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Restructuring Effects in German

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1 Introduction

In this paper we would like to argue in favour of a syntactic analysis of German which can account for at least three construction types that seem to be an obstacle to most existing proposals in recent generative grammar. In order to do so, we first want to present a set of relevant data. Then we will show that neither reanalysis nor a movement analysis can account for these data. Finally we will sketch our own proposal.

2 The Data

We will deal here with three types of constructions in German, which we will refer to with descriptive labels that should not be confused with the analysis we are going to present ourselves: Clitic Climbing, Long Passives, and Preposed Verb Clusters. Each of these phenomena appears only with a certain class of verbs, a class which may broadly be characterised as "Restructuring Verbs". In (1) we present examples of possible and impossible Clitic Climbing:

A. Clitic Climbing (CC)

(1) a. daß uns_2 der $Hans_1$ vergessen hat [PRO_1 e_2 seinen Wagen zu zeigen]
that us the H. forgotten has his car to show
'that Hans has forgotten to show us his car'

b. *daß uns_2 der $Hans_1$ bedauert hat [PRO_1 e_2 sein Auto zeigen zu müssen]
that us the H. regretted has his car show to have
'that Hans has regretted to have to show us his car'

In these examples it appears as if the (clitic) *uns* has moved from the complement clause into the matrix clause. A similar effect appears in (2) where it seems that NP-movement has crossed the lower clause boundary such that the object NP of the lower clause becomes the subject NP of the higher clause:

B. "Long" Passives

(2) a. daß [der Wagen]$_1$ vergessen wurde [(PRO) e_1 zu reparieren]
that the car forgotten was to repair
'that it was forgotten to repair the car'

b. *daß [der Wagen]$_1$ bedauert wurde [(PRO) e_1 reparieren zu müssen]
that the car regretted was repair to have
'that it was regretted to have to repair the car'

A similar asymmetry between the verbs *vergessen* and *bedauern* can be observed with respect to the examples in (3).

C. Preposed Verb Clusters

(3) a. [zu reparieren vergessen] hat der Hans den Wagen nicht
to repair forgotten has the H. the car not
'to forget to repair the car is not what Hans has done'

b. *[zu reparieren bedauert] hat der Hans den Wagen nicht
'to regret to repair the car is not what Hans has done'

In (3) it appears that the (non-finite) matrix verb and the *zu*-verb of the complement clause have formed a new syntactic category which then has been moved to the pre-verbal Spec-of-CP position. Again, this is only possible with Restructuring verbs. Let us now seek a possible account for these data.

3 Reanalysis

One analysis that comes to mind immediately is reanalysis. It is conceptually attractive, but it faces problems of significant weight. Let us assume a [Haegeman & van Riemsdijk 86] kind of reanalysis. They state the following rule:

(4) Reanalysis:

> If the representation of a sentence contains the line $XVqV_rY$, and if V_r is a V(P)R verb, then add the line XV_xY to that representation.
>
> [Haegeman & van Riemsdijk 86]

The first problem in applying a strictly local rule like this arises from the fact that V_r is not always strictly adjacent to Vq. For example when (4) applies to *seinen Wagen zu zeigen* and the raising verb *vergessen* in the structure underlying (1a) (shown as (1a')), it is unclear how subsequent extraposition or inversion within the V-cluster could ignore the auxiliary *hat*:

(1) a' daß der Hans$_1$ [PRO$_1$ uns seinen Wagen zu zeigen] vergessen hat
that the H. us his car to show forgotten has
'that Hans has forgotten to show us his car'

The second problem which is also prominent in Haegeman and van Riemsdijk's work is that it is unclear what to do with PRO. The authors suggest that PRO disappears when Reanalysis applies. This would be plausible if only cases of subject control were involved.

This is, however, not so clear when object control is involved. In this case, we assume, PRO has to be present for proper indexing with the object controller. The following data show that there are indeed object control verbs in German which allow for the restructuring effects under consideration:

(5) a. daß ihn$_i$ ihr$_j$ der Hans erlaubte [PRO$_j$ e$_i$ auszukosten]
that it to-her the H. permitted to enjoy
'that Hans permitted her to enjoy it'

b. daß er$_i$ mir$_j$ gestattet wurde [PRO$_j$ e$_i$ zu verkaufen]
that it to-me allowed was to sell
'that it was allowed to me to sell it'

c. [PRO$_j$ zu verkaufen erlaubt] hätte ihn mir$_j$ der Hans niemals
to sell allowed had it to-me the H. never
'Hans would have never allowed me to sell it'

These considerations suggest that it is unlikely that the cases under scrutiny are really instances of Verb Raising: they rather seem to be true cases of Extraposition. If this is indeed so, then we might look at more recent approaches which acknowledge this property, i.e., approaches which assume a full-fledged clausal structure at all levels of representation.

4 Clitic Climbing (CC)

[Kayne 89] has proposed a theory according to which in Italian and other Romance languages a clitic can escape from its minimal clause by head-to-head movement. The proposal is that a strong enough I(NFL) can L-mark a VP so that a clitic can move out of this VP and attach to INFL. From INFL (and together with it) the clitic can move to C(OMP), because the complement clause is taken to be a CP. From C, the Clitic+INFL complex can then move to the INFL of the matrix clause. Three things are crucial for this theory: INFL must be strong. Otherwise VP remains a barrier. This suggests that languages in which CC occurs will be pro-drop languages. Second, clitics must be heads. Otherwise they could not undergo head-to-head movement. Third, I-C-I movement of the Clitic+INFL complex must coindex the lower I(NFL) with the higher I. Then, due to Specifier-Head Agreement, only subject-controlled PRO could be involved in CC-contexts.

The problems with Kayne's approach for German are numerous: As we have shown earlier with example (5a), CC is possible in German not only with subject control, but also in object control structures, as seems to be the case in Spanish (see [Aissen & Perlmutter 76], [Bordelois 88], and [Luján 80]).[1] Second, in German not only clitics can move but also full NPs. This is shown in (6):

(6) daß Hans uns$_i$ *seinen Wagen*$_j$ vergessen hatte [PRO e$_i$ e$_j$ zu zeigen]
that H. us his car forgotten has to show
'that Hans had forgotten to show us his car'

[1] [Bordelois 88] cites [Morin & St. Amour 77] for Old French facts. In Old French, Clitic Climbing (CC) was apparently permitted in structures with Nominative and Dative controllers (cf. *vouloir* 'want', *permettre* 'permit'), while not allowing CC with accusative controllers (as with *forcer* 'force').

