mari*
 b. *Lady Macbeth a voulu le convaincre*

c. **Lady Macbeth I 's voulu convaincre*

The proposals reviewed are representative of different alternative analyses of M-A sequences. The authors who postulate a biclausal status for the structures - Rizzi (1982a) and Burzio (1986) - sustain arguments for a clausal subcategorization and subsequent processes of deletion - Rizzi - or movement - Burzio -. Deletion is a much too powerful mechanism , barred in the present framework as pointed out in several of the following sections.

Those authors defending a monosentential analysis need not recur to movement or deletion but must account for the non-existence of a subject position in the infinitive complement. 52

2.3.2.1 A Restructuring Rule (Rizzi 1982a)

In his well-known article "*A restructuring rule*," Rizzi examines the status and structure of certain verbs taking infinitival complements, and puts forward a rule -*restructuring* - which these verbs optionally trigger. His analysis is set within a pre-GB model; i.e. he makes use of some mechanisms which have since been abandoned or reformulated. One of these is the *Specified Subject Condition* (SSC) - cf. 2.3.1 -. As observed in other sections, within the new framework, the effects of such a condition follow from other principles of the grammar - for instance, binding. In the model in which Rizzi develops his proposal the transformational component had not yet been reduced to its limit so he makes use of specific transformational rules for specific structures. One of such rules, which has been explained above, is Clitic Placement - cf. Kayne(1975). In spite of this background, Rizzi does not actually give a complete characterization - *Structural Description* and *Structural Change* - in transformational terms of the rule that he posits -moreover, he gives the final format in a footnote (cf. p.47 , fn. 42). The fact that the transformational component contained a series of different rules favoured the reference to *extrinsic ordering* to account for phenomena which could not be explained otherwise - Rizzi, though, argues against conceivable alternative explanations of his data through the use of this strategy. It is obvious that in the present model Rizzi's proposal needs reformulation, which is the case of some of the analyses sketched in the following sections.

Rizzi's main goal is to characterise a set of main verbs in Italian which show a distinctive behaviour with respect to certain - previously unrelated - syntactic processes. The set of verbs includes *modals*, *aspectuals* and *motion* verbs. The syntactic processes the explanation of

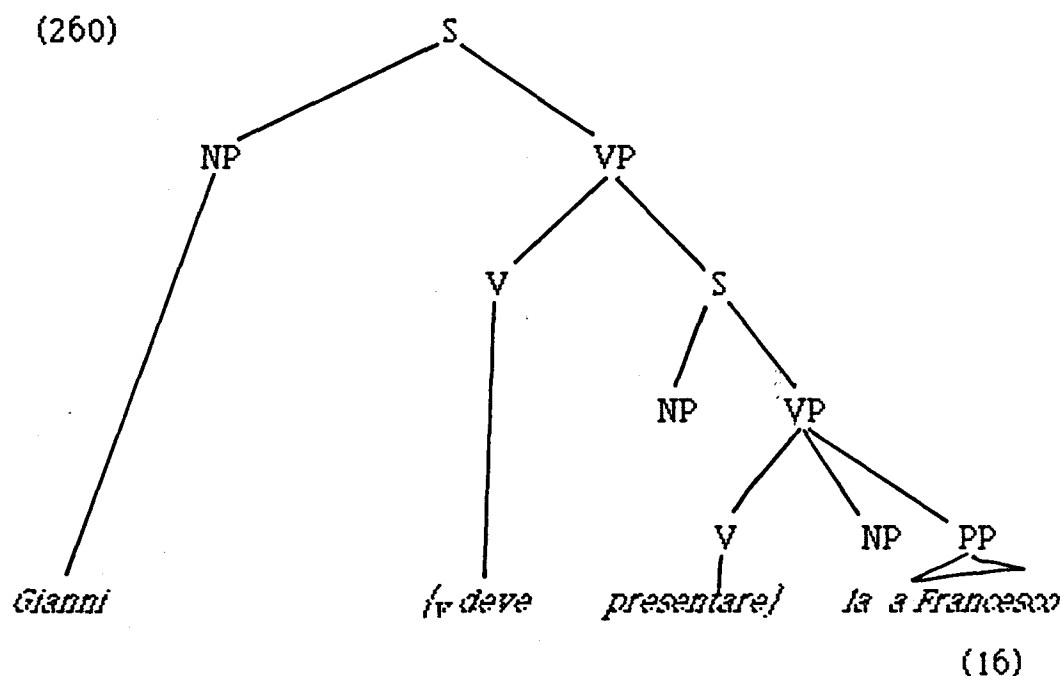
which he unifies are basically cliticization, object preposing in impersonal "si" sentences, optionality in auxiliary selection. Considering the structure which makes these syntactic processes possible, he postulates a derivational account of the data; i.e. the output structure is different from the structure at the outset of the derivation. This last remark is essential in his explanation and in order to prove that a specific structure is involved, he tries these processes by making use of *constituency* tests; certain syntactic operations only apply to whole constituents so the structure resulting from the application of restructuring will either prevent or allow these processes to operate. The processes involved are: *wh-movement (Pied Piping)*, *cleft sentence formation*, *Right Node Raising (RNR)*, and *Complex NP-Shift*. Briefly, if restructuring applies, elements which were part of different constituents - two verbs - become united into one constituent, "a verbal complex"; and elements which were in the same constituent - an embedded clause - become members of different constituents. The processes mentioned are correctly predicted to apply only when restructuring has not applied. The only way to verify the fact that restructuring has applied is by alluding to the set of syntactic processes that are particular to verbs which trigger this rule, thus, "constituency tests" will only be possible if clitics have not moved, objects in impersonal "si" constructions have not preposed, and there has been no auxiliary change in a structure which would otherwise allow it. These predictions are briefly reviewed below.

Restructuring, as Rizzi puts it: "optionally transform[s] an underlying bisentential structure into a simple sentence, creating a unique verbal complex consisting of the main verb and the embedded verb." (p.2) In other words, sequences such as the ones in (259) have two possible structures: a bisentential one - if the rule does not apply -, which implies the presence of a clausal node intervening between the two verbs; and a

monosentential structure - if the rule applies -, which results in the loss of the clausal node between the two verbs:

- (259) a. *voler fare* / *poter fare* / *dover fare*
 b. *cominciare a fare* / *finire di fare* / *star per fare*
 c. *venire a fare* / *andare a fare*

The following structure is given by Rizzi to illustrate the process:



The first verb is a modal and for this reason, it triggers the application of the rule and the two verbs are reanalyzed as a verbal complex with no clausal boundary nor subject position intervening.⁵³

The first of the syntactic processes that Rizzi deems possible because of the application of restructuring is cliticization. In (260) the fact that the two verbs are reanalyzed as one verbal complex allows the clitic to take a

"long step" and cliticize to the first verb of the complex instead of cliticizing to the infinitive:

(261) a. *Gianni la dove presentare a Francesco* (17)

b. *Gianni dove presentarlaa Francesco* (18)

The rule involved is Clitic Placement (CP), which has the following format (p.3 in Rizzi(1982a)) - cf also 2.1 -:

(262) vbl - V - vbl - PRO - vbl
 1 2 3 4 5 =>
 1 4+2 3 \emptyset 5

The crucial condition concerning Rizzi's proposal is that terms 2 and 4 must be clausemates; the PRO - here: clitic pronoun- and the verb to which it clicizes cannot be separated by a clausal boundary. Therefore, if (259) did not imply an erasure of the clausal boundary dominating the second verb, CP would be predicted impossible, contrary to fact. Within the model then used, such a condition followed from the SSC: a *specified subject* is present in the embedded clause (PRO) which prevents the application of any rule. If CP applies, the application of restructuring is indispensable and compulsory. Nevertheless, if CP does not apply, the application of restructuring is, in principle, optional since it applies vacuously.⁵⁴ Nevertheless, Rizzi assumes that restructuring does not apply if the clitic does not take the "long step". This is precisely what his "constituency tests" suggest, as will be illustrated below.

Another syntactic process indicative of the application of restructuring is object preposing in impersonal "si" sentences - cf. also section 2.1 - . I will not review the analyses of this construction but simply

point out the aspects relevant to Rizzi's proposal. A sentence like (263) contains a subject clitic "si", which does not - at least at this stage of the derivation - occupy the subject position but has cliticized to the verb adjacent to it.

(263) *Si dorme troppo poco* (50)

If the verb is transitive, Italian has a special construction which allows the preposing of the object to preverbal position:

(264) a. *Si costruisce troppe case in questa città*
 b. *Troppe case si costruiscono in questa città* (57)

As (264)b. illustrates, this movement triggers agreement with the verb; the preposed object functions as the subject. If there are two verbs in a sentence, this transformation is only possible with the set of verbs relevant for restructuring:

(265) a. **Le nuove case popolari si sono promesse di costruire*
entro un anno (59b.)
 b. *I problemi principali si continuano a dimenticare* (63b.)

The explanation for this is also given by the fact that restructuring allows an apparent violation of the SSC by the rule of object preposing; the clausal boundary - and, thus, the subject - is erased only if the matrix verb is a member of the class of triggering verbs.⁵⁵

The last basic piece of evidence which Rizzi brings to bear upon the application of restructuring is a particular behaviour of the class of "triggering" verbs with respect to the choice of auxiliary. In Italian, there are two auxiliary verbs required by different lexical verbs: *essere*, and *avere*:

(266)a. *Piero ha voluto questo libro* (71)

b. *Piero *ha venuto con noi* (72a.)

As (266)a. illustrates, modals functioning as main verbs take *avere*. Nevertheless, in constructions where modals take an infinitival complement which requires *essere*, they no longer impose this requirement:

(267)a. *Piero ha potuto / dovuto venire con noi* (72b.)

b. *Piero ha *è promesso di venire con noi* (77)

Such examples show that a process of auxiliary change (*avere*--*essere*) is only possible with verbs which allow restructuring. It illustrates the fact that modals in a structure like (267) - as opposed to (266)a. - function as auxiliary verbs; they are part of a verbal complex in which it is the embedded verb that imposes its lexical requirements.

Another important issue in Rizzi's proposal are his "constituency tests" which, as mentioned above, are referred to as evidence for the fact that restructuring turns constituent-mates into members of different constituents. Namely, that *presentare a Francesco* in (261)a. is not a constituent but that *presentarla a Francesco* in (261)b. is a constituent; that *dimendicare i problemi* in (265)b. is not a constituent, but that the same structure without agreement - *si continua a [dimendicare i problemi]* - is a constituent; and that *venire con noi* in (267) a. is a constituent only if

the *avere* occurs as an auxiliary. What is crucially at stake is that the application of restructuring precludes any rule whose application hinges on the fact that the infinitival complement is a clause; it is only a clause if it has not been *restructured*

The following are some examples of the different processes which indicate that restructuring has applied, having undergone one of the "constituency tests" mentioned; their grammatical counterparts show that if restructuring does not apply, the structure meets the structural description of these "constituency tests": - cf. Chomsky (1972), Ross (1967), Postal (1974), among others, for a description of these transformations -:⁵⁶

Clitic Placement:

-Wh-movement:

- (268)a. *Questi argomenti, a parlarti dei quali verrò al piu presto...*
 b.* *Questi argomenti, a parlare dei quali ti verrò al piu presto ...*
 (10)

- Cleft S Formation:

- (269)a. *E' proprio a riportagli i soldi che sto andando, stai tranquillo!*
 b.* *E' proprio a riportare i soldi che gli sto andando ...*
 (30)

- Right Node Raising:

- (270) a. *Mario sinceramente vorrebbe - ma a mio parere non potrà mai - pagargli interamente il suo debito*
 b.* *Mario sinceramente gli vorrebbe - ma a mio parere non potrà mai - pagare interamente il suo debito*
 (37)

-Complex NP Shift:

- (271) a. *Fra qualche giorno, verrò a Firenze ad esporti la mia idea*
 b. **Fra qualche giorno, ti verrò a Firenze ad esporre la mia idea*
- (41)

Before closing this brief review on Rizzi's *restructuring* proposal, I will give the actual format of the rule :

- (272) $vbl \ Vx \ V' \mid (COMPL) \ V' \ vbl \ \rightarrow \ vbl \ Vx \ (COMP) \ V' \ V' \mid \ vbl$
 (where Vx is a V member of the "triggering" class of verbs)
- (p.47 fn.42)

Rizzi grants the node dominating the verbal complex a V' status on the basis of examples like (273) which, if we assumed the node had an X-0 status, would "deprive the notion of lexical category of its content" (p.38), allowing other lexical items to intrude between the parts of an X-0 category.

- (273)a. *Lo verro subito a scrivere*
 b. *Gli stessi errori si continuano stupidamente a commettere*
 c. *Maria è dovuta immediatamente tornare a casa*
- (144)

Note that all of these examples are examples of *restructured* structures. The basic argument to posit such a projection dominating two verbal elements comes from the observation that it is independently

needed in Italian for sequences of auxiliary-verb, which may, furthermore, be interrupted by other lexical items :

(274) a. *Ho subito scritto a Francesco*

b. *Maria è immediatamente tornata a casa*

(145)

The analysis sketched above inevitably gave rise to many proposals and counterproposals. In the following sections I will summarize some of the most salient related analyses within more recent models than that within which Rizzi (1982a) was posited. Here though I want to mention the article Hernanz & Rigau (184) who assumed Rizzi's analysis, applying it to Catalan and Spanish; i.e. they noted that the same type of verbal complexes are found in both languages - cf. 2.1.2 for a comment on the nature of the verbs which are assumed to undergo this process -. They put forth more arguments and show that M-A verbs differ not only from proper main verbs but also from auxiliaries; they are "double natured" . Following Rizzi, they claim that a rule like restructuring would explain their characteristic behaviour. Nevertheless, they note that Rizzi's rule must be reformulated in terms of the present theory because, as it stands - as presented in this section -, it does not conform to the principles of the theory. One of these principles is the Projection Principle which ensures that lexical properties of items are kept throughout the derivation - cf. section 1.2.1 -. Notice that a rule which erases or destroys structure stands in sharp violation of such a principle. Much of the subsequent work on "restructuring" verbs attempted to avoid this.

2.3.2.2 Restructuring as VP-movement (Burzio 1986)

Burzio's analysis of restructuring constructions shares many of the insights of Rizzi (1982a). He considers that restructuring constructions are instances of "complex predicates" as evidenced by the constructions that Rizzi accounts for; namely, Clitic Climbing (CL CL), Long Object preposing (Long O.P.) in *avere/essere* impersonal constructions, and Change of Auxiliary (CA) - *avere--essere* where both auxiliaries may realize aspect - . As shown in the preceding section, these phenomena occur with the same class of verbs - "restructuring" verbs -; they share structural characteristics - cf. the constituency tests in Rizzi (1982a) -; and they interact - i.e. if one occurs, the others do, too. What these constructions are a reflex of is the fact that the resulting structure is a "complex predicate": there is "a closer than usual relation between the main V and the infinitive" (p.328). In the framework in which Burzio makes his proposals, the "structural anomaly" of these constructions would imply an exceptional non-violation of the Binding Principle A - in the previous section it was shown that in Rizzi's framework, the relevant principle is the SSC.

In line with Rizzi's proposal, the special cohesion of the verbs is assumed to be the result of a syntactic derivation, as opposed a base-generated complex predicate; nevertheless, the type of derivation is not a reanalysis of the structure - with the consequent subject deletion -, but rather movement of the embedded clause VP. Burzio also diverges from Rizzi in the assumption that causative sequences and restructuring sequences may be accounted for in a parallel fashion and that the difference follows from the different structures to which the rule of VP-movement applies.

The similarity of restructured and non-restructured structures with respect to selectional restrictions is a crucial fact for positing a syntactic derivation versus base-generation. Within Burzio's classification of verbs, those which undergo restructuring belong to three different types:

(275) ERGATIVE: *andare, venire*

RAISING: *dovere, potere, cominciare, continuare, sater (per),
sembrare*

CONTROL: *volere, sapere, cominciare, continuare* (8)

The following show the three types of input and output structures to restructuring as VP-movement:

(276)a. *Giovannij va t_j [PRO_j a prendere il libro]*

b. *Giovannij va [a prendere il libro] t_j [PRO_j ---]*

(277)a. *Giovannij dovrebbe [t_j prendere il libro]*

b. *Giovannij dovrebbe [prendere il libro] [t_j ---]*

(278)a. *Giovannij vorrebbe [PRO_j prendere il libro]*

b. *Giovannij vorrebbe [prendere il libro] [PRO_j ---]* (9)

Note that they crucially involve configurations with coindexed subjects. Many differences with causative constructions will follow from this; i.e. the fact that the two subjects are coindexed only in restructured constructions - cf. (296) -(298) .

In a structure like (277), the matrix subject is subject to the selectional restrictions of the embedded verb, as clearly illustrated by (279) . This is a typical argument for Raising, and it differs for Control structures, where there is a "double" dependence - i.e. the matrix subject

must obey selectional restrictions of both, the embedded verb and the main verb, as (280), (281) and (282) illustrate:

- (279) a. *Il libro dovrebbe essere portato da Giovanni*
 b. *L'acqua dovrebbe scorrere*
 c. *Dovrebbe piovere*
 d. *Dovrebbe risultare che Giovanni non c'era* (18)

- (280)a. **Il libro viene ad essere portato da Giovanni*
 b. **L'acqua viene a scorrere*
 c. **Viene a piovere*
 d. **Viene a risultare che Giovanni non c'era* (19)

- (281)a. **Il libro vuole essere portato da Giovanni*
 b. **L'acqua vuole scorrere*
 c. **Vuole piovere*
 d. **Vuole risultare che Giovanni non c'era* (20)

- (282)a. **Giovanni viene ad essere letto da Mario*
 b. **Giovanni vuole piovere* (21)

The relevant data for identifying restructured and non-restructured complex predicates is exemplified by the following sentences, in which clitic climbing(CL CL) indicates that restructuring has applied, and selectional restrictions apply in parallel to non-restructured complexes:

- (283)a. *Il libro gli dovrebbe essere portato*
 b. *L'acqua vi dovrebbe scorrere*
 c. *Ci dovrebbe piovere dentro* (22)

Burzio invalidates three possible alternatives to a syntactic derivation of these complex predicates: that restructuring verbs are like English modals; that restructuring constructions involve base-generated VP-complements; and that restructuring complexes are base-generated complex verbs. He notes that although these would all account for CL CL and Long O.P. correctly - i.e. Binding Principle A would not block any of these processes-, they would fail to account for the similarity in terms of selectional restrictions; i.e. the main verb failing to impose restrictions would not be explained if it were taken as the head of the verbal complex, and thus a primary predicate - as in (283).

Burzio's specific proposal of VP-movement is founded on, basically, evidence from the restructuring ergative verbs *andare* and *venire*. He claims that the effect of restructuring on these verbs provides sufficient motivation for a VP-movement formulation which changes the linear order without implying an elimination of the embedded subject position. As has already been mentioned - cf. the introduction to this section - the deletion of the subject position is not in line with the present framework. Burzio notes two basic facts that point towards the existence of a subject position in the restructured complexes: one is their interpretation - the selectional restriction observations made above -, and the other one is the fact that the existence of a trace in subject position - which is not properly bound, and thus, violates the ECP - accounts for the ungrammaticality of (284) , otherwise unexplained. Note that *volare* is not a Raising verb and, thus, the trace cannot be properly governed even if there is no restructuring, but if restructuring deleted the trace, the ungrammaticality would not be predicted.

(284) **I nostri atleti si vorrebbero [vincere] / t_j --- /* (43)

The interaction of restructuring ergative verbs and a *fare* - construction involving a VP-complement with CL CL of the subject of the ergative gives evidence for the fact that the object position - the original position of the subject of the ergative - has not been deleted, but rather that the VP of the embedded clause has been moved. The dativization process, mentioned in Section 2.3.1.2 in relation to the causative constructions, applies in this context: the NP *il libro* becomes an object of the ergative verb, and of the causative verb as well - all the boundaries that separate *fare* and the NP are VPs. The ec of the clitic becomes a second object of *fare* and the context for dativization arises, accounting for the occurrence of *gli* and not *lo*:

- (285) *Gli_j faró [vp andare [vp a prendere il libro]] e /*
 [S PRO_j --- / (36)

The following change in structure is what accounts for dativization; NP₂ induces dativization of NP₁:

- (286) a. *[VP₁ V₁ NP₁ [S PRO [VP₂ V₂ NP₂]]]*
 b. *[VP₁ V₁ [V₂ NP₂] NP₁ [S PRO - - -]]]* (37)

The lack of SSC effects in sentences like the following is another argument for VP-movement; it follows from the movement of VP out of the clause, out of the domain of the "specified subject":

- (287)a. *Mario lo_j vuole leggere [] e /* (1a.)
 b. *Questi libri_j si volevano proprio leggere t_j* (2a.)

The fact that the subject of clauses embedded under restructuring verbs is always null is assumed to be a consequence of the fact that there is no way for it to acquire Case: verbs like *volere* are not S'-deletion verbs, so there is no government, (288)a.; and verbs like *potere*, *sembrare* trigger S'-deletion but do not assign Case, (288)b.:

- (288) a. **Maria vuole [me partecipare]*
 b. **[e] può/sembra [me partecipare]* (47)

This observation carries over to restructured constructions where the main verb still fails to govern and/or assign Case to the embedded subject:

- (289) a. **Maria vuole [vp partecipare] / [S me - - -]*
 b. **[e] può/sembra [vp partecipare] / [S me - - -]* (48)

The lack of dativization of the subject of the embedded verb - as opposed to causative structures - is accounted by the failure of application of the dativization process. This process only applies if both objects are governed by the main verb or assigned Case by it; the non-S'-deletion accounts for (290)a. and the lack of Case assignment accounts for (290)b.:

- (290)a. **Maria vuole [vp leggere il libro] / [S a Giovanni - - -]*
 b. **[e] può/sembra [vp leggere il libro] / [S a Giovanni - - -]*

The lack of phonetically realized subjects follows from Case requirements, and the assumption of the presence of a syntactic subject at all levels is not undermined by this fact. Therefore, restructured and non-restructured structures are alike in D-structure; there is no deletion of the subject position. This also follows from the Projection Principle and the fact

that semantic interpretation is derived from S-structure. The existence of the subject at all levels, moreover, is necessary to ensure the correct distribution of Raising and Control.

Some similarities and some differences between restructuring and causatives

In Burzio's analysis, the similarities observed between restructuring complexes and causative constructions support the VP-movement analysis in that they are both derived structures; the differences also corroborate it indirectly in that they can be attributed to the distinct properties of each of the D-structures to which VP-movement applies; namely, coreference between main and embedded subject in restructuring.

Two of the similarities that Burzio observes are the distribution CL CL and past participle agreement. Clitics in this construction are assumed to be base-generated in the embedded verb and moved to the main verb after or in conjunction with VP-movement. Binding Principle A is, thus, not violated:

- (291)a. *Li_j ho fatti [VP leggere [_je]] [S a Mario - - -]*
 b. *Li_j ho voluti [VP leggere [_je]] [PRO - - -]* (56)

(291) also exemplifies past participle agreement, which takes place between the past participle causative or restructuring verb and an argument of the embedded verb. These arguments have, thus, been reanalyzed as dependents of the matrix verb as well.

Clitic climbing exemplifies one of the two possible relations that may hold between an element in the matrix clause and an element in the embedded clause - cf. (293). Past participle agreement is one of the two phenomena that are triggered when this relation holds - cf. (292); the other

phenomenon is *Essere* - assignment (E-assignment). These two phenomena directly bear upon one of the differences between causatives and restructuring constructions: the fact that restructuring with ergative verbs is possible - recall that VP-movement analysis of causatives does not allow ergative causative constructions because an NP-trace relation must be met at all levels ; these are analyzed as FP constructions -.

Past participle agreement and E-assignment are defined by Burzio as in (292); (293) are the possible relations and the rule that they trigger:

- (292) a. Auxiliary E is assigned when there is a relation of a certain type between the subject and either a clitic or a direct object
 b. A pp will agree with an element holding a relation of a certain type with its direct object
- (69)

- (293) a. NP cl V ... E only
 b. ... cl V NP ... pp agreement only
 c. NP V NP ... Both E and pp agreement (70)

In restructuring constructions, pp agreement is triggered as in (291) above and (294), which shows that the embedded object does not cease to be an object of the embedded verb even if it also becomes an object of the main verb:

- (294) *Lij vorrei [vp aver gia letti [je]] [S PRO - - -]* (74)

The fact that restructuring verbs can occur with ergative verbs is due to the fact that the trace of the object of the ergative is properly bound at S-structure, after VP-movement, as a result of the basic coindexation - i.e. the Control relation - of the matrix subject and the embedded subject; the

trace in object position is also coindexed with the matrix subject and, thus, properly bound - i.e. it has a c-commanding antecedent at S-structure -:

- (295) a. $[j e / s_{ij} \text{ sarebbe voluto } [PRO_j \text{ andare } t_j]$
 b. $[j e / s_{ij} \text{ sarebbe voluti } [vp \text{ andare } t_j] [PRO_j \text{ --- }]$ (78)

This process is what Burzio calls *Subject Substitution*, which is only possible when the two subjects are coindexed. The distribution of E - assignment and pp agreement is predicted by this process: this is one of the possible relations which will trigger these phenomena-(293)c. E-assignment applies when there is restructuring - a fact observed by Rizzi, but explained by Burzio:

- (296) a. $Noi_j \text{ avremmo voluto } [s \text{ } PRO_j \text{ andare } t_j]$
 b. $Noi_j \text{ saremmo voluti } [vp \text{ andare } t_j] [s \text{ } PRO_j \text{ --- }]$ (80)

And the difference with the causative construction follows in that in causatives, there is no relation which can trigger pp agreement (297) nor E - assignment (298):

- (297) $[j e / s_{ij} \text{ sarebbe fatto;} *fatti [vp \text{ andare } Giovanni]$ (79)
 (298) $Noi \text{ avremmo fatto;} *saremmo fatti [vp \text{ andare } Giovanni]$ (81)

The differences are thus predicted: in causative constructions only certain complements may be embedded under *fare* (F1) - i.e. those not involving an NP-trace relationship - (299)a vs. (299)b. -; in restructuring constructions there is no bifurcation since they all involve a relationship between the two subjects - either Raising or Control - and, thus, allow *Subject Substitution*, (300). Recall that (200)a. is possible because

reconstruction licenses the relation between the lexical anaphor and its antecedent - cf. section 2.3.1.2:

- (299) a. *Giovanni ne_j farà [vp invitare una [i_e] ciascuno_j] /*
[S ai suoi amici_j - - - /
 b.* *Maria gli_j farà [vp essere presentato t_j [i_e] / /*
[S (a) Giovanni_j - - - / (95)

- (300)a. *I suoi amici ne vorrebbero / potrebbero / andrebbero ad*
invitare una ciascuno
 b. *Giovanni gli vorrebbe / potrebbe / andrebbe ad*
essere presentato

The different properties of each of the two constructions, thus, follow from their different initial structures, but there is a common formulation that can be assumed for both, a fact not considered by Rizzi. Burzio puts forth the proposal that VP-complementation is a marked option - which he assumes for FP construction (cf. Section 2.3.1.2), and that restructuring and causative structures only exist in a language if they are "minimally productive" ; i.e. they may occur with transitive, intransitive and ergative verbs. Since Subject Substitution is only possible with restructuring verbs, in order to allow ergatives, causative constructions may take VP-complements to satisfy the "minimal productivity" requirement. Another difference that follows from general principles is the fact that the causative rule is obligatory and the restructuring rule is not obligatory: only the former is needed for Case-assignment to the embedded subject.

2.3.2.3 Monosentential analyses of restructuring complexes

Picallo (1985)

The analysis Picallo (1985) provides of modal and aspectual verbs is related to her proposal for redefining the notion of Governing Category, which captures the special properties of subjunctive clauses with respect to the coreference possibilities of their null pronominal subjects; i.e. *pro* cannot corefer with an element in the matrix clause. This implies that Binding Principle B applies on the more inclusive domain; the Governing Category of the pronominal in the subject position of the embedded clause is not its S - cf. (301)- (303) -. Picallo redefines Governing Category in terms of Tense chains in multisentential structures where the verbal head of the embedded clause is "tense-dependent" - the subjunctive -. Elements subject to the Binding Conditions must be linked to an accessible Subject within a Tense chain. Structures containing modal verbs in subjunctive clauses behave differently as regards opacity - cf. (304) -(306) . They allow the subject pronominal to corefer with the matrix subject. Picallo refers to this as the "opacity-inducing" property of modals ; (epistemic) modals seem to delimit a binding domain:

(301) * / *La seva esperança que [proj parlés amb ell] /*

anava disminuint

(302) * *proj sentien que [proj produïssin una falsa impressió]*

(303) * *Tj' agradava que [proj el consideressis amic]*

(304) / *La seva esperança que [proj pogués parlar amb ell] /*

anava disminuint

(305) *proj sentien que [proj deguessin produir una falsa impressió]*

(306) *Tj 'agradava que [proj poguessis considerar-lo amic /*

(1)- (6)

The explanation to this exceptional behaviour of only epistemic modal verbs is contingent on their analysis as INFL elements. It is assumed that no Tense chain is formed linking the modal with the tense in the matrix clause because the modal in INFL, its head, cannot be anaphorically related to the head of the upper clause. This behaviour is opposed to root modals and aspectuals (307) - (309); the coreference possibilities of their null pronominal subjects are as in (301)-(303):

(307) * *La Isabelj esperava que [proj hi volgués anar /*

(308) * *[La sevaj insistència que [proj la començessin a demolir //
era dubtosa*

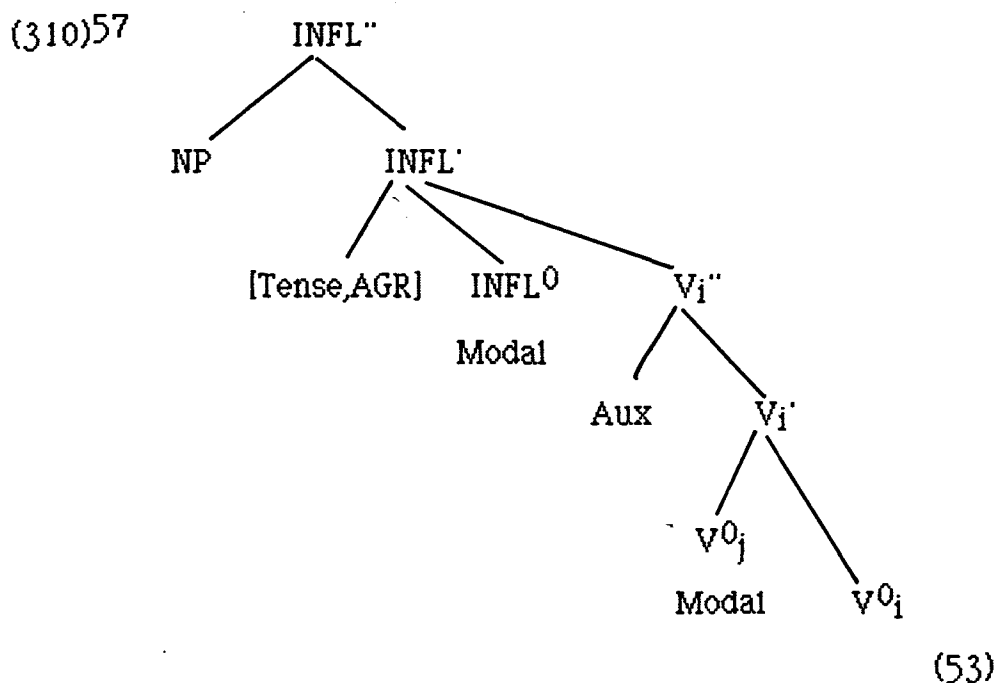
(309) * *En Joanj desitjava que [proj tornés a venir /*

(9),(8),(7)

Since Picallo's reformulation of the binding domain does not bear directly on this thesis I will not review it further, but will proceed to summarize her analysis of modals and aspectual verbs.

The basic insight in the proposal under review is that complexes of restructuring verbs and infinitivals are not bisentential at any level of the grammar; they are monosentential base-generated verbal complexes. Nevertheless, the basic contrast in terms of epistemic vs. root interpretations is accounted for by the possibility of modals of occurring in different positions in phrase structure. This carries over to aspectual verbs, which are analyzed as occupying the same structural position as root

modals verbs. The phrase-structure contains the following positions for modals and aspectuals:



As the subscripts and bar-projections indicate: infinitives in restructuring complexes are the heads of the verbal projection (V_i); root modals (V_j) are adjoined to a verbal projection; and epistemic modals ($INFL^0$) are the heads of INFL. Therefore, modal verbs do not head a verbal projection.

As seen in the preceding sections, the main arguments against a derived analysis for restructuring complexes are based on observations on selectional restrictions. In contrast with Burzio (1986) - who uses these observations precisely to distinguish between Raising and Control - in Picallo (1985), the Raising / Control distinction is seen as irrelevant for restructuring complexes. Firstly, the distribution of *en/ine* cliticization shows that if the structures were analyzed as instances of Control, a violation of the Projection Principle would arise. Secondly, Rizzi (1986) locality condition on the formation of chains shows that modals are not

relevant for the determination of the presence of a derived subject - i.e. of a Raising predicate, as will be seen below.

