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INFINITIVAL COMPLEMENTS IN GERMAN

Lassen, scheinen *and the verbs of perception*

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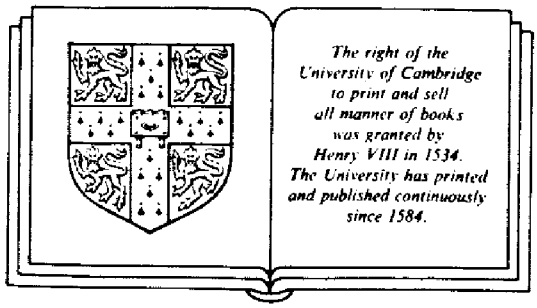


CAMBRIDGE UNIVERSITY PRESS
CAMBRIDGE
LONDON NEW YORK NEW ROCHELLE
MELBOURNE SYDNEY

Published by the Press Syndicate of the University of Cambridge
The Pitt Building, Trumpington Street, Cambridge CB2 1RP
32 East 57th Street, New York, NY 10022, USA
10 Stamford Road, Oakleigh, Melbourne 3166, Australia

First published 1985

Printed in Great Britain at the University Press, Cambridge

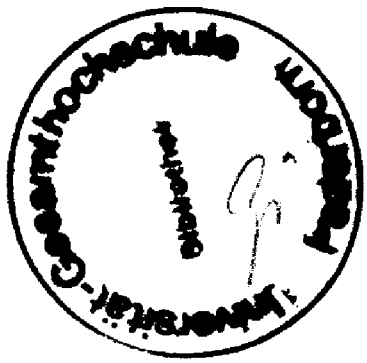
British Library cataloguing in publication data

McKay, Terence
Infinitival complements in German: lassen, scheinen and the verbs of perception. – (Cambridge studies in linguistics; ISSN 0068-676X)
1. German language – Verb
I. Title
435 PF3271

Library of Congress cataloguing in publication data

McKay, Terence, 1946–
Infinitival complements in German.
'Cambridge studies in linguistics. Supplementary volume' – Ser. t.p.
Bibliography: p.
1. German language – Infinitive. 2. German language – Verb phrase. 3. German language – Syntax. 4. German language – Grammar, Generative. I. Title. II. Cambridge studies in linguistics. Supplement.
PF3311.M38 1985 435 85–47820

ISBN 0 521 30403 2



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Acknowledgements

This book is a revised version of a dissertation submitted for the degree of D.Phil at the University of York in 1983. Central to the revision is the use of the governable empty category, *pro*, introduced by Chomsky (1982) to represent the "missing subject" in Italian. In conjunction with the Extended Projection Principle this permits greater coherence in the description as well as greater compatibility between the data and the principles of Government and Binding.

For support, direct and indirect stimulation in the formative stages of this work special thanks go to John Green, Steve Harlow and Pete Jones in England, to Günter Grewendorf, Tilman Höhle, Susan Olsen, Gerd van den Straten, Hans Tilo Tappe, Craig Thiersch and Jindrich Toman in Germany, Hubert Haider in Austria and Werner Abraham, Hans den Besten, Jan Koster and Henk van Riemsdijk in Holland. In Paderborn thanks go to Werner Huber, Reiner Pogarell, Eckhard Roos and others who helped with the data, and to Klaus-Dieter Pöhler and especially Sabine Schneider for hard work in transforming the manuscript into something presentable. Finally, thanks go to Penny Carter and Professor Neil Smith of Cambridge University Press for their help and encouragement.

I would like to dedicate the book to my parents,
Charles and Winifred McKay.

Introduction

This study investigates certain data in German within the theoretical framework of transformational generative grammar. Its aim is thus twofold: to provide a unified account of the properties of the data and to do so by deriving them from a grammar of German determined by the theory. The data concern infinitival complement constructions with the verbs *scheinen*, *lassen* and verbs of perception. The stage of evolution of the theory assumed is that of Government and Binding as developed in Chomsky (1981 and 1982).

Chapters 1 and 2 demonstrate that the constructions concerned are structurally ambiguous in a fairly complex way. Thus, at deep structure these constructions are bisentential, but at surface structure their properties indicate that they are sometimes monosentential and sometimes bisentential. This has complex ramifications for any theoretical treatment, as is demonstrated in chapter 2. Here earlier discussions within various evolutionary stages of the theory reveal the complexity of the data and the theoretical problems involved. They provide the basis for the whole discussion from chapter 3 onwards.