As for Spanish, there are different Dative Control verbs reported by different scholars; thus, [Bordelois 88] states that *mandar* 'command' and *enseñar* 'teach' allow for CC, while *ordenar* 'order', *sugerir* 'suggest', *aconsejar* 'advise' "will yield outputs varying in acceptability across different dialects" [Bordelois 88, p. 74]. [Aissen & Perlmutter 76], on the other hand, list both *ordenar* and *permitir* 'to permit' among their "trigger verbs" for CC, but *sugerir* among the "non-trigger verbs". *Mandar* and *enseñar* are not mentioned.

Third, given that INFL is usually taken to be clause final in German, it is not clear how the proper landing sites of CC could be determined under Kayne's approach, since German "clitics" are found elsewhere (as seen in examples (1a) and (6)). Fourth, German cannot have a strong INFL, because it is not a pro-drop language[2]. Finally, this theory would leave the phenomena of Long Passive and preposed verb clusters unexplained. Thus, any theory which can account for these phenomena as well would have to be favoured over the approach in [Kayne 89].

Let us turn next to a Scrambling analysis.

5 Scrambling

In a detailed study of Dutch, [den Besten *et al.* 88] show convincingly that what they call "Long Distance Scrambling" (LDS) has to be distinguished from Verb Raising (VR). Den Besten et al. propose that due to the nature of the matrix verb involved in LDS, the complement cannot be a CP, but rather has to be an IP. From IP, they claim, a scrambling operation can move a definite NP into the matrix clause:

(7) $[_{CP}\ [_{IP}\ \ldots\ NP_i\ \ldots\ V\ [_{IP}\ PRO\ e_i\ ]\ ]\ ]$

Crucially, Scrambling is not possible from a CP, because movement from a CP has to pass through Spec-of-CP; yet scrambling seems somehow unable to use that position. Thus, it is predicted that LDS and WH-movement exclude each other. This seems, at first sight, to be correct, as the Dutch examples in (8) show:

(8) a. Wat probeerde hij $[_{CP}\ e_i\ [_{C'}$ om $[_{IP}$ PRO e_i aan Marie te geven]]]
what tried he in-order to Mary to give
'What did he try to give to Mary?'

b. *dat hij [dat boek]$_i$ probeerde $[_{CP}\ e_i\ [_{C'}$ om $[_{IP}$ PRO e_i te lezen]]]
that he the book tried in-order to read
'that he tried to read the book'

We find two serious problems with this account: First, there are cases which clearly falsify the prediction that LDS and WH-movement exclude each other. Consider the Dutch and German examples in (9):

(9) a. [Aan wie]$_i$ hebben zij [dat boek]$_j$ geprobeerd [PRO e_i e_j te geven]
to who have they the book tried to give
'To whom have they tried to give the book?'

b. [Wem]$_i$ haben sie [das Buch]$_j$ versucht [PRO e_i e_j zu geben]

Assume that WH-elements can extract from a complement to the right of the matrix verb only through a Spec-of-CP position. If so, the Scrambling theory cannot allow both LDS and WH-movement, but the two movement processes jointly result in perfectly grammatical structures. Second, according to [Webelhuth 88], Scrambling is only allowed to the left of a constituent (e.g. VP) which is headed by a left-governing head. Den Besten *et al.* assume that the verb in (7) is a right-governing head. Therefore, Scrambling should not be

[2] At least with respect to referential *pro*. German is not "pro-Drop", since referential *pro* is not licensed. We shall not consider expletive *pro* here, since it is not relevant to our concerns.

possible. The reason for the constraint on Scrambling that Webelhuth proposes is likely to rest on the more general theory of domain extension developed in [Koster 87]. According to Koster, a minimal maximal domain XP can only be extended to a higher domain YP when both heads X and Y govern in the same direction. If this is correct, the matrix VP in (7) is likely to become a bounding node over which extraction is impossible:

(10) $[_{CP}\ [_{IP} \ldots [_{VP}\ NP_i\ [_{VP} \ldots V\ [_{IP}\ PRO\ [_{VP}\ e_i\ V\ ]\ ]\ ]\ ]\ ]\ ]$

One way of overcoming this second problem could be to scramble NP out of the lower IP while this IP is to the left of the matrix verb, and then extrapose the rest of the IP. There is, however, some evidence that only CPs can extrapose. For example, in English infinitival clauses with ECM cannot extrapose:

(11) a. *We will believe $[e_i]$ from now on $[_{IP}$ our best friends to have been killed$]_i$

b. We [want e_i] very much [*(for) Bill to leave$]_i$

Thus, the Scrambling theory appears to have a number of serious problems in deriving LDS or CC in Dutch and German. For reasons we cannot go into in this paper, den Besten *et al.* predict Long Passives in Dutch to be ungrammatical, as indeed they are. The way it is formulated, the putative explanation for the ungrammaticality of Dutch Long Passives would carry over to German, where Long Passives are possible, however. So all in all, the Scrambling theory faces difficulties in dealing with the facts presented in (1) through (3).

Let us now sketch an alternative to the three approaches criticised earlier.

6 An Alternative

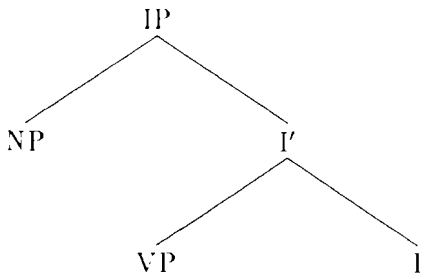
In the following sections, we shall outline a treatment of the "Restructuring effects" presented in the introduction; we shall argue that our approach avoids the shortcomings of the alternatives just discussed — at least as far as German is concerned.

6.1 On Projecting the Inflected Verb

A persistent finding in research on German syntax has been that there is little or no reason to assume that a subject NP (with Nominative Case) can only be licensed outside the VP. For example, in a passive construction it is not obvious that the Nominative NP has left its D-Structure position in order to pick up Case. The reason for this is that INFL in German can be viewed as a morphological category that attaches to V, rather than as a terminal syntactic category which takes a VP as its complement. In the sense of [Abney 87], one can then say that V is the semantic head, while I is the formal head of the clause. In this way one could capture the insight that underlies the proposal of [Jackendoff 77] that V is the head of S, and that S is actually of the category V'''.

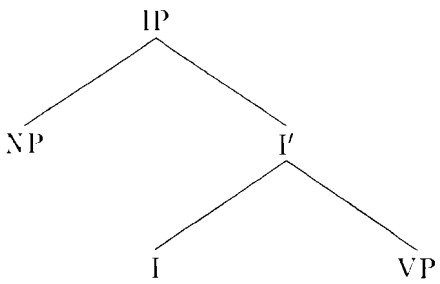
Following more closely recent developments of X'-theory, we will propose, however, that a "morphological" account of I can be formulated which is very close in spirit to the phrase structure standardly assumed now, namely

(12) a



(for Dutch, German, etc.)