Selectional restrictions show a distinction between modal verbs: *voler* assigns an external theta-role, but *podre* does not. *Voler* is, thus, analyzed as a Control verb, whereas *podre* is a raising predicate - cf. section 2.3.2.2, Burzio (1986) -. (311) and (312) illustrate this. Nevertheless, *podre* has another reading in which it contributes to the selectional restrictions that must be satisfied by the nominative NP, (313) has a double interpretation. This fact would require a double subcategorization frame for modal verbs. Picallo, instead, argues in favour of a double-position in the phrase-structure, and against a raising or Control analysis:

(311) **Les pedres hiⁱ volen caure [e]ⁱ* (24)

(312) *Les pedres hiⁱ poden caure [e]ⁱ* (25)

(313) *El lladre pogué entrar per la finestra* (28)

The distribution of *en/ne* cliticization shows that in a restructuring complex, the infinitive is the dominant head in terms of thematic structure; therefore, a Control analysis of the modal V is undesirable as the "formal manifestations of the thematic structure" of the modal verb would change - being invalidated by the infinitive - leading to a violation of the Projection Principle. The relevant properties of *en/ne* cliticization are the following: it stands for the head of an N' constituent of a quantified NP which is an internal argument - either a direct object (315) or the nominative subject of an ergative verb (314) -:

(314)a. *Han sortit algunes persones*

b. *Nhan sortit algunes*

c. **Han sortit algunes* (29)

(315)a. *Sempre compra molts llibres el Guillem*

b. *Sempre en compra molts el Guillem*

It is obligatory if there is wh-movement of the specifier of the internal argument:

(316) a. *Quants n'han sortit*

b. **Quants han sortit* (30)

It is disallowed when the quantified NP is in preverbal position independently of the status of the NP - internal / external -:

(317)a. **Algunes n'han sortit* (31)b.

b. **Alguns n'han dormit* (32)b.

It is disallowed when the postverbal quantified NP is not an internal argument, but a postposed external argument:

(318)a. *Parlaven molts nois*

b. **En parlaven molts* (33)a.,b.

(319)a. *Volien llibres alguns amics teus*

b. **En volien llibres alguns* (34)a.,b

The distribution of this phenomenon depends on the external theta-role assigning properties of the verb: it is only allowed if the postverbal NP is not an external argument. The distribution of *en/ne* cliticization in restructuring verbal complexes is incorrectly predicted if the modal verbs are assumed to be verbal heads imposing their selectional restrictions on the arguments of the verbal complex - i.e. Control predicates -; the facts

bear out Picallo's analysis of modal verbs as non-heads and infinitive "complements" as the heads of the verbal complex. *en/ne* cliticization is allowed only if the infinitive is an ergative - independently of the nature of the restructuring verb as an ergative, Raising or Control predicate -:

- (320)a. **Quants teⁱ n'arribaren a escriure cartes [e]ⁱ*
 b. *Quants tⁱ 'arribaren a escriure cartes [e]ⁱ* (40)

- (321)a. **Hiⁱ tornaven a créixer moltes [e]ⁱ*
 b. *Nhiⁱ tornaven a créixer moltes [e]ⁱ* (41)

- (322)a. **Quants teⁱ n comencen a escriure cartes [e]ⁱ*
 b. *Quants etⁱ comencen a escriure cartes [e]ⁱ* (42)

- (323)a. *Nhiⁱ pogueren entrar sis [e]ⁱ*
 b. **Hiⁱ pogueren entrar sis [e]ⁱ* (44)

- (324)a. *Quants n hiⁱ volien arribar [e]ⁱ*
 b. **Quants hiⁱ volien arribar [e]ⁱ* (45)

Cliticization is only allowed of internal arguments, so if the only argument of a verb is *en/ne* cliticized, the verb must be ergative. Nevertheless, Control verbs like *voler* require *en/ne* cliticization as in (324). The contradiction is that in restructuring constructions, Control verbs behave semantically like Control verbs, but syntactically like Raising predicates. As was pointed out above, this is interpreted as a violation of the Projection Principle. Picallo follows Zubizarreta (1982) in attributing to these modal verbs the function of secondary or adjunct predicates, although she diverges from this proposal in not granting modals a double simultaneous structure - cf. section 2.3.1.3 for the equivalent proposal for causatives -.

Before considering the adjunct-predicate status of root modals, I will briefly mention how Picallo invalidates a raising analysis of some modals by referring to Rizzi (1986) locality condition on chain formation. Configuration (325) is ungrammatical by condition (326), which disallows interruption of a chain by coindexed elements:

(325) **NP_i... c_i... [e]_i... [e]_i* (57)

(326) $C = (@_i, \dots @_n)$ is a chain iff $1 \leq i \leq n$

$@_i$ is the local binder of $@_{i+n}$

(i) $@$ is a binder of β iff , for $@, \beta =$ any category,

$@$ and β are coindexed and $@$ c-commands β .

(ii) $@$ is the local binder of β iff $@$ is a binder of β ,

and there is no \forall such that \forall is a binder of β , and

\forall is not a binder of $@$. (66)

It accounts for ungrammatical structures with anaphoric clitics and NP movement - i.e. in configurations with derived subjects -, such as (327) and (328):

(327) **Els nostres amics_j es_j foren presentats [e]_i [e]_i* (58)

(328) **El Joan_j es_j sembla [e]_i intel·ligent [e]_i* (62)

(329) shows that analyses of modal verbs as raising predicates are not consistent with the locality condition on chains; contrary to predictions of these analyses, an anaphoric clitic in a restructuring construction is allowed:

(329) *En Joan es deu afaitar*

(230) *En Pere i en Gerard es deuen considerar intel·ligents* (67)

The condition on chains is not violated if epistemic verbs are generated in INFL - as in (310) above - and not considered raising predicates. As with *en/ho* cliticization, the infinitive is shown to be the head which determines the argument structure of the complex. Anaphoric clitics are not allowed in structures with a modal and a non-external theta-role assigning predicate:

(331) **En Joanj esj devia semblar [e lj intel.ligent [e lj* (71)

(332) **Els teus amicsj s'j havien de ser presentats [e lj [e lj* (72)

(333) **En Joanj esj podia semblar [e lj un geni [e lj* (73)

The parallel behaviour of aspectuals implies that these are not raising predicates either:

(334) *En Joanj esj començava a afaitar [e lj*

(335) *En Joanj esj solia afaitar [e lj* (74)

(336) **Els meus amicsj esj començaven a ser presentats [e lj [e lj*

(337) **En Joanj esj solia semblar [e lj intel.ligent [e lj* (75)

On the basis of the fact that they do impose restrictions on the nominative subject (338b. vs. 339b), but that they are within the VP when they have a root interpretation (340a.), root modals are granted an internal VP position as in (310) above. Note that the fact that they are within VP is argued on the basis of the distribution of aspectual markers with modals. Modals only have a root reading if they are preceded by aspect markers (340a), if they are followed by aspect markers, then they may only have an epistemic reading (340b):

- (338) a. *El quadre em va impressionar*
 b. **El quadre em va voler impressionar* (149)
- (339)a. *En Joan em va impressionar*
 b. *En Joan em va voler impressionar* (150)
- (340)a. *En Joan ha pogut anar al cinema*
 b. *En Joan pot haver anat al cinema* (87)

Since perfect aspectual markers preceding modals bar their epistemic reading, the selectional restrictions of modals in such configurations must be kept - Note that, as adjunct predicates, they do impose them. (338)b. and (341) below show that the selectional restrictions on the nominative NP imposed by modal and infinitive must coincide:

- (341) **Havia pogut ploure tot el dia* (91)

Aspectual verbs have a parallel status as root modals although they do not impose selectional restrictions on the nominative subject. They nevertheless modify the infinitive they occur with; they have an adverbial function. Note the ambiguity of (342)-(345): the aspectual verbs may either have a motion verb interpretation - as main verbs -, or stand for a non-predicative, adverb-like expression - future marker, iteration of action, etc. In the latter sense they specify certain aspects of the predicate which auxiliaries do not, and thus they are modifiers of the head.

- (342) *Anava a dir-te el que va passar*
 (343) *He tornat a felicitar-la*
 (344) *Va venir a dir-me que no li interessava*
 (345) *Ha arribat a molestar-la*

The interaction of aspectual verbs - VP elements - and modals, like aspect markers, indicates that root modals are VP elements. When aspectual verbs precede a modal, the latter may only have a root reading (346). An aspectual preceding *deure* - which may only have an epistemic reading - is not possible (347). The reverse order is possible (348):

- (346) *Tornava a poder tocar el piano* (97)
 (347) **Tornava a deure tocar el piano* (99)
 (348) *Devia tornar a tocar el piano* (100)

Several other predictions follow from the analysis just sketched. One of these is the fact that only the first modal in a sequence of modals may have an epistemic reading. - Note that this is a difference between English and Romance, as a sequence of modals is impossible in English-:

- (349) *La Núria deu poder tocar el piano* (101)
 (350) *En Jordi pot haver de solucionar aquest assumpte molt aviat*
 (109)

This is what is predicted if epistemic modals are analyzed as INFL elements; there is only one slot in the structure for it. Note that (347) is also explained by this: *deure* is an epistemic (only) verb, consequently occupying the only INFL position in the structure; no other modal may precede it because there simply is no position for it. If *deure* is followed by a modal, the latter must be interpreted as a root modal. (351) is ruled out because the selectional restrictions of *poder* are not met; in other words, the selectional restrictions of the infinitive and the modal do not coincide.

(351) **Deu poder ploure*

The fact that epistemic verbs in Catalan do not have infinitive or gerund morphology, whereas root verbs do is another phenomenon explained by this analysis, together with the assumption that the licensing condition on epistemic modals is that they must be linked to morphological tense. This is assumed to be true of all epistemic notions as possibility or necessity, which must be relative to a given time. Licensing may take place either under the relation predicate-argument ("the modal constituting a property of the time-frame expressed in the sentence"), or operator-variable ("the value of the variable being determined by the features [+/- PAST]"). The following illustrate the fact that if they have infinitival or gerund morphology, modals may only have a root reading, in other words, that epistemic modals must bear tense:

(352) *Ignoràvem com / PRO poder expressar-li el que sentíem /* (110)

(353) */ PRO podent dedicar-te exclusivament a això / no entenc
perquè no ho fas*

(111)

This observation does not hold for English, a fact which may follow from morphological constraints given the fact that English modals lack infinitival and participial morphology.

Strozer (1981)

Strozer proposes an alternative to the restructuring rule in Rizzi (1982a) which implies a base solution. She argues that a base solution is preferable and that, apart from theoretical problems that the restructuring

rule poses, there are also empirical inadequacies. The fact that there are verbs that show a double subcategorization is taken as an argument in favour of a possible VP-complementation; the assumption that most infinitives are clauses is not affected by the fact that a very limited set of verbs take VP-complements. The following examples show that there is a difference in meaning, and thus a plausible double subcategorization, which in turn counts as evidence for a VP-subcategorization. The Italian example does not display a difference in meaning and, thus, is assumed to be a simple sentence:

- (354) a. *Ana volvió a [VP empezar a copiarla]*
 b. *Ana volvió (allí) a [S NP empezar a copiarla]* (8)(9)

- (355) a. *Gianni deve [S presentarla a Francesco]*
 b. *Gianni [V la deve presentare] a Francesco*

Strozer claims that there is no strong evidence to posit a bisentential analysis for sentences like (355); that there are other reasons that may account for the ungrammaticalities observed by Rizzi - cf. 2.3.2.1 -, which he interprets as being evidence for constituency. An example:

- (356) a. *Questi argomenti, a parlarti dei quali verró al piú presto,
 mi sembrano molto interessanti*
 b. **Questi argomenti, a parlare dei quale ti verró al piú presto, ...*

The ungrammaticality of this sentence could be due to the fact that the trace of the clitic is not properly bound. (357) seems to be ungrammatical due to restrictions on the breaking up of constituents by a

locative PP, a restriction which could also be at work in ungrammatical sentences where Rizzi claims restructuring has applied (358):

(357) * *Lo ho a Firenze messo al corrente della nostra decisione* (20)

(358) a. *Fra qualche giorno, verrò ad esporti la mia ide a Firenze*

b. *Fra qualche giorno, ti verrò ad esporre la mia idea a Firenze*

c. * *Fra qualche giorno, ti verrò a Firenze ad esporre la mia idea*

Thus, the tests used by Rizzi fail to provide evidence for restructuring if other reasons are found that could explain the ungrammatical examples.

What the VP-hypothesis shares with restructuring is that it also applies to a small class of verbs, assumed not to be subcategorized for clauses. The basic difference is that phrase-structure rules directly generate the simple sentences in which restructuring complexes occur. According to Strozer, the greatest shortcoming to restructuring is that the cyclic transformation posited by Rizzi is too powerful in that it changes structure throughout the derivation. The advantage of a base-generation account is that no other extra device is needed.

2.4 An alternative theory: Guéron and Hoekstra (1988)

Guéron and Hoekstra (1988) (G&H) addresses the problem of verbal complementation. They redefine the concepts of *lexical* and *auxiliary* verb and establish sets of verbal elements all characterized by their ability or inability to mark their complements with a specific feature (a T-index), or assign them certain properties (a theta-role, or a T-role). Their characterization of verbal elements makes crucial use of the notion of LF and the fact that complements must be either arguments or (parts of) predicates. In their framework, complements are *constructed* in LF as nominal or verbal - i.e. as arguments or as (parts of) complex predicates. By doing this, they formalize and extensively argue for the idea that auxiliary verbs have verbal complements - VP - whereas lexical verbs have nominal complements - NP, CP -. The selection of a verbal complement is not problematic; they draw upon the notion of sisterhood in Chomsky (1986b) - cf section 1.2.2 - , where functional nodes do not count, and thus a V will lexically select a VP even though functional nodes intervene. Proceeding in this fashion, though, they come up with sets that differ substantially from previous classifications - basically, they classify causative verbs as auxiliaries, and modal verbs as having this option in certain languages -. Their characterization is achieved by the introduction of formal mechanisms (T-marking, T-chain, T-role ⁵⁸), which basically define the circumstances under which a V may select a VP. The grouping of verbal items as different types of verbs with very specific properties - some of which may be subject to language variation - leads to a very constrained, and compact theory on the complementation of verbal items.

G&H consider that the verbal or nominal nature of a projection is not to be determined solely by the categorial nature of its head, but that syntactic context plays a crucial role. An XP may be nominal or verbal depending on the categories that dominate it. They propose the following LF construal for complements:

(359) *Functional Determination of Categories (FDC)*

a. External

An XP is construed as a nominal projection iff it is casemarked

An XP is construed as a verbal projection iff it is T-marked

b. Internal

The subject of a nominal projection receives a Case which is determined internal to XP; the subject of a verbal projection receives Case (if any) determined by an external governor

(1)

Nominal projections are, thus, casemarked; their independence follows from the fact that their subject is internally licensed - this includes Genitive in NP and also Nominative in CP, as will be seen below - . Verbal projections are not independent, they are part of complex predicates; they are licensed by T-marking - *Tense-marking* - , which is a property of auxiliary verbs only. This property is the formal instantiation of the fact that auxiliary verbs, unlike lexical verbs, never denote an event, they modify the event denoted by a VP. This event is situated in time by Tense, and this is referred to by G&H as T-marking; the assignment of a T-index. Lexical verbs may be T-marked in two ways: a) by Infl if it contains tense - it is assumed that every CP introduces a new T-index ; and b) by an auxiliary, if there is one. Auxiliaries may alternatively pass on the T-index

assigned by a higher auxiliary or by Infl. Lexical verbs absorb the Tense value assigned to them and this becomes part of the reference of the VP which they head - and are the semantic head of -. Hence, the first basic distinction between lexical and auxiliary verbs is that lexical verbs *absorb* a T-index, and auxiliaries *assign* it. Note that it follows from the FDC above that auxiliary verbs will always govern a verbal projection, and that lexical verbs will not because they are not T-markers. Moreover, VP projections that are not T-marked will not be licensed, and, therefore, will give rise to an ungrammatical configuration. Although G&H do not explicitly make the parallel, VPs are subject to a "T-marking" Filter as NPs are subject to a Case Filter. Only T-marking of a VP will identify it as a verbal projection at LF.⁵⁹ Examples (360) and (361) are not possibly identified as such because the lexical verb *croire* cannot T-mark them. Examples (362) and (363) are identified as verbal projections because an auxiliary verb governs them - *avoir* in (362), *laisser* in (363):

(360) * *Je croyais Marie partir*

(361) * *Je croyais Marie aimée par Georges* (17)f.,d.

(362) *J'ai vu Pierre*

(363) *Elle laisse les enfants partir* (19)

The following example instantiates how an XP may be interpreted as nominal or verbal depending on the context:

(364) *Eu lamento [XP os deputados terem trabalhado pouco]*

(365) *Eu lamento [XP] terem*

[XP2 os deputados tj trabalhado pouco]

(7)a.,b.

The verb *lamentar* in Portuguese is assumed to optionally assign case to its complement. From the FDC, if it assigns case then its complement will be interpreted as nominal; if it does not, as verbal. In (364), *lamentar* assigns case to XP so it is nominal. As such, its subject must receive case determined within the XP. This is the function of the inflected INFL in Portuguese : it assigns Nominative case to the subject via subject-Infl agreement. The structure of (365) is the result expected if we assume that *lamentar* does not assign case and thus the XP must be interpreted as verbal. This is assumed to follow from the fact that there is no Spec position to the left of the head of the complement. If there is, the structure is as in (364). As a verbal projection, the XP in (365) needs to be T-marked, but since *lamentar*, a lexical verb cannot T-mark it, *terem* moves to Comp - or alternatively adjoins to VP in LF - and identifies the complement as a verbal projection. XP1 and XP2 are analyzed as two segments of the same projection because they share a head, *terem* - cf. Chomsky 1986b -. The LF of (365) is :

(365') *Eu lamento [VP1 terem] [VP2 os deputados t_i] [VP3
trabalhado pouco]* (9)b.

where VP1= CP , VP2=IP and VP3=VP in the syntax; in LF they are all interpreted as part of the same projection. The subject of the embedded clause is assigned case under government by the raised auxiliary. The identification of the subject is, thus, external - cf. (359), FDC - and not internal by subject -Infl agreement as in (364). This is basically G&H's account of Aux-to-Comp (Rizzi 1982c). The same factors apply to the sequences that Rizzi considers in Italian:

(366) *Suppongo [VP₁ non esser]_i [VP₂ lui t_i in grado di
affrontare la situazione]]]* (14)

The lack of structures equivalent to (364) in Italian is assumed to be the consequence of a difference in the infinitival morphology of the two languages: Italian lacks a T-morpheme capable of assigning nominative case. The lack of both of these structures in French follows if it is assumed that French infinitival morphology also lacks this possibility, plus the fact that the infinitival affix is too weak to assign nominative case to its own subject by government, as is the case in (365') and (366). (367) contrasts with (364), and (368) with (365') and (366):

(367)* *Il regrette les députés avoir travaillé peu*
(368)* *Je crois avoir les députés travaillé peu* (15)b,c.

Several other basic assumptions are crucial in the framework of G&H. Proper government is subsumed by antecedent government - proper government is a function of chains (Chomsky 1986b) - and, thus, a link in a chain will properly govern the link following it if there are no barriers intervening. T-marking can void an XP of barrierhood (T-marking in G&H is equivalent to L-marking in Chomsky (1986b)), so T-marking of a VP will imply that the VP is not a barrier for an empty category in need of proper government inside the VP - unless other factors hold, such as minimality, as will be seen below. Note that certain consequences follow from this: movement out of a VP is allowed - T-marking of VPs is a requirement -, not out of a CP - a CP is never T-marked and case-marking is not identified

with L-marking. This is of crucial importance in their account of modal structures and clitic climbing possibilities, as will be explained below.

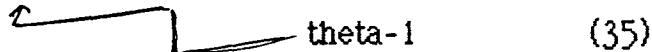
The process of T-marking forms a T-chain : (where k= the T-index assigned by Tense)

$$(369) T^k - [aux^k] - [VP_k V^k] \quad (121)$$

The concept of T-chain provides a formalization of a specific syntactic domain where the formation of a path provides a way for feature percolation. Assuming that the external theta-role originates in the V and is assigned to the external NP via INFL by subject-agr agreement , the following example shows how theta-role percolates from the VP through an auxiliary which is a link in the T-chain. This auxiliary is assumed to have specific properties, as will be explained below. The external theta-role reaches the NP-subject via I:

(370) *John has seen Mary*

John [I [VP has [VP laughed]]]




(35)

There - structures and unaccusatives are instances of percolation of Nominative case:

(371) *There is a problem*

There [T^k [be^k [a problem]]]



(125)

Nominative case percolates through the T-chain and is assigned to the postverbal NP (it bears Nominative case because it determines the form of the verbal inflection).

(372) *Ne sono arrivati molti*

$T^k ne_j sono^k [e_j arrivati^k [NP_j molti e_j]$

NOM (129)

As (372) shows, clitics climb within the T-chain, in the domain in which features percolate. G&H show that clitic climbing and NP-raising are possible within a T-chain because of the government and barrierhood voiding properties of chains. A crucial fact about chains is that they may be extended by Spec-Head agreement. G&H's account of passive relies on this:

(373) $NP_j I+be_j [VP_1 V_j [VP_2 V_2 t_i]]$

John was killed

where $i=j$ by SHAG (Specifier-Head Agreement) (74)

In such a structure, the trace of the raised NP is properly governed by antecedent government. The verbal elements all share the same T-index by virtue of the T-chain formed by T-marking. The chain is extended because of SHAG which results in the proper government of the trace since the other links in the chain share its same index⁶⁰. Note that if V2 would have another index by subject-head agreement within the VP, then minimality would block the proper government of the trace - cf. (375) -.

The same process allows clitic climbing in structures where extended chains are created:

(374) *Il lui est fidèle*

$Il_i lui_{j+1}^k [VP-k est^k [AP t_i fidèle e_j]]$ (83)a.

Note that the AP must be interpreted as a verbal projection - a predicate -since it is T-marked by the verb, and as mentioned above, it follows that movement out of verbal projections is allowed. The trace in object position is antecedent governed by the adjective because it bears the same index as its antecedent, and is, thus, a link in the same T-chain . SHAG ensures the identity of $k=i$, and the adjective bears index i by subject-head agreement internal to the AP. Note that the fact that the clitic attaches to I ensures that the clitic and I share the same index - cf. also Chapter 3 and Baker's indexation convention on the X^* dominating incorporated elements -. As G&H point out, proper government of a clitic trace may be blocked by minimality as in the following example:

(375) **Il luij croit / Jean fidèle ej /* (83)c.

Minimality blocks proper government of the clitic trace: the adjective minimally governs it, but it is not coindexed with its antecedent because it shares index with the subject of the AP. There is no raising of the NP-subject of AP, so SHAG does not apply as a way to extend a chain, contrary to what happens in (374) above. Moreover, the lack of T-marking makes the complement an independent unit out of which extraction is not possible - cf. the SSC -.

The fact that SCs may be IPs in the syntax and contain an INFL node - i.e. the assumption that functional nodes are relevant in the syntax - , allows for the explanation of certain processes. As mentioned above, the

external theta-role is assumed to be assigned by the VP via INFL. If INFL absorbs the case assigned by the selecting lexical verb, by visibility, it will be allowed to "keep" the external theta-role, and to function as a pronominal inflection. Causative structures in French exemplify this phenomenon. G&H provide evidence to show that the complement of a causative verb is, in fact, a VP, and thus the causative verb must be an auxiliary (cf. below):

(376) *Je ferai [IP] [VP lire ces livres] // V-to-I*

TH-1 TH-2

Je ferai [IP lire_j] [VP t_j ces livres] //

Je [VP₁ ferai] [VP₂ lire_j] [VP₃ t_j ces livres] /// LF

TH-1 TH-2 (178)-(179)

Linked with the fact that lexical verbs are the only verbal elements that may have nominal complements is the fact that they are the only ones that may assign theta-roles. An XP is nominal only if it is assigned a theta-role. Auxiliaries do not assign theta-roles, but they may assign Tense-roles (T-roles)⁶¹ to their complements. Auxiliaries which assign T-roles select a VP with an independent tense. This creates a bifurcation of auxiliaries into two different types: T-auxiliaries (those that assign T-roles) and neutral auxiliaries (those that do not assign T-roles). T-auxiliaries govern a VP with an independent Tense-morpheme. Neutral auxiliaries combine with the Tense-morpheme of their complement to form a complex tense and define the tense of S. BE is assumed to be a T-auxiliary; HAVE a neutral auxiliary. T-auxiliaries and Neutral auxiliaries show systematic properties that justify their classification into two distinct classes. One of such properties is that only neutral auxiliaries allow the percolation of the

external theta-role assigned by the VP to the subject. T-auxiliaries do not. T-auxiliaries, thus, involve Raising or Control whereas neutral auxiliaries involve VP complements with no subject position and direct percolation of theta-role to matrix subject position. (12) above illustrates percolation over a neutral auxiliary, *have*. A passive structure like (15) illustrates no external theta-role percolation over the auxiliary: the external theta-role is assumed to be assigned to the verbal affix of the participle. The causative structure (18) also illustrates a T-auxiliary structure where all theta-roles are assigned within the complement of the auxiliary - via the pronominal Infl.

The observed correlations between T- role assigning properties of auxiliaries and thematic relationships, make G&H unify them under a specific notion, Complete Thematic Constituent:

- (377) An XP which is assigned a T-role is a Complete Thematic
 Constituent (CTC): all theta-roles associated with X, the head of XP,
 are assigned internal to XP (34)

This also captures the idea that tense is an operator on a theta-domain. The identity of both domains is illustrated by a number of syntactic processes. Note that precisely the examples mentioned to illustrate theta-role percolation/ non-percolation illustrate the concept of CTC: the complement of a passive (373) is a CTC: all its theta-roles are assigned internally- *be* is a T-auxiliary and assigns a T-role - ; the complement of a causative (376) is a CTC: all its theta-roles are assigned internally- *faire* is a T-auxiliary and assigns a T-role-. The complement of the auxiliary *have* (370) is not a CTC: it is a neutral auxiliary ; the external theta-role is percolated onto the matrix subject position, and the resulting

tense is complex - a complex past- as a result of the combination of both Tense-morphemes .

The grouping of auxiliaries into two different classes and the postulation of constraints based on their properties, accounts for a problem essentially left unexplained in previous analyses: the fixed order of auxiliaries as well as their distribution - cf. section 2.1, and 2.2.2. G&H postulate the following two constraints:

(378)a. A T- chain may not contain two auxiliaries of the same class

b. Neutral auxiliaries precede T-auxiliaries (40)

If auxiliaries are assumed to have a function in terms of assigning a T-role - only T-auxiliaries -, then a. follows from the assumption that there should only be one auxiliary with a specific function in a T-chain. - in other words, that auxiliaries with the same syntactic function are in complementary distribution -. If theta-role percolation is only allowed by neutral auxiliaries then b. follows because the opposite order is impossible: a T-auxiliary would block the external theta-role percolated through a neutral auxiliary on its way to the matrix subject position. The following examples illustrate violations of (378)a. and (378)b. :

(379) * *Je fais avoir travaillé Marie* b.

T-aux/ neutral (25)b.

(380) * *John was have seen* b.

T-aux/neutral (41)a.

(381) * *Mary made John have played with the baby* b.

T-aux/neutral (41)b.

- (382) * *Mario lo avrebbe dovuto aver finito* a.
 netural/ neutral (216)b.
- (383) * *Il est été vu* a.
 T-aux/T-aux (27)a.
- (384) * *He is been seen* a.
 T-aux/T-aux (27)b.

The characterisation of auxiliaries is subject to language variation, as will become clear in the summary of G&H' s account of modal complement structures. This characterisation, though, is also subject to variation within the same language; the same lexical item may be a neutral or a T-auxiliary depending on the context , as is the case with *have* in English:

- (385) *John has burned his house* Neutral aux
 (386) *John had his house burned* T-aux

Causative and modal verbs:

G&H classify Italian, French and English causative verbs as auxiliaries on the basis of three basic facts: they can intervene between a raised object and an extraction site (387) and (388) - only auxiliaries "continue" a T-chain, and, thus make the proper government of the trace possible - ; they can bear the value of tense required for VP anaphora (389), which is assumed to be a property of auxiliaries ⁶² - cf. section 2.1, no. 6 -; and they take bare infinitives (32), which are assumed to be VPs as opposed to "to-infinitives" -:

(387) *Je l'ai fait voir*

(388) *I libri furono fatti leggere* (173)a.,b.

(389) *Jean a acheté du pain ce matin et Pierre le fera ce soir* (174)b.

(390) *They let John leave* (175)a.

English *make* / *let*, and French *faire* are structural case assigners so they may case-mark the subject of the VP complement. Note that by being T-auxiliaries, they assign a T-role to their complement and give it the status of a CTC, whose external theta-role is assigned within its VP-projection. :

(391) *We made/let / the warden hang the prisoners /*

(392) *Nous avons laissé / le gardien prendre les prisonniers /*
(176)b.,c.

For French *faire*, as explained for (376), case is absorbed by INFL and the external theta-role is assigned to it. As (393) shows, clitic climbing is possible in causatives in French, as follows from the assumption that they are auxiliaries, they take a VP, and that extraction is only possible out of a (T-marked) VP:

(393) *Je T^k les_j ferai^k / lire^k e_j /* (183)

Modal verbs are assumed to be always auxiliaries only in English - not in French, nor Italian -. Root modals can function as both, auxiliaries and lexical verbs in Italian and French. In French they raise to INFL in infinitival structures like auxiliaries and unlike lexical verbs - cf. Pollock

(1987), and Chapter 4, sections 4.2, and 4.3 -. The following contrast seems to imply that they are T-markers:

- (394) a. ? *Il pensait ne pouvoir_j [VP pas t_j dormir ici]*
 b.* *Il pensait ne croire_j [VP pas t_j aux histoires de fantomes/*
 (191)d.f.

Their ability to allow VP anaphora is also evidence for their auxiliary status:

- (395) a. *Pierre voudrait accorder le piano mais il ne peut./veut./doit*
pas
 b.* *Pierre voudrait accorder le piano mais il ne décide./croit pas*
 (192)

In Italian, there are also two possibilities. Nevertheless, as Italian allows clitic climbing in modal complement structures, the different function of the modal verbal element may be contrasted with respect to this structure, which is not possible in French. When modal verbs are lexical, they assign case to their complement identified as a nominal projection. The subject position is, thus, not case assigned from the outside, and the external theta-role of the embedded verb is taken up by PRO in Spec-IP position. It is a Control structure:

- (396) *Mario vuole [IP PRO [I' [VP leggere il libro]]]*
 TH-1 TH-1 (193)b.

If the modal functions as an auxiliary, the case that it assigns is absorbed by AGR in INFL, which then may bear the external theta-role of the embedded verb. The pronominal argument inflection is subject to

Control from the matrix subject. The auxiliary assigns a T-role to its complement and the CTC requirement is satisfied:

- (397) *Mario vuole [VP leggere_j [VP t_j il libro]]*
 TH-1 TH-1 (194)b.

Clitic climbing is only allowed in a structure like (397) because the trace of the clitic is a link in the unique T-chain which includes all the verbal elements in the sequence. The embedded verb properly antecedent governs the trace, as was exemplified above in the French causative structure (376):

- (398) *Mario lo_j + vuole^k [leggere^k e_j]* (196)b.

Clitic climbing is not possible in a structure like (396) because there are two T-chains in the structure; the lexical modal verb does not T-mark its complement, so each of the subjects is the subject of a distinct T-chain. This invalidates a structure like the following.⁶³

- (399) *Mario I^k lo_j + vuole^k [PRO [Iⁱ [leggereⁱ e_j]]]* (195)b.

G&H explain the fact that French modal complement structures equivalent to the Italian structures do not allow clitic climbing by making reference - following Kayne (1987) - to the properties of AGR in INFL: only the AGR of pro-drop languages may function as a syntactically active pronominal argument. Note that the fact that it functions as a pronominal inflection is not only a characteristic of pro-drop languages - cf. French causative structures (376) -, what is is the fact that it is a pronominal

argument subject to syntactic processes such as Control, which is assumed to be the case in (397), as implied by the fact that the infinitival and the matrix subject have the same theta-role. This process is assumed to be what defines INFL as an A-position; French needs the Spec-IP position. The lack of such a possibility explains the lack of structures like (397) and (398) in French.

This account is problematic for English, which is not a pro-drop language and its modals take a VP complement. G&H attribute this to the fact that there is a strong verbal affix in modals, which may function as the external argument of the VP it governs. In (400), the modal assigns its external theta-role to the matrix subject, while it takes the external theta - role of the embedded VP - its verbal affix having inherent case -:

(400) *John_j / must / VP examine his patients /*
 TH-1 TH-1_i TH-2 (203)

Epistemic modals in English are also auxiliaries, in French they are lexical verbs, and in Italian they may be both. The contrast between (401) and (402) shows that they are different in French and Italian:

(401) * *Jean_j / la_j devrait^k / PRO_j IP voir P t_j* (206)b.
 (402) *Gianni_j / lo_j deve^l / agr vedere^l e_j* (205)b.