The theory assumed from chapter 3 onwards is Government and Binding as developed in Chomsky (1981 and 1982). Here the richness of the empirical data is accounted for by the interaction of a simplified rule system (Move α) with other general principles, parametrization of which results in variance between languages. The components of this modular grammar are as follows:

(1) (a) The lexicon
(b) The base
(c) The transformational component
(d) Phonetic form (PF)
(e) Logical form (LF)

The properties of these components and their interrelationship are determined by the following subsystem and principles:

(2) (a) $\overline{X}$ theory
(b) Theta theory (θ-theory)
(c) Case theory
(d) Binding theory
(e) Bounding theory
(f) The theory of control
(g) The theory of government
(h) Trace theory
(i) The Projection Principle
(j) The Extended Projection Principle

The ***lexicon*** specifies the properties of lexical items, for example the set of complements of each item and how these are θ-marked. Thus in (3)

(3) John [$_{VP}$ broke [$_{NP}$ the window]]

(Chomsky 1981 : 105)

the verb ***break*** subcategorizes for an NP complement, to which it assigns the θ-role of ***patient*** (***the window*** 'suffers' the action specified by the verb). Both properties are part of the ***lexical entry*** (LE) for ***break***.

The ***base*** exploits $\overline{X}$ theory to generate D-structures, which embody a categorial representation of the thematic properties provided by θ-theory. In example (3), for instance, the phrasal category VP is the maximal projection of the category which is its head, namely the verb ***break***. Any constituent contained in such a maximal projection must be a complement of its head, which is the case for the NP ***the window*** in (3) above; in other words here the subcategorization frame of the verb is satisfied.

Theta-roles are represented by ***GFs*** (***grammatical functions***) such as ***subject of*** or ***object of***, which are configurational in English. The verb always assigns a θ-role to its object, [NP, VP] (the NP in the VP). The θ-role of the subject, [NP, S] (the NP dominated by S), is assigned ***externally*** by the whole VP of which the verb is head. The reason for this is the fact that the subject θ-role is not determined by the verb alone. Whereas in (3) ***John*** might be assigned the role of ***agent*** (initiator of the action), in (4) the role is more likely to be that of ***patient***:

(4) John [$_{VP}$ broke his arm]

(see Chomsky 1981 : 105)

The external θ-role is thus determined by properties of the VP rather than of the verb.

D-structure, which represents the positions to which θ-roles are assigned, is a projection of the subcategorizational properties of the lexical item concerned. The *Projection Principle* guarantees that this information is represented also at S-structure (the syntactic input to *PF* and *LF*) and at *LF*:

(5) Representations at each syntactic level (i.e., LF, and D- and S-structure) are projected from the lexicon, in that they observe the subcategorization properties of lexical items.
(Chomsky 1981 : 29)

Thus in the following S-structure the subcategorizational properties of the verb ***defeat*** are represented by the *trace* of *John*, *t*, which is the position in the VP θ-marked by the verb which is the head of the VP:

(6) $[_{NP_i}$ John$][_{VP}$ was defeated $[_{NP_i}$ t$]]$

This position is present both at D- and S-structure.

The relationship between S-structure and D-structure is expressed by the rule *Move α*, which constitutes the major part of the ***transformational component***. As has been seen in (6) above, a moved element leaves a ***trace*** with which it is coindexed. The moved element and its trace together form a ***chain***:

(7) $([_{NP_i}$ John$], t_i)$

and it is actually to this chain that a θ-role is assigned. The assignment of θ-roles is governed by the ***θ-Criterion*** (cf. Chomsky 1981 : 335), which guarantees that each argument uniquely receives a θ-role and each θ-role is uniquely assigned to one argument. Structures of the following kind are thus ruled out by the θ-Criterion:

(8) (a) *John$_i$ defeated t_i
(b) *John$_i$ was defeated Mary$_j$

In (8) (a) the same NP ***John*** would be assigned two θ-roles, those of ***agent*** and ***patient***, and in (8) (b), although there are two arguments, ***John*** and ***Mary***, only the internal θ-role of ***patient*** is available, it being a feature of the passive that the VP does not assign an external θ-role. In example

above, however, since *John* is in a position to which no θ-role is assigned, the chain ($[_{NP_i}$ John], t_i) is assigned a single θ-role, the trace t_i being in a position to which a θ-role is assigned. Thus unlike the examples in (8), (6) does not violate the θ-Criterion.