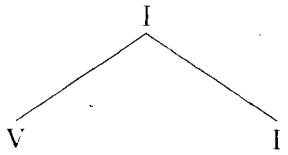
b



(for English, French, etc.)

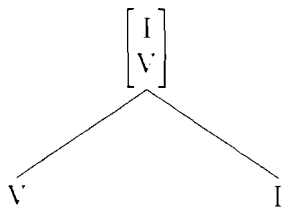
Under a morphological account, the difference is that I is the sister of V at morphological structure (with I as the head of the resulting entity), not the sister of VP at syntactic structure (with VP as the syntactic complement of I). Let us assume that I combines in the morphological system, presumably in the lexicon, with a V stem. The result may be a complex category of the following kind:

(13)



(13) is an instance of the application of the Right-Hand-Head Rule of [Williams 81]. The entire structure now is I. But this is clearly not a desirable result, because we know intuitively that the inflected V is more than an I. Furthermore, if the contribution of V to the syntax and semantics of [V+I] would be lost at the mother node, how could this category be used at all? (13) would have to be represented as "double-headed" in the sense of [diSciullo & Williams 87] according to whose approach this structure is right-headed for the I-feature, and — as there is no branching on the lexical category V — trivially right-headed for V. What this means is simply that V and I are jointly visible at the mother node. Then (13) will have to be

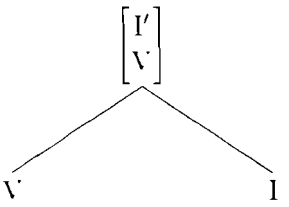
(13′)



This is basically also what [Reuland & Kosmeijer 88] propose. What (13′) does not express is, however, that [V,I] is syntactically complex, i.e., that I will ultimately be the formal (functional) head of the clause (IP) in the spirit of [Chomsky 86], as indicated in the representations in (13). (13′) can, however, be made very similar to (12a) and (12b)

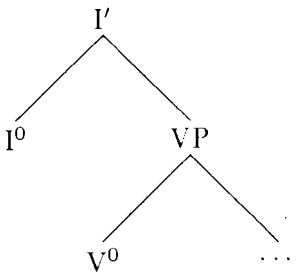
when we assume that once the inflectional affix takes an argument, it will project to I′. The only difference with (12a) and (12b) is then that we do not assume that the complement of I is VP, but that the complement of I is -- due to the morphological nature of the rule application — the zero-level category of a V-stem. This step changes (13′) to

(13″)

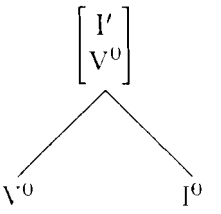


An inflected V in German is then a syntactic primitive which is both [V] and [I′]. Both V and I govern Case to the left, and license their arguments in the same fashion as under the current assumptions for English phrase structure. The difference between English and German involves the contrast shown in (14):[3]

(14) a. English



b. German



This difference makes important empirical predictions which we can only mention very briefly here.

6.1.1 The AUX-System

English has a class of designated verbs which are known as "auxiliaries". They include *have*, *be*, *do*, modals etc. Since the beginnings of generative grammar, descriptions of English have recognised a separate terminal node for these, namely AUX (cf. [Lightfoot 79] (esp. Chapter 2), [Steele *et al.* 81]). German does not give any evidence in favour of such a node separate from the VP (cf. [Ross 69]). Earlier descriptions which tried to extend directly the system developed for English to German were not successful. This difference between English and German is captured by acknowledging that the former language represents I (AUX) as a syntactic head with a terminal node that takes a VP-complement, while the latter language — as many others -- represents I as a primarily morphological head taking V as its complement.

6.1.2 VP-internal Nominatives

German allows for VP-internal nominatives, a fact that is especially relevant in connection with ergative verbs. Ergative verbs which require a dative experiencer argument typically exhibit as the unmarked constituent order DATIVE-NOMINATIVE-VERB, as in

[3]The most obvious demonstration of this is seen in the special properties of the English auxiliary system in comparison with the V-system (e.g. [Lightfoot 79], especially chapter 2). In German, on the other hand, it is known since the work of [Ross 69] that there is no essential difference between Aux and V

(15) daß dem Taucher(DAT) die Luft(NOM) ausgegangen ist
that the diver the air ran out is
'that the diver ran out of air'

The problem with a phrase structure such as (12a) is that it is unclear how nominative case could be assigned into VP. (For suggestions see [den Besten 84]). In a phrase structure such as (14b) this problem does not arise.

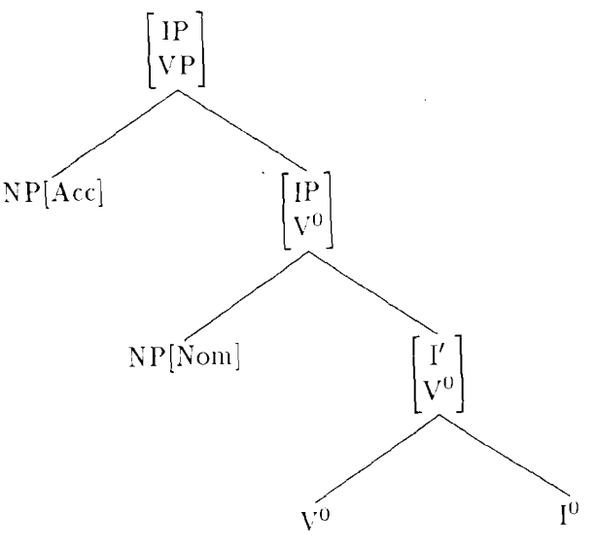
6.1.3 Scrambling Effects

When V takes arguments in English, it can only take those which can be licensed by V, i.e., first and primarily the selected objects. In German, however, there appears to also exist an option for an unergative V to license a subject. This is, however, only apparently so. The true reason is that V is at the same time I'. Thus it is in principle possible to base-generate a scrambled clause:

(16) daß den Postboten(ACC) der Hund(NOM) gebissen hat
that the mailman the dog bitten has
'that the dog has bitten the mailman'

In the system proposed, the structure of a clause with the object NP scrambled over the subject NP will be as in (17):

(17)



In order to make this account work, some assumptions are necessary. First, Case assignment doesn't take place only under strict string-adjacency as in English. Otherwise, V would be able to assign Accusative Case only to its sister NP. In this system, however, the governing force of V must be retained in the projection of V. Second, the Nominative NP in (17) is governed by V. This cannot mean, however, that it is also *licensed* by V, e.g. as an argument of V. If this were the case, the marked Scrambling order would be indistinguishable from the unmarked Ergative order shown in (15). According to standard assumptions, an unergative V cannot take a subject NP as an argument. The subject NP is rather — in the active sentence — licensed by I for Case and by VP for its Theta-role. Licensing an unergative subject in the VP as in (17) cannot mean that it is licensed by V. An active agentive V will be completely unaffected by the attachment of a nominative