The French modal assigns case to its complement; it is interpreted as a nominal projection with an internal subject. Raising would be blocked by minimality, as in the Italian structure (399). In the Italian example, (402), AGR in INFL absorbs the case assigned by the modal and functions as an expletive pronoun. Proper government of the trace is not blocked because

vedere, the nearest link in the chain shares indices with the antecedent of the trace by virtue of the fact that the matrix auxiliary, which bears the clitic, T-marks it.

The avere -> essere rule

The non-rigidity of the properties of verbal items - i.e. their ability to have them or not - is basic in G&H's account of the avere--- essere rule which, as has been shown in section 2.3.2.1, applies in clitic climbing structures after restructuring:

- (403) a. *Maria ha voluto venirci*
 b. *Maria ci è voluta venire* (169)

It is assumed that Italian *essere* as opposed to French *être* has the possibility of refraining from assigning a T-role, but still preventing theta-role percolation. There is, thus, a neutral *essere* in Italian. This property of *essere* is illustrated in several processes some of which draw upon the theory internal restrictions on the order of auxiliaries. Neutral *essere* may precede a T-auxiliary, as opposed to French *être*:

- (404) a. *Maria è stata invitata*
 b. *Marie a été invitée* (165)a.
 (405) a. *I libri furono fatti leggere*
 b. * *Les livres furent / ont été fait lire* (165)c.

Italian *stare* is a T-auxiliary which may be preceded, not followed, by *essere*.

(406) *Essendo Mario stato torturato* (166)b.

(407) **Mario stava essendo bastonato* (167)

The account of the rule of *avere* -- *essere* draws upon the assumption that modals are T-auxiliaries in clitic climbing structures, and the fact that *essere* may be a neutral auxiliary- and thus precede a T-auxiliary - while not allowing the percolation of the external theta-role assigned by the VP. The complement of the modal is a CTC, and all theta-roles are assigned internally. It is a raising structure:

(408) *Maria_i [VP₁ c_{ij} è [VP₂ e_j voluta [VP₃ venire e_j]] e_j]*
(170)b.

In non-clitic climbing structures, the choice is *avere*, which allows the percolation of the external theta-role when the modal is a lexical verb. The complement of the modal is a nominal projection. It is a Control structure:

(409) *Maria_i [VP₁ ha [VP₂ voluto [CP PRO_j venire e_j]]]* (170)a.

In French, there is no auxiliary change although there is a marginal structure where clitic climbing is permitted (Kayne 1987):

(410) ? *Jean y a voulu aller*

(411) **Jean y est voulu aller* (172)

This follows from the difference between *être* and *essere*; the French auxiliary is always a T-auxiliary, thus, the only auxiliary which may precede other auxiliaries in French is *avoir*.

2.5 A few remarks

The inevitable changes in the model have led to the invalidation of some of the mechanisms used in the sketched proposals. In other words, pre-GB proposals are often invalidated because they imply a violation of GB principles. This is the case, as already observed, with the first attempt to explain the peculiar nature of "half-blooded" verbs by restructuring, which was deemed no longer tenable as it led to a violation of the Projection Principle, modifying the lexical properties of the verbs throughout the derivation. The same can be observed for the first attempt to explain the behaviour of causative predicates; i.e. Kayne (1975) - as noted in section 2.3.1.0 -. Burzio (1986) discusses the proposal - cf. 2.3.1.2 - and rephrases aspects of it. Quoting Burzio: " This is an obvious weakness, given Kayne's extensive and convincing discussion of the similarities between passives and FP. *This weakness arises from the inability of the ST framework to separate the three properties of passives, as is rather clear from Kayne's own discussion* " (p. 256) (italics mine).

Nevertheless, Burzio (1986)'s VP movement analyses are also dubious. Although they are independently motivated for certain constructions - cf. 2.1. and preposing structures -, there seems to be no direct motivation to posit such a mechanism in either C- or M-A sequences. The basic proposal in this work necessitates several ad hoc mechanisms such as " Subject Substitution " - cf. section 2.3.2.2 -; does not provide a trigger for VP movement; nor does it establish and license the exact landing site for the moved VP. See Chapter 3 - section 3.3.2 - for another VP movement analysis - at LF - by Baker (1988) and - section 3.4 - for some criticisms of this proposal.

VP complementation for complex predicates must confront strong arguments in favour of a clausal status of the node dominating the verbal complement - cf. especially section 2.2.1 -. It will be explained in section 3.4 - see also 2.4 - how the alternative theory proposed by Guéron and Hoekstra (1988) allows for a preservation of clausal complementation of most instances of VIs in complex predicate structures in the syntax, while it *construes* them as VPs in LF. In this fashion, it reconciles VP complementation proposals and the strong syntactic clausal complementation arguments.

The simultaneity of two parallel structures must face the assumption that principles hold at different levels but both structures are present at all levels. Principles requiring a monosentential structure - such as Binding - will obviously be violated by the other, bisentential, yet simultaneous structure. If mechanisms are found that avoid this - inevitably undesirable - consequence, I believe they should be assumed.

Adjunctions to V' proposed for adjunct predicates- as in Picallo (1985) - are not independently motivated, and shown inviable in Chomsky (1986b) - cf. 1.2.2 -: adjunctions are only allowed to X⁰ or XP, not to X'. Although, as noted in section 2.3.2.3, Picallo (1990) adjoins root modals to VP, and not to V'. The proposal for root modals differs from the hypothesis for epistemic modals, for which a VP complementation seems to hold, and for which I will tentatively argue for in Chapter 3.

Other mechanisms such as thematic rewriting rules and reanalysis may be accounted for in the light of the present theory in ways not exclusively needed for these processes. Such ways include chain formation, - which may apply to verbs in a sequence as shown by G&H -, and head movement. Together with these, one might explore the importance of LF as a way to explain the peculiar behaviour of some verbs in a sequence - in

line with G&H, as mentioned -. The possibility of consecutive VPs - cf. section 3.3.1.2- is , at present, not necessarily problematic to the principles of grammar.

Explanatory adequacy - and, thus, independent motivation for the chosen mechanism - will be the guiding lines to the approach adopted in Chapter 3.

Before bringing in the main hypothesis in the thesis, though, I would like to point out some other (apparently) problematic facts which arise in view of the proposals sketched for complex predicates. These are not theoretical but empirical facts from Catalan and Spanish. There are verbs which are not traditionally classified under M-A nor C-predicates and which, nevertheless, allow clitic climbing. The following illustrate this phenomenon:

(412)a. *Ho semblava entendre tot*

b. *L' ha aconseguit seduir*

c. *L' ha decidit trucar*

(413)a. *La intento convencer*

b. *Lo deseaba ver*

c. *Lo pretendí ridiculitzar*

It must be noted that not all speakers find these fully grammatical, but the fact that most speakers do, indicates that whichever mechanism is found valid for the formation of complex predicates should apply to these verbs as well. 64

Notes to Chapter 2

(1) I am deliberately leaving aside important studies on the matter which do not follow a generativist view. This has been done in order to keep a coherent presentation of the issue. Moreover, the aim of this thesis is not to compare or contrast frameworks but to put forward an attempt of explanation within one specific framework, as the title implies. Observations made by non-generativist authors such as Palmer , Huddleston, Quirk, etc. have, at certain points, been included.

(2) Modals in English have been traditionally assumed to be a distinct category M and, therefore, generated under a different node Aux or INFL. This issue will be touched upon in several sections in what follows .

(3) In the sections where a specific proposal is summarized, the number next to the example indicates the number in the source.

(4) There are other instances in the language of this same phenomenon with other verbs: *say, stay*.

(5) Although Zagana (1988) proposes a framework where auxiliaries assign specific theta-roles, temporal roles - cf. section 2.2.2 -.

(6) See Chapter 4, section 4.1, Abney (1986), Fukui & Speas (1988) for the use of this argument to grant elements a functional status. A question which arises within the present framework and which is briefly touched upon in Chapter 4 is whether auxiliaries may be generated in functional nodes.

(7) In languages with other choices for the head parameter, this order may be reversed; e.g. Basque: *Maitaak Jon ikusi du* ; where *ikusi* is a non-finite form of the main verb (to see) and *du* is the auxiliary (3sgS - 3sgO).

(8) See sections 2.4 and 3.4 for an attempt to explain the ordering and the distribution restrictions of auxiliaries within the present framework.

(9) The Affix Hopping Rule is valid for English sequences of auxiliaries. Modals in Romance languages differ from modals in English and, as will become clear in later sections, they are not traditionally considered auxiliaries. Even in recent proposals which do consider them auxiliaries - cf. 2.4 -, they are only so considered in certain configurations. See section 2.3.2 for the debate on modals in Romance. In 2.1.2, modals and aspectuals are regarded as having a double nature, the fact which all sections summarized which deal with M-A sequences try to account for.

(10) Note, though, that British English *have* allows for constructions of the type: (i) *have you any children?* . Here, HAVE cannot be considered an auxiliary. See Pollock (1987) for an explanation in the present framework for this special behaviour of British English HAVE.

(11) It must be noted that in the present framework, the concept of *adjunct-predicate* has been posited - cf. Zubizarreta (1982), Picallo (1985),(1990) among others -, which would allow a verb imposing a specific type of selectional restriction not to be a main verb - cf. section 2.3.2.3 -.

(12) I will use the term *clitic climbing* as a general term , bearing in mind that the phenomenon is far from being established. The original work referred to in this section relied on a movement account of clitic placement

because the model then used could account for its distribution on the basis of the Specified Subject Condition (SSC), a condition on transformations which disallowed movement if there was a subject intervening between the extracting site and the landing site - cf. also section 2.3.2 -. An alternative account is to consider clitics as base-generated on the verb (or INFL) and licensing an empty category in their thematic position. - cf. Borer (1984), Burzio (1986), Rosselló (1986), among others.

(13) There are important restrictions with respect to different types of adverbs -cf. especially Jackendoff (1972) -, a type of evidence which I have not considered in this thesis as adverb typology is not, to my mind, directly related to its main proposal.

(14) See Hernanz&Rigau (1984), Belletti(1982) among others, for discussion on this issue.

(15) Examples like (i) and (ii) show that not all main verbs disallow clitic climbing in either Spanish and Catalan. See section 2.5 for some observations on this fact .

(i) *Ho va deixar veure als seus amics*

(ii) *La intentó ver*

See also note (64)

(16) Note that the examples in (g) correspond to an aspectual verb and a modal verb. H&R obviously refer to the contrast shown by auxiliaries as in test 6, which disallow anaphora - cf. Chapter 3 for an explanation of this contrast and main proposal of this thesis.

(17) Note also that most main verbs do not allow Null Complement Anaphora, as pointed out by JM Brucart -p.c.-: (i) **Luis entró finalmente a la fiesta, pero no deseaba*. The fact that the Spanish and Catalan examples in test 6 which are used to illustrate that main verbs do allow VP anaphora, include a clitic; a fact which is obviously not to be disregarded in any explanation of VP anaphora - which is beyond the aim of this study.

(18) Note that there are other structures where two verbs are also consecutive : *En Ramon es dutxava cantant* / *Corria cantando* / *He left laughing at us*. These are accounted for in the literature by positing either a secondary predication or a small clause (cf. Chomsky (1981), Stowell (1983), Williams (1980) among others). Note that these structures often do not imply a sequence of two consecutive verbs: *He left the room laughing at us* / *En Ramon es dutxava cada dia cantant* / *Pepe corria los maratones cantando*. Thus, I will not take these sequences into consideration.

(19) These are not the only possible control structures. I will not consider those which do not involve a sequence of verbs, for instance, interrogative infinitives as: *I wonder who PRO to ask to the party* or cases of non-obligatory Control: *PRO to leave the city during the Olympics would be a very good idea*.

(20) In using the distinction *syntactic* / *lexical passive*, I follow Wasow (1977). By *syntactic passive* I refer to the fact that the NP which has been raised to subject position is not related to the main verb in the lexicon; i.e. it is not one of its arguments. In a *lexical passive* construction, the NP which has been raised is the argument of the matrix verb, as in : *She lost the key* / *The key was lost*. In the Catalan and Spanish examples, the impossibility of syntactic passive implies the raising of a non-argument of

the matrix verb - *croire / creer* -; i.e. it is the external argument of the embedded verb which is raised.

(21) Nevertheless, there are alternative approaches within the present model ; approaches which postulate a base-generated VP node for some infinitival structures. Some of these will be discussed below - section 2.3.-. There is an important alternative within the framework: Guéron and Hoekstra (1988), who grant some infinitival structures a VP status at LF - cf. section 2.3.3.

(22) As already noted in Chapter 1, in the summary of Control Theory, the status of PRO has been the issue of much debate. The so-called PRO Theorem has been argued to follow from other subtheories, thus, the effect of Control to be reducible to other modules. See Manzini (1983a), Borer (1989), Bouchard (1984) among others.

(23) Note that *for*-deletion is not allowed after N or A, only after V: **It is silly you not to call him* / **The desire you to finish your thesis*.

(24) Nevertheless, in the present framework, INFL may be granted certain properties which allow it to function as a pronominal - cf. Guéron & Hoekstra (1988) -, or verbs may be linked in other ways - cf. Picallo (1985) , Zubizarreta (1985). The arguments alluded to in this section, thus, lose strength.

(25) But see section 2.3.2.3 for some monosentential analyses of complex predicate structures within the present framework.

(26) Zubizarreta (1985) uses the term complex verb for a sequence of causative plus main verb; a sequence for which I use the label complex predicate.

(27) I include modals in the examples for completeness, but as has been observed - cf. Chapter 1 section 1.1 -, they are assumed to be generated in a different node from other auxiliaries- cf. also Chapters 3 and 4 -.

(28) The reason why a full verbal sequence (5 verbal elements) is not grammatical in Catalan nor in Spanish as in (i) and (ii) respectively, calls for an explanation:

(i) *? Els caramels que no trobem poden haver estat essent menjats per les criatures

(ii)*? Los caramelos que no encontramos pueden haber estado siendo comidos por los niños

This thesis deals with 2 verb sequences, so the account of this restriction is beyond its scope. Note that the English examples are not fully acceptable either.

The fact that the modals in the sequences in the examples in the text are interpreted as epistemic will gain importance in Chapter 3 - cf. also 2.3.2.3-

(29) As noted in the introduction, in this thesis I will concentrate in the a. sequences - leaving progressive and passive for further research.

(30) Functional nodes have been briefly introduced in Chapter 1, and will not be further taken into account until Chapter 4. In this section the issue is to consider the structure of complex verbs bearing in mind that all verbal elements are members of the V category, but disregarding - for the sake of

simplicity - the important matter of whether they should be granted a distinct, functional, node - an issue to be touched upon in section 4.3 .

(31) I am leaving aside comment on other studies referring to ASW's proposal which are not within the present model. Note the article by Gazdar, Pullum, and Sag (1982).

(32) I will not make crucial use of Zagona's framework in the rest of the thesis. More precisely, I not consider part of her framework, although I will refer to it in several occasions ; i.e. the licensing of VPs . I will assume her structural conclusions. The licensing of empty and full VPs is, obviously, a very important matter, but beyond the scope of this thesis. It must be noted that - to my knowledge - there are two important proposals on this subject in the field: one is Zagona (1988), the other is Guéron&Hoekstra (1988). The latter will be considered in 2.4 and in Chapter 3 as it touches upon not only auxiliary constructions, but also complex predicates. Zagona (1988) , nevertheless, provides the structure necessary to postulate V-0 movement in Chapter 3.

(33) I will not consider this important matter, again because it lies outside the scope of this thesis. Nevertheless, section 2.4 refers to Guéron & Hoekstra (1988)' s framework who, using Tense as an unanalysed primitive provide a basis for an account of the distribution of auxiliaries which seems to me not at all implausible. G&H also directly avoid some of the theoretical problems observed below as a consequence of the subcategorization licensing condition on VPs.

(34) An important explanation of this fact is provided by Pollock (1987) relying on the parameterization of inflectional nodes - cf. Chapter 4, section 4.2 -.

(35) Zagona does not refer to Baker's framework of incorporation, although V-to-V is also seen as an instance of head-movement as in Barriers. Zagona's claim of participle incorporation is related to the main hypothesis in this thesis, as will be posited in Chapter 3, although it crucially differs from it because I do not consider temporal-role marking.

(36) The status of X is left undetermined here, as this is the matter of debate among the scholars in the literature sketched in the following sections. Nevertheless, as has been made clear in section 2.2.1, there are many reasons to consider X a clausal node.

(37) The capitalized English verbs are used to refer to causatives in general. When a distinction is needed between English and a Romance language, it is made by using the corresponding lexical items. This also applies to other sections.

(38) The term *reanalysis* is defined differently in Manzini (1983b), section 2.3.1.4.

(39) Bruccart (1984) assumes a process of restructuring proposed by Bordelais (1974), which I do not consider in the review of proposals.

(40) See Chapter 4, section 4.3 for a different account of Past participle agreement in the present framework; cf. Kayne (1987)

(41) Note that structure such as (215) in the text implies allowing for a VP-internal subject. Nevertheless, Manzini(1983b) does not refer to the present debate on an original internal position for the subject - and subsequent movement to the specifier of a functional projection - because it was posited in later works - cf. Chapter 1 (p.11) for references.

(42) The fact that structures like *J' ai fait une table* exist, imply that *faire* may also assign Case. This according to Manzini must be captured in the lexical entry by an implication: if the verb assigns a theta-role to a small clause, then it must be a reanalyser.

(43) It must be noted that clitic climbing is allowed in some control structures, verbal sequences composed of a main verb not characterized as a modal plus an infinitive, both in Catalan and in Spanish. This is briefly touched upon in section 2.5, where some examples are given. See also note (15) and last note to this Chapter.

(44) In Catalan there is always agreement with the modal verb, regardless of the position of the object:

- (i) *Està segur que es poden aturar les situacions injustes*
- (ii) *Està segur que les situacions injustes es poden aturar*
- (iii) **Està segur que es pot aturar les situacions injustes*

(45) Note that not all the verbal elements in (241) conform to all of these properties: *dare, need* are also non-modals, *is to* has all the finite forms. The characteristics of modals in English are not considered in depth as they do not bear directly upon the subject of this thesis.

(46) It must be noted that this distinction - due to Hofmann (1976) - disregards other classifications of modality into more different types as in Palmer (1979). Palmer makes a difference between *epistemic modality* - "making a judgement about the truth of a proposition" ; *deontic modality* - influencing the action as by giving permission, or imposing an obligation, and *dynamic modality* - which refers to ability or volition of the subject. I will not consider this classification - nor others - but follow the general use in generative studies which unify deontic and dynamic into "root" . The subject of modality types is beyond the scope of this thesis.

(47) It must be noted that the second examples allow an epistemic interpretation: (i) Els governs poden posar fi a la injustícia, però no volen fer-ho. In the examples I intend a root interpretation; i.e. (ii) "The governments have sufficient power to put an end to injustice".

(48) In Spanish the distinction is made by including the preposition *de* after *deber* when intending an epistemic interpretation, as the parentheses show. I have included the parentheses because this is not followed by all speakers.

(49) The syntax of aspectual verbs is more complicated than that of other "restructuring" verbs as they have several other options: they may be followed by other non-finite forms, and, indeed, there are some aspectual verbs that must be followed by an -ing form, while others allow both:

(i)a. *Continua *fer, / fent les mateixes classes*

b. *La policia comença a descarregar, / *descarregant quan rep ordres*

(ii)a. *Will Israel ever stop *to kill, / killing Palestinians*

b. *Will Israel ever cease to kill, / killing Palestinians*

Note that the relevant interpretation of (i)b is what makes the second option ungrammatical, the verb *començar* may be followed by an -ing form if interpreted as in (iii):

(iii) *Els actors comencen l'obra interrogant el públic*

(50) Catalan and Spanish have ways of disambiguating : the use of a different preposition or a periphrastic construction :

(i) *Ha tornat per (tal de) dir-li que ...*

(ii) *Ha vingut per (tal de) dir que ...*

(iii) *Ha venido para decirme que ...*

(iv) *Ha vuelto para decirle que ...*)

(51) As pointed out to me by J.M. Brucart, this test is also applicable to some modal verbs, as in (i) for Spanish and (ii) for Catalan:

(i)a. Luis debe de estar enfermo

b. Luis está probablemente enfermo

(ii) a. En Lluís deu estar malalt

b. En Lluís està probablement malalt

These modals are interpreted as epistemic - as already noted *deure* may only have an epistemic reading in Catalan. cf. also note (48).

(52) It must be mentioned that several important analyses have been left out in this section. I am basically referring to the parallel structure analysis in Zubizarreta (1982) and the "parallel phrase-marker" analysis in Manzini(1983b). The former follows the same proposal explained in section 2.3.1.3. Manzini incorporates restructuring into a theory of phrase-markers: she allows a double phrase-marker for M-A sequences one of which may be derived from the other.

(53) The NP subject of the complement clause is PRO, but the fact that there is a subject position does not, in Rizzi's framework, prevent the rule from applying. The present framework disallows such a "destruction" of structure. Linguists who have posited a non-sentential status for the embedded clause have had to somehow rearrange the discharge of the subject role - cf. especially Guéron and Hoekstra (1988) -.

(54) Note that it also applies vacuously if the clitic takes a "long step". The argument is theory internal; it relies on the assumption that there *is* a clausal node.

(55) Note that agreement with the verb and postverbal occurrence of subject (preposed object) are possible. This is regarded as a consequence of the available post-verbal position for subjects in pro-drop languages.

(56) I have only included examples illustrating clitic climbing because object preposing and auxiliary choice - cf. also 2.1 - are not relevant tests in Catalan nor Spanish. See Rizzi (1982a) for illustrations on these constructions for Italian.

(57) It must be noted that in Picallo (1990) the same proposal is made, but root modal verbs are generated as VP-adjuncts - (9), p. 289 -.

(58) It must be noted, as will become clear in what follows, that G&H's concept of T-marking, and of Tense-role, is not equivalent to Zagana's - cf. section 2.2.2 - notion of temporal-marking. She makes use of distinct temporal roles - E,R,S -, which are not considered by G&H. Their notion of T-chain is also distinct from Picallo(1985)'s use of T-chain as a redefinition of a governing category of an element.

(59) G&H do not make the parallel of T-marking and theta-marking in the same way that Zagana(1988) does: the assignment of Tense-roles by auxiliaries - see below - does not lead them to a theory of "argumenthood" for VP projections, as is clearly expressed by the FDC ,(359) in text. Their theory avoids interaction problems with NP/CP argumenthood - basically VP-adjunction -, some of which were noted in section 2.2.2 -. See also note (58).

(60) The mechanism of chain extension by Spec-head agreement is also crucially used in Barriers to account for passive in English, and also in Zagana (1988), following the *barriers* explanation.

(61) See note (59).

(62) Note that there is a reversal in the use of this test as compared to its use in 2.1: VP anaphora was assumed to be a characteristic that only main verbs could have in Romance languages. By considering causatives as auxiliaries, G&H generalize the English test to Romance. Obviously, though, the presence of the clitic cannot be disregarded.

(63) The fact that there exists the possibility of clitic climbing with other types of verbal sequences has already been pointed out in note (15), and will be briefly touched upon in section 2.5. See note (64).

(64) I must note, though, that the main proposal in this thesis refers to **complex verbs** . Nevertheless, and because of the fact that they are verbal sequences, a hypothesis will also be posited for **complex predicates** in Catalan and Spanish; namely Guéron and Hoekstra (1988)'s

T-theory proposal. Hence, the feature that the verbs in the examples would acquire would be that of optionally being T-markers - cf. sections 2.4, 3.4, 4.3 - . Further research is obviously required; i.e. the specific restrictions on which type of verbs allow this optionality. The fact is that not all main verbs do, as there are clear ungrammatical examples of clitic climbing with two main verbs in both Catalan and Spanish as in (i) and (ii) ((10) in H&R 1984):

(i) **Hi lamento pensar*

(ii) **La lamento pegar*

CHAPTER THREE: *Incorporation*

3.1 An outline of Morphology Theory

3.1.1 A note on non-evident single constituents

The observations in this section are intended to show basically that it may be the case that not all morphologically separate units are also syntactically separate. This approach is, to my mind, legitimated by the kind of theory of morphology that will be presented in the next section.¹

Certain verbal sequences of two verbs are not evident single separate units because they function as one lexical unit - they cannot be divided under any circumstances, and it is often the case - in certain forms of the tenses - that the first part of the sequence never bears stress -. I believe it is worthwhile pursuing the idea that these do constitute a unit, even though they do not surface as one morphologically complex form. In other words, we may try to characterize their behaviour by assuming that they become an X^0 by the application of a syntactic process; namely, head-movement, which allows for further cliticization of the auxiliary verb onto its host. In section 3.3.1 I will present the syntactic analysis and in the next section I will review the theory of morphology assumed in Baker (1988) - and Ouhalla (1988) among others - which seems to be relevant for the explanation of the behaviour of such sequences.

Before presenting the theory of morphology which may lead to an explanation of such a phenomenon, it may be wise to note that several authors in the literature have pointed out and provided analyses of other cases of two constituents that function as one single lexical unit in several

respects - I will not assess the analyses; I will only point out some of the data -.

Pronominal cliticization is the most obvious example of such a phenomenon. Kayne (1975) already analyzed these as X^0 items. The degree of cohesion of pronominal clitics and V elements is very strong, but arguments have been posited in the literature - cf. especially Kayne (1975),(1987), Aoun (1985), among others- granting an independent theta position for clitics, and subsequent movement onto the V head - cf. also sections 2.1, 3.2 -. According to some authors, the unit *cl+V* is, thus, not *generated* as a unit, but becomes a unit by a syntactic phenomenon because it involves head movement - see section 3.3.1.1 for further comments on cliticization-.

Another example of the phenomenon of "non-evident single constituency" are some sequences of V+preposition - as in sequences of modal verbs ; i.e. V+P+infinitival -, which seem to function as one single lexical item as well. G&H (1988) already suggest an analysis in terms of incorporation of the preposition to the verb; head movement- although they do not refer directly to Baker's incorporation theory - for the sequence *have + to* in English. For it, G&H suggest adjunction of *to* to *have* and they propose a structure as in (1)a,b.. It must be noted that in their analysis they assume *to* to head a PP at S-structure (1)a , but to be interpreted as part of a predicate at LF (1)b,i.e. as a VP- cf. section 2.4, and 3.4 - G&H (1988); 53-54):

- (1)a. *John_j I [VP has + to_j [PP e_j [VP e_j leave Mary]]]]*
 b. *John_j I [VP has + to_j [VP e_j [VP e_j leave Mary]]]]*

That *have+to* form a syntactic constituent is shown by the ungrammaticality of (2). - G&H (1988); 53 -:

(2) **John has not to leave Mary*

The same analysis is posited for Italian *avere+da*, where the preposition adjoins to the verbal head in the same fashion.

Other verbs requiring a preposition, such as the aspectuals analyzed in section 2.3.2, are obvious candidates to be considered as non-evident single constituents: *començar + a*, *tornar + a*, *empezar + a*, *volver + a*, etc. Burzio (1986) proposes an analysis for these sequences in Italian - which he terms prepositional infinitives (*cominciare (a)*, *continuare (a)*, *andare (a)*, *venire (a)*) - in terms of cliticization of each of these prepositions onto the infinitival verbal head; i.e. the verbal head that follows them. He cites Rizzi (1982) who gives evidence for such a claim. Evidence such as the contrast in (3)a. and b., which suggests that the preposition and the infinitival verb form a syntactic constituent, as they cannot be separated:

(3)a. *Mario pensa che forse potrà partire*

b. **Mario pensa di forse poter partire*

The English sequences of verb plus preposition in phrasal verbs are also candidates of non-evident single constituents. Stowell (1981) refers to "Particle Incorporation" and "NP-incorporation" to account for the contrast in structures like (4)-Stowell (1981); 296- 2, for which he assumed the structures in (5) - Stowell(1981);301,303- ; where complex X-0 constituents are created :

(4)a. *Kevin turned on the light*

b. *Kevin turned the light on*

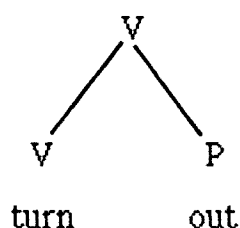
(5)a. *Kevin [V' [V turned - on] [the light]]]*

b. *Kevin* / *V* / *V* / *V* *turned -the light / - on / /*

Radford (1988) also analyzes such constructions as instances of word-level adjunctions. An example as (6) is given the structure (7) - Radford(1988); 257 -:

(6) *The weather may **turn out** rather frosty*

(7)



As Radford points out: " ... it is traditionally claimed that the [...] sequence *turn out* forms a kind of "complex verb". " (p.257)³

As a final observation to this informal introductory section on the relationship between morphology and syntax - but without implying that the here-mentioned analyses are assumed valid - one could mention Rizzi's claim that two verbs undergoing restructuring become part of one syntactic constituent - cf. section 2.3.2 -, although the dominating node is not given an X-0 status - i.e. it is considered a V' -. Also worth noting is Zubizarreta's claim that a sequence of causative plus infinitival complement is generated as a complex verb in one of its simultaneous parallel structures - mainly on the basis of the fact that the first verbal element does not define a stress domain -, and obviously that it forms a semantic unit with the second verb. One might also mention analyses dating from Chomsky (1965) where a sequence of different constituents - generated as separate morphological elements - were assumed to undergo reanalysis and assigned an X-0 status; typically idioms such as [*take advantage of*].

To conclude, the difference between morphologically created lexical items and syntactically created units is an issue worth considering. I will focus on the latter - the former not being the subject matter of study of this thesis -. Baker's theory of incorporation sheds light on phenomena such as the ones briefly noted above. Again, as the title of the thesis indicates, I only intend to attempt an explanation on verbal sequences and not on any other syntactic units which may have been formed by an identical - or similar process -. Generally, morphologically created units generated as one lexical item, remain "opaque" - in a sense to be explained below, cf. section 3.1.2 - to any process whatsoever; on the other hand, two syntactically independent elements may have the option -cf. 3.3.1- of not undergoing processes that have the effect of creating a unit , therefore allowing a margin of "non-cohesiveness". This will give a clue to the explanation of some apparently problematic interruptions of syntactically created verbal units - cf 3.3.1.1, and 3.3.1.3. -. It must be noted that, in the present framework, the borderline between morphology and syntax is not straightforward, and processes of affixation - in other words, the adjunction of lexical heads to functional nodes containing inflectional affixes, such as V-to-I (see section 1.1, 1.2.2) -, although syntactically created, remain as opaque as "proper" morphologically base-generated units.

3.1.2 The approach

"Si una combinación sintáctica se funde en una unidad léxica, esta nueva unidad es tratada por analogía de la palabra simple y se traslada a ella lo que es posible en relación con la palabra"

(Dietrich (1973:38)

What Dietrich's words express is, to my mind, translated into GB-barriers terms by Baker in his theory of morphology. In other words, it is made precise by alluding to concepts like head movement and constraints that apply to (syntactically created) X^0 elements.

One of the alternative ways in viewing the relationship between morphology and syntax is the one assumed in Baker(1988) - basically following Marantz (1984)- , Ouhalla (1988) and others, which regards morphology as another subtheory in the grammar, on a par with Binding Theory, Theta Theory, Case Theory, etc. applying to X^0 elements at any level of the grammar, from the lexicon to PF. In this view, Morphology Theory contains principles that determine the well-formedness of X^0 . Quoting Baker: "As such, "morphology theory" (as we may call it) can be characterized as the theory of what happens when a complex structure of the form $[z_0 X + Y]$ is created. In this way, it is parallel to (say) the binding theory, which is the theory of structures of the form $[NP_i \dots NP_i']$, where the subscript is a referential index." (p. 68)

Ouhalla (1988) claims that, apart from language-specific morphological principles, there are two universal principles: the Affix Principle (AP) - (1)a. , as in Baker (1985) - and the Head Opacity Condition (HOC) (1)b.(Ouhalla (1988); 15). The Affix Principle is essential as a trigger for incorporation processes - as will be explained in 3.2 -:

- (8)a. The morphological subcategorisation frame of affixes
must be satisfied prior to the S-structure level
- b. The internal structure of X^0 categories is opaque to move-alpha

Baker (1988;73) states (8)b. as a well-formedness condition on representations:

(9) * [X⁰ t_j]

As Baker points out this may be linked to the Lexicalist Hypothesis. Selkirk (1982) proposes the *Word Autonomy Hypothesis* which disallows rules (i.e. deletion or movement transformations) applying to S-structure categories to involve categories of W-structure (word-structure). In this way she rules out the "manipulation of affixes". The intuition in this proposal is kept in Baker (1988) but it is given another dimension. Selkirk uses it to disallow the interference of syntax in the domain of morphology, in other words, to postulate that all morphological processes take place in the lexicon. Baker uses it to disallow the breaking up of X⁰ categories created anywhere in the grammar. Before the creation of a head, movement may - and in some cases must, as the result of the Affix Principle - apply to W-structure categories - namely, affixes, which have been generated in an independent D-structure position. Baker's principle -(9) above - implies that traces must be exhaustively dominated by an X⁰ level category in the case of head movement.

X⁰ categories created in the lexicon are evidently subject to the same constraints, as implied by the theory of morphology which regards it as another subtheory.

What the above considerations suggest is that if a sequence of head categories become one head category by the application of a syntactic mechanism, the sequence will become a domain of application of principles which apply to head categories, i.e. morphology principles.

In the next section I will present the fundamental reasoning behind the idea that a part of a word - i.e. an affix - which may end up morphophonologically amalgamated with another part of a word

should be generated in an independent D-structure position; the principle which ensures it is Baker's Uniformity of Theta Assigning Hypothesis (UTAH).⁴ - cf. section 3.2 -.

Another important principle of morphology theory that Baker posits is the Mirror Principle⁵ (Baker (1988);13):

(10) MIRROR PRINCIPLE:

Morphological derivations must directly reflect syntactic derivations (and vice versa)

An example that illustrates this principle , and which Baker uses to argue in favour of a syntactic analysis of passivization is the following, from Chichewa, which involves interaction between causativization and passivization:

(11) *Kalulu a-na-meny-ets-edw-a kwa anyani(ndi birimankhwi)*

hare SP-PAST-beat-CAUS-PASS-ASP to baboons

(by chameleon)

"The hare was caused to be beaten by the baboons (by the chameleon)"

The causative affix is nearer to the verbal root than the passive affix, a fact which, according to the Mirror Principle, implies the precedence of causativization over passivization. Note that - as will be explained below - the fact that causativization is regarded as a syntactic phenomenon leads to the postulation of passive also being a syntactic phenomenon. ⁶

3.2 Incorporation (Baker 1988)

3.2.0 Introduction

Baker(1988) posits a mechanism that explains the different Grammatical Function (GF) changing phenomena found in languages without the need to postulate different rules for each GF process. He claims that particular GF changing processes do not exist in language, but that "Grammatical function changing" is the side effect of this word movement" (p.1) ; that is, the consequence of a general mechanism that involves the combination of two words into one⁷. By GF changing processes he refers to constructions where an underlying GF becomes another one at S-st; for instance, passivization , which involves the change of an object into a subject - cf. "rule"(14) below -; or causativization, which involves the introduction of a new subject and the change of a subject into an object - cf. "rule"(4) below -. The advantage of such a move is to explain the relationship between two different sentences with the same meaning (*thematic paraphrases*), thus obtaining a unified explanation. Hence he explains apparently GF changing processes as the incorporation of a V, N or P into another head category, generally a V - although Note (31) on passive- ; the consequent structural changes create new government relationships - with agreement and case consequences - giving rise to what have been traditionally considered changes in grammatical functions. In GB GFs are non-primitives , and thus Baker's work is a move towards eliminating unnecessary notions from the theory.

Baker focuses basically on highly agglutinative languages - Bantu languages, Eskimo languages, etc - but , as we will see in the following sections, his proposal seems to be applicable to Romance languages as well - I will claim this for Catalan and Spanish -. In section 3.2.1 and 3.2.2, I will briefly put forward Baker's main ideas giving examples and evidence from his basic source (agglutinative languages), and in sections 3.3.2 I will show how he applies these ideas to other languages.⁸ Section 3.3.1 is an application of Baker's mechanism to verbal sequences which he does not consider ; i.e. complex verbs in Romance, basically Catalan and Spanish.

It is of utmost importance to mention that I will only be referring to a very specific part of Baker's theory; i.e. V- incorporation, because it seems to me to give a plausible account for verbal sequences in Catalan and Spanish, basically ⁹. I will not refer to the other types of head movement that he posits.

3.2.1 The notion

Incorporation is the term used by Baker for the adjunction of an X-0 element onto another X-0 element. In this section I will sketch how he makes use of such a process to account for grammatical function changing phenomena.

Consider the passive example:

- (13)a. *Alfonso attacked Jordi*
 AGENT PATIENT
- b. *Jordi was attacked (by Alfonso)*
 PATIENT AGENT

(13) a. and b. express the same relationship between *Jordi* and *Alfonso*, but the surface forms are different. The theta role that each element bears is the same in both, but the order and morphological shape

of the verb differs, plus the fact that the *AGENT* in (13)b. is introduced by a preposition. The descriptive characterization is given by Baker as follows:

(14) Passive: subject --> oblique (or null) ; object --> subject

But (14) is a descriptive statement; it adds nothing theoretically interesting to the grammar.

Consider an instance of causative in Chichewa (Bantu):

(15) a. *Mtsuko u - na - gw - a*

waterpot SP-PAST-fall-ASP

(18)a.p.10-11

"The waterpot fell"

b. *Mtsikana a - na - u - gw - ets - a mtsuko*

girl SP-PAST-OP-fall-CAUS-ASP waterpot (18)b.

"The girl made the waterpot fall"

Note: where OP = object agreement prefix

SP= subject agreement prefix

This is an instance of one of the different possible causativization processes in languages and its descriptive statement is :

(16) null --> subject ; subject --> object

(which accounts for the agreement relationships indicated)

(15)b. may be paraphrased in Chichewa as in (17)

(17) *Mtsikana ana - chit - its - a kuti mtsuko u - gw - e*

girl AGR - do-MAKE -ASP that waterpot AGR-fall-ASP

"The girl made the waterpot fall"

(2)a. p.148

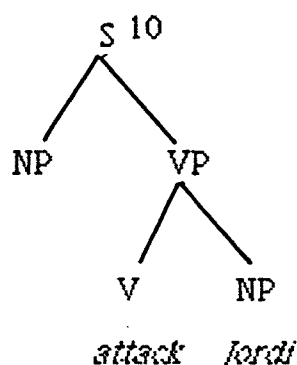
Just like (13)a. and b., (15)b. and (17) also express the same "meaning" relationships between NPs. Baker's way of characterizing the two corresponding structures is by saying they are *thematic paraphrases*. This is a clue to their underlying structure. Namely, Baker, formulates a principle which will ensure that thematic paraphrases have the same D-structure, but, for reasons to be explained, surface differently.

(18) The Uniformity of Theta Assignment Hypothesis:(UTAH)

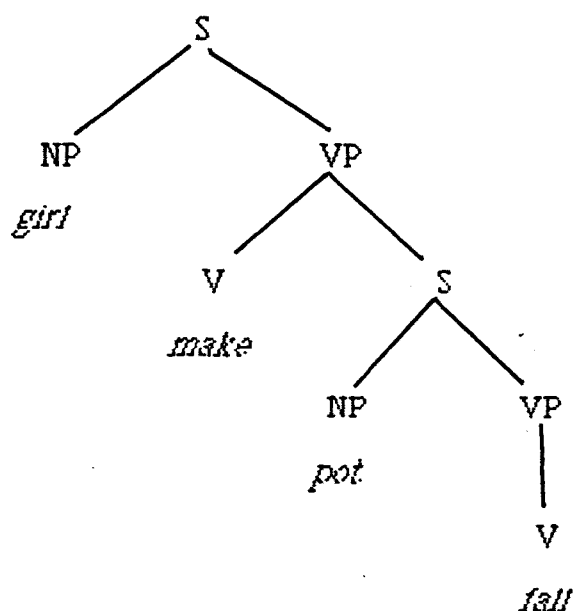
Identical thematic relationships between items are
represented by identical structural relationships between
those items at the level of D-structure (30) p.46

The UTAH implies that the passive counterpart of (13)a. has the same D-structure as (13)a., the active form: the thematic relationship between *attacked* and *Jordi* is identical in both, so it must be represented in an identical structural relationship. For the Chichewa examples, the UTAH applies to *part of* a word. Quoting Baker (p.49) : "Generally, whenever part of a word shows signs of assigning or receiving a thematic role in the same way that morphologically independent constituents do, the UTAH will imply that that part of the word appears in an independent position at D-structure"

The relevant structures are :

(19) Passive:

The theta-role PATIENT is assigned canonically. The passive account in GB is that the NP-obj must move to subject position in order to get case since the participle has been devoided of the ability to assign case by the morphological process deriving the participle - cf. also alternative analyses such as Jaeggli (1986) where the participle affix absorbs theta-role -. Baker explains passive differently: he accounts for it in terms of the incorporation of the V into I, thus in this sense, claiming that it is a syntactic process, and not only a morphological one. He accounts for the status of the implicit argument by claiming that I is an argument and must be assigned a theta-role. In this way, passive in English is regarded as an instance of incorporation, although a different sort of incorporation - as it involves a head movement into a non-lexical head, I - cf. Note (32) on Baker's account of passive.

(20) Causative:

As (15b) shows, *fall* is not in its D-structure position at S-structure, movement takes place and **gw** - *fall*- morphologically combines with **its** - *make* -. Incorporation, thus, implies movement; it is an instance of movement-alpha. Movement, though, is not triggered by the usual case or by +wh COMP features. Here, the trigger of movement is the morphological subcategorization of the elements that appear separated in D-structure: they are affixes and must be bound - cf. the Affix Filter in 3.1 - Baker follows Lieber (1980) and Williams (1981) in saying that affixes are specified for all the same types of features as independent words, and he goes a step further in assuming that elements which surface as affixes may head phrases and assign theta roles just like independent words do, at D-structure. The difference between words and affixes is, then, "that affixes must attach to a word - clearly a morphological requirement. If an item is specified as being an affix, but is generated in an independent position at D-structure in accordance with the UTAH, that item will have to undergo

X-0 movement to adjoin to some other X-0, failure to do so will result in a structure which results in the violation of a principle of morphology." (p.72)

3.2.2 The process: V-Incorporation (VI)

As the passage quoted above states, affixes - X-0 categories at D-structure - must move to adjoin to another X-0 . Move-alpha, thus will not imply the movement of an XP but rather of a head of a phrase in incorporation structures.

This type of movement is not new: Chomsky (1986b) - cf. section 1.2.2 - , Koopman (1984), Torrego (1984), Pollock (1988) among many others have assumed that V is subject to move-alpha under certain circumstances. As mentioned, Baker applies X-0 movement to V, N and P in order to account for GF changing phenomena of different types.

Reviewing certain conclusions reached in outlining the *barriers* framework - section 1.2.2 -, there are several important facts about X-0 movement. Firstly, a head may only move to another head position and adjoin to it; it may not move to an XP position, a configuration which would presumably violate some version of the Structure Preserving Hypothesis (Emonds 1976) -. By the Projection Principle, an X-0 category must leave a trace; if lexical properties of items are to be kept throughout the derivation, an element which assigns a theta-role to a certain position at D-structure must leave a trace, just like an element which has received a theta-role in a certain position at D-structure. The structural relationship between the two positions created by movement must be that of government, a consequence of the fact that *all* traces are subject to the ECP - the syntactic aspect of incorporation -. Since X-0 categories cannot be lexically governed - by virtue of the fact that theta-marking takes place only between sisters - cf.

section 1.2.2 where theta-marking is shown not to percolate to the head of a theta-marked X_{max} - antecedent government must be satisfied.

It must be noted that Baker somewhat modifies the notion of barrierhood in that instead of BC and L-marking, he introduces the notion of *selection* as follows: (p.56-57)

(21) A selects B if and only if:

- (i) A assigns a theta role to B
- (ii) A is of a category C and B is its IP
- (iii) A is of a category I and B is its VP

(50)

He also accounts for minimality barriers (22) (ii) :

(22) Let D be the smallest maximal projection containing A.

Then C is a BARRIER between A and B if and only if C is a maximal projection that contains B and excludes A, and either:

- (i) C is not selected, or
- (ii) the head of C is distinct from the head of D and selects some WP equal to or containing B.¹¹

(49)

These modifications together with Baker's indexing system have the same results - as far as V-incorporation in the cases considered are concerned - than the assumptions in Chomsky (1986b) : an X-0 trace must be antecedent governed. To summarize Baker's indexing system, there are three types of indices: identification indexing (the

result of movement); theta-indexing (the result of theta-assignment); and Case-indexing (the result of Case-assignment).

Baker states the ECP in terms of a requirement of either theta-indexing or identification indexing. Theta-indexing is never available to traces left by incorporation because theta-marking can only take place between sister nodes, as already noted. Hence, by assumption, the theta-index that the XP dominating the trace of the incorporated item bears never percolates down to it. Thus, the only possible way for an X-0 trace to be properly governed is for its antecedent to govern it. Baker states the ECP as follows for X-0 traces:

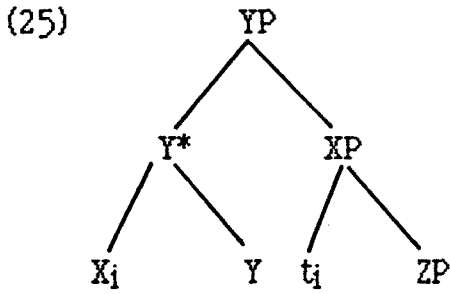
(23) An X-0 must govern its trace

Government requires two things: that c-command hold between the antecedent and the trace, and that there be no barriers between the two elements. Both are satisfied in proper incorporation structures, as will be exemplified below.

With the joining of two X-0 level categories , incorporation creates a syntactic node which does not conform to the X'-schema in the sense that it is not an X' category - it has no complement position-, and it is not a proper X-0 category - it contains two different heads. The special status of this category is expressed by the following statement as regards its interpretation:

(24) The indices of the parts of an X-0 category count as
the indices of the X-0 category itself

In the structure:

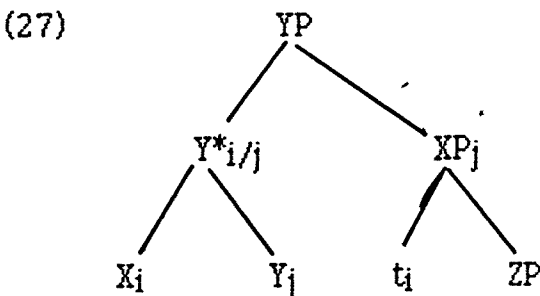


Y^* c-commands the trace and is a proper governor for it because it bears the same identification index, by virtue of the fact that it contains the antecedent of the trace.

The definition of barrier is somewhat modified by Baker, as stated above. In other terms, for Chomsky, the categories that can be barriers between two elements, A and B, are relative to the B element - cf 1.2.2 -. Baker makes the notion of barrier relative to both, the governor and the governee:

(26) The maximal projection C is a government barrier between A and B if and only if C contains B, C does not contain A, and C is not theta-indexed (with A)¹²

In (25), repeated here with the corresponding theta-indices:



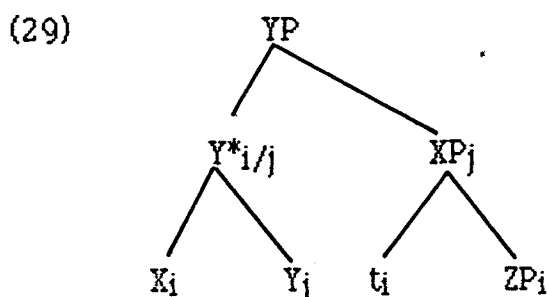
XP is the only potential barrier between X and t; it does not contain Y* (=A) and it contains t (= B), but it is not a barrier because it is theta-indexed with A (=Y*) - Y assigns a theta-role to XP, and thus shares the same theta-index with it - and by (24) Y* also shares that same index.

Another condition that must be satisfied by all instances of movement is Subjacency. Subjacency with regard to incorporation will always be redundant since the crossing of just one barrier will block government, resulting in an ECP violation, and, thus, the trace will not be licensed. If the X-0 moves to a Y-0 that is not theta-indexed with the XP headed by the X, the XP will be a barrier to government since it will not satisfy the theta-requirement.

Another proposal by Baker is the Government Transparency Corollary (GTC):

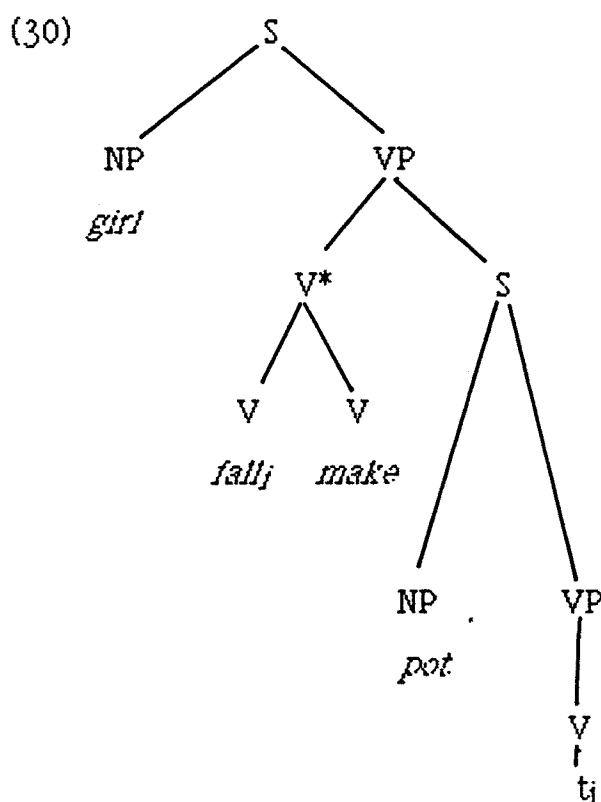
- (28) A lexical category which has an item incorporated to it governs everything which the incorporated item governed in its original position

This follows from the indexing relations mentioned above, as illustrated in the following structure:



The notion of transparency implies basically that neither the XP nor the ZP are barriers to government when the head of the XP is incorporated. This will have a series of consequences in Grammatical Changing processes in most of the languages that Baker studies: a complex verb will govern more elements once it has been incorporated and, thus, more agreement possibilities arise giving rise to apparently GF changing process. The GTC has no consequences for the kind of complex verbs for which I will propose incorporation - cf. 3.3.1 -.

The ECP, thus, is satisfied in a head-to-head movement structure such as (30) - the Chichewa causative, to be considered again below - if the movement of the lower verb follows the *Head Movement Constraint* (31) - cf. also section 1.2.2 -:



(31) HEAD MOVEMENT CONSTRAINT(HMC)

An X-0 may only move into the Y-0 which properly governs it. (43)

As shown by Baker, the HMC is derived from the ECP since it implies that traces of X-0 must be properly governed. This is the case in incorporation structures.

Biclausal structures

There are two possible situations where movement of a head may take place:

1. if the head is governed by another head in its D-structure position it may incorporate into the other head following the HMC straightforwardly

2. if the head is not in a governed position, it must move prior to incorporation in order to reach a position from which it is governed by the X-0 category into which it incorporates. This is the case of biclausal structures, as we will see below.

Consider first Baker's account of the following incorporation structures:

- (32)a. [YP X_i + Y [X_pt_i ZP]] (where XP is selected by Y)
 b.* [YP X_i + Y [XP t_i ZP]] (where XP is not selected by Y)
 c.* [YP Z_i + Y [XP X [ZP t_i]]] (48)

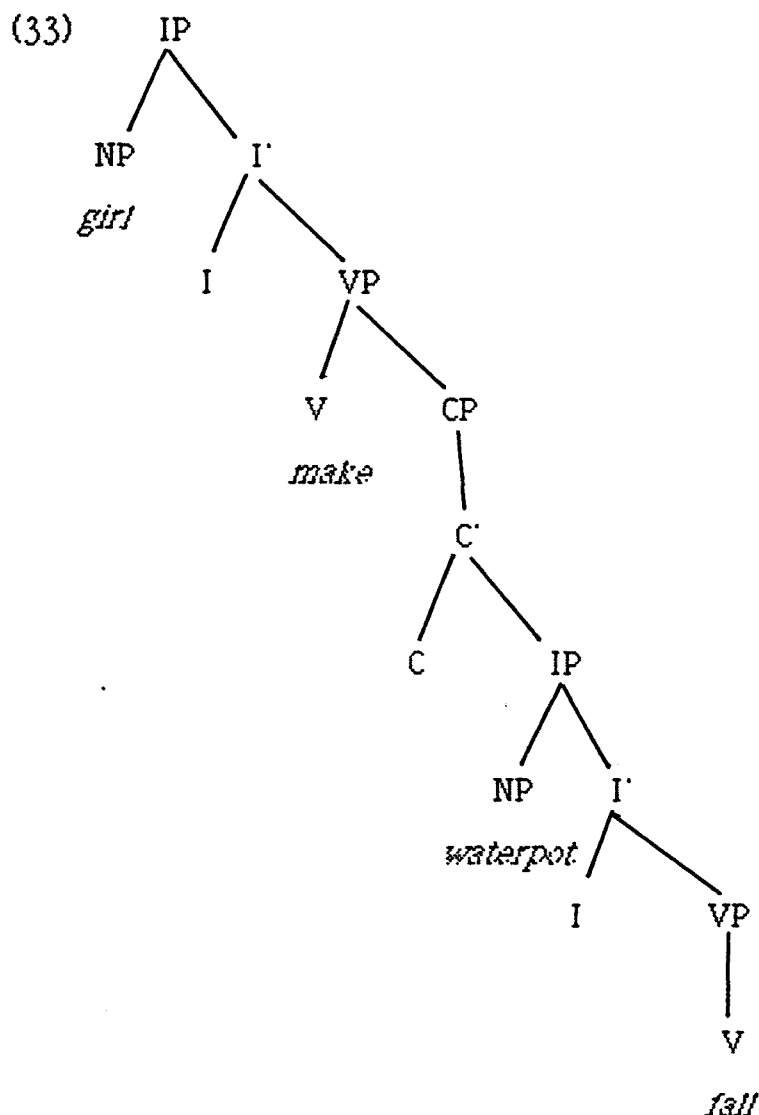
(32)b. and c. are both ruled out by Baker's notion of barrierhood:

b. implies an ECP violation because the XP is not selected, and c.

implies a violation because there is a head, distinct from Y which selects ZP containing the trace of Z; in other words, XP is a minimality barrier in c. In a structure such as this, incorporation would only be allowed if Z would have moved to a position from which Y could govern it prior to incorporating - X -. Direct movement is not allowed: it violates the HMC, or, alternatively, the t violates the ECP.

(32a.) is an instance of situation 1.; it is either a simple clausal structure like (30) above, where S is selected by V, and there are no other maximal projections intervening, or the movement of the head of any selected complement - for instance N incorporation to V -.

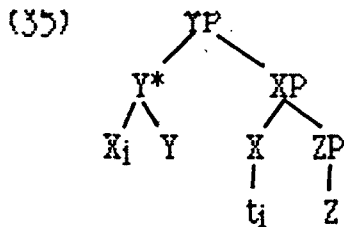
Now consider the structure assumed for a complex configuration, in the case of the Chichewa causative:



Direct verb incorporation - henceforth VI- is not possible: there are two head positions which could create minimality barriers - namely C and I- and cause an ECP violation. It is relevant to point out the notion of *distinctness* that Baker defines - cf. also (22)(ii) - in order to fit his barrierhood notion with the incorporation structures :

(34) X is **distinct** from Y only if no part of Y is a member of a
 (movement) chain containing X (64)

This notion is relevant because if the head in question contains a trace of the incorporated element, then the maximal projection dominating it will no longer be a minimality barrier; its head will not be *distinct* from the potential governor (as long as the governor contains the antecedent): An instance of this :



In this structure, XP cannot count as a barrier between Y* (a potential governor) and ZP because XP contains the trace of X; it is not distinct from Y*.

Considering structure (33) above, the lower verb *must* incorporate into the higher verb, due to its morphological requirements. There are two ways for the lower verb to be able to move into the higher verb:

- a. from the Spec-CP position (if the whole VP moves)
- b. from the C position (if only V moves)

Baker claims that both possibilities are attested, and give rise to different causative structures. Baker analyzes complex predicate structures in Romance as instances of a special kind of incorporation - *abstract incorporation*, which I will summarize in section 3.3.2 - as instances of the a. possibility. I will, thus, leave the

b. possibility unsummarized as it is assumed for languages which are not the subject of this thesis. Nevertheless, direct V-to-V movement will be claimed for complex verb sequences -cf. section 3.3.1 -.

Note that in structures where a CP node is assumed to intervene between two verbs to be incorporated, VI involves the incorporation of a head within a (selected) complement. The embedded internal movement of the V to reach a position from which to incorporate is not directly related to the status of the CP, but the next step, proper VI, is directly related because CP must be selected in order not to count as a barrier between V* and the trace of the incorporated V.

3.3 Incorporation and verbal sequences

3.3.0 Introduction

Section 3.3.1 represents an attempt to apply the mechanism of incorporation to complex verb sequences in Catalan and Spanish. A fundamental difference regarding the languages that Baker studies in more depth and the two Romance languages for which I will propose incorporation is the issue of the trigger of incorporation. As mentioned, languages like Chichewa- in the constructions where incorporation is assumed to take place- the incorporated items constitute a single word, a morphologically complex item that surfaces as a unit. The Affix Principle (AP) requires that affixes which are generated in independent D-structure positions move to positions where they may attach to an affix-bearing element - there may be cases in which they may attract a host to move to their position -. This morphological justification for movement is obviously absent in both Catalan and Spanish. The verbal sequences do not form one word; they surface as two separate morphological units - crucially, that the first item bear independent inflectional morphology is evidence for this. The reasons that bring one to postulate incorporation for complex verbs in Catalan and Spanish when there is no direct morphological evidence stem basically from the fact that they function as a single lexical unit. Apart from the tests which will be alluded to in section 3.3.1.1, an important piece of evidence is the fact that the first member of the complex verb - *has'va* - does not define a stress domain, and it has a clitic status - but see also 3.3.1.1. The complex verbs introduced in section 2.2.2 are , thus, analyzed in 3.3.1 as instances of head movement in the syntax. I must emphasize that although cliticization is posited as subsequent to head-movement, the

fact that cliticization represents the interface not only between morphology and syntax but also phonology overreaches by far the scope of this thesis, so no detailed analysis may be provided here.

Section 3.3.2 presents the type of incorporation that Baker postulates for Romance complex predicates, *abstract incorporation* (or *reanalysis*). The basic idea is that in the sequences for which this type of incorporation is assumed the two verbal elements are semantically linked, they constitute a complex predicate - cf. section 2.3 - but not a complex word; according to Baker, their "amalgamation" must be at a different level: "Fare is not an incorporater, but a "reanalyzer" (an LF affix?) and must enter into the Reanalysis relationship with another verb at LF. This may be a semantic property of the verb, to the effect that it forms "complex semantic predicates", since it is generally the same kinds of verbs which have such properties from language to language" (p. 203). I will refer only to the essentials of Baker's *abstract incorporation* proposal, and propose some arguments against it in section 3.4, suggesting that G&H(1988)'s proposal gives the theory sufficient scope to account for complex predicate behaviour without having to postulate LF-movement.

Note that there is another way of characterising the verbal sequences in question - sections 3.3.1 and 3.3.2; namely, as verbal clusters or verbal chains - cf. Bordelais & Evers (1990) - . This would lead to say that those sequences in 3.3.1 - complex verbs - are verbal clusters, although the fact that they are analyzed as head-movement implies that they are also part of a chain, which includes empty X^0 categories subject to the ECP; and that those sequences in 3.3.2 - complex predicates - imply non-movement chains - in line with G&H (1988)'s proposal; cf. 2.4 and 3.4 -.¹³

3.3.1 Incorporation and complex verbs

3.3.1.1 Complex verbs as X⁰ units

Reconsider some of the tests presented in section 2.1 as tests for auxiliaries versus main verbs:

Catalan:

1.- Interruption by lexical items (adverbs and parentheticals)

(Test 10)

(36)a. *He vist la Teresa al bar fa una estona*

b.* *He fa una estona, vist la Teresa al bar*

c.* *He casualment vist la Teresa al bar*

(37)a. *De veritat hem cregut que t'agradaria*

b.* *Hem, de veritat, cregut que t'agradaria*

c.* *Hem sincerament cregut que t'agradaria*

(38)a. *Va veure la Teresa al bar*

b.* *Va, ahir al vespre, veure la Teresa al bar*

c.* *Va casualment veure la Teresa al bar*

(39)a. *Vam saber que tenia molts diners*

b.* *Vam sempre saber que tenia molts diners*

2. Placement of the negative particle (or Tensed negative VP)

(Test 3)

(40)a. *La Maria no va venir*

b. * *La Maria va no venir*

(41)a. *En Terenci no ha entrevistat en Lluís*

b. * *En Terenci ha no entrevistat en Lluís*

3. V⁰ movement (or Tensed verb preceding subject):

(Test 4)

(42) a. *Ha trucat en Joan?*

b. * *Ha en Joan trucat?*

(43) a. *Va veure el partit el Lluís?*

b. * *Va en Lluís veure el partit?*

4. Preposing and postposing

(Test 11)

(44)(From H&R 1984)

a. *Va parlar de les seves velles amistats parisenses durant l'estiu*

b. * *Va durant l'estiu parlar de les seves velles amistats
parisenses*

(45)a. *Han dit que farien els deures i els han fet*

b. * *Han dit que farien els deures i fet els han*

(46)a. *Creia que veuria l'eclipsi i el va veure*

b. * *Creia que veuria l'eclipsi i veure] va*

The examples above show a basic characteristic of Catalan verbal sequences : the sequences made up of "haver"+ participle and "va"+ infinitive - i.e the sequences which I have called complex verbs - may not

be interrupted by other constituents nor may be subject to move-alpha. The verbal sequences labelled complex verbs form an indivisible unit.

Spanish:

The following examples seem to indicate that Spanish has the same restrictions as Catalan as regards the interruption and breaking up of verbal sequences which constitute complex verbs.¹⁴

1. Interruption by lexical items (adverbs and parentheticals):

(Test 10)

(47)a. *He visto a Teresa en el bar hace un rato, / casualmente*

b. * *He, hace un rato, visto a Teresa en el bar
casualmente*

(48)a. *De verdad, / sinceramente hemos creído que te gustaría*

b. * *Hemos, de verdad, creído que te gustaría
sinceramente*

2. Placement of the negative particle (or Tensed negative VP)

(Test 3)

(49) a. *Luis no ha llamado*

b. * *Luis ha no llamado*

3. V movement (or Tensed verb preceding subject):

(Test 4)

(50)a. *Ha llamado Luis ?*

b. **Ha Luis llamado ?*

(51)a. *Habrán llegado los invitados ?*

b. **Habrán los invitados llegado ?*

4. Preposing and postposing:

(Test 11)

(52) a. *Luis dijo que vendría y ha venido*

b. **Luis dijo que vendría y venido ha*

(53)a. *Los alumnos dijeron que estudiarían y han estudiado*

b. **Los alumnos dijeron que estudiarían y estudiado han*

Now, if we consider these non-evident single constituents - (36)-(53),- and assume they are X⁰ constituents- pending a syntactic derivation in section 3.3.1.3 -, it seems that the HOC - as defined in section 3.1 - may be made responsible for their behaviour: the V movement - i.e V⁰ movement and preposing/postposing - examples show that *a part of* the sequence cannot be moved, under any circumstances -i.e. that there can be no V trace of part of the sequence -. Nevertheless, apart from this fact, we could also appeal to the HOC to account for the impossibility of *interruption* of the sequence. One could modify the HOC by making it general enough as to ban any type of separation of a category once it becomes a proper X⁰ category, and one could attempt a definition of "proper" X⁰ category by implying morphophonological amalgamation. - in the case of incorporated sequences complex verb sequences which have undergone head-movement and subsequent cliticization - see below " A note on cliticization" - .Generalizing the notion of "opaqueness" to include other ways in which a

head becomes "frozen/opaque"(Ouhalla (1988;16), the HOC may be reformulated in the following terms:

(54) X^0 categories are opaque

If a set of elements is dominated by an X^0 node these elements are not accessible to movement, plus they may not be interrupted by other constituents.

A note on cliticization

As mentioned, the facts presented so far obviously lead one to the issue of *cliticization*. Clitic climbing was already alluded to as a test to show the cohesiveness of complex verbs and complex predicates - cf. 2.1, and 2.3 -, but an important distinction between "clitic climbing" -as in Kayne(1975), Burzio(1986) among so many others - and "cliticization" in complex verb sequences must be made as well as some qualifications added to this issue.

It is well-known that clitics are a not easily defined set of elements. The criteria that work for clitics in one language may fail to work for those elements considered clitics in a different language - cf. especially Spencer (forthcoming) for definitions and comparison of clitic systems -. Two definitions will do to see that capturing the notion of *clitic* is not a simple matter:

"It is largely agreed that genuine clitics are words which happen to be phonologically dependent on a host. Thus, they are elements which have the syntactic properties of words, but the phonological properties of affixes." (p.78)

and from the same source:

".. we will see yet more evidence of schizophrenia on the part

of clitics, behaving *now as fully-fledged words, now as bound morphemes*" (p.16)

(Spencer (forthcoming))

"Solem designar amb el terme "clitic" aquests elements morfològics que ocupen l'espai entre el mot i el morfema. En aquest espai *aquelles propietats que diferencien el mot del morfema* (caràcter lliure, certa llibertat d'ordre, fenòmens fonològics típics, inexistència d'allomorfa) *es barregen ...*"

(Mascaró (1985) p.123)

(italics mine)

From these definitions one may expect to find difficulties in trying to account for the behaviour of sequences of elements that contain a clitic, as is the case with complex verbs. As is pointed out in both definitions, clitics have some properties of words, and some of affixes. Clitics are not like words, for instance, in the fact that they do not usually bear stress, and their clustering is not hierarchical like that of syntactic constituents. " ... we are actually dealing with an unusual form of free-floating affixation , and that as far as the syntax is concerned clitics aren't words at all " (Spencer (forthcoming) p. 14). But clitics are not affixes either: they may attach to different types of elements in many languages - for instance, Serbo-Croat -, and they may move to different positions, a rather word-like property.