NP. This can be expressed by adjunction. Thus, we adjoin NP to V-zero, but this adjoined position – as it bears Case and a Theta-role – must be licensed. It *can* be licensed, however not by V, but as the specifier of I. As such, (17) is nothing more than an ordinary IP with a VP that remains unsaturated until Spec-of-IP is licensed.[4]

6.1.4 NP-Movement

Evidence for passive and raising as NP-Movement in German has always been sparse. The most elementary observation is that while the object NP undergoes Case change, it does not visibly move out of VP. This is shown in (18b). As (18c) shows, there are cases in which moving the underlying object NP out of VP would even violate other principles (as, in this case, the principle that indefinite NPs have to follow definite ones) that hold in German:

(18) a. daß Hans(NOM) dem Studenten(DAT) einen Wagen(ACC) verkauft
that H. the student a car sells
'that Hans sells a car to the student'

b. daß dem Studenten ein Wagen(NOM) verkauft wurde
sold was
'that a car was sold to the student'

c. *daß ein Wagen(NOM) dem Studenten verkauft wurde

One alternative to NP-movement can be sketched as follows: Let us assume that passive morphology suppresses the Accusative assignment by the verb and the external theta-role, as usual in GB-theory. Since I is already "active" in the verb's projection (e.g. by assigning Nominative to a VP-internal subject position), passive can apply without the involvement of NP-movement. In order to simplify the representation, let us assume that the passive auxiliary *werd-* is I:

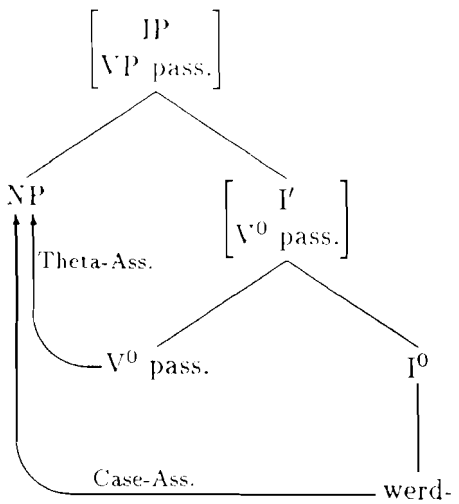
[4] This accounts for the following contrast which is due to [Thiersch 82]:

(i) [Die Luft(NOM) ausgegangen] ist dem Taucher(Dat) erst einmal
the air run out is the diver only once

(ii) *[Der Hund(NOM) gebissen] hat den Postboten(ACC) erst einmal
the dog bitten has the postman only once

Only in (i) is the nominative NP licensed by V. It is a genuine argument of the ergative V. In (ii), V does not license NP at all. Thus it cannot form a constituent with it. This effect shows up once NP+V are moved to the first position of a V2-clause.

(19)



This should suffice as a rough sketch of Scrambling and NP-Movement/Passive in German.

6.1.5 Consequences

We have seen above that by a seemingly minor change in the assumptions about the projection of the inflected verb major empirical predictions can be derived which are verified by some of the core facts of German syntax. One could argue, however, that this move leads to a system that is equivalent to a non-configurational structure for the German "Mittelfeld", as proposed by Hubert Haider in earlier work. A closer look reveals, however, that this is only apparently so. While in a truly non-configurational system there is no essential difference between internal and external argument(s), our proposal does not have this consequence at all for a language like German. The reason is that the licensing of arguments is exactly as in the extended X'-theory of [Chomsky 86]. The V-system and the I-system do not interact, but with one exception: V and I are joined together in the morphology and as such co-represent the V system and the I system in a single syntactic word, namely the inflected verb. This by no means makes the system non-configurational.

Another impression might be that the system is equivalent to a categorial framework with function composition. Suppose that category X has valency n and category Y has valency m, and that the combination of X with Y will lead to a new functor Z which will have the valency n+m. In this sense [V+I], with V a simple transitive verb, would turn out to be a functor which "seeks" two arguments. As long as such a theory respects the independence of syntactic projection that was the focus of the above remarks, our proposal could be seen as a categorial framework. There is one important difference, however, to which we will turn shortly. This difference arises from the fact that complex categories are allowed in our system only as long as there is a "raising" head element which permits the visualization of the non-head at the mother node. In most of the categorial frameworks such an assumption is not made.[5]

Before we start to express this in more formal terms, let us make this clear with respect

[5] As categorial systems are usually intended to provide the entire format for the combinatorial rules of the grammar, it is not possible to use this format for only a designated class of operations. Precisely such a constraint on the use of function composition seems to be necessary, however, if one doesn't want to allow for an unrestricted (and unprincipled) combinatorial power.

to the inflectional element I: It was said above that I is a head which allows the V stem to be visible at the mother node headed by it. This is clearly the proper intuition that underlies approaches which take V-to-I movement as an instance of head-to-head movement (see [Travis 84] and [Baker 85, 88]). Thus, the formation of a complex multi-headed category could be constrained by a morphological/lexical factor that determines whether a head allows for the visibility of the non-head at the mother node. I is, of course, a category which is determined by such a factor. In the next section we will come to know other categories with similar properties.

6.2 Restructuring and Clausal Complements

Let us now turn to infinitival clauses with *zu* and propose, following other linguists' work (e.g. [Kratzer 84]), that they are IPs with *zu* as their head. Furthermore we assume, now following [den Besten *et al.* 88], that restructuring verbs like *versprechen*, *vergessen*, *erlauben*, *gestatten* and a number of other verbs, take — at least optionally — IP complements. Furthermore, we assume that clausal complements like CP and IP can be base-generated at the left as well as at the right of their governing verb, and that no special rule of Extraposition is necessary for getting the complement to the right of V+I. These assumptions are listed in (20):

(20) **Assumptions:**

a. Restructuring verbs take IP complements;

b. IP is a defective category;

c. A matrix V can govern (through IP) the projection of another V as long as V is not maximal;