In his comparison of different clitic systems - Serbo-Croat, Macedonian, and Portuguese - Spencer clearly shows that even characteristics which seem general enough of clitics are not universal. As he points out, following Klavans (1982)'s observation, the fact that clitics do not bear stress is not a universal characteristic of clitics. Another important apparently general characteristic of clitics - that of being tightly knit with their host- is also not universal . These two observations - plus others - will allow us to explain some otherwise problematic examples in Catalan and

Spanish; i.e. sequences where other clitics interrupt the sequence of a complex verb, or sequences where the first element in a complex verb sequence bears stress.

The formation of the future tense in many Romance languages, is a consequence of a content word becoming an affix. Catalan and Spanish are examples of this - see section 3.3.1.3 -. Portuguese seems to have followed the same development with the only difference that the future suffixes may be separated from their host verb by a pronominal clitic as in the following examples from Spencer: *terei levantado* (= I shall have raised) // *te - lo - ei levantado* (= I shall have raised it). This is in clear contrast with Catalan and Spanish where the future suffixes are not separated from their host not even in the compound tenses.¹⁵

Classifications of clitics include not only pronominal clitics but also auxiliary forms, determiners, conjunctions, and prepositions. As the subject of this thesis are verbal sequences, I will only refer to the clitic status of auxiliaries in complex tenses - except for the observations in Chapter 2 on Clitic Placement/Climbing as a test for cohesion between two verbs -. Nevertheless, a crucial difference with pronominal clitics and auxiliary clitics must be noted: due to the argument status of the former, there has been intense debate¹⁶ claiming either movement from a base-generated original position or base-generation on their host, a debate which has not taken place for auxiliary clitics.

To conclude this note on clitics - to be further discussed as applied to complex tenses in Catalan and Spanish in 3.3.1.3. - I will point out an observation by Mascaró (1986) which, I believe may be translated into incorporation - plus subsequent cliticization - . I am referring to the comparison that he makes between compounds and "larger words" - "small words" plus clitics -: he distinguishes between the lexical character of the

former-compounds- and the syntactic character of the latter-"larger words"- , paving the way for a syntactic characterization of "larger words", as is the case with complex tenses.

3.3.1.2 The structure of complex verbs

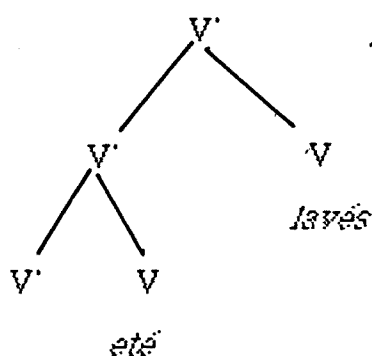
In this section I will put forward the structure that has been independently posited in many works - cf. especially Zagona (1988), among others - and which will provide the possibility of postulating direct incorporation of V to V in complex verb sequences. - 3.3.1.3 -17

This section is in a sense the attempt to show that even if the UTAH - cf. section 3.2 - of Baker is not involved in the structure of complex verbs, there are still reasons to believe that the two Vs are not generated as a unit but become a unit in the syntax; each is granted an independent head position. We will assume for the time being - and reconsider the issue in Chapter 4 -, that each V heads a VP.

In section 2.2.2 I briefly reviewed a few proposals, some of which were within earlier frameworks - ASW(1979), Emonds (1976) -. Nevertheless, each still granted each "auxiliary" a separate V node - not yet a "head" in terms of X'-theory. The structures are repeated here:

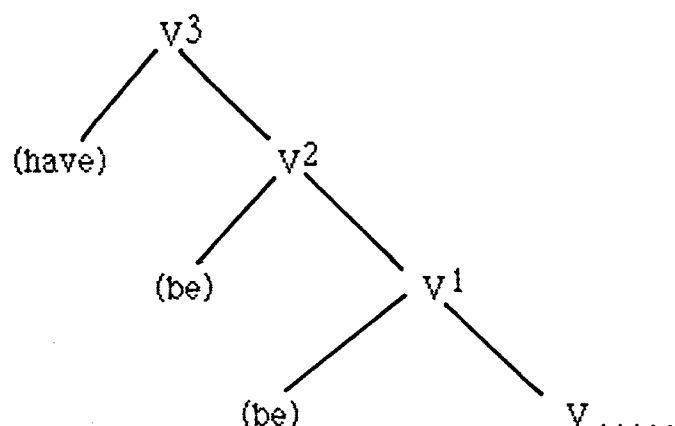
Emonds (1976)

(55)



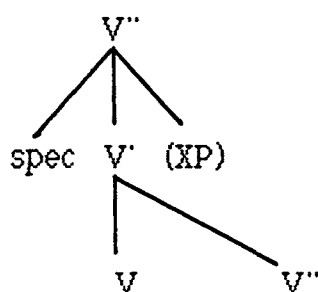
ASW (1979)

(56)



Zagona (1988) represents one of the reformulations of these proposals in X'-theory terms: each auxiliary heads a VP with full phrasal structure; it has all possible projections - as explained in section 2.2.2 -. The structure is repeated here:

(57)



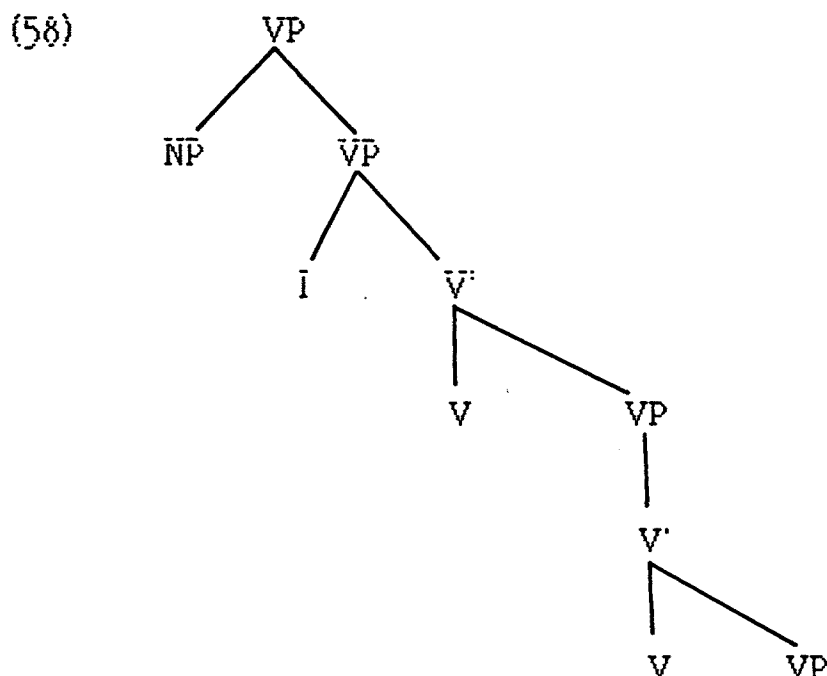
where XP is a possible position for a modifying adverb, and V'' the complement of an auxiliary.

Her theory, moreover, puts forward the licensing of Vs subcategorizing for VP, with her specific temporal-role marking proposal. Furthermore, the parameter she proposes to distinguish English and Spanish does not rely on a different VP phrasal structure for auxiliaries, but rather on different possibilities for temporal assignment.

The notion of complex predicate in Manzini (1987) also involves more than one VP: a "verb-to-verb" selection allows for the properties of

the non-auxiliary head to be "dominant" as far as the selection of the subject is concerned.

Manzini (1987)¹⁸



In G&H (1988)- cf. section 2.4 - it was shown that auxiliaries T-mark VPs, so subsequent VPs are also permitted and LF licensed by the FDC. An example ((35);49) of a complex verb in their paper is repeated here - cf. also 3.4. -:

(59) *John* [I'] [VP has [VP laughed]]]

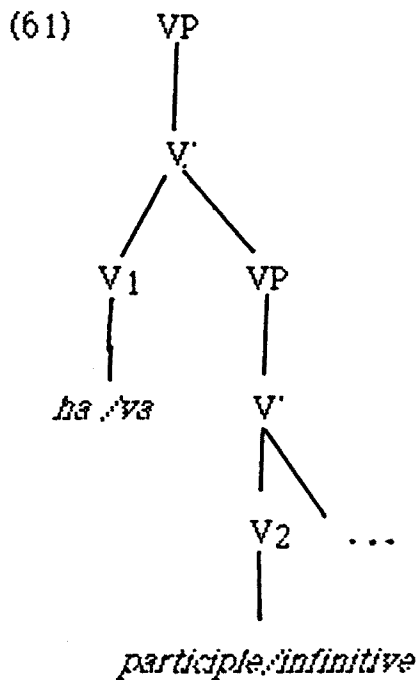
Another basic source which validates consecutive VPs ; i.e. the subcategorization of VP by V is Chomsky (1986b)¹⁹, where such a proposal is not argued for or explicitly claimed. Nevertheless, a consecutive VP structure is given for passive - cf. also 1.2.2 - . The structure of passive

after V-raising is the following, where @=i=j by Spec-head agreement:
 ((171;p.76)

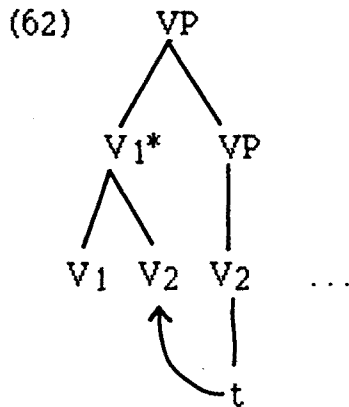
(60) *John_i [_@be -I] / [VP^{*} t_j / [VP killed t_j]*

3.3.1.3 Syntactic incorporation

As made explicit in the previous section , the structure assumed for complex verbs in Catalan and Spanish is:

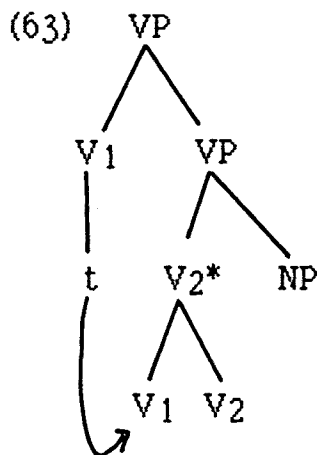


In such a configuration, the relevant structural relationships hold of the two V-elements in question so that move- X^0 may take place: V_2 moves to adjoin to V_1 and such a process results in the creation of a new V-category, V^* .



Notice that the V_2 position is already governed by V_1 prior to movement. The HMC is satisfied, and consequently the trace of V_2 does not violate the ECP. As explained in 3.2, the V^* counts as an antecedent governor for the V_2 trace; they share indices²⁰ and, thus, antecedent government holds.

Note that V_1 to V_2 incorporation is ruled out:



This is a case of downward movement, where the trace c-commands its antecedent, and, the ECP is violated, government of the trace by V^* is not possible here as there is an intervening maximal projection which, although selected, blocks c-command.

In structure (62), once the V-2 has moved up to V-1, there is nothing to prevent a cliticization of the first verbal element onto the second. This gives the expected results, i.e. the impossibility of separating them, which parallels with the behaviour of all other clitics in both Spanish and Catalan:

- (64)a. *sempre la veig*
 b. *la veig sempre*
 c. * *la sempre veig*

- (65)a. *siempre la veo*
 b. *la veo siempre*
 c. * *la siempre veo*

Therefore, once incorporation has taken place, cliticization follows, although, a qualification must be added at this point, which will be taken up again in the next section. The fact that clitics tend to be monosyllabic and not bear stress - although, as pointed out in section 3.3.1.1. in "A note on cliticization", this is not a universal - implies that cliticization will be ensured when the first verb in the sequence is monosyllabic, but non-cliticization may give a certain degree of non-cohesiveness in non-monosyllabic forms - cf. Suñer (1988), section 3.3.1.4 -.

If we assume that the process of incorporation followed by cliticization leads to a "frozen/opaque" constituent for the HOC - cf. 3.1 -, the existence of an element which interrupts the complex verb sequence in Catalan - *pas* - may be due to its own status as a clitic - in these constructions²¹ - preceding cliticization of the first verbal element:

- (66) *No he pas vist la nena*

Note that, as was already observed, it may be expected of a unit that becomes an X^0 constituent in the syntax to be less tightly knit than a lexical unit created in the lexicon. Although, as implied by Morphology Theory they are both subject to the same constraints. Moreover, as pointed out in "A note on cliticization" in section 3.3.1.1, there are even cases - as in Portuguese future tense - where a pronominal clitic may intervene between an affix - which has historically developed into one from a previous content word - and its host verb. Phenomena such as these may be expected in an area as murky as is cliticization. 22

As has been noted in section 3.3.0, the trigger for postulating incorporation in languages like Chichewa is the Affix Principle. The V, N, or P elements that undergo incorporation in these languages are generated in a different D-structure position by virtue of the UTAH - cf. 3.2 -, but they are affixes. As such they need a host, and to find one, they must move. In complex verb sequences for which I am proposing incorporation there is no such morphological justification to allude to; there is no morphological trigger. The assumption that I will be making here is that verbs that subcategorize for VPs trigger incorporation of the participle - or infinitive, in the case of the v_3 +infinitive sequence in Catalan - ; i.e. they attract the main verb onto them. Incorporation in such cases is obligatory - with possible subsequent cliticization -. 23

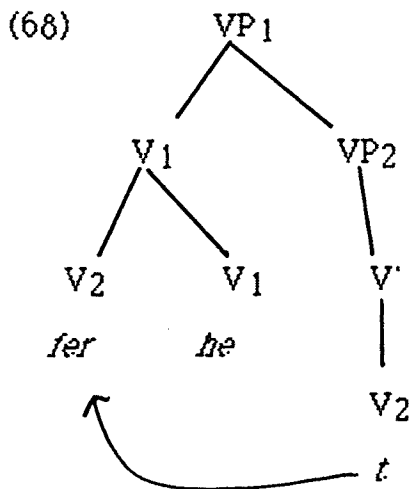
Why aren't the two V-elements phonologically amalgamated? The answer to this question is beyond the scope of this thesis, but one could attempt an approximative answer by alluding to a language-specific morphological characteristic of Catalan and Spanish - and all Romance languages, and also English- : the lack of inflectional prefixes . This might be the reason why , although HAVER/HABER has lost its lexical (= "possess")

meaning in modern Catalan and Spanish, they have still retained a lexical - V - and non-affixal status.

There is a phenomenon in the history of both Spanish and Catalan that may shed some light on the behaviour of complex verbs: the formation of the Future tense - cf. also section 3.3.1.1. for Portuguese - . The present day Future tense(b) is the fusion of two forms; an infinitival form and a form of "haver/haber"(a) :

(67)(a) amar + he = (b) amaré
 amar + has amarás
 fer + he = (b) faré
 fer + has faràs

We could explain the development of these forms by positing a process of incorporation. The difference with the complex verb sequences is that one could allude to a possible formation of the future forms by a left incorporation of V₁ to V₂ , as in (68):



As is usually assumed, adjunction is allowed both to the right and to the left, but the morphophonological result is different; in the future case,

the fact that inflectional suffixes do exist in the language may have paved the way for the amalgamation. It must be stressed that this process may be the explanation of a diachronic phenomenon; it is obvious that present-day future inflection is an affix and not an independent lexical head - as I am assuming for V1 in complex verb sequences -.

There is another problem that arises if we assume that the complex verb sequence becomes an X^0 unit in the syntax: the fact that the first element bears tense and agreement; i.e. why are the (b) examples not the result of the union of the two verbal elements?:

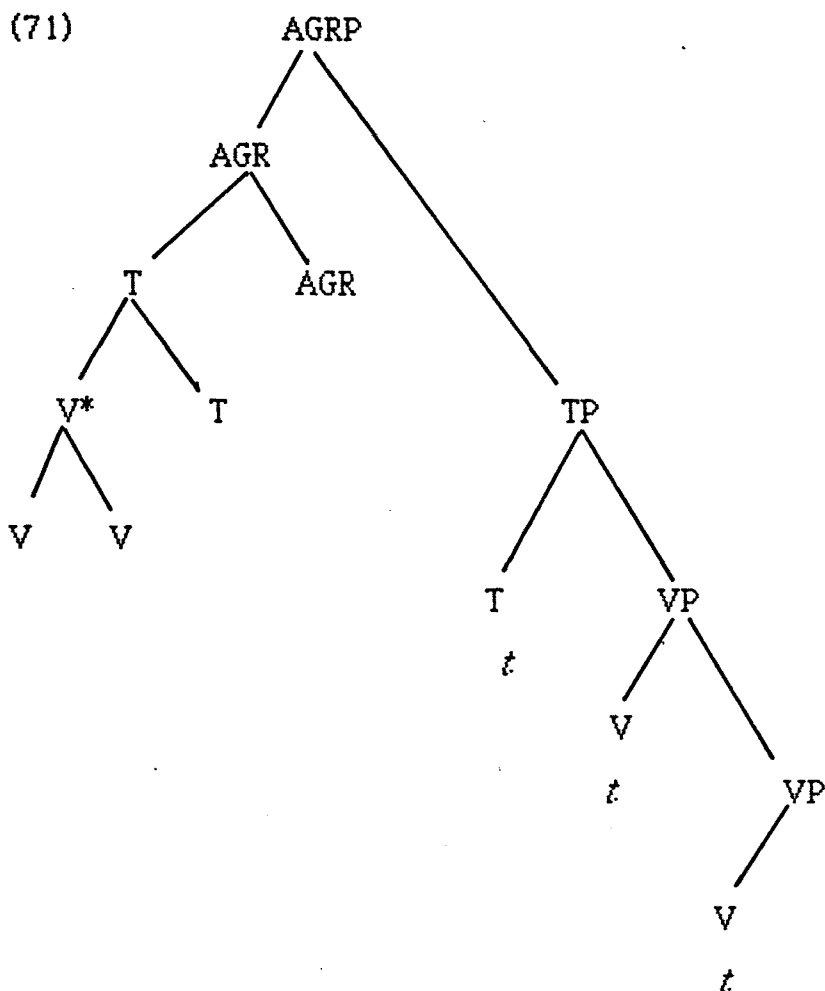
(69)a. *has fet*

b. **ha fets*

(70)a. *has hecho*

b. **ha hechos*

Here, again we allude to the fact that morphologically created units and syntactically created units are not completely alike, although they are both subject to the HOC. There seems to be only one way to account for this fact: assuming that the syntactic process is a "special" kind of adjunction; proper adjunction would lead to the T and AGR morphemes to be borne by V2 -as would be expected of the structure (38) -, but since the participle has already undergone morphological processes - as postulated in several recent studies; cf. Belletti(1990), Drijkoningen (1989), among others.- no more affixes can attach to it. Note that there is an independent ban on gerunds and participles to bear any person or number affixes. The following structure includes inflectional nodes and expresses the subsequent adjunctions that have applied: V2-to-V1-to-T-to-AGR²⁴:



A comparative fact to point out in favour of the clitic status of the auxiliaries in question, despite their bearing independent inflections is that Serbo-Croat auxiliary clitics have this same property, they inflect for tense and for person. - cf. Spencer (forthcoming) -.

3.3.1.4 Remarks on language variation

In this section some observations are made regarding the different behaviour of equivalent complex verb structures basically in Catalan and Spanish, but also Italian and a note on English and French is made.

Spanish

There are certain differences between Catalan and Spanish that call for an explanation. Suñer (1988) reports a contrast found in Spanish which does not seem to arise in Catalan. Namely, the contrast between one-syllable forms of the verb "haber", and longer forms.

Suñer gives the following examples to argue against the "inseparable unit" hypothesis:

- (72) *Lo hubiera usted oído en la mesa* (4)a.
 (73) *¿Cómo se explica que desde entonces acá no haya usted dado paso alguno?* (4)b.
 (74) *¿Cómo hubieras tú quedado?* (4)c.
 (75) *... y cuando yo hubiera ya sido mayor ...* (4)d.
 (76) *¿Sí, después que había mucho corrido, ¿no?* (4)e.
 (77) *Habían ellos pagado ya anticipadamente* (5)a.
 (78) *Platero me había ya saludado con un rebuzno* (5)b.
 (79) *De ahí que hubiese, durante meses, visitado la casa sin toparse con María* (5)c.
 (80) *¿Qué habrá el gobernador aprobado la semana pasada?* (6)a.
 (81) *¿A quién hubiera el vecino agradecido la atención si ...?* (6)b.
 (82) *Se había casi convertido a la religión de su novia cuando ...* (6)c.
 (83) *Esto habría indudablemente acelerado el proceso* (6)d.

The above - also from Suñer(1987);683 - contrast with:

- (84) * *¿Ha Pepe terminado el libro?* (Strozer 1976)
 (85)* *¿Qué ha Juan leído?* (Zagona 1982)

(86) * *¿Qué ha la gente organizado?* (Torrego 1984)

The examples cited show that there are instances of the verbal complex "haber + participle" which allow interruption. It must be noted that the dialects that Suñer considers do not coincide with the dialect of many Spanish speaking native speakers of the Iberian Peninsula. For many speakers, examples (72)-(83) are not ungrammatical but are not wholly acceptable either.

Suñer explains the difference by alluding to a cliticization of the monosyllabic form of the verb "haber" which needs a host and cannot stand on its own. Evidence for this comes from the fact that the only monosyllabic form of the existential "haber" (there-be) *ha* does not exist as such; its only form consists of *ha*+a locative clitic "y" which has not survived in modern Spanish:

(87) *Hay mucha gente en este lugar*

(88) *Había mucha gente en ese lugar*

(87) and (88) illustrate the difference: only the monosyllabic *ha* needs the clitic "y", the past form *había* does not. Suñer, thus explains the contrast by saying that when one of the monosyllabic forms of the verb "haber" occurs - 1sg *he*, 2sg *has*, 3sg *ha*, 3pl *han* -, it always cliticizes to the form that follows it.

Note that - irrespective of the validity of Suñer's analysis - the fact that monosyllabic forms need a host points towards the possibility of incorporation applying in this sequence - as the mechanism to license cliticization -. But, note that, universally, clitics are not always monosyllabic; as for instance the bisyllabic prepositions of Catalan and Spanish - cf. also Spencer (forthcoming), Klavans (1982) -.

Catalan

Consider the Catalan translations to some of the above sentences:

(72') * *Si l'hagués vosté sentit a la taula*

(74') * *Com hauries tu quedat?*

(76') * *Si, després que havien molt corregut*

(77') * *Havien ells pagat ja anticipadament*

(79') * *D'aquí que hagués, durant mesos, visitat la casa sense topar-se
amb la Maria*

(82') * *S'havia quasi convertit a la religió de la seva promesa quan*

(83') *? *Així hauria indubtablement accelerat el procés*

Most of the above examples are ungrammatical. Considering Suñer's arguments for positing a cliticization rule, it is relevant to allude to the fact that Catalan existential "haber" does not parallel to Spanish existential "haber": in Catalan, all the forms of the verb require the locative clitic "hi", which has survived in modern Catalan.

(89) *Hi vaig*

(90) *Hi ha molta gent*

(91) *Hi havia molta gent*

Clearly, then, if we follow Suñer's argument - i.e. the reference to the (no longer) clitic "y" as evidence for the necessary cliticization of the form *ha* in sequences of *ha*+ past participle -, all the forms of the verb *haber* in Catalan must cliticize; in the *hi* + *haber* sequences, it is *hi* which cliticizes onto the lexical head, *haber*; in the *haber*+ past participle sequences, it is

the *haber* form which cliticizes onto the participle - independently of the number of syllables it has .

As has been pointed out in 3.3.1.3, an explanation to the fact that interruption is not allowed in Catalan under any circumstance, but marginally accepted in Spanish, may be that although incorporation occurs in all forms of complex verbs both in Spanish and in Catalan, subsequent cliticization may fail to apply, allowing for a certain degree of non-cohesiveness. Nonetheless, even in sequences where cliticization may be argued to have failed to apply, the acceptability of the sentence is not complete - cf. (72)-(83) . Incorporation, thus, accounts for the marginality for most speakers of Spanish in the Iberian Peninsula of Suñer's examples.

Italian

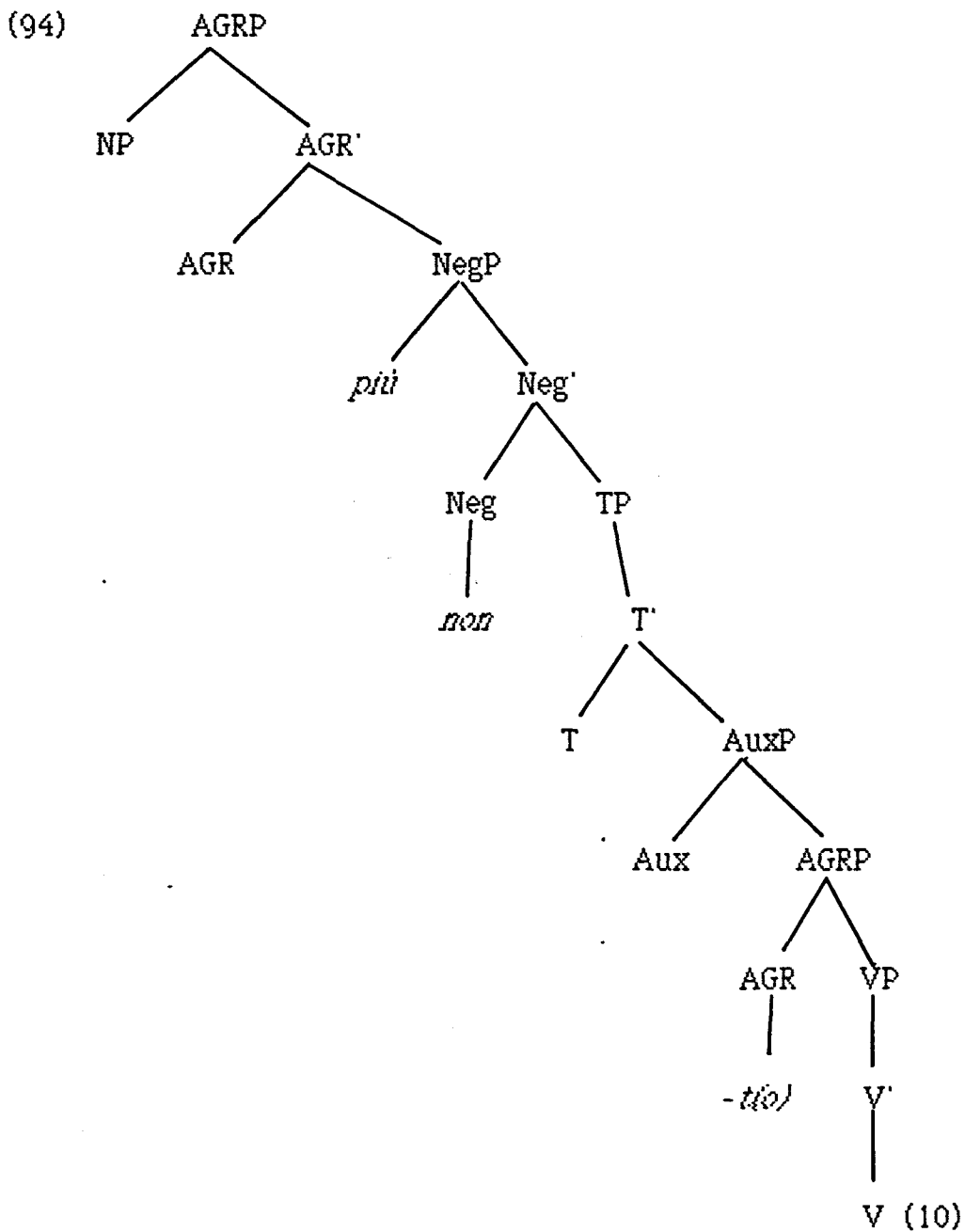
Belletti (1990) considers the possibility of the following word order possibilities in Italian of Neg particle-Aux-PParticiple-Neg adverb in Italian - the examples in (93) clearly contrast with Catalan and Spanish -:

- (92) a. *Gianni non ha parlato più*
 b. *Maria non è uscita mai*
 c. *(Quel lavoro) Non l'ho finito ancora* (1)

- (93) a. *Gianni non ha più parlato*
 b. *Maria non è mai uscita*
 c. *(Quel lavoro) Non l'ho ancora finito* (2)

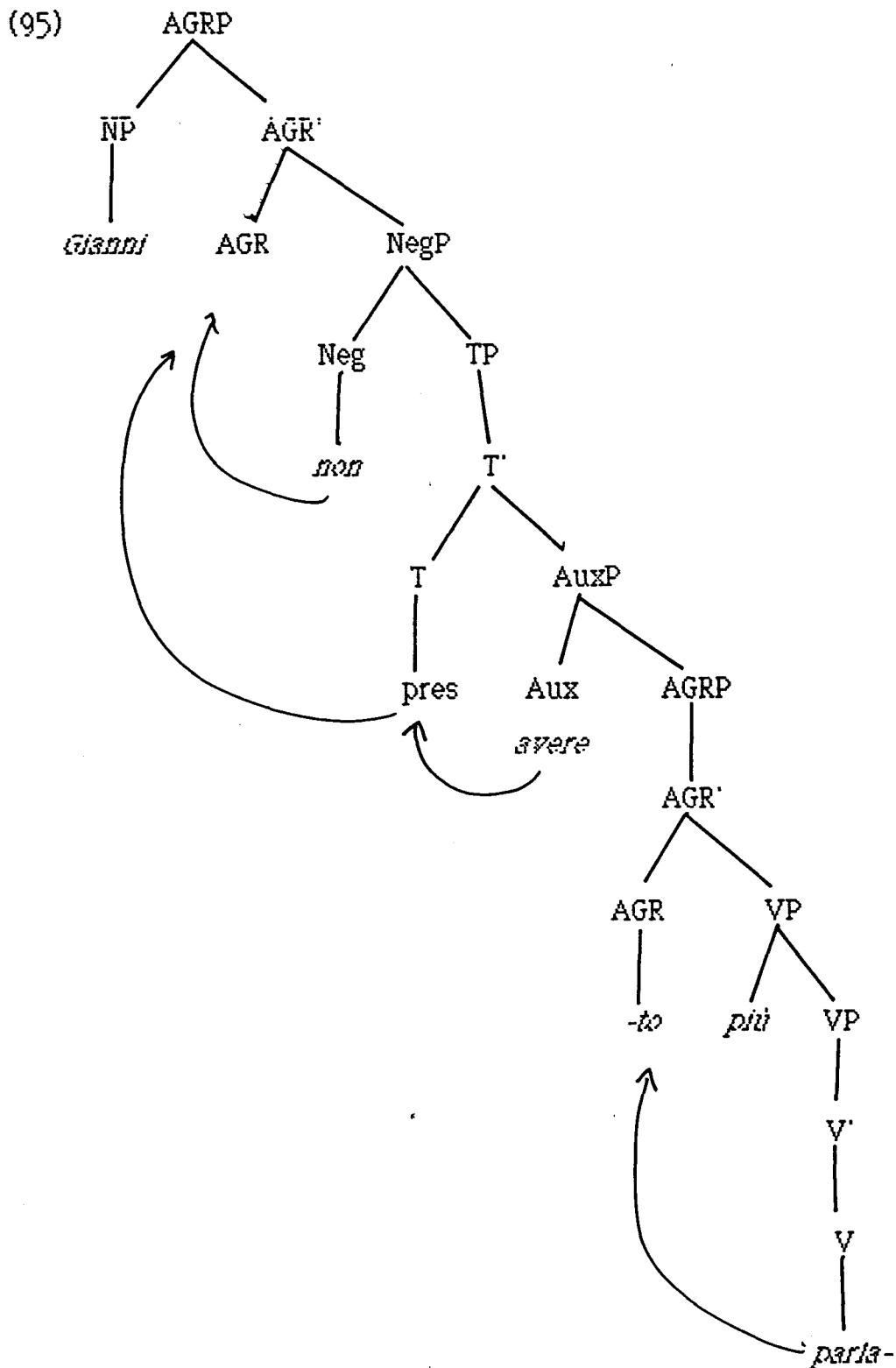
Belletti makes use of a more complex structure where the past participle and the auxiliary are both dominated by independent non-lexical (functional) nodes²⁵. There is also a NegP which includes a Spec position, the position where the negative adverbs are generated. The movement of

both , the negative particle and the tensed verb to the highest inflectional node -AGR - would derive the (93) order:



Belletti considers but invalidates the derivation of the order in (92) by a process of incorporation -as the one postulated in section 3.3.1.3 for Catalan- of the past participle to the auxiliary, and subsequent movement of both to the highest AGR node. Instead, Belletti proposes that negative

adverbs may be generated in VP-spec position, and that the participle moves past the adverb to its AGR position, and the Aux element to its corresponding AGR node. Adjacency is, thus, obtained without recourse to Baker's incorporation. (Belletti (1990);(12))



The choice of one proposal over the other is done on empirical grounds. There seem to be two very different predictions made by the two analyses:

" ... given a sequence "NP Aux *Adv* PstPrt" , whatever the nature of the adverb involved, the incorporation hypothesis predicts that the order "NP Aux PstPrt *Adv*" will always be available as well, no matter which position the adverb fills, provided that it is a position lower than the (highest) AGR head. On the other hand, if no process of "Aux+PstPrt" incorporation is assumed to be available, the prediction is that the order "NP Aux PstPrt *Adv*" can only be obtained if the adverb in question fills the VP initial position; if it fills any position higher than VP, the final order of constituents will always be "NP Aux *Adv* PstPrt ". (p.30)

These predictions are borne out in Italian, but not in Catalan nor in Spanish, as was shown in preceding sections, as there is no possibility of "NP Aux *Adv* PstPrt" sequence, equivalent to the Italian (96), where a sentential adverb is used in order to prove that the incorporation analysis fails given the ungrammaticality of (97):

(96) a. *Gianni ha probabilmente telefonato*

b. *Maria é evidentemente partita* (14)

(97)a. **Giani ha telefonato probabilmente*

b. **Maria é partita evidentemente* (15)

A note on French and English

These two languages contrast sharply with Catalan and Spanish in not allowing adjacency of Aux and Past Participle in certain constructions, for instance, V movement and Placement of the negative particle, or Interruption by the negative adverb *never/jamais* - this was already seen in the presentation of the tests in section 2.1 for English- as (98) -(99) and (100)-(101) show :

(98)a. *Has Peter seen the film?*

b. **Has seen the film Peter?*

(99)a. *Pierre, a-t-il vu le film?*

b. **A vu Pierre le film?*

(100)a. *Peter has not seen the film*

b. **Peter not has seen the film*

(101)a. *Pierre n'a pas vu le film*

b. **Pierre n'a vu pas le film*

(102)a. *I have never seen anything as terrible*

b. **I have seen never anything as terrible*

(103)a. *Je n'ai jamais vu une chose aussi atroce*

b. **Je n'ai vu jamais une chose aussi atroce*

These examples imply the non-application of incorporation in equivalent complex structures in French and English - cf. Pollock (1987) for an explanation of such contrasts -. As will become evident in section 3.4, these differences will also lead to the assumption that different kinds of auxiliaries - N-aux / T-aux in G&H (1988)'s framework - may have

different properties in different languages. HAVE, for instance - a neutral auxiliary - cf. section 2.4 - triggers obligatory incorporation in Catalan and Spanish but not in English, although, as all auxiliaries, it T-marks its VP complement.

These differences seem to me best captured in terms of the general loss of "content" ("possess") lexical status of *haver/haber* in Catalan and Spanish, as opposed to English and French, where *have/avoir* have retained their "content" lexical status in structures other than complex verb sequences. This is another argument in favour of the loss of syntactic autonomy of *haver/haber*, and, thus, the triggering of process of incorporation in these two languages as opposed, again, to French and English. English and French *have/avoir*, despite their ability to function as auxiliaries, do not trigger incorporation.²⁶

3.3.2 Incorporation and complex predicates

3.3.2.0 Introduction

This section presents the analysis that Baker assumes for those sequences analyzed in section 2.3 as complex predicates; i.e. verbal sequences that do not behave as lexical units, but which are a semantic unit, although there are reasons to postulate a biclausal status of the structure in which they occur; i.e. Control or ECM structures. I here present Baker's analysis as objectively as possible, leaving possible dubious aspects for section 3.4. His mechanism of VP to Spec CP is one of these dubious aspects, and I will attempt to render it unnecessary by making use of G&H's analysis - as presented in section 2.4 -.

3.3.2.1 A note on complex predicates

Reconsider some of the tests presented in both section 2.1 for Catalan and Spanish, which seem to indicate that the two verbs in the sequence - as opposed to those in the sequences considered in 3.3.1 - are not lexical units:²⁷

Catalan:

1. Interruption by lexical elements (adverbs and parentheticals):

(Test 10)

(104) a. *Sempre feia portar les maletes al seu marit*

b.(?) *Feia sempre portar les maletes al seu marit*

(105) a. *Comença a protestar quan te gana*

- b.(?) *Comença sempre a protestar quan te gana*
- (106) a. *Molt sovint vol anar a la platja*
 b.(?) *Vol molt sovint anar a la platja*
- (104) a. *Podem sortir en barca si voleu*
 b. *Podem, si voleu, sortir en barca*

From Espinal (1980). The * marks the positions where the adverb "òbviament" (obviously) may appear:

- (108). * *En Joan * va haver * d'abandonar*
- (109). * *La fortalesa * ha estat * essent * observada*
- (110). * *En Joan * devia * haver vingut*

2. Placement of the negative particle (or Tensed negative VP):

(Test 3)

From Picallo (1988):

- (111) *En Jordi pot no haver sortit*
- (112) *Començo a no tenir-ne ganes*
- (113) *En Pep voldria no haver-ho de fer*

3. V-0 movement (or Tensed verb preceding subject):

(Test 4)

- (114) a. *Solia anar a veure el mar la Maria?*
 b.(?) *Solia la Maria anar a veure el mar?*
- (115) a. *Pot fer el viatge la Pepa?*
 b.(?) *Pot la Pepa fer el viatge ?*
- (116) a. *Començarà a fer les preguntes l'entrevistador?*

b. (?) *Començarà l'entrevistador a fer les preguntes?*

4. Preposing and postposing:

(Test 11)

(From Hernanz & Rigau (1984))

(117) a. *Solia parlar de les seves velles amistats parisenses durant l'estiu*

b. *Solia durant l'estiu parlar de les seves velles amistats parisenses*

(From Espinal 1980, who does not include ?).

(118)(?) *Créiem que millorava i empitjorant anava*

(119)(?) *Van dir que seria empresonat i empresonat va ser*

Spanish

1. Interruption by lexical items (adverbs and parentheticals):

(Test 10)

(120)(?) *Hacía siempre llevar las maletas a su marido*

(121)(?) *Comienza siempre a protestar cuando tiene hambre*

(122)(?) *Quiere, cada domingo, ir a la playa*

(123)(?) *Podemos, si queréis, salir en barco*

2. Placement of the negative particle(or Tensed negative VP):

(Test 3)

(124)(?) *Carmen debería no leer tantas novelas*

(125)(?) *Este alumno puede no tener que hacer el examen,
si su trabajo está bien hecho*

3. V⁰ movement (or Tensed verb preceding subject):

(Test 4)

(126)(?) *¿Puede tu amigo venir un momento?*

(127)(?) *¿Ouleren sus padres conocer a su novia?*

4. Preposing and postposing:

(Test 11)

(From H&R (1984):

(128) a. *Debí comentar este lamentable incidente hace mucho tiempo*

b. *Debí hace mucho tiempo comentar este lamentable incidente*

(129) (?) *Sabíamos que volvería a fumar y a fumar volvió*

The fact that move-alpha may break the sequence of two *abstractly incorporated* or reanalyzed - cf. below for an explanation - items is implied by Baker in several passages of Baker (1988). It is important to mention that this is noted in cases where non-syntactic incorporation takes place - cf. below for an explanation , section 3.3.2.2 -, as , according to Baker, in the cases of complex predicates in Romance. In his analysis of copular passive - cf. Note (32) - he assumes that BE is generated in INFL and that the V incorporates abstractly into it, but if BE is a V subcategorizing for another VP - cf. section 1.2.2 Chomsky 1986b - "we may assume that first the main V reanalyzes with the auxiliary, and *then* the auxiliary overtly incorporates into INFL (p.477 fn9).²⁸ In another passage of the book, which

Baker links to the above statement himself, a parallel process is assumed to take place in the analysis of causatives in Chimwiimni and Chamorro: "First, the verb reanalyzes (i.e. is coindexed) with the head of its NP object, thus freeing the object from the need to get Case. The verb *then* may move to INFL C, and ultimately to the matrix verb without taking the object NP along." (p. 279) What these passages imply is that a sequence of two reanalyzed items *may* be broken up by move-alpha. In this case, move-alpha is an instance of a specific type of abstract incorporation, as will be explained below.

In the examples above we see that the sequence of two verbs may be broken up either by the interruption of lexical items or by movement (preposing or postposing, V^0 to C). Even if we take into account the fact that for some speakers these configurations do not render a wholly acceptable result, this set of verbal sequences still clearly contrasts with the complex verbs analyzed in the previous section in that they form a quasi - indivisible unit, as opposed to an utterly indivisible unit.

Note that although Baker's theory allows for interruption of verbal sequences - and , thus, makes correct predictions for the examples above considered - the dubiousness of the mechanism proposed for complex predicates calls for reconsideration -cf. section 3.4 -.

3.3.2.2 Romance causatives

Baker extends his analysis of causative structures in Chichewa, Malayalam, etc. to Italian. He posits that the rule of incorporation as outlined in section 3.2 is not only available in these languages; Italian seems to have a similar rule. In other words, among all the possible variation within causative constructions that Baker studies, Italian - and other Romance languages - group together with Chichewa²⁹ and Malayalam. Note that following the assumptions in section 3.2 the configurations in both of the following sections are instances of biclausal structures - they are considered GF-changing processes .

Baker's analysis of Italian causatives is a reformulation of previous analyses which posited a rule of reanalysis - cf. Section 2.3.1.4, Manzini (1983)- for such structures. Reanalysis in the actual framework can be seen as an instance of incorporation at another level of the grammar; i.e LF. Italian causatives such as (1) and (2):

(130) *Maria fa lavorare Giovanni* (121)a.

(131) *Maria ha fatto riparare la macchina a Giovanni* (121)b.

are analyzed as instances of this type of incorporation. The crucial fact is that there are basic syntactic properties that these constructions share with the relevant constructions in the other two languages. If both may be explained with one general mechanism for which , according to Baker, there is independent evidence, the theory will gain explanatory adequacy. Baker focuses on the characteristics of the NPs following the causative sequences: the embedded object of a transitive verb, and the embedded subject of an intransitive verb behave as the object of the main

verb after causativization, and the embedded subject of a transitive verb bears an oblique case, namely dative - cf. also sections in 2.3.1 for other analyses -. The following rule is the descriptive statement of this fact:

(132) Causative Rule 1

GF in embedded clause	GF in surface clause	
ergative	oblique (IO)	
absolute	direct object	(41)

where absolute= subject of intransitive, object of transitive

ergative= subject of transitive

The relevant tests for Italian are cliticization³⁰, which shows that the two absolute NPs may be object clitics of the higher verb (133), and passivization, which allows again both these NPs as subjects (134).³¹

(133)a. *Maria lo fa lavorare*

b. *Maria la fa riparare a Giovanni* (122)a. and b

(134)a. *Giovanni è stato fatto lavorare (molto)*

b. *La macchina fu fatta riparare a Giovanni* (123) a. and b.

These descriptive observations are predicted by Baker's analysis. They are, thus, explained if incorporation is accepted as a universal mechanism. The differences these languages exhibit - " ... one important difference between the two: from the viewpoint of morphology, the causative verb and the embedded verb are still two separate words in Romance." p.201 - seem to be reducible to a parameter; i.e. the level of application of this rule in the grammar. If incorporation in these

(reanalysis) constructions is assumed to take place from S-structure to LF - and not from D-structure to S-structure as posited for Chichewa and Malayalam - the differences follow. This, as mentioned by Baker, is parallel to the well-known parametric variation in Chinese where wh-movement applies at LF.

The differences alluded to above are facts which will gain importance in what follows. One obvious difference that (135) and (136) show if compared to (130) and (131) is that causativization in Chichewa and Malayalam creates a morphologically complex unit, one word:

- (135) *Anayani a-na-wa-meny-ets-a ana kwa buluzi*
 baboons SP-PAST-OP-hit- CAUS-ASP children to lizard
 "The baboons made the lizard hit the children"
 (Chichewa) (94)a.

- (136) *Amma kuttiye-kkonta annaye null-icc-u*
 mother child-ACC with elephant-ACC pinch-CAUS-PAST
 "Mother made the child pinch the elephant"
 (Malayalam) (98)a.

(135) and (136) also show that, in these two languages, there is only one inflectional ending in the causative verbal units. This contrasts with Italian where each verbal element carries a specific inflection. Crucially, though, it is the first verb in the sequence, the causative verb proper that carries the tense and agreement inflection, the lower verb is in its infinitival form.

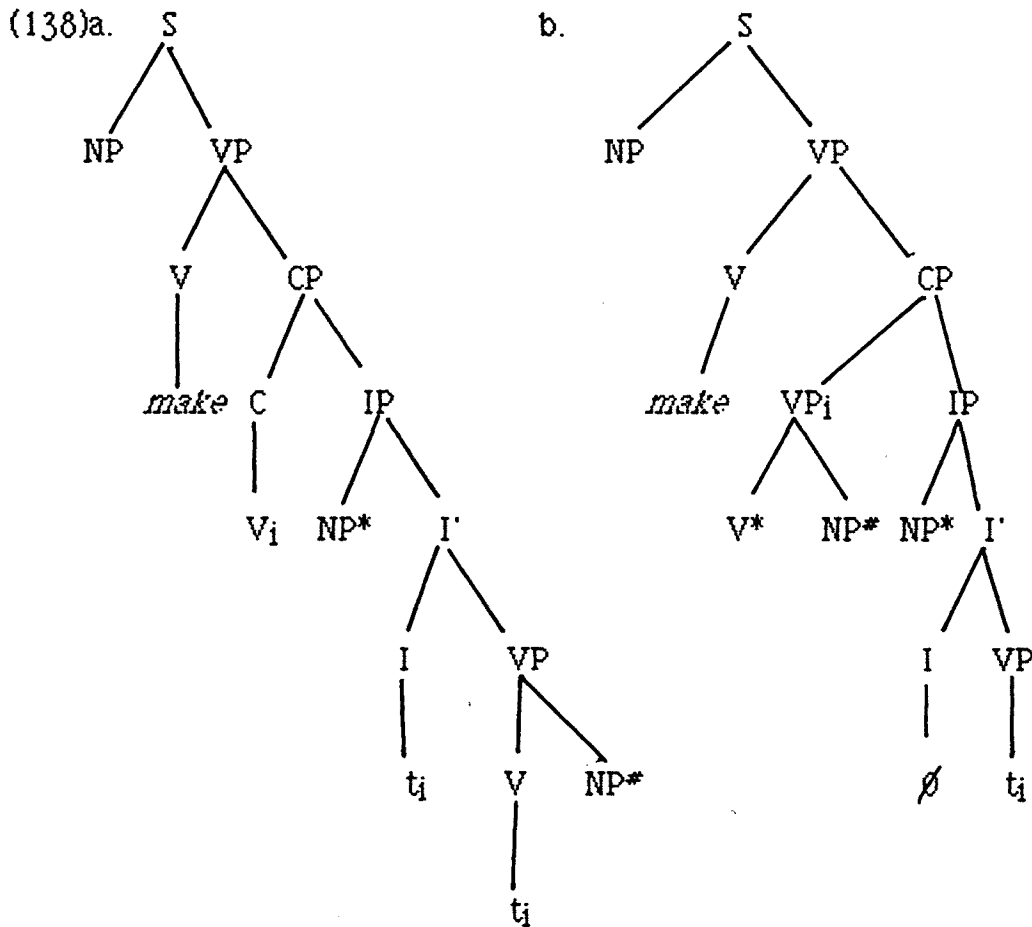
The result of this process - i.e. LF-incorporation - is that the syntactic properties of causative constructions in both groups of languages - i.e. Chichewa and Malayalam on the one hand and Italian on the other - are the

same, but they allow for the surface structure differences pointed out above: " ... we must give an account of Romance causatives in which they have exactly the same syntax as (say) Chichewa causatives, but they differ with respect to morphology " (p. 202). - . The formal characterization of the contrast between the two groups of languages is as follows. Note, though, that the relationship between the two verbal heads is and must be essentially the same in all of these constructions: the link that the first verbal element bears with the second one is translated into a government relation . Coindexing between nodes is interpreted in these constructions as the coindexing between a part of a complex word and its trace as in the following. Note that both a. and b. involve a government relationship and, thus, further incorporation is legitimated - in b. -:

- (137) a. [YP. . . [X_i + Y_i] . . . [XP t_i . . .]]
 b. [YP. . . Y_i . . . [XP X_i . . .]] (124)

If the lower verb is not in a position where it is directly governed, it moves in order to reach such a position - cf. section 3.2 -. Crucially, the Romance constructions that Baker analyzes all require movement; i.e. movement previous to the incorporation process, because they all constitute cases of biclausal structures.

Recall that in section 3.2 the issue of the movement of the embedded V to a position governed by the matrix V prior to incorporation was already mentioned. Two possibilities were mentioned without giving specific examples. Consider the following structures, which instantiate the two possibilities:



(62)a. and b.

These structures show the different movement possibilities of the verb prior to incorporation of the lower verb to the matrix verb. In transitive constructions, there are two NPs in each structure which, like all NPs are subject to the Case Filter. The complex verb resulting after incorporation, will only be able to assign as many cases as simple verbs in the language may assign. This is Baker's *Case Frame Preservation Principle* (CFPP), which states that "a complex X^0 category formed by Incorporation cannot go beyond the maximum case-assigning properties allowed to a morphologically simple member of that category in the language" (p.355) So, if Vs only assign one case, there will be an NP lacking case: in a. the embedded object, NP*; in b. the embedded subject, NP*. Notice, though, that

this lack of case is not due to the fact that they are ungoverned: both these NPs *are* governed by the incorporated V since there are no minimality barriers, and all the X-max are selected. What plays a crucial role here is the CFPP. In the b. structure, crucially the causative verb is assumed to have the lexical property of Complementizer Deletion, otherwise, CP would be a minimality barrier, containing a *distinct* head. For both NPs, thus, a marked type of case assignment is needed.

Consider the Italian example (131) above, repeated here:

(131) *Maria ha fatto riparare la macchina a Giovanni*. (121)b.

In Italian the insertion of a preposition allows the NP subjects to pass the Case Filter - cf. also section 2.3.1, Kayne (1975), Burzio (1986) -. It is the NP subject, not the object which surfaces as an oblique in these constructions, so their surface structure follows by assuming that they are derived via VP-to-Spec-CP movement, as in (138)b.

Chichewa and Malayalam have this same option for embedded subjects. Notice that these surface with an oblique case in (135) and (136):

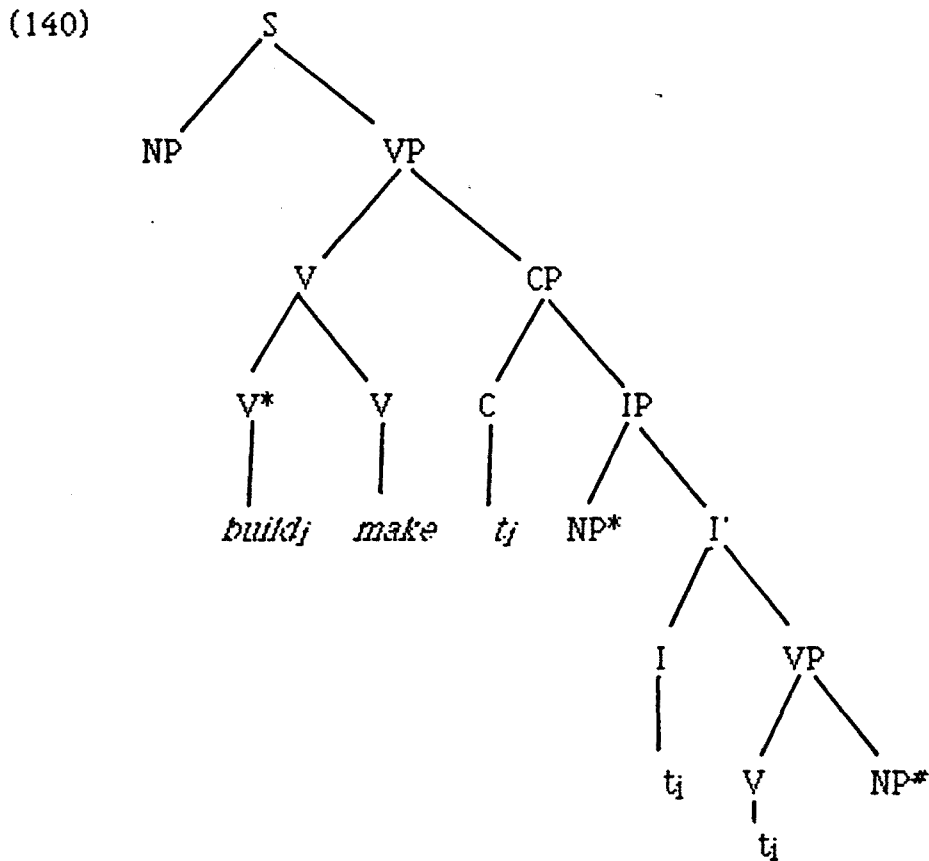
kwa buluzi (to lizard; Chichewa),

kuttye-kkonta (child-ACC with; Malayalam, SOV).

The derivation in (138)a., VI, is assumed for languages with verbs that have the ability to assign two accusative cases. One such language is another Bantu language, Kinyarwanda. In Kinyarwanda, Vs assign accusative case to two postverbal NPs, and both of these show direct object properties. In the derivation of (138)a., where the lower V has incorporated, V* governs both of the NPs, the subject and the object,- there

are no "distinct" heads, no minimality barriers-, and since the V has the capability of assigning two accusative cases, there is no need to have recourse to a marked type of case assignment. The following example illustrates this:

- (139). *Umugabo a -r -ubak -ish -a abaantu inzu*
 man SP-PRES-build-CAUS-ASP people house
 "The man is making the people build the house." (67)b



(66)

Going back to Baker's explanation for Italian, Chichewa and Malayalam causatives (i.e., 138b) it is assumed that only the embedded Vs of the last two languages undergo movement in the syntax: they surface as

one morphologically complex form. What Baker posits for Italian is a process of *Abstract incorporation*. Incorporation of the lower V to the higher V takes place at LF. Before this, the V must move to a position where it can reanalyze with the higher V : Quoting Baker: " Because of the presence of the Infl node in the sentential object the verb must undergo movement internal to the clause in order to get into a position to Reanalyze. This much happens in the syntax by S-structure. [...] if the lower verb is transitive, the entire VP must move into sentence initial position, so that the lower object does not violate the Case Filter. " (p. 203). Thus, it is assumed that for transitive verbs, the whole VP moves to the Spec of CP (as in (9)b. - cf. also section 2.3.1.2 for another VP-movement analysis of causatives, Burzio (1986) - . The object NP is assigned accusative case by the complex V, and the embedded subject receives case via a preposition insertion rule.

As implied by the quotation, for intransitive Vs, there is no reason to assume that the whole VP must move, since the NP-subject in the lower clause will be governed if the V moves head-to-head. The NP-subject is the only NP needing case and it can be assigned case directly by the complex verb.

3.3.2.3 Restructuring constructions

Baker's analysis of restructuring - cf. 2.3.2- constructions in Romance is parallel to his analysis of causatives . Namely, he proposes that this other type of complex predicate may also be analyzed as an instance of VI, of abstract VI. What causatives and restructuring constructions share is that they are made up of two verbs which function as one, a complex predicate, and, according to Baker, their D-structure is biclausal; they both have a lower subject and a lower object, but there are some crucial differences. The

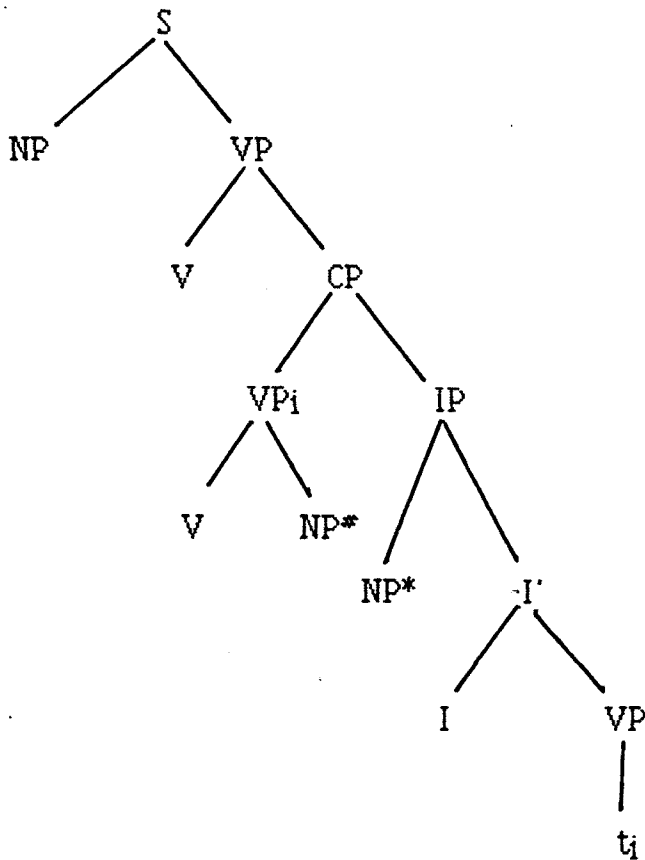
embedded subject in restructuring constructions, as opposed to causatives, must be phonologically null, and it must be coreferential with the matrix subject - as noted and explained in section 2.3. -. The structure is , thus, analyzed as an instance of Control. This construction is a point of interest for Baker in his analysis of GF changing patterns since it also involves a GF change as the following rule describes:

(141)	<i>Initial GF</i>	<i>Final GF</i>	
	embedded object	object	
	embedded subject	∅	
	matrix subject	subject	(125)p.204

This rule is assumed to coexist with a specific causative pattern. Baker analyzes the differences between these two types of GF changing processes in the same way, but alluding to a specific property that causative verbs have that restructuring verbs do not have: the lexical property of Complementizer Deletion. This allows the government of the embedded subject by the complex head V-0 containing a causative V and an incorporated V, but blocks government of the embedded subject by the complex head V-0 containing a restructuring V and an incorporated V. Recall that if there is C-deletion, CP will not be a minimality barrier since C will not be a distinct head. The result, if C-deletion does not take place, is that the only element allowed in this subject position is PRO, as the theories of Binding and Control ensure. The parallel boils down to the difference between ECM and Control verbs.

The structure Baker assumes for the causative pattern found in Italian is (138b) repeated here:

(138)b.



As mentioned, in causative structures of transitive verbs the second NP is case-marked by a special device which assigns it oblique case ; in restructuring constructions the second NP does not need case, moreover, it may not be governed because it is PRO. The fact that the second NP could not get case followed from the *Case Frame Preservation Principle* which disallows the assignment of more cases by a complex X-0 than are typically assigned by a non-complex member of the given X category. 32

3.4 Incorporation and T- theory

3.4.0 Introduction

The aim of the next three sections 3.4.1, 3.4.2, and 3.4.3 - is to explore some of the possible interactions of **I(ncorporation)-theory** (Baker 1988) and **T-theory** (Guéron & Hoekstra (1988)). Since both, I-theory - the part of it which is referred to in this thesis, and which constitutes its main hypothesis - and T-theory are attempts to explain the cohesiveness of verbs in a sequence ; i.e. of complex predicates and complex verbs, I believe it worthwhile to attempt a look at the extent of compatibility and interactions that there are between the two.

In section 3.4.1 the basic idea that syntactic incorporation (as postulated in 3.3.1. for complex verbs) - a derivation at S-structure - and T-theory (cf. section 2.4) - which crucially involves the FDC, an interpretation principle of LF - are compatible will be approached.

In section 3.4.2 the two LF mechanisms in each theory - LF-incorporation and the FDC - are compared. Some dubious aspects of LF - incorporation and the generality of the FDC seem to make the former unnecessary.

Finally, section 3.4.3 is an attempt to rejoin the idea put forward in section 3.3.1 that $V [\text{--- VP}]$ subcategorization requires obligatory incorporation with the notion of neutral auxiliary (N-aux). The questions raised are: Do only N-auxiliaries trigger obligatory incorporation of their V complement ? ; Is it a universal property of N-auxiliaries or is there language variation?; May the behaviour of complex predicates be explained by assuming that the first verb of a complex predicate sequence is an auxiliary , moreover a T-auxiliary, which does not trigger incorporation? The special status of epistemic modals is also raised.

In this introduction I would like to briefly retrace some notions which were raised in the "digest" - section 2.3 -, some of which may be - if only - "relatable" to some of the notions proposed by Guéron & Hoekstra (1988) ; notions like T-chain, the concept of auxiliary as a T-marker, and the proposal that the first verbal element in a complex predicate sequence may be an auxiliary in certain configurations.

Rouveret & Vergnaud (1980) - section 2.3.1.1 - posit the notion of *superscript* , borne by both, [- N] elements and [+ N] elements. In the former case, one may see how verbs in a sequence were already seen as bearing "indices" of some sort. They proposed this for the French causative *faire* - a much trodden on verbal element - as in their rule I repeated here:

(142) Rule I

FAIRE₁ [- N]₂ P NP → 1 [- N]₃

1 2 3

CONDITIONS : (i) [- N] does not branch

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

The fact that Burzio (1986) - section 2.3.1.2 - proposes VP subcategorization for certain - obviously - non-derived causative structures also relates to G&H's proposal of *faire* as an auxiliary, although - cf. 2.4 and below - G&H assume IP in the syntax. In the parallel structure analysis of Zubizarreta - section 2.3.1.3 -, we find that *faire* is generated as (part of a) a complex verb in one of its parallel simultaneous structures; another link with its auxiliary status in G&H. The fact that Manzini (1983b) - section 2.3.1.4 - proposes the lexical property of reanalyser for a causative like *faire* , again indicates its - at obvious different stages of the model - theoretical bond with G&H's proposal.

The proposals for restructuring constructions offer no parallel contrast possibilities, although Rizzi (1982a) "complex verb" formation - and all the other proposals which obviously posit mechanisms for linking M-A + infinitive verbal sequences - may be subsumed by G&H's proposal of classifying certain of these verbs (in specific constructions) as auxiliaries, which, therefore, T-mark their VP complements. As will be seen in the next sections, VP-movement is rendered unnecessary by T-marking, when the verbs have an auxiliary status; otherwise - if they have a lexical verb status - they Case-mark their complement and it is interpreted as an argument, not as (part of) a predicate.

Note that in G&H's terms, the notion of complex verb and complex predicate may be unified at LF by their mechanism of FDC - cf. (143) below: verbs forming a complex verb sequence are always part of a predicate, and when complex predicates are formed, verbs in these sequences are also part of a complex predicate. Evidently, this is so because their aim is to contrast between argument/predicate (nominal/verbal) verbal complementation, which is not the aim of this thesis. It must be noted that in order to avoid confusion whenever I refer to the notion of *complex predicate* as in G&H(1988) - as a result of the FDC -, I will use *italics* to distinguish it from the notion of **complex predicate** used in this thesis - as explained in Chapter 2 -.

3.4.1. Syntactic Incorporation and T-theory

3.4.1.1 Another look at T- theory 33

The aim of Guéron and Hoekstra to consider the concept of auxiliary more closely is, to my mind, in the sense of Wass's passage - cf. introductory quotation to 2.1 - : " Un élément portant le nom d'auxiliaire ne peut se justifier que s'il permet de révéler des propriétés significatives du langage ". By giving the notion of auxiliary a firm basis - that of T-marking, essentially - G&H (1988) , to my mind, achieve a simplification of the grammar in that they allow for VP complementation in cases where traditional arguments for Control or ECM structures would not allow a VP, and , thus, explain the exceptional behaviour of complex predicates, and also, more obviously, the behaviour of complex verbs. This is done by making intensive use of the level of LF, which is where VP complementation of otherwise not straightforward VP projections is *construed*. Their framework gives a basis - in terms of a construal principle -, which allows for a specific interpretation of an XP complement as nominal or verbal - argument or predicate -. The FDC , repeated here:

(143) Functional Determination of Categories

a. External.

An XP is construed as a nominal projection iff it is casemarked.

An XP is construed as a verbal projection iff it is T-marked.

b. Internal.

The subject of a nominal projection receives a Case which is determined internal to XP; the subject of a verbal projection

receives a Case (if any) which is determined by an external governor.

ensures that the complement of the V in a complex verb structure is construed as part of a *complex predicate*. Note that I will only refer to the *external* determination of XP complements; i.e. I will focus on the notion of T-marking. The fact that there is no internal subject to the VP of a complex verb makes it dependent as a part of a *complex predicate*. Quoting G&H : "Arguments, then, are Case-licensed. Their independence is internally brought out by the fact that if they have an internal subject, this subject is licensed independently from the syntactic context in which it appears . [...] In contrast, if the subject of a complement is licensed from the outside, the complement is in that sense not entirely autonomous." (p.36) - see section 3.4.2.2 and 3.4.3 for external licensing of subjects in complex predicate structures -.