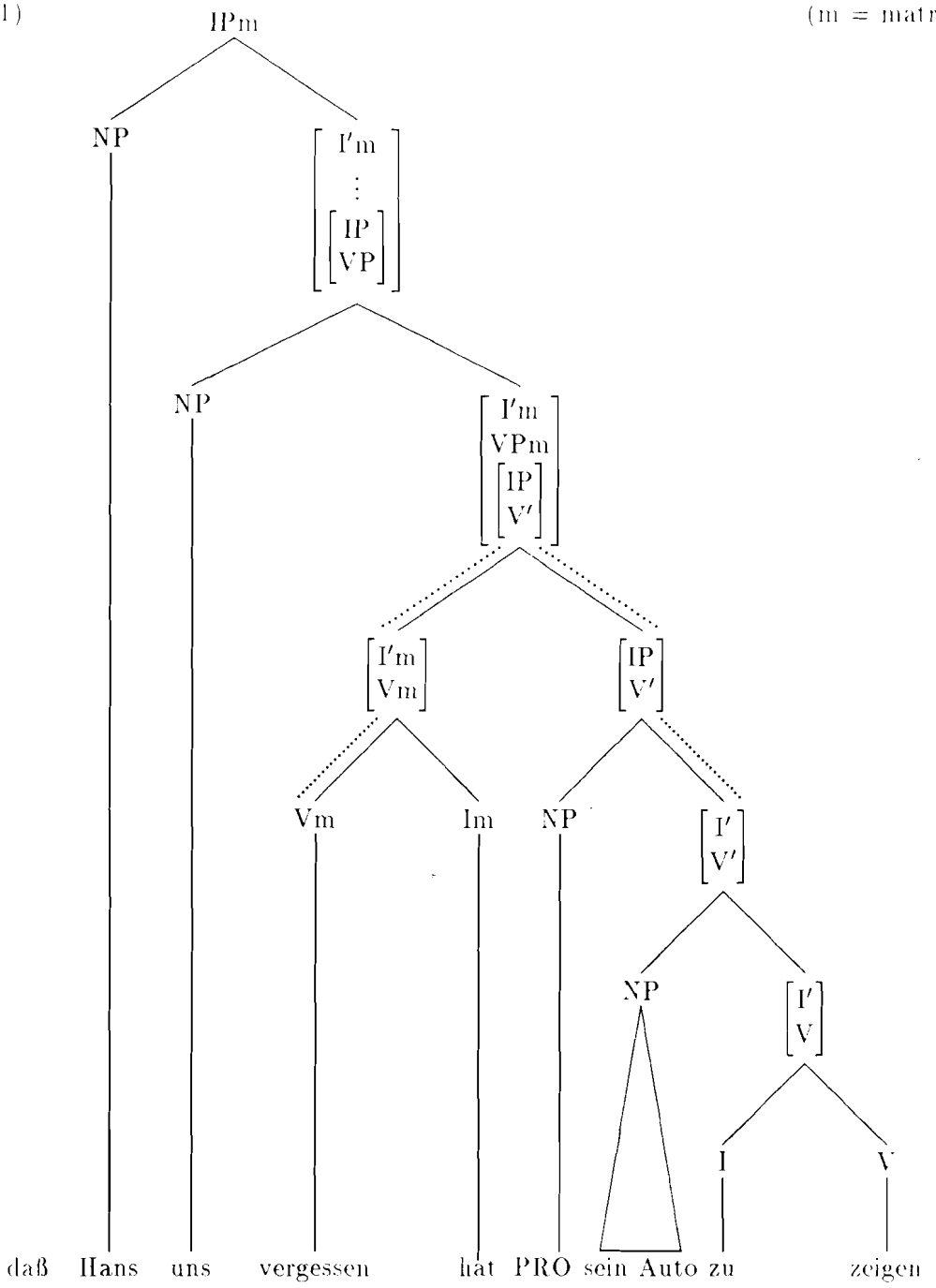
d. IP (and CP) can be base-generated either to the left or to the right of the matrix V;

e. Perhaps IP cannot be affected by move-alpha (due to its status as a defective category).

What we have said about the function of the finite I in German in connection with (14b) and (17) holds in full generality for *zu*-infinitives, as well. Thus, PRO can be licensed (by *zu*) next to the verb instead of next to a VP. IP is a defective category into which the matrix V can govern, and we may therefore assume that V is able to govern the specifier of its complement.[6] V cannot govern into the VP, because VP is a maximal category which presumably does not have a specifier position. When we consider the possibility now that cases of CC like (1a) and (5a) or of Scrambling like (6) are base-generated, it is clear that the IP complement does not contain a VP, but a sub-VP category. The matrix V can govern into this "defective" VP, and since the matrix V is a restructuring verb, the governed verbal complex can pass its features through IP as well as through the matrix VP. To express feature percolation, we can again make use of complex categories which were already introduced in connection with I. Ignoring the precise positioning of clitics at the moment, (1a) can then be represented as follows:

[6] This creates the problem that PRO will be governed. We will leave this problem unaccounted for, as it appears again and again in modern generative descriptions.

(21) (m = matrix)



The effect of "Restructuring" is captured here by the government link indicated in (21) by the dotted line. Instead of moving an argument of the lower clause into the matrix clause, we have expressed the relation with complex categories. The question is now whether this isn't just a notational variant of some of the other accounts. The answer is no. The reason is that our account makes different predictions, and that it avoids problems which loom large in the movement accounts.