How is the XP complement of a complex verb determined as verbal by the FDC? Recall - cf. section 2.4 - that either Tense or auxiliary verbs may T-mark; the latter also have the ability to pass on a T-index assigned by Tense or another auxiliary. It is assumed that an auxiliary always governs the tense morpheme of its non-finite VP complement. This is a basic distinctive feature of *auxiliary verbs* versus *lexical verbs*, the latter do not have the ability of T-marking - or passing on a T-index-. In a complex verb structure, Tense assigns a T-index to the auxiliary , which then passes it on to VP of the main verb and the main verb *absorbs* it. This is, in essence, the formation of a T-chain in a complex verb structure, as exemplified in (144)a. ((122)b. in G&H)- b. for French and English, where the question of incorporation does not arise; cf. 3.3.1.4 and 3.4.3.2 -:34

(144) a. *Jean* [*T^k* *aj^k* [*vp^k* *t_j^k* *chanté*]]]

b. *John* / T^k *hasj^k* / vp^k *tj^k sung* / / /

Note crucially that, despite the application of incorporation, which I am assuming is - in complex verb sequences - an S-structure phenomenon, the verbal projection will nevertheless be construed as verbal because of T-marking - rather the passing on of the T-index - of the auxiliary in such a sequence. Hence, in complex verb sequences verb movement of the lexical verb - i.e. incorporation- is not needed to identify the XP complement as a VP, as in the following structures, the Catalan and Spanish translations of (3)a. and b. - I have omitted showing the application of incorporation, cf. 3.4.1.2, to illustrate this fact - :

(145) a. *En Joan* / T^k / vp^k *ha^k* / vp^k *cantat* / / /

b. *Juan* / T^k / vp^k *ha^k* / vp^k *cantado* / / /

G&H point out that there are constructions where verb movement is needed - although in such cases it is movement of an auxiliary and not a lexical verb - as I am assuming for Catalan and Spanish in the structures for which I posit incorporation - to identify the complement of a verb as verbal, and, consequently, to license it. In Portuguese tensed infinitival examples like (146) the equivalent of the "Aux-to-Comp" - cf. Rizzi (1982c) and, as already explained in 2.4 - phenomenon ensures the identification of the XP as a VP at LF. In the following example, the verb *lamentar* is assumed to have an optional Case to assign, if it does not assign it - as in (146), the CP complement must be T-marked in order to be licensed - as it is not assigned Case -, but since *lamentar* is a lexical verb, auxiliary *terem* must raise in order to T-mark the complement and, thus, identify it as a verbal projection at LF - and, thus, license it - . ((9)a.,b. G&H(1988)):

- (146) a. *Eu lamento [CP terem_j [JP os deputados t_j
 [VP trabalhado pouco]]]*
 b. *Eu lamento [VP-₁ terem_j [VP-₂ os deputados t_j
 [VP-₃ trabalhado pouco]]]*

As was explained in section 2.4, the segments in (146)b. are construed as part of the same VP, following Chomsky (1986b). The assignment of Case to the subject was also explained in section 2.4 as a consequence of government by *terem* - i.e. an external governor -.

There are several aspects of T-marking and the subsequent creation of T-chains³⁵ that are closely related to complex verb structure of the type studied in 3.3.1 - in section 3.4.2. we will see the implications of some of these aspects for complex predicates -. Recall that T-marking implies the passing on of a T-index, which percolates to the semantic head of the main verb VP and becomes part of its reference. Auxiliaries, having no referential value, cannot integrate a T-index, so they pass it on until there is a VP headed by a main verb which may integrate it, hence, absorb it. Another aspect of T-chain formation is that it provides a way for certain syntactic features to percolate along it. As was illustrated in 2.4, for instance, theta-role percolation (147), and (148); - (136),(137)in G&H(1988) -, which is assumed to be almost identical in simple tenses consisting only in one verb form, such as (147), as in complex tenses, such as (148):

- (147) a. *John saw Mary*
 b. *Johnⁱ [agrⁱ T [VP saw Mary]]*
 theta-1
- (148) a. *John has seen Mary*
 b. *Johnⁱ [agrⁱ T [VP₁ has [VP₂ seen Mary]]*
 theta-1

The equivalent examples in Catalan and Spanish presumably imply the same percolation of features by T-chain formation -although the Catalan simple past example implies a complex verb sequence (8) -:

(149) a. *En Joan va veure la Maria*

b. *En Joanⁱ [agrⁱ T [VP] va [VP 2 veure la Maria]]*

theta-1

(150) a. *Juanⁱ [agrⁱ T [VP vio a Maria]]*

theta-1

Another of the crucial facts about T-chain formation is that they may be extended by the application of Spec-head agreement (SHAG) or head-head agreement - i.e. when the two V heads share a T-index . This explains that NP-raising and clitic climbing are only allowed in configurations where the complement is interpreted as verbal in LF, because it is T-marked. As explained in 2.4 , NP-raising and clitic climbing are possible when antecedent government holds - as in the passive account in *Barriers*-cf. 1.2.2 - : VP is not a barrier because of Spec-head agreement (SHAG); I shares index with the governed ec by virtue of raising or "climbing" - cf. 2.4 - , and the ec is antecedent governed, as in the following complex verb structure with clitic climbing- (76)a. in G&H(1988) -:³⁶

(151) *Je l'_i ai [VP e_j vu e_j]*

It is obvious, thus, that in complex verb structures, clitic climbing should always be possible, as is indeed borne out by the facts, and

independently predicted by G&H's framework - as quoted in section 3.4.2.2,
(23) -37

(152) *Lj he [(ej) vist ej]*

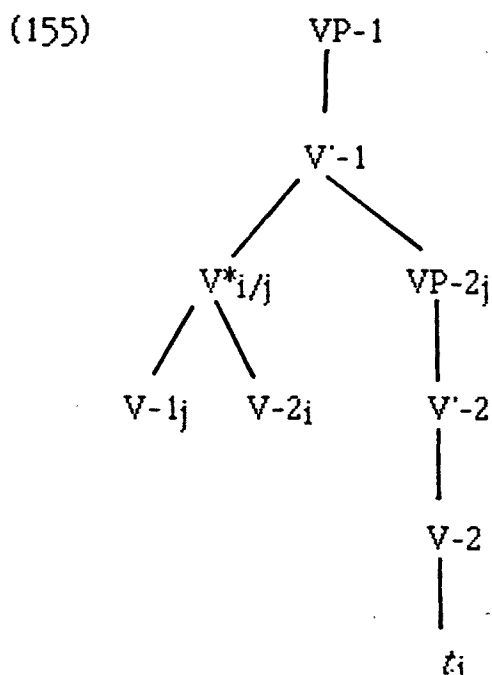
(153) *Hoj vaig [fer ej]*

(154) *Laj he [visto ej]*

3.4.1.2 Complex verb incorporation and the FDC

There is a basic compatibility of syntactic incorporation and T-theory, with its basic construal principle at LF, the FDC. As pointed out in the preceding section, the fact that complex verbs are made up of a sequence of verbs, the first of which is an auxiliary ensures previous T-marking, and , thus, only one possibility of construal: the XP complements of the first verb in the sequence in complex verbs are always interpreted as part of a *complex predicate*.

Syntactic V-movement in incorporation structures - as explained in 3.2 - requires antecedent government of the V trace. This is achieved, as explained, by S-structure, so the LF construal principle , the FDC, should not affect this relationship. The following structure shows that no principles are violated, if we assume incorporation to have applied plus the FDC: VP-2 is T-marked, and, thus, licensed as a VP, and the trace of V-2 satisfies the ECP by antecedent government :



(where j - as in section 3.4.1.1 - is the T-marking index)

As explained in 3.2, Theta-indexing between the X and the YP is what devoids the Xmax dominating the trace of the incorporated item of its barrierhood status, and, thus, allows antecedent government of the X-0 trace by the incorporated V*. In complex verb incorporation an equivalent mechanism - i.e. either Chomsky(1986b) L-marking, or Baker (1988) theta-indexing - must be assumed. Nevertheless, in G&H' s framework there is another possibility, which I will assume: they assume that T-marking is equivalent to L- marking. There is, thus, no need to recur to a special type of theta-indexing in complex verbs in order to devoid the VP of its barrierhood status if it is independently T-marked; antecedent government of the trace holds. Note, nevertheless, that T-marking is alluded to in an LF mechanism, the FDC. G&H, though, imply, to my mind, - and even more by making it equivalent to L-marking - that it holds at S-structure - as does Case marking, which is also alluded to in the FDC.

It is crucial to distinguish between these sequences of verbs and the behaviour of complex predicate verbal sequences in that precisely the fact that syntactic V-movement; i.e. incorporation - a process which I do not assume for complex predicates, as will be explained in section 3.4.2 - , has applied accounts for their indivisibility - cf. 2.1 and 3.3.1.1 -. Consider some more examples that show their indivisibility:

a) Interruption by lexical elements is not allowed:

(156)a. **No m has mai dit que tenies tres fills*

b. **Va, sense voler, tirar tots els plats per terra*

(157) **No me has nunca dicho que tenias tres hijos*

b) Preposing results in ungrammatical structures:

(158)a. **Ens pensavem que es casarien però casat no s'han*

b. **Creïem que la Maria Rosa ballaria però ballar no va*

(159) **¿Y el libro? - ¡Comido no me lo he!*

Another important aspect with regards to the relationship between S-structure and LF in complex verb sequences is that they may be assumed to be identical ³⁸: if no functional nodes intervene, the FDC has no effect in *construing* a CP/IP as a VP.

3.4.2 LF-incorporation and /or the FDC

3.4.2.1 Another look at LF-incorporation

Complex predicates are quasi-indivisible units - cf. 3.3.2.1 -, they are thus, structures for which syntactic incorporation cannot be posited. Baker states that abstract incorporation - or Reanalysis - has the same properties as movement because Reanalysis constructions form a natural class with incorporation structures in other languages " whose properties follow from the theory of movement " , he concludes that " it has the same properties as movement simply because it too is movement, albeit movement which one cannot see." (p.203). If a simpler analysis, which is independently motivated, explains this unseen movement I believe it must be chosen on simplicity grounds.

It is also stated in Baker (1988) that because of the presence of I in the embedded sentential complement, the V must undergo movement internal to the clauses - see section 3.3.2 -, in order to get into a position to reanalyze. If no such structure is needed, movement will be made unnecessary - cf. 3.4.2.2. and 3.4.3 -, provided that a mechanism like chain formation, for instance, is independently needed, and, thus implies no addition to the theory .

There are some dubious aspects of *abstract incorporation* which may be considered to render it unnecessary as long as the notion of T-marking of G&H (1988) is sufficient to explain the behaviour of complex predicates and makes the correct predictions. Firstly, the VP-to-Spec CP mechanism is posited in order to obtain a government relation between higher verb and

lower verb in biclausal structures, without there being a clear trigger for this movement. It must be noted - cf. also 3.3.2 - that the V-projection movement is interpreted as VP movement because in causative transitive structures it is the subject which surfaces as oblique - i.e. preceded by the preposition *à* -. Furthermore, the usual targets for movement into Spec-CP position are not VPs; i.e. it is usually wh-phrases that move to Spec-CP.

Obviously, this does not imply that a VP may not be subject to move-alpha, there are obvious cases of VP preposing³⁹, but in these cases, the landing site for the VP is plausibly not Spec-CP but rather adjunction positions created as in instances of extraposed constituents, as in: *Nobody would ride with Fred who knew him* - from Radford (1988) p.565; an instance of S'-adjunction -. (160) may also be analyzed as adjunction, in this case, of a VP:

(160) *Ride with Fred, I wouldn't if I were you!*

Moreover, an LF mechanism such as abstract incorporation is questionable if reference must be made to an S-structure condition such as Case. Baker refers to the Case Frame Preservation Principle (CPP) - cf. 3.3.2.2 -, which makes the proposal dubious crucially for Romance languages, where incorporation is assumed *abstract*. VP-to-Spec-CP may not be questionable for languages where there is *syntactic* VI - incorporation. Note that Baker himself points out this problem in a footnote:

(161) " There is one important problem with this suggestion, however. Given the standard view of GB, all "overt" movements that occur between D-structure and S-structure are assumed to strictly precede all "covert" movements, which happen between S-structure and LF. Yet, I will have cause to claim at

various points in what follows that covert Incorporation crucially precedes overt Incorporation (or seems to) in certain cases, giving rise to ordering paradoxes. This is even seen directly below *where VJ "precedes" Case assignment, which I have assumed happens at S-structure*. These facts may imply that Reanalysis, *although "abstract incorporation" in some sense, is not LF Incorporation after all*. On the other hand , the true relationship between LF and the other levels of syntactic description is a controversial topic and may need to be revised. [...] "(p. 462 fn. 37) (italics mine)

Further related to Case considerations for Romance causatives , a marked type of case-assignment - the *s-insertion rule* - is needed to Case-mark the subject of transitive verbs. The NP direct object is assigned accusative case by the verb of which it is a complement because the whole VP moves. As Baker himself points out, there is no need to postulate a VP-to-Spec-CP derivation for intransitive verbs, where V-movement is sufficient for the subject to be assigned Case. The prediction is that the *s-insertion* rule should not apply in intransitive causative structures. This, however is not borne out especially in Spanish and also Catalan, as the following examples of intransitive causative sequences illustrate:

(162) Hizo reir *(a) su hija

(163) Va fer riure (a) la seva filla

This marked type of case-assignment is, thus, independently needed, whichever mechanism is posited for causatives in Romance languages.

In restructuring constructions in Romance - rule 3 in 3.3.2.3, repeated here -:

(164) Rule 3 (p. 204 (125) in Baker (1988))

Initial GF	Final GF
embedded object	object
embedded subject	0
matrix subject	subject

there seems to be no real GF-changing process; a function "disappears" but there is no change. This fact, the already noted dubiousness of VP-to-Spec-CP movement, plus the fact that there is no phonologically realized subject in "restructuring" (Control) structures, seem to give even less motivation to posit a VP-to-Spec-CP derivation for these structures.

3.4.2.2. Can T-marking replace LF-incorporation?

"The hypothesis that causative, perception, and, often, modal verbs function as auxiliaries simplifies the grammar. It obviates the need for a number of powerful syntactic devices which have been proposed in the literature essentially in order to eliminate the CP node of the complement of such verbs." G&H(1988)(p.55)

As already briefly noted in section 2.5, most mechanisms summarized in Chapter 2 are not wholly valid in the present framework. G&H (1988) argue against some of these on the basis of : a) their not being independently motivated; b) their violating constraints in the present framework; and c) implying an addition of undesirable powerful

mechanisms to the grammar. In the previous section I have attempted to extend the criticism to Baker's LF-incorporation mechanism. In this section I will try to show that T-theory, T-marking and the FDC, make correct predictions, and, thus, there is no need to allude to *abstract* incorporation. Note also that for G&H (1988) - with obviously different aims than Baker (1988) - the causative and "restructuring" constructions are not regarded as GF-changing processes as in Baker (1988). The GF-changing process is here "reinterpreted" as a *construal* of a *complex predicate* because of the special nature of the first verb in the sequence. Quoting G&H: "... IP is construed as a nominal projection nondistinct from NP when assigned case by Infl, V, or P, but as a verbal projection non-distinct from VP when governed by an auxiliary verb." (p.37). This allows for a propositional complement - as in the case of complex predicate structures - to be construed as either an argument or as part of a *complex predicate* at LF provided that the first verb in a complex predicate sequence may be granted an auxiliary status in certain configurations.

This paves the way for a different explanation within the present framework of the special behaviour of verbs that diverge from "typical" main verbs - as already noted by Rizzi (1982a) and in all the works summarized in section 2.3 -; i.e. their semantic and syntactic cohesion, plus the degree of divisibility that they allow - cf. 3.3.2.1 -, which distinguishes them crucially from complex verb sequences. What they share with complex verb sequences, nevertheless, is independently predicted by the FDC, in G&H's words:

(165) "The rules proposed by previous authors in order to account for clitic climbing or NP raising in complex structures derive output configurations which are syntactically equivalent to base structures headed by auxiliary verbs. These structures

independently allow clitic climbing and NP raising. Moreover, reanalysis and parallel structure rules do not apply to auxiliary structures, which contain no embedded CP to begin with. If, as we propose, "restructuring" causative and modal verbs are analyzed as auxiliary verbs, the syntactic behaviour which characterizes auxiliary-headed structures automatically applies to structures headed by causative and modal verbs." (p.58)

To briefly summarize the aspects of complex predicates which will concern us we may consider a few examples to recall their "double nature" - cf 2.1.2 and 3.3.2.1 - in order to focus on the relevant aspects for the two theories that are being made use of in this thesis; namely Baker(1988) and G&H(1988). On the one hand, complex predicates are syntactically (and semantically) united: a)(166) and (167) show their non-interference with the theta-grid of the main verb:

(166) a. *El Miquel ja pot caminar*

b. *Una casa tota de fusta pot cremar-se fàcilment*

(167) a. *Alan ja puede cantar alguna canción*

b. *Una casa de madera puede quemarse fácilmente*

b) and clitic climbing is possible over complex predicate structures:

(168) a. *La pot utilitzar*

b. *Sempre la fa preparar al seu marit (la paella)*

(169)a. *Lo quiere ver*

b. *Siempre se la hace preparar a su marido*

On the other hand, the possibility of separating the two components of a verbal sequence of a complex predicate, points towards the non-application of incorporation, as I will assume below - and already noted in 3.4.1.2 -:

a) Interruption by lexical elements is marginal, but acceptable:

(170) a.? *Fa sempre preparar la paella al seu marit*

b.? *Vol sovint veure la mateixa pel·lícula dues vegades seguides*

c.? *Pots, sempre que vulguis, fer servir el meu cotxe*

(171) a. *Le hace siempre planchar la ropa a su marido*

b.(?) *Quiere a menudo ver la misma película dos veces seguidas*

c.(?) *Puedes, siempre que quieras, utilizar mi coche*

b) Preposing is also (marginally) accepted:

(172) a.? *Sabíem que voldria anar-hi i anar-hi va voler*

b.? *Créiem que el faria cantar però cantar no el va fer*

(173) a.? *Pensábamos que podría ir, pero ir no pudo*

b.? *Sabíamos que lo haría cantar y cantar lo hizo*

Having briefly reviewed their behaviour, an account in terms of G&H's proposal is due. As already noted, it will be in the following line: " If the infinitival is construed as a verbal projection, it is T-marked by the morpheme of an auxiliary verb , as in causative and modal structures in many languages ..." (p.73). Note that reference to the auxiliary type to which the first verbal element belongs is not alluded to in this section - cf. section

3.4.3 for reference to it -; here I will only refer to the possibilities of T-marking of the first verbal element in certain complex predicate structures. The account of complex predicate constructions by the FDC is sufficient to explain the behaviour of complex predicates if everytime a complex predicate is formed, VP construal is ensured. This would account for their syntactic and semantic cohesion, - and, thus, possibility of phenomena such as clitic climbing and NP raising- and, the fact that the FDC is an LF mechanism would account for their S-structure divisibility possibilities. If their account is correct, G&H (1988) provide the mechanisms for an infinitival S to be construed as a verbal projection, without making use of undesirable nor unallowed mechanisms in the present framework of generative grammar, and they account for both complex verb and predicate structures.

Hence, even if there may be reasons to posit a biclausal structure - cf. 2.2.1; basically the arguments for positing a Control or ECM structure -, in the T-theory framework there is no need to appeal to movement of a verbal projection - cf. Baker (1988) mainly, but also Rouveret & Vergnaud (1980), Burzio (1986), as summarized in section 2.3 -, the syntactic and semantic unity of complex predicates is maintained, because of the FDC, granting V-1 an auxiliary status.

The above assumptions imply that there is a parallel explanation for complex verbs and certain complex predicate structures, as the following examples - G&H(1988) (76)a.-c. - illustrate:

- (174) a. *Je l'j'ai [ej vu ej]*
 b. *Je le j'ferai [VP lire ej]*
 c. *Loj voglio [VP leggere ej]*

G&H grant a biclausal status to complex predicate constructions in the syntax, which allows for general principles of the framework to be maintained, for instance, that the external theta-role is assigned to the NP in subject position via INFL - p. 65 (87) -:

(175) The external theta-role is assigned to INFL by VP

The Visibility condition will allow AGR in Infl to retain the theta-role assigned to it - and not transmit it to the subject position as long as it is assigned Case - cf. below for constructions of modals and causatives where this is assumed to take place -.

T-marking, as noted, implies the formation of a T-chain, and there are several aspects of this phenomenon which also involve the constructions of complex predicates. Most of these coincide with those noted for complex verbs; i.e. the fact that a path is created for the percolation of features, and that extension of chains is possible, allowing for clitic climbing and NP-raising. Crucially, though, the fact that each CP introduces a new T-index is only relevant for complex predicates, where an extended chain is only possible if T-marking takes place and CP is construed as a verbal projection.

Note the following examples of both, a causative and a modal complex predicate structure, which G&H(1988) - (95)(96) - analyze as VP construal ; as noted in section 3.4.1.1, the fact that there is participle agreement implies that an NP or clitic goes through SC subject position interpreted as VP at LF; i.e. governed by an auxiliary : *fare*, and *volere* in this case.

(176) a. *Maria fu fatta invitare*

b. *Maria_j [VP₁ fu [VP₂ e_j fatta [VP₃ invitare e_j]]]*

(177) a. *Maria é voluta tornare a casa*

b. *Maria_j [VP₁ é [VP₂ e_j voluta [VP₃ tornare e_j a casa]]]*

Causatives as auxiliaries

G&H posit that French and Italian - the two languages on which they focus - causatives are auxiliaries, and I will assume the same holds for Catalan and Spanish. They also assume that English *make/let* have an auxiliary status, as will be illustrated below.

As noted, a consequence of the formation of a T-chain is that all the Vs which intervene between an extracted element and its original position must be auxiliaries - except the last one -, otherwise, there would be no passing on of the T-index, and antecedent government would not hold. The following examples show that this holds for French - G&H (173)a. - Catalan, and Spanish for clitic climbing, but (182)-(184) show that it only holds for Italian for NP-raising - a fact unexplained in the framework-:

(178) a. *Je l'ai fait voir*

b. *Je [VP₁ l_j 'ai [VP₂ fait [VP₃ voir e_j]]]*

(179)a. *La vaig fer llegir*

b. *[VP₁ La_j vaig [VP₂ fer [VP₃ llegir e_j]]]*

(180)a. *L'he fet llegir*

b. *[VP₁ L_j 'he [VP₂ fet [VP₃ llegir e_j]]]*

(181) a. *La ha hecho leer*

b. *[VP₁ La_j ha [VP₂ hecho [VP₃ leer e_j]]]*

(182) a. *I libri furono fatti leggere*

b. *I libri [VP1 furono [VP2 ej fatti [VP3 ej leggere ej]]]*

(183) **Els llibres van ser fets llegir*

(184) **Los libros fueron hechos leer*^{40,41}

The auxiliary status of the causative *faire* is claimed to be independently supported by G&H by several facts. One of these is the fact that it allows VP anaphora. They cite Zribi-Hertz (1986) in claiming that auxiliaries are those elements which may carry the tense of a null VP. Note that this is in contradiction with the examples of section 2.1 and 2.1.2 which show that null VP is allowed by main verbs - (85)p. 174 G&H (1988):

(185) *Jean a [acheté du pain / ce matin et*

Pierre le j fera ej ce soir

Catalan and Spanish causatives have the same possibility:

(186) *En Joan Carles ha marxat aquest matí i*

la Isabel ho farà aquesta tarda

(187) *Juan Alberto cocinó morcillas ayer por la noche*

y José María lo hará mañana

These facts, apart from possibly being independent evidence for the status of *faire*, *yer*, *hacer* as auxiliaries - if we assume G&H's arguments - are evidence showing that *faire* is a "support" verb in the three languages mentioned. Note that for the hypothesis given in this thesis, the facts do not disclaim it: the only reason why the auxiliary verbs in Catalan and Spanish do not allow VP anaphora may be explained by the fact that they undergo

obligatory incorporation, as opposed to a verb like the causative, which is not part of a complex verb, but rather a complex predicate.

Another fact that G&H take into account as evidence for *let* being an auxiliary is that it takes a bare infinitival, supposedly a VP:

(188)a. *They let [VP Noema leave]*

b. **They let Noema to leave*

As opposed to French *faire*, Catalan *fer*, and Spanish *hacer*, *make/let/laisser* are structural case assigners, so they can assign structural case to the subject of their complement - even if it is construed as a VP SC -

(189) *We made the students sit in rows*

(190) *Nous avons laissé les étudiants s'asseoir l'un derrière l'autre*

(191) **Nous avons fait les étudiants s'asseoir l'un derrière l'autre*

(192) **Hem fet els estudiants seure l'un darrera l'altre*

(193) **Hemos hecho los estudiantes sentarse en fila*

Catalan and Spanish also have a causative predicate which allows structural Case assignment of the subject of its subcategorized clause: *deixar / dejar*: *Deixa al teu fill venir amb nosaltres // Deja a tu hijo vivir como quiera.*

In 3.4.3.2 this fact will be expanded and explained; the fact that the theta-roles of the complement of the causative are all assigned within the complement is a consequence of the type of auxiliary it is, which has a specific type of complement.

Modals as auxiliaries

Note that there are constructions in which modals function as lexical verbs and constructions in which they are auxiliaries. As G&H point out, they have many of the properties of auxiliaries that HAVE and BE have over languages. In English, they occupy the INFL position and raise to COMP, like other auxiliaries. No question has been raised as to the auxiliary status of modals in English. Putting it differently, the fact is that we may not find equivalent "restructuring" constructions in English as there is no independent motivation for a "double nature", as there is in the Romance languages considered here.

G&H allude to Pollock (1987) - cf. Chapter 4 - in claiming that modals in French are auxiliaries as they raise to INFL, like other auxiliary elements in the language, and unlike lexical verbs. They reinterpret this in their framework by granting them the ability of T-marking, thus, of being auxiliary verbs in certain constructions. - (194)a. and b. are (191)d and f. in G&H) and the contrast */? is an argument for giving the two verbs, *pouvoir* and *croire* a different status -:

- (194) a. ? *Il pensait [JP PRO ne pouvoir_j [VP pas t_j dormir ici]]*
 b.* *Il pensait [JP PRO ne croire_j*
[VP pas t_j aux histoires de fantomes]]

Again, the fact that modals may introduce a null VP is given as evidence for their auxiliary status -(195) is adapted from G&H's (192) -:

- (195) *Pierre voudrait accorder le piano*
 a. *mais il ne peut, veut, doit pas [VP le faire]*

b. *mais il ne peut, veut, doit pas*

c. **mais il ne croit, décide pas*

If the assumption that auxiliaries may be tense carriers in Romance languages, and , thus, may introduce a null VP; the facts follow since , again, in the case of modals, incorporation is not assumed to have taken place - as they are complex predicates, and not complex verbs in the following examples - :

(196) *En Pere voldria afinar el piano*

a. *però no pot, vol [VP fer-ho]*

b. *però no pot, vol*

c. **però no creu, decideix*

(197) *Pedro querria afinar el piano*

a. *pero no quiere, puede [VP hacerlo]*

b. *pero no quiere, puede*

c. **pero no cree, decide*

G&H assume that clitic climbing is possible in Italian in modal structures because their complements may be construed as VPs at LF; if the clitic remains in its original position, there is no VP construal. The way I interpret this is that if the modal functions as an auxiliary, - thus, as a T-marker - there is clitic climbing, and VP construal - by the FDC - takes place. On the other hand, if the modal does not T-mark its complement, but instead assigns Case to it - i.e. functioning as a lexical verb - then there is no VP construal, but rather its complement is interpreted as an argument, instead of a predicate.

Root modals assign an external theta-role, accusative Case F, and optionally an internal theta-role. On the basis of which element retains Case F, the basic distinction noted in the "restructuring" literature is made in G&H's framework. Basically, two options are possible for Case F: a) that IP retains it, and, thus, that IP is construed as an argument by the FDC; b) that Case F is absorbed by I and, by Visibility, Agr may retain the external theta-role assigned via $\bar{I}N\bar{F}L$. In this case, Agr is a pronominal. \bar{V} raises to \bar{I} , and IP is construed - by the FDC - as a verbal complement. Another assumption they also make is that a modal must control an ec in their embedded SC complement. The a) option is illustrated by (198), and b) by (199) - (193)-(194) -:

(198) *Mario_j vuole [IP PRO_j [I' [VP leggere il libro]]]*

theta-1 theta-1

(199) *Mario_j vuole [IP leggere_j [VP t_j il libro]]*

theta-1 theta-1_i

As illustrated and explained in 2.4, the ECP blocks clitic climbing when the modal does not function as an auxiliary, (198); i.e. there are two different T-chains, so antecedent government does not hold. Whenever there is clitic climbing, the modal functions as a T-marker, and by T-chain formation, the embedded verb antecede-governs the ec. Therefore, the account is parallel for complex predicate and complex verb structures.

Note, though, that even if there is the possibility of a modal functioning as a T-marker - an auxiliary -, it is still necessary to have an IP in the syntax, although it is construed as a VP in LF; an INFL node accounts for Control in modal structures, where agr is assumed to function as a syntactic argument.

The lack of clitic climbing in modal structures in French - cf. also 2.4 - is attributed to the pro-drop parameter. Basically, where Italian has an inflectional argument position in INFL - finite clauses and modal structures-, French needs a Spec-IP argument position, which prevents the formation of a T-chain. The position is syntactically active because it is subject to a syntactic rule like Control. Hence, the difference with causative structures, where French allows clitic climbing; the pronominal in AGR is not syntactically active, it is not an A-position.

Epistemic modals are analyzed in a parallel fashion - but cf. 3.4.3.2 for a different proposal for epistemic modals -; they also have both options although they do not assign an external theta-role. The AGR in INFL may absorb Case F of the verb, but in this case, it functions as an expletive pronoun, not PRO. IP is construed as VP in LF. In French, the modal, again, does not have the ability of T-marking; it assigns Case to the IP, which is construed as an argument in LF.

In Catalan and Spanish, modals may also be claimed to have the possibility of functioning as auxiliaries; i.e. to have the ability of T-marking, on the basis of the fact that they allow clitic climbing, which by T-chain formation, ensures antecedent government:

- (200) a. *La Maria Josep la j vol^k [vp llegir^k ej]*
 b. *En Josep Maria hoj deu^j [vp agr entendre^j ej]*
- (201) a. *Juan Carlos loj quiere^k [vp leer^k ej]*
 b. *Carmen loj debe^j [vp entender^j ej]*

To sum up, a point in common that LF-incorporation and T-theory have as regards complex predicates is that they both posit a biclausal structure, and, thus, an identical D-structure for all types of complex

predicates. An important difference - which I have used to attempt an invalidation of LF incorporation in favour of T-theory- is that I-theory with respect to complex predicates alludes to a specific sort of movement versus *construal* posited in T-theory, which is, to my mind more in line with the present framework.

3.4.3 Neutral auxiliaries / T-auxiliaries and incorporation

3.4.3.1 Properties of N(eutral)- auxiliaries and T-auxiliaries

All auxiliaries assign a T-index; i.e. T-mark, - or pass on a T-index - to a non-finite VP complement; nevertheless, there are systematic properties across and within languages of different auxiliary items that suggest a classification into basically two different types of auxiliaries: N(eutral)-auxiliaries and T-auxiliaries. In this section I will review some of these properties - cf. also 2.4 -. HAVE will be taken as the paradigmatic example of a Neutral-auxiliary; BE as the corresponding T-auxiliary. The differences will obviously become important when I reconsider complex verb and complex predicate structures in section 3.4.3.2 .

N-auxiliaries combine with the tense morpheme of its VP complement to form a complex tense morpheme, which defines the tense of the S ⁴². T-auxiliaries govern a VP with an independent tense morpheme. G&H refer to this as the assignment of a T-role. T-auxiliaries, thus, assign T-roles, whereas N-auxiliaries do not assign T-roles. G&H make a difference between theta-roles, assigned by lexical verbs, and T-roles assigned by T-auxiliaries: T-roles give an independent tense value to their complement; theta-roles give a referential value to their complement. Another difference between the two auxiliary types is that T-auxiliaries have the possibility of

assigning structural case, whereas N-auxiliaries do not, as the following example shows-p.48 (33)b. - In the following example HAVE is an instance of a causative construction:

(202) *John had [his house burned]*

Note that the same lexical item, in this case HAVE, may be a T-auxiliary or a N-auxiliary in different contexts. - as already noted in 2.4 -. The other crucial difference between N-auxiliaries and T-auxiliaries is that the former allow percolation of the theta-role assigned by the VP complement main verb - assigned to NP subject by subj-I agreement ; indirectly by I. A T-auxiliary does not allow percolation of theta-roles assigned in its complement. This is related to the notion of Complete Thematic Constituent ⁴³, repeated here - (38) p.48 -:

(203) An XP which is assigned a T-role is a Complete Thematic Constituent (CTC): all theta-roles associated with X, the head of XP, are assigned internal to XP.