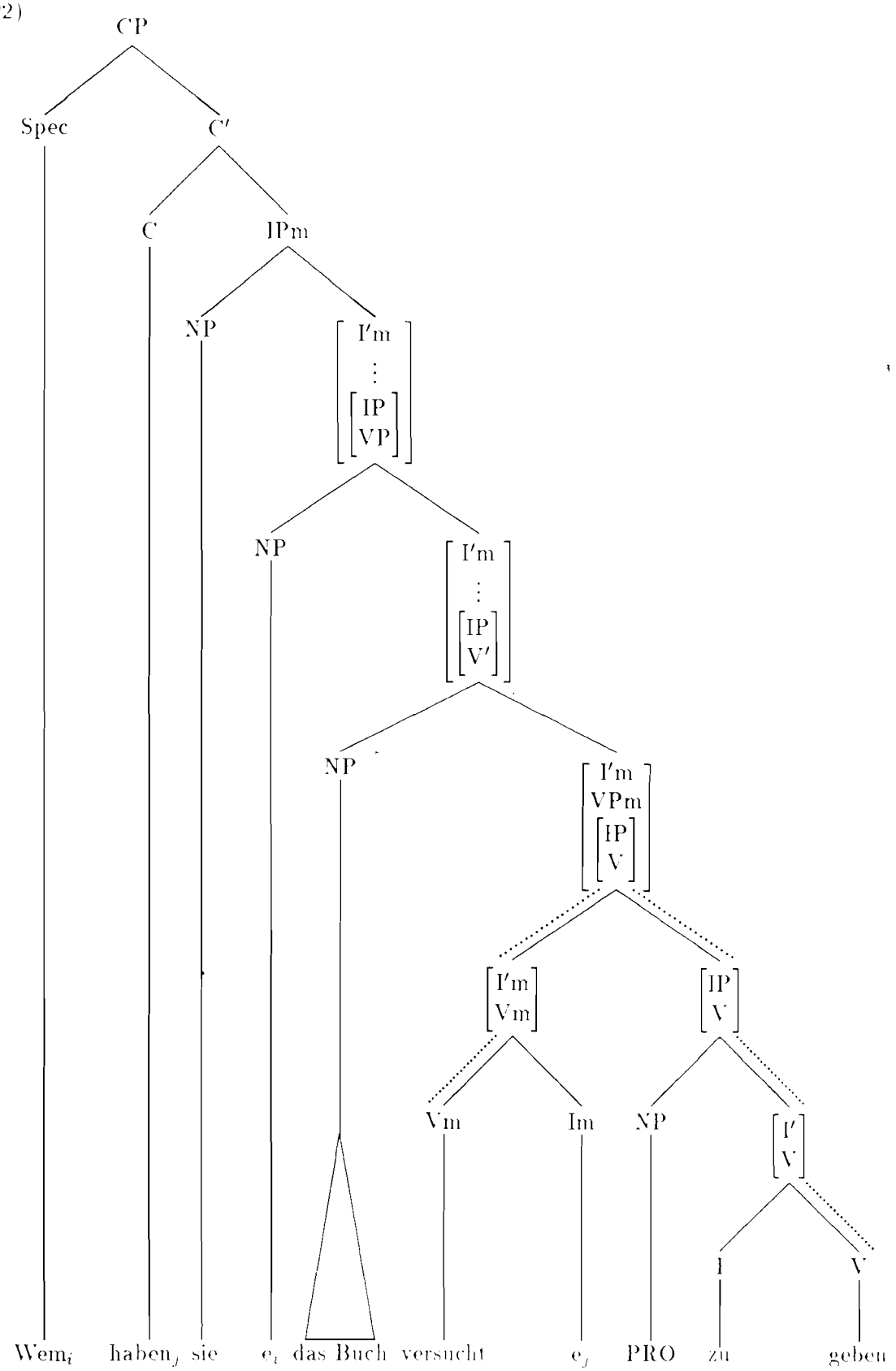
The present theory is not troubled with the main problems of reanalysis, i.e., those listed at the beginning of the paper: First of all, our approach does not require strict

adjacency between the two factors to be reanalysed. Our theory also avoids the main problem concerning PRO, i.e., the necessity to delete PRO: PRO can always be present. Thus, there will be no problems with proper indexing. The present theory is also free of the problems which were mentioned in connection with Kayne's proposal for CC, because it does not have to distinguish between clitics and non-clitics; it also allows for CC in object control contexts, and it is not committed to the assumption that "Restructuring" verbs take CP complements; furthermore, it does not require I as a landing site.

As we shall see later on, our theory can naturally account for long passives and preposed verb clusters as well.

The present theory also avoids the empirical and conceptual problems pointed out in connection with Scrambling. First of all, Koster's theory of domain extension can be kept in full generality. As one can see in (21), the verb *zeigen* governs, Case-marks, and theta-marks its indirect object NP canonically. The fact that the rightwards oriented governor *vergessen* comes into play is completely irrelevant, because the governing property of *zeigen* is copied onto the nodes dominated by (and dominating) *vergessen*. Second, the paradox pointed out in connection with (9a) and (9b) vanishes immediately, because the WH phrase does not have to be extracted from the lower IP. It can be present in the matrix IP as early as at D-Structure. This is shown in (22).

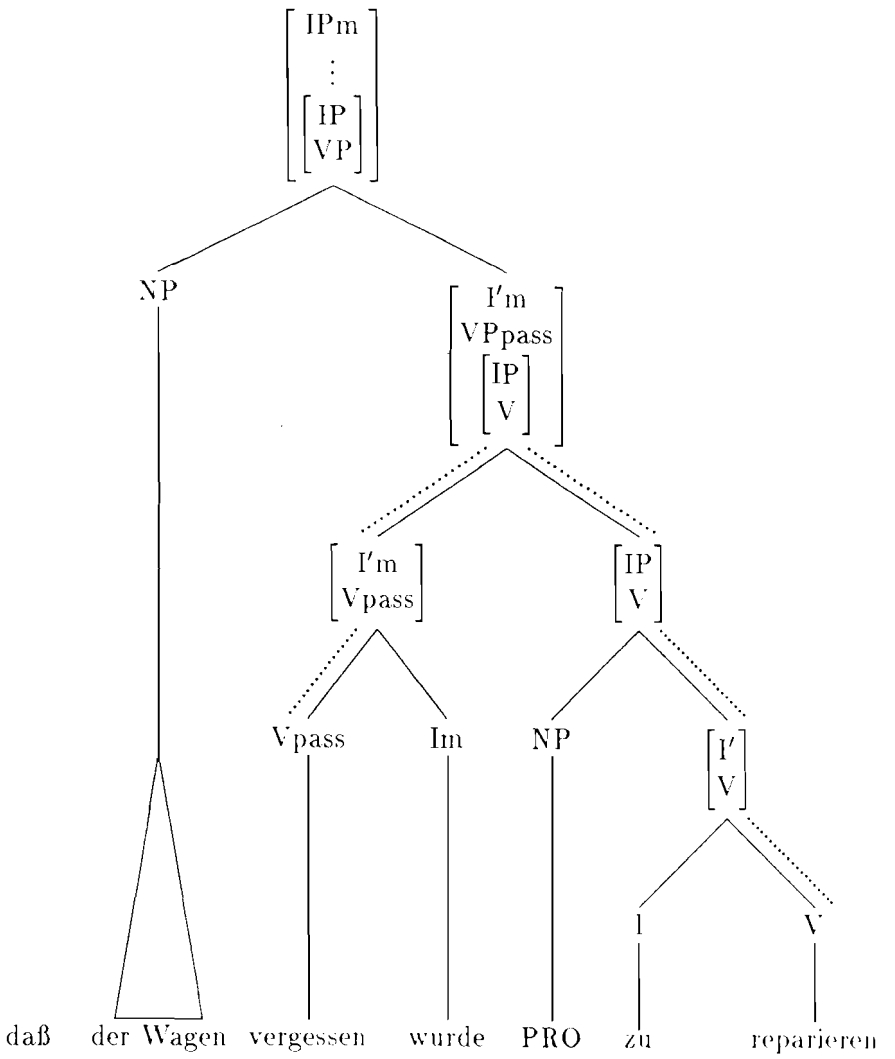
(22)


CP
Spec
C′
C
IPm
NP
I′m
⋮
IP
VP
NP
I′m
⋮
IP
V′
NP
I′m
VPm
IP
V
I′m
Vm
IP
V
Vm
Im
NP
I′
V
I
V
Wem$_i$
haben$_j$
sie
e$_i$
das Buch
versucht
e$_j$
PRO
zu
geben

In (22), no escape hatch for the WH-element has to be postulated in the lower IP, because WH can be generated at D-Structure in the matrix IP in the same way as the [–WH]-NP *das Buch*. From the matrix IP this WH-element can undergo WH-movement as usual. Of course, this analysis is only consistent when the trace of *wem* is not in a derived position. But this is just what this proposal is arguing for.