The following examples from G&H (p. 49(35),(36) and(37)) illustrate the difference:

(204) *John [I' I [VP has [VP laughed]]]*

theta-1

(205) *John_j was [e_j seen e_j]*

theta-1 theta-2

(206) *Jean_j est [e_j venu e_j]*

theta-1

In (204) the theta-role percolates, as indicated by the arrows. In (205) and (206), all theta-roles are assigned within the complement of the T-aux, BE.

As a reminder of G&H's auxiliary restrictions, which will also become relevant in the next section, I will repeat here the general restrictions on auxiliaries (p.50, (40):

- (207) a. A T-chain may not contain two auxiliaries of the same class.
 b. Neutral auxiliaries precede T-auxiliaries.

In the next section I will propose - with the exception of epistemic modal verbs - that those lexical verbs which may also function as auxiliaries, those in complex predicate structures, may only function as T-auxiliaries not as N-auxiliaries.

3.4.3.2 N- auxiliaries and T-auxiliaries in complex verb and complex predicate structures

The hypothesis that I will propose in this section is that the complex verb sequences considered in this thesis are made up of neutral auxiliaries and that neutral auxiliaries in Catalan and Spanish trigger obligatory incorporation. They are made up of N-aux precisely because these allow percolation of theta-role from the lower verb to the matrix subject position. As noted, this is one of the basic properties of N-auxiliaries and a fundamental property of complex verbs as opposed to complex predicates; i.e. only complex verbs have one theta-grid - as explained in Chapter 2 ; cf. "selectional restrictions" test.

G&H point to the fact that *haber* but not *avoir* is always a neutral auxiliary - (108) p. 70 -:

(208) HAVE is solely a neutral auxiliary in Spanish but either a neutral or a T-auxiliary in French

In French they posit that it is a neutral auxiliary in its temporal aspect, but a T-auxiliary in - (109) in G&H -:

(209) a. *Elle a deux frères*

b. *Elle a son fils malade*

They link this with the fact that in Spanish HAVE may never have a lexical meaning, as the corresponding translations of the French sentences show - G&H (110) -:

(210) a. **Ha dos hermanos*

b. **Ha su hijo enfermo*

Note that the consideration that one lexical item may function as one type or another type of auxiliary in one context or another, plus their relating it with the fact that it may or may not have a lexical meaning links up with the main hypothesis in this thesis that N-auxiliaries trigger obligatory incorporation in Catalan and Spanish but not in English nor French; in Catalan and Spanish - as noted above - they may never function as lexical verbs; in English and French, they may. I repeat here an illustration of a complex verb sequence where the theta-role is assigned to the NP in subject position via INFL, by the percolation through the N-auxiliary, HAVE, and the corresponding Catalan and Spanish translations:

(211) a. *John* [*I'* *I*] [*VP* *has*] [*VP* *laughed*] //

↖ theta-1

b. *En Joan* [*I'* *I*] [*VP* *ha*] [*VP* *rigut*] //

↖ theta-1

c. *Juan* [*I'* *I*] [*VP* *ha*] [*VP* *reído*] //

↖ theta-1

In preceding sections, I have been giving examples of another complex verb sequence in Catalan, which is equivalent to the simple past, but is made up of a sequence of verbs: *anar* + infinitive. By the examples given so far, it must be concluded that this auxiliary also triggers obligatory incorporation in this sequence, so it should be an N-auxiliary if my hypothesis is correct. Nevertheless, I have alluded to the lack of lexical meaning in both Catalan and Spanish of the N-auxiliary HAVE, precisely as a factor that might contribute to its triggering incorporation - as opposed to English and French HAVE -. The fact that *anar* has not lost its lexical meaning, and yet, it triggers obligatory incorporation may be related to the different development in Catalan as opposed to other Romance languages of the verb *anar* + infinitive. In Catalan it has developed into a simple past equivalent - the one form simple past is practically out of use -, whereas in other Romance languages it has developed into a periphrastic future aspectual sequence.⁴⁴

Note that one of the basic properties of an N-auxiliary, apart from allowing the percolation of the external theta-role of the V heading the main VP, is that they "combine with the tense morpheme of their complement to form a complex tense morpheme defining the tense of S", as

opposed to T-auxiliaries which " govern a VP with an independent tense morpheme" (p.48). An illustration of the fact that this "periphrastic" simple past allows percolation of the external theta role is that there are no reason to claim a biclausal structure, as in the example; it combines with the tense morpheme of its complement :

(212) *En Joan [I' i^k [VP va^k [VP riure^k]*
theta-1

The hypothesis in this section as regards complex predicates - when they arise - is that they are made up of T-auxiliaries and they do not trigger obligatory incorporation - with the exception of epistemic modal verbs -. When the first verb in a sequence of a complex predicate functions as a main verb, its complement is interpreted as an argument, when it is an auxiliary, its complement is interpreted as part of a *complex predicate*.⁴⁵

The fact that there are two theta-grids in some sequences of complex predicates, and these are still construed as VPs at LF is not a problem for G&H's framework by their introduction of their concept of T-auxiliary and of CTC - cf. (219) below - plus the possibility of assigning a theta-role to AGR in INFL - as explained in 3.4.2.2 - Basically, when the Case assigned by the verb is absorbed by the I, AGR functions as a pronominal, retaining the external theta-role.

Note that in complex predicate verbal sequences incorporation should not be posited because their degree of separability shows that they are not an amalgamated unit. Nevertheless, the VP dominating a main verb may still be devoided of barrierhood by T-marking, so incorporation is predicted possible. Nevertheless, it is the fact that the complement of a T-aux in causative and restructuring constructions is construed as a VP at LF

which makes syntactic incorporation unmotivated, thus allowing preposing and clitic climbing :

(213)a. [VP₁ V-1 [CP [IP [VP₂ V-2 NP]]]] S-structure

b. [VP₁ V-1 [VP₂ V-2 NP]] LF

At S-structure, V-1 may T-mark VP₂, so V-2 can move and NP can also "climb" out. Interruption by lexical elements is also predicted possible by the assumption that incorporation does not apply - cf. HOC, section 3.2 ; there is no "opaque" constituent -; adjunction sites for adverbs are available.

I will thus assume that in Catalan and Spanish complex predicate structures the T-auxiliary does not trigger obligatory incorporation.

According to G&H , the fact that causatives are T-aux is supported by the following ungrammatical examples, which follow from independent ordering and distribution restrictions on auxiliaries - cf. 3.4.1 and 2.4 - (G&H (25) and (26) :

(214) * *Je fais [VP avoir [VP travaillé Marie]]*

T-aux N-aux

(215) * *I made [VP Mary be working]*

T-aux T-aux

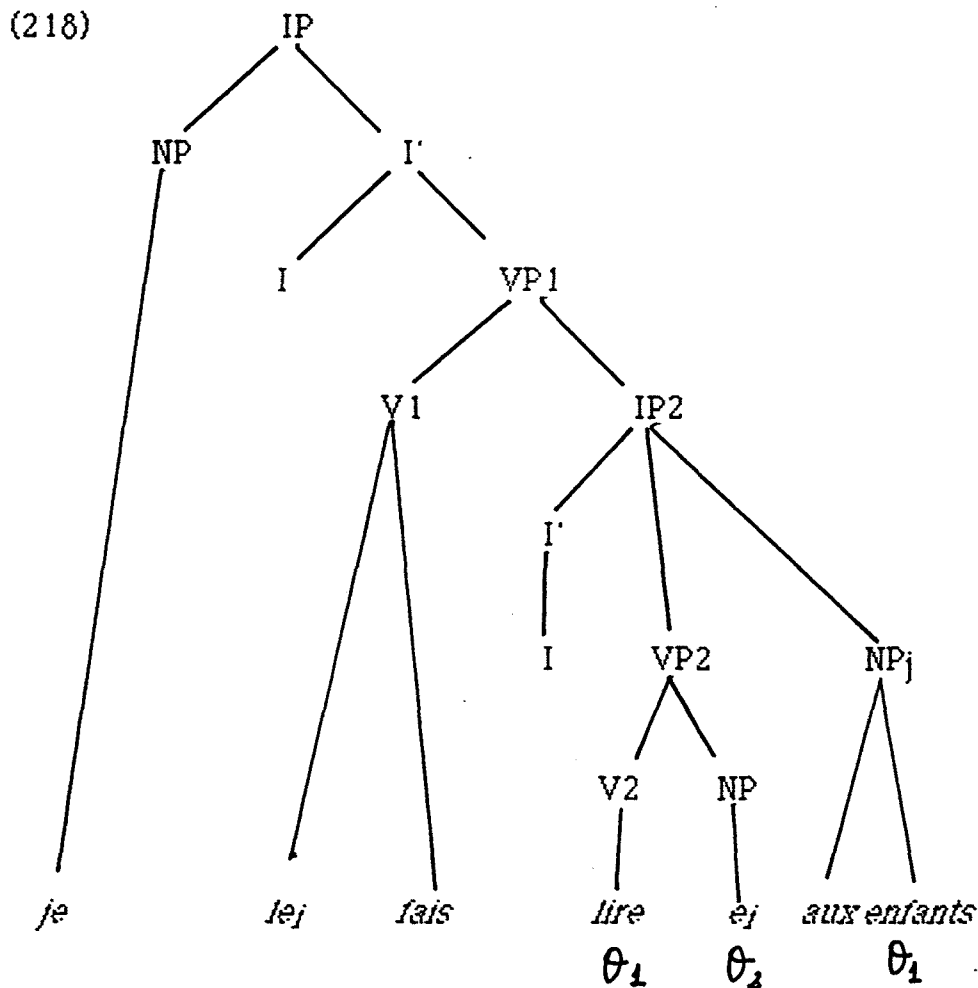
As they point out for English, if the causative were not considered an auxiliary, but a lexical verb, it would have no access to the auxiliary structure of its complement. The same holds for Catalan and Spanish:

(216) *Fa [vp haver [vp treballat la Maria]]

(217) *Hace [vp haber [vp trabajado (a) María]]

As noted, the complement of a causative is a CTC, which is what defines it, basically, as a T-aux. If the causative is not a structural case assigner - such as *make/let* - so that the subject in the complement cannot be assigned a theta-role, " the grammar contains alternative strategies to ensure that the complement of the causative is a CTC" (p. 86). As already explained in previous sections - especially 3.4.1.1 -, this is basically the reason why IP is still postulated in the syntax, so that the I node can absorb Case F, and the AGR in INFL may function as a pronominal, taking up the external theta-role assigned by the main verb. VP construal is ensured in LF.

G&H account for the different types of causatives - cf. section 2.3, and basically Kayne (1975) - in different ways. Basically, the *par*-construction is seen as a doubling of the external argument, as in passive *by*-phrases; the FI construction is regarded as involving Aux-to-Comp - V raises to assign Case to its own subject -, because *faire* is not a structural case assigner. The external theta-role is assigned to the dative NP embedded under IP2 - (188) p. 89 -.



Quoting G&H: " Since V1 T-marks IP2, there is no barrier between the clitic *lej* and its trace. IP2 receives no case from *fais* and is construed as VP in LF. V2 is then part of the same T-chain as the matrix causative. Since V2 bears the same index as the matrix verb which carries the clitic, *ej* is antecedent-governed." (p. 89)

G&H do not classify modals as either N-auxiliaries or T-auxiliaries. Nevertheless, given the definition of CTC; repeated here:

- (219) An XP which is assigned a T-role is a Complete Thematic Constituent (CTC): all theta-roles associated with X, the head of XP, are assigned internal to XP.

Root modals can be claimed to be T-auxiliaries: when they function as auxiliaries, despite the fact that they assign an external theta-role, this same theta-role is borne by the PRO in their complement, which is a possible interpretation of the CTC requirements. It is true that root modals do not satisfy another of the characteristics of T-auxiliaries; i.e. that they may be structural case assigners, but G&H do assume that they have a Case F to assign which may be absorbed by INFL and give rise to a complex predicate structure, as explained in the previous section.

The same cannot be claimed for epistemic modal verbs, which do not impose selectional restrictions on the matrix subject -i.e. they do not assign an external theta-role, - cf. 2.3 especially Picallo (1985) -. In this sense, they function more like complex verb sequences. Picallo (1990) argues against their being considered raising verbs and allows them to be generated in a different, inflectional, node. Assuming this might lead to a postulation of a different structure for epistemic modals - as in Picallo (1985)-(1990) ; i.e. not involving a biclausal structure. Nevertheless, it is possible to still grant them a "typical" complex predicate structure in the syntax - i.e. a biclausal structure; cf. 2.2.1 - and assume that syntactic incorporation takes place following the HMC; as there is no need for the whole VP to move. Recall that Baker's main reason to claim that the whole VP moves was the fact that the subject of a transitive causative complex predicate surfaced as oblique. He nevertheless does not posit such a movement for intransitive structures - cf. section 3.3.2 -. Note that in modal complex predicate structures, precisely, subjects do not surface.

In favour of Picallo's hypothesis is the fact that one of the original claims - cf. 2.1.2 - for postulating a biclausal status for modal sequences is not obtained with modal epistemic verbs. Quoting Picallo (1990): " Epistemic modals are the only type of predicates (verbal or adjectival)

that do not assign a theta-role to the subject position, and cannot subcategorize for [+AGR] sentential complements (indicative or subjunctive).” (p.295):

(78)a. **Pot que no em trobin quan tornin*⁴⁶

b. **Deu que en Pavarotti canti a l'Estadi Olímpic*

(79) **Debe que José María no se acuerde de mí*

Moreover, the fact that they do not contribute to theta-role assignment of the external argument of the predicate seems to me a crucial piece of evidence to classify them as constituting complex verbs as opposed to complex predicates.

Given the above observations, I will claim that epistemic modals are N-auxiliaries, displaying the typical behaviour of an N-aux in that they allow for the percolation of the theta-role assigned by the main verb. Now, if epistemic modal verbs are claimed to be neutral auxiliaries, then they should trigger obligatory incorporation, as other N-auxiliaries in Catalan and Spanish do. This prediction seems to be borne out by the fact that dividing complex predicates made up of epistemic modals - or modals with an epistemic modal reading - gives rise to ungrammatical structures, whereas those made up of root modals do not:^{47,48}

Consider some examples of interruption and preposing in Catalan and Spanish with epistemic and root modal verbs:

a) (epistemic)

(222) **M'han dit que en Pavarotti ha de cantar a Liceu, però cantar no deu*

(223) **?Deu sempre marxar després de classe*

(224) **Encara que el Joan sigui mal conductor, tenir un accident per la Meridiana no pot*

(225) * *Aunque Pepita sea mala cocinera, quedar tan mal con sus invitados no puede*

(226) ?? *Debe a menudo salir corriendo después de clase*

b) (root)

(227) a.(?) *No podría, de cap manera, viure a Anglaterra*

b.? *L'Elisabet pot dissenyar plans d'edificis amb el seu ordinador però imprimir-los no pot*

(228)a.? *Tengo unas ganas de poder un día dormir 12 horas seguidas!*

b. ? *Juan Alberto puede pilotar aviones con su ordenador, pero los de verdad, pilotarlos no puede*

I repeat here the examples where VP anaphora was considered a property of modals being auxiliaries. Note that these are also root modals:

(196) *En Pere voldria afinar el piano*

a. *però no pot./vol [vp fer-ho]*

b. *però no pot./vol*

c. * *però no creu./decideix*

(197) *Pedro querría afinar el piano*

a. *pero no quiere./puede [vp hacerlo]*

b. *pero no quiere./puede*

c. * *pero no cree./decide*

A note on English T- and N- auxiliaries

As postulated also in G&H's framework the classification into T-auxiliaries and neutral auxiliaries is also applied to English. The patent differences with Catalan and Spanish obviously call for an explanation. G&H themselves point out that "auxiliary verbs do not have the same syntactic properties over or within languages" (p.47). It was already noted - cf. section 2.4 - that Italian *essere*, although it is a T-auxiliary, may refrain from assigning its T-role, while another T-auxiliary, English *be*, may not. It is evident that the fact that there are properties which are shared and constant over languages is what has brought G&H to their dual classification of auxiliaries.

In this section I have linked the notion of N-auxiliary with the triggering of obligatory incorporation; i.e. in complex verb structures - and, possibly in epistemic verb structures -. English N-auxiliaries obviously do not trigger incorporation - cf. the differences pointed out in section 3.3.1.4-. English HAVE, the paradigmatic N- auxiliary, when occurring in equivalent complex verb structures, does not prevent interruption nor disallow preposing; moreover, there is not even marginality in the preposing examples of complex verb sequences in English, so incorporation is utterly unmotivated :

(229) *My son said he had passed his examination and
passed it he has*

(230) **El seu fill va dir-li que havia passat l'examen i passat l'ha*

(231) **Su hijo le dijo que había pasado el examen y pasado lo ha*

Note also that English has the support verb *do* which has no equivalent in Catalan or Spanish, since even in preposing examples of simple past - which needs *do*-support in English -, the use of a substitute verb in Catalan and Spanish does not give rise to grammatical results:

(232) *He said he would jump over the balcony, and jump he did!*

(233) **Va dir que saltaria pel balcó i saltar va (fer)*

(234) **Dijo que saltaría por el balcón y saltar (hizo)*

The fact that the past participle and the auxiliary form an X-0 constituent - i.e. as well as in the other Catalan complex verb sequence analyzed in this thesis, *anar* + infinitive - is a language particular fact about Catalan and Spanish. Note, though, that this cannot be extended to other Romance languages, nor to pro-drop languages: as for the first observation, French, a Romance language, is obviously a non-V-incorporation language:

(235) *Je n'ai pas /jamais/ encore vu une chose aussi atroce*

And as for the second observation, Italian, a Romance and pro-drop language, is also a non-obligatory-V-incorporation language - cf. also section 3.3.1.4 for a summary of Belletti (1990) -:

(236) *Non ho mai visto questo*

The lack of lexical meaning of the verbal elements *haver/haber* has already been alluded to in claiming their status as a clitic - cf. section 3.3.1.1 -, and as a factor which, to my mind, is crucial in the triggering of obligatory incorporation. This stands in clear contrast with English, French

and Italian where the equivalents for HAVE have not lost their lexical meaning.

As regards complex predicates in English an important difference must be noted. Firstly, modals are INFL elements, so no equivalent modal "restructuring" constructions are found in the language. Aspectual complex verb sequences give the same results in English, Catalan, and Spanish, which is predicted by the fact that there is no incorporation in any of the three languages in these sequences.^{49,50}

(237) *I said I would begin to dance, and to dance I will begin*

(238) *Us he dit que començaria a ballar i a ballar començaré*

(239) *Os dije que empezaría a bailar y a bailar empezaré*

As regards causative sequences in English, it has already been explained and shown - cf. 2.3.1 - that there is no equivalent configuration to the Romance causative complex predicate sequences. Nevertheless, G&H posit that English causatives are T-auxiliaries which have the ability to assign structural case to the subject of their SC complement.

Again the hypothesis of non-incorporation accounts for the fact that preposing gives grammatical results in English:

(240) *We thought she would make him sing, and sing she made him*

But interruption results in ungrammaticality:

(241) **She makes always her husband sing*

This may be accounted for by Stowell(1981)'s Case adjacency Principle which holds for English, and would rule the sequence out.

Note that Spanish and Catalan perception verbs - also noted as candidates for complex predicate sequences - may also be assumed to be structural case assigners, which is not incompatible with their possible T-auxiliary status:

(242) *Juan vio a María salir del coche*

(243) *En Joan va veure (a) la María sortir del cotxe*

Note that non-syntactic incorporation predicts interruption and preposing to be (at least marginally) acceptable:

(244)a.? *Juan creyó ver a María salir del coche, pero en realidad salir no la vió*

b. *Juan vio sin ninguna duda a María salir del coche*

(245) a. ? *En Joan va creure que veia a la María sortir del cotxe, però de fet sortir no la va veure*

b. *En Joan va veure sense cap mena de dubte a la María sortir del cotxe*

Notes to Chapter 3

(1) This brief "note" does not intend to go further than this observation. See section 3.3.1.1 for comments and reference to *cliticization*, which is, obviously "behind" this observation.

(2) As will become clear in the later sections, he does not use the term *incorporation* in Baker's sense.

(3) Aarts (1989) argues against analyses of this type for such constructions - and others - positing instead a rightward NP movement adjunction to VP - instead of incorporation - and small clause subcategorization.

(4) Crucially, as will be noted in section 3.3.1, this principle does not hold of the verbal sequences under analysis in that section.

(5) This, again, will not be relevant for the sequences under analysis for Romance languages - cf. section 3.3.1 -, where morphology is not as productive as in agglutinating languages.

(6) Baker's account of passive is summarized in Note (31). There he proposes *abstract (LF) - incorporation*.

(7) See Spencer (forthcoming), and Ouhalla (1990) for a review and critical analysis of Baker (1988).

(8) His theory is based on the *barriers* framework - cf. section 1.2.2 -, with several modifications that will be included if they are relevant to the explanation.

(9) See section 3.3.1.4 for some comments on language variation; namely, differences among Italian, French, and English with respect to Catalan and Spanish.

(10) Baker uses \bar{S}/\bar{S}' notation, I will keep to this usage for simplicity reasons.

(11) See (34) in the text for the notion of *distinctness*.

(12) In 3.4 we will be led to the assumption that in complex verb structures, T-marking- G&H (1988)- is a sufficient requirement for incorporation in complex verb sequences; there will be no need to allude to theta-indexing of VPs.

(13) I must note that I will be omitting for the most part a more complex phrase structure posited basically in Pollock (1987), until Chapter 4, for simplicity reasons. The structure I am referring to is one which includes more functional nodes in the phrase structure. See note (25) below.

(14) Note that the VA sequence is not found in Spanish; the "simple past" is expressed only through the use of the inflected form of the main verb:

(i) *Imprimió el documento*

(ii)a. *Imprimí el document*

b. *Va imprimir el document*

The use of the verb *ir* with an infinitive in Spanish, *Va a imprimir*, is a future aspectual periphrastic sequence, or a sequence of two main verbs - cf. section 2.1.1, Test 7 -

(15) This could obviously be argued to be a counterexample to the modified HOC (54) in the text .

(16) As already noted in the review of literature on complex predicates, there are many views on how clitic+host sequences are to be characterized; the two basic positions are represented by Kayne (1975), Rizzi (1982), Aoun (1985) - movement - among others, and Borer (1984) , Jaeggli (1982) - base-generation - among others.

(17) In this section - cf also note (13) - I will not make use of a more complex structure where participles are dominated by a non-lexical node, as in Belletti (1990) - although I will mention her structure in section 3.3.1.4 - The same issue arises in 3.4 , as will be noted, cf. Note (25) -

(18) In the revised version of the paper - Manzini (1988) - an identical structure is not posited. Nevertheless, I have included it because it is in line with the structure proposed in this thesis for complex verbs in Catalan and Spanish, as well as English.

(19) This obviously does not apply to VP-adjunction in extraction structures, a basic mechanism in Barriers - cf. section 1.2.2 -

(20) I will not go into the details of the type of indexing involved in these VP complements; nevertheless, as stated in 3.4, T-marking will be assumed to subsume theta-indexing in complex verb structures

(21) *pas* may be argued to be a clitic in these constructions - i.e. where it "interrupts" a complex verb -, as it clearly does not bear stress.

Nevertheless, if *pas* follows the complex verb sequence, it may bear stress
 -: *No he vist pas la nena*.

It must also be noted that there is another element which may marginally interrupt the sequence both in Catalan and in Spanish, *ni*:

(i)? *No han ni provat la sopa*

(ii)? *No han ni probado la sopa*

As pointed out to me by J.M. Brucart, both of these elements are negative scope-markers, a fact which may bear on the explanation of their position next to a lexical head; i.e. a head which may be negated.

(22) A possibly related fact may come from the English infinitival form, where *to + V* are not morphophonologically amalgamated, and a certain degree of non-cohesiveness seems possible:

(i)?? *I want to really go there!*

Examples in Pollock (1987), to which he refers for other reasons may bear on this issue - (27) in Pollock - :

(ii) *To hardly understand Italian after years of hard work means you have no gift for languages*

(23) In the case where a verb is not subcategorized for , or does not select, a VP, LF incorporation is not necessary - possibly not even needed, as will be argued for in 3.4 -.

(24) This structure is based on recent proposals summarized in Chapter 4 - especially section 4.2 -. Basically, the INFL (I) node - cf. 1.1, 1.2.2 - which was assumed to be the head of S (= IP) is now fleshed out into two other distinct functional heads, AGR(ement) and T(ense), each of which has its own maximal projection, AGRP, and TP. The order of these categories is a matter of debate. I have included this specific structure in an attempt to

answer the problem of the bearing of inflectional affixes by V1 and not by V2 in complex verb sequences. For further explanation and comments on this new structure see Chapter 4, section 4.2.

(25) Belletti's structure includes a functional node, AGR, above the VP participle projection. I have included the whole structure for the sake of faithfulness to the text which is being commented on. Nevertheless, I will be disregarding the possible intervention of a functional node between the auxiliary and the non-finite form in a complex verb sequence until Chapter 4, where it is briefly touched upon in section 4.3. As argued in section 3.3.1.2, I am assuming a consecutive VP-VP structure. - cf. also Notes (13) and (17) -.

(26) By referring to "content" lexical status I am deliberately not alluding to the difference between lexical/functional nodes. Note that although not "content" lexical, I assume that auxiliaries in complex verb sequences are generated in V lexical nodes.

(27) Note that the ? marks are included in parentheses because there is variation in the acceptability of all of these examples; for some speakers they are wholly acceptable, for others they are not.

(28) Note that this differs from Chomsky (1986b)'s analysis of passive: BE moves to INFL, but the lexical verb remains in its original position - cf. section 1.2.2 -.

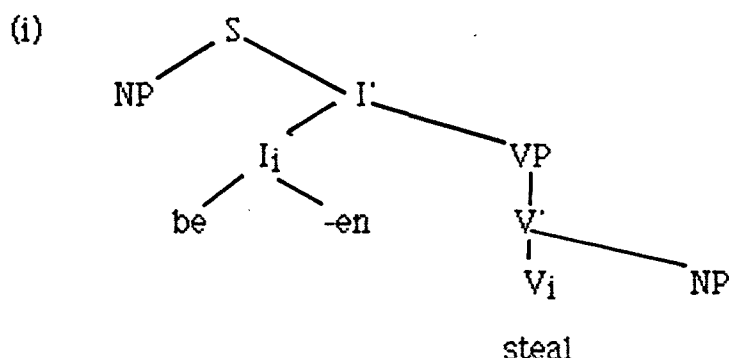
(29) Baker distinguishes between Chichewa-A, as opposed to Chichewa-B, which differ in their case parameters. Only Chichewa-A follows rule (232) in text.

(30) Chichewa and Malayalam have another crucial objecthood test: verb object agreement. They also have passivization, but they lack cliticization. Actually, clitics may be regarded as a kind of object agreement.

(31) As Baker points out - p. 463, fn. 38 -, this second test does not work for all Romance languages - cf. also section 3.4 -.

(32) Baker's analysis of *passivization*, a crucial GF changing phenomenon also involves the assumption that there is *abstract incorporation*, in this case of V-to-I; i.e. of a lexical to a non-lexical node, both in English and Romance. Passivization is, thus, argued to be a syntactic and not a morphological phenomenon - Note that here I am not alluding to the distinction made by Wasow (1977) between lexical/syntactic passive, as noted in section 2.2.1, and cf. also 3.1 and the explanation of the Mirror Principle in that section -. The fact that both morphological and copular passive are attested in the languages of the world is regarded as - on a par with causativization - as a consequence of the fact that incorporation may apply at different levels of the grammar: in Chichewa, for instance, passivization is morphological and thus an instance of incorporation from D-structure to S-structure; but in English or Romance, passivization is copular so an instance of LF incorporation. Both, nevertheless - as required by the UTAH - have an identical D-structure.

Baker assumes that the PASS morpheme is a nominal element, generated in INFL, as in (i), and is assigned - i.e. it does not absorb, as in other accounts - the external theta-role.



The fact that a thematic nominal element is present is argued by Baker on the basis of evidence from Binding, Control and secondary predication; i.e. it is syntactically active. Note that the fact that the external theta-role is assigned to the PASS morpheme in INFL frees the NPsubj position from thematic status and allows NP-movement.

The way a nominal element in INFL acquires case varies. In languages where this nominal element is I it is by the assignment of case by the V which incorporates into INFL. The implicitly assumed principle that Baker makes explicit: No category may assign case to itself implies that if the PASS morpheme is I, it will not get case unless the verb has a case to assign - which predicts the fact that only accusative-assigning verbs may be passivized. Baker accounts for the fact that there are languages which allow passivization of non-accusative verbs by positing variation in the category type of nominal element in INFL.

(33) No reference to the structures showing the application of incorporation will be given until section 3.4.1.2.

(34) See Pollock (1987), and Chapter 4 for V-movement in French and English.

(35) Note that the actual T-chain formation has been illustrated above to be equivalent in English, French, Catalan and Spanish, previous to incorporation.

(36) G&H give a parallel explanation for complex predicate structures where the first element is considered an auxiliary - cf. section 3.4.2.2 -.

(37) As already noted in 3.3.1.4, when summarizing Belletti (1990), for some past participle sequences there is assumed to be a functional node dominating the past participle. This is explicitly argued for in several recent works such as Kayne (1987), Pollock (1987), G&H (1988), Chomsky (1988), Drijkoningen (1989). The main difference for most of these authors lies in the fact whether there is participle agreement or not; i.e. in the former case, there is a functional node, in the latter, there is not. In Spanish G&H explicitly allow VP in the syntax because there is no agreement, as shown in their examples - (102) p. 69 -, as opposed to French:

(i) a. *Je les ai prises*

b. *Los he tomado*

Note that Catalan allows agreement:

(ii) *Le he pres;/preses*

For further (brief) consideration of this matter see Chapter 4, especially section 4.3.

(38) This holds as long as we assume that there are no functional nodes intervening between the two verbs in the sequence. See Note (36).

(39) Zagana (1988) notes that VP-preposing is a type of A-bar movement, and she assumes it may move to Spec. - CP. Nevertheless, she herself gives an alternative of Topicalization and a null operator as in (i) - (p.125) - ,

which would account for the Subjacency effects that she notes for English preposing structures :

(i) ... and [TOPIC [VP leave] [CP O_i [IP he will e_j]]])

(40) Another passive, the impersonal passive is possible, and used: (i) Els llibres es van fer llegir ; (ii) Los libros se hicieron leer.

(41) As explained in 2.4, and further considered in 3.4.3, if Catalan and Spanish BE are here considered T-auxiliaries, independent constraints on auxiliaries explain the ungrammatical examples in Spanish and Catalan, i.e. basically the fact that no two auxiliaries with the same function may appear in a sequence.

(42) G&H- footnote 8, pg. 48- make a difference between simple and complex tense as in (i) and (ii): *avoir* may denote either a simple or complex tense, whereas *have* may only denote a complex tense, as in (ii)*

(i) J'ai vu Pierre à quatre heures/souvent

(ii) I have seen Peter *at four o'clock/ often

(43) This has been explained and illustrated - with clitic climbing and theta-role percolation examples - in 2.4; the main idea behind it being the fact that it links up tense as an operator on a theta-domain.

(44) This use is also allowed in Catalan under restricted circumstances.

(45) An alternative explanation as regards modals - which I will not pursue in this thesis - is in line with Picallo (1985)-(1990); i.e. granting root modals an adjunct predicate status, an idea that springs from Zubizarreta (1982),

and which Pollock (1987) - as Picallo (1990) notes in a footnote - also illustrated with the following examples:

(i) Pierre a voulu partir

(ii) Pierre est parti volontairement

Modal verbs seem to contribute to the interpretation of the predicate in an adverbial fashion rather than by being direct theta-role assigners

(46) In Spanish the equivalent is possible: (i) *Puede que no me encuentren cuando vuelvan*. Picallo(1990) refers strictly to Catalan. The hypothesis in this section may also only apply to Catalan, although in respects to be seen below, epistemics in Catalan and Spanish seem to function identically

(47) Note first that in those examples given in 3.3.2.1 , the sentences where interruption of complex predicates is acceptable, the first element is a root modal , or has a root interpretation. The fact that Spanish *deber*, as opposed to Catalan *deure*, may also have a root reading explains example () in 3.3.2.1 from H&R(1984)) -

(48) Note that there is an important exception, the negative particle may interrupt, and gives marginal results, even if the reading is epistemic, both in Catalan and Spanish. :

(i)? En Guillem deu no saber què fer

(ii)? Guillermo debe no saber qué hacer

As will be noted in Chapter 4, in the present phrase structure proposals à-la-Pollock, the negative particle status has a special status. I will briefly point out some possibilities in the chapter *Prospects*

(49) The fact that some speakers of Catalan and Spanish consider the examples not wholly acceptable obviously calls for an explanation.

(50) The fact that the preposing construction for Catalan and Spanish is not: "... *ballar començaré a*" / "... *ballar empezaré a*" may be linked to the lack of preposition stranding in the two languages.