Let us now turn to Long Passives. We have said earlier that the matrix V can govern into a defective category. A non-maximal V-projection is defective. Thus in a case like (2a), *vergessen* will govern the verb *reparieren*; *reparieren* will pass its features onto the VP node dominated by *vergessen*. As the two verbs are co-present at one syntactic node, they can be jointly affected by passive morphology. This is shown in (23).

(23)



In (23), the restructuring effect, caused by the fact that *vergessen* can govern the lower verb, enables the NP *der Wagen* to be realised as a Nominative in the matrix clause.

Note now that this NP (i.e., *der Wagen*) could also have remained in the lower IP, thus completing the lower VP. In this case, *vergessen* would fail to govern the lower verb, and the passive morphology would lose its effect on the object of *reparieren*. The facts are exactly as our theory predicts:

(24) a. *daß vergessen wurde [PRO der Wagen zu reparieren]
that forgotten was the car(NOM) to repair

b. daß vergessen wurde [PRO den Wagen zu reparieren]
that forgotten was the car(ACC) to repair

At this point, it is an open question whether in this case the complement is still an IP. If the restructuring verbs in question can optionally take a CP complement, then there would be an additional reason not to have Passive affect the complement. In this case, the NP governed by the lower verb should extract via Spec-of-CP and move to the preverbal Spec-of-CP of the matrix clause. The result of this movement from CP is given in the examples in (25):

(25) a. *[Den Wagen]$_i$ wurde hier schon öfter versucht
the car(ACC) was here often tried

[$_{CP}$ e$_i$ [$_{IP}$ PRO e$_i$ zu waschen]]
to wash

b. *[Den Turm]$_i$ wurde nach dem Krieg vergessen
the tower(ACC) was after the war forgotten

[$_{CP}$ e$_i$ [$_{IP}$ PRO e$_i$ abzureißen]]
to tear down

In an informal experiment we asked 16 educated native speakers of German to supply the Case-marked article which is underlined in (25). 12 out of these 16 subjects clearly preferred the Nominative in this position, at least with Subject-Control Restructuring verbs.[7] This result suggests that the Subject-Control Restructuring verbs have a strong tendency to obligatorily take an IP complement. In this case, the reason for the grammaticality of (24b) would not be the presence of a CP, but the fact that the matrix verb cannot govern into the VP. More empirical research has to be done, however, to strengthen this finding.

Let us finally show how our theory can deal with the preposed V-cluster in examples like (3a) and (5c). We have said in (20d) that IP can be freely generated either to the right or to the left of V. If IP is generated to the left of V, the D-Structure of (3a) looks as in (26):

(26) der Hans [den Wagen] nicht [$_{VP}$ [$_{IP}$ PRO zu reparieren] vergessen] hat

The VP headed by *vergessen* is a maximal projection which has a "hole" in it, because the inner [VP,IP] is not built yet. Given the rule that any (maximal) constituent can be moved to Spec-of-CP in root sentences, move-alpha can straightforwardly derive (3a). The S-Structure of (3a) is given in (27):

(27) [$_{VP}$ [$_{IP}$ PRO zu reparieren] vergessen]$_i$ hat$_j$ [der Hans [den Wagen] nicht e$_i$ e$_j$]

[7] Two speakers disallowed Long Passives in general. For them, our sentences were either ungrammatical under any Case assignment or they chose the Accusative throughout.

7 A Speculation

We have mentioned in this paper that Kayne's theory ([Kayne 89]) of CC in Romance has problems in accounting for Object Control contexts in which CC is allowed against his predictions. In our research on German we have found a number of Object Control verbs which allow for Restructuring effects. Such examples tend to be stylistically awkward but are far from being ungrammatical. Interestingly, the Object Control verbs which permit Restructuring are always verbs with a Dative controller. As far as we know, Accusative controllers are strictly impossible.

One major problem may have to do with confusion in the parsing process. If, for instance, a non-Nominative NP serves as the object controller and there is another NP in the infinitival IP which has the same Case as the controller, the parser will in general reject the sentence because it may lead to a complete breakdown of the mapping from Case structure into a Theta-grid. Examples are given in (28) and (29):

(28) **Dative Control:**

a. *daß *ihm*(DAT) *ihr*(DAT) der Hans erlaubte zu helfen
that him her the H. permitted to help
'that Hans permitted him to help her'

b. *daß *ihm*(DAT) *ihr*(DAT) der Hans verbot zu helfen
forbade
'that Hans didn't allow him to help her'

(29) **Accusative Control:**

a. *daß *ihn*(ACC) *sie*(ACC) der Hans zwang zu suchen
that him her the H. forced to look for
'that Hans forced him to look for her'

b. *daß *ihn*(ACC) *sie*(ACC) der Hans überredete zu suchen
convinced
'that Hans convinced him to look for her'

In both sets of examples there is an ambiguity which cannot be resolved.[8] In (30) and (31) the Cases cannot be confused due to unambiguous marking; but as (31) shows, examples with Accusative Control remain firmly ungrammatical:

(30) **Dative Control:**

a. daß *ihn*(ACC) *mir*(DAT) der Hans erlaubte anzuschauen
that him (to) me the H. allowed to look at
'that Hans permitted me to look at him'

b. daß *ihn*(ACC) *mir*(DAT) der Hans verbot anzuschauen
forbade
'that Hans didn't allow me to look at him'

(31) **Accusative Control:**

a. *daß *sie*(ACC) *ihm*(DAT) der Hans zwang zu helfen
that her him the H. forced to help
'that Hans forced her to help him'

b. *daß *sie*(ACC) *ihm*(DAT) der Hans überredete zu helfen
convinved
'that Hans convinced her to help him'

[8] Note that the clitics in acceptable cases like (5a) can be placed in either order.

As far as we can see, the ungrammaticality persists in all verbs with Accusative controllers, while there is a fair number of Dative Control verbs which permit Restructuring. We think there is a reason which distinguishes these two classes of Object Control verbs: all verbs with Accusative controllers can be construed with prepositional adverbs, while with one exception — verbs with Dative controllers cannot. We give a list in (32) in which we mark possible Restructuring verbs with +.

(32)

a. **Accusative Controller**	b. **Dative Controller**	
zwingen (dazu)	empfehlen	+
drängen (dazu)	befehlen	+
überreden (dazu)	nahelegen	+
auffordern (dazu)	verbieten	+
anhalten (dazu)	untersagen	+
einladen (dazu)	bedeuten	?+
bestimmen (dazu)	bestätigen	
ermahnen (dazu)	übelnehmen	
verleiten (dazu)	freistellen	?+
anregen (dazu)	zutrauen	?+
bitten (darum)	nachsehen	
anflehen (darum)	gebieten	?+
bestürmen (darum)	gestatten	+
ersuchen (darum)	raten (dazu)[9]	
anbetteln (darum)	abraten (davon)	
beneiden (darum)		
warnen (davor)		
überzeugen (davon)		
ansprechen (darauf)		
erinnern (daran)		

That this distribution cannot be just accidental is supported by Engh's study of Norwegian "Complex Passives" ([Engh 84]). Engh finds the unusually high number of 84 verbs which can trigger the Complex Passive. All the semantically plausible verbs which do not allow for the Complex Passive, however, appear with an obligatory preposition.

Whatever the proper account for the Norwegian Complex Passive may be,[10] the fact that all the German verbs with an Accusative controller can take a prepositional adverb could lead us to a solution. Following an idea of [Bennis 86], one can assume that the prepositional adverb is in an A-position licensed by the verb. Then the CP in the extraposed position cannot also be in an A-position. If it were, the Theta Criterion would be

[9]The verb *raten* behaves as a Restructuring verb with respect to CC (cf. (i)), less so for the preposing of a V cluster (cf. (ii)), and almost not at all for Long Passives (cf. (iii)):

(i) daß *ihn*$_i$ uns der Hans geraten hat [e$_i$ anzuschauen]
that him us the H. advised has to look at

(ii) ?[Anzuschauen geraten] hat uns der Hans den Wagen nicht
to look at advised has us the H. the car not

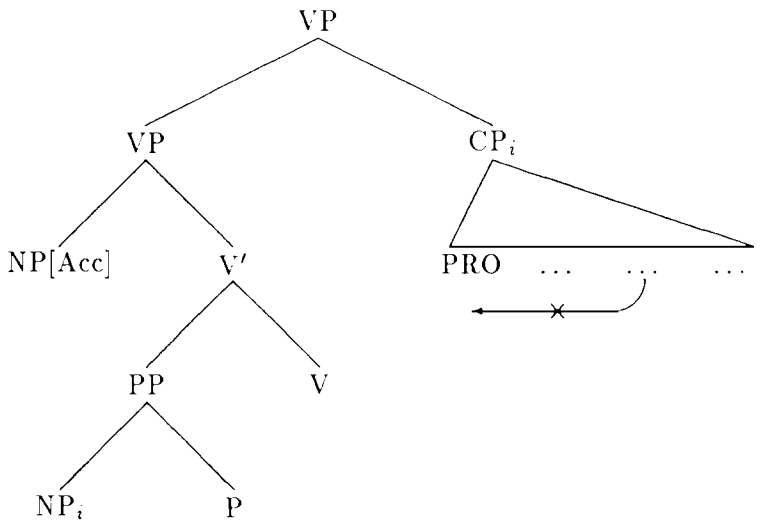
(iii) *daß uns *der Wagen*$_i$ geraten wurde [e$_i$ anzuschauen]
that us the car(NOM) advised was to look at

We don't have an explanation for this asymmetry.

[10]See [Hellan 84], [Taraldsen 84] and [Koch Christensen 85].

violated. Note that WH-extraction can never take place in the presence of a prepositional adverb. The PP-adverb turns the CP linked to it into an absolute island. This can be captured in a representation like (33), where the CP appears in an adjoined position:

(33)



In the presence of the PP, V assigns a theta role to it, and the CP can only be licensed by coindexation with the [NP,PP]. This is likely to be the proper road to explaining the islandhood of such linked CPs.

Let us now turn to the Restructuring effects again. We have shown that in Restructuring contexts the complement of the governing verb cannot be a CP, but rather has to be an IP. Control verbs with an Accusative controller assign a structural Case to the (Accusative) NP, while verbs with a Dative controller assign a lexical Case to the (Dative) NP. In the latter class, one could argue, a structural Case will be assigned to the clausal complement.[11] Let us now say that IP as a complement can only be licensed when structural Case is assigned to it. The reason for this is that Infl has nominal features and can as such be assigned abstract Case. This will automatically license IP-complements of verbs with Dative controllers.

What about verbs with Accusative controllers, then? As we have said earlier, their structural Case must be assigned to the controller NP. The only Case that may be left is a lexical Case. Let us now say that lexical Case *must* be assigned by these verbs and that this lexical Case cannot be assigned to IP, since it is assigned to the prepositional adverbs in A-position and cannot be transmitted by those adverbs to IP, which can admit of abstract, hence structural, Case only. But then IP cannot be Case-licensed. In fact, IP gets the same status as the adjoined CP in (33): it becomes an island. In connection with (33) above, we would say that structural Case is assigned to NP, and lexical Case to PP. What will happen when the PP is missing? The PP will dominate an empty element, but will still receive the lexical Case, and will still license the co-indexed CP. However, in this same configuration, an IP co-indexed with an empty PP can't be licensed – due to its

[11] Cf. Dative verbs which can either take a clausal or an NP complement. If they take another NP, this NP has to bear structural Case, namely Accusative:

(i) weil er *ihn*(ACC) *mir*(DAT) empfahl/zutraute/verbot/...
because he it(ACC) (to) me(DAT) recommended/credited/forbade

defective nature, it needs an overt element to license it (where it is not directly licensed by Case); furthermore, as just mentioned, an IP cannot bear a lexical Case, and the Case transmitted to IP by co-indexation with a PP (irrespective of whether the PP is overt or empty) that bears a lexical Case can only be that same lexical Case and not a structural Case.

These ideas could ultimately lead to an explanation for the fact that a number of Dative control verbs allow for Restructuring, while Accusative Control verbs never do. If these ideas can be worked out in more detail, one could probably isolate an additional (and hitherto unknown) factor that guides Restructuring processes and thus succeed in explaining why Restructuring is found with Dative Control, but not with Accusative Control. At the moment it is, however, somewhat unclear why IP should only adopt structural Case, while CP can also adopt lexical Case - - i.e., why the defective nature of IP makes it impossible for lexical Case to be assigned to IP. A variety of lines of reasoning have to be followed and more empirical investigation has to be conducted before one can evaluate these speculations properly.

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