The properties of passive constructions such as (6) are determined by the interaction of θ-theory with Case-theory. *Case-theory* concerns the assignment of abstract *Case* in Case-marking positions. Objects of prepositions and transitive verbs receive *objective* Case, the subjects of tensed sentences *nominative*. Thus in (9)

(9) $[_S$ Mary $[_{INFL}$ [+ Tense]]$[_{VP}$ $[_V$ defeat]$[_{NP}$ John]
$[_{PP}$ $[_P$ in]$[_{NP}$ the competition]]]]

the verb *defeat* assigns objective Case to *John* and the preposition *in* assigns Case to *the competition*. Nominative Case is assigned to the subject, *Mary*, by the element INFL (inflection), which here has the value [+ Tense]. Where INFL has the value [- Tense], for example in infinitivals, nominative Case is not assigned.

Just as the passive does not assign an external θ-role, it is also a feature of the passive that *Case* is not assigned by the participle form. An S-structure, such as (10), where the object NP does not receive Case, is not possible in English:

(10) *$[_{NP}$ e] was defeated John.

The fact that a lexical NP must receive Case is stipulated by the *Case Filter*:

(11) *NP if NP has phonetic content and has no Case
(Chomsky 1981 : 49)

In other words, any sentence containing an NP which is not an empty category and which has no Case is ungrammatical. In effect this forces movement of the object in passive constructions to the subject position where it receives Case from INFL (inflection).

The existence of the subject position in English passive constructions, even though no θ-role is assigned to this position, is determined by the *Extended Projection Principle*, which stipulates that all clauses have subjects. Note that this fact is already determined in part for 'missing subjects' in certain languages by the Projection Principle. Thus in the Italian

example (12):

(12) Hai ammazzato tuo nipote
(Have murdered your nephew)
You have murdered your nephew.

a definite Θ-role (of *agent*) is assigned to the lexically non-realized subject, recoverable via the second person singular inflection of the verb (and the agreement of the possessive adjective). The existence of a thematic subject in this case is represented by an empty category co-superscripted with the inflection node:

(13) *pro* ^{i} INFL^{i} hai ammazzato tuo nipote

Also the existence of thematic subjects in infinitivals in English is determined by the subcategorizational properties of the verbs concerned. Thus in (14)

(14) He_i wanted $[_S$ PRO_i to murder his nephew]

the VP of which the verb ***murder*** is head assigns the Θ-role of ***agent*** to the *PRO* subject, which is ***controlled*** by the main clause subject. The Extended Projection Principle, on the other hand, claims universality of the subject position even in those cases where there is no thematic subject. Apart from the passive there are examples such as (15) in English:

(15) *It* is clear that Mary defeated John.

In fact in these cases the subject position is obligatorily filled lexically, namely by the phonetic element ***it***.

Movement such as in the English passive construction is subject to *Bounding theory*, which imposes the locality condition of ***subjacency***:

(16) ... a cyclic rule cannot move a phrase from position Y to position X (or conversely) in:
X....[$_\alpha$ [$_\beta$.....Y....]...]...X...
where α and β are cyclic nodes
(Chomsky 1977 : 73)

In other words a constituent can move across at most *one* bounding (cyclic) node, where for English the bounding nodes are NP and S. This rules out sentences like:

(17) *Claims of attacks have not been substantiated on a number of targets.

while allowing for:

(18) Claims have not been substantiated of attacks on a number of targets.

Thus, assuming the structure:

(19) $[_{NP1}$ Claims $[_{PP1}$ of $[_{NP2}$ attacks $[_{PP2}$ on a number of targets$]_{PP2}$ $]_{NP2}$ $]_{PP1}$ $]_{NP1}$

PP1, *of attacks on a number of targets*, crosses one cyclic node (NP1) in example (18), but PP2, *on a number of targets*, crosses two (NP1 and NP2) in example (17).

Traces of movement together with anaphors, such as reflexives and reciprocals, and pronominals, such as pronouns and the PRO subject of infinitivals, are related to their antecedents by the *Binding theory*:

(20) (A) An anaphor is bound in its governing category.
(B) A pronominal is free in its governing category.
(C) An R-expression is free.

(Chomsky 1981 : 188)

The theory contains terms that need some definition before the way in which its principles apply can be illustrated.

The term *government* presupposes the concept of *c-command* (*constituent-command*), a simplified definition of which is given in (21) (see Chomsky 1981 : 165ff. for more precise definitions):

(21) If the category immediately dominating α (or a higher projection of this category) dominates β, α c-commands β.

Thus in example (22)

(22) $[_S$ Mary $[_{VP}$ $[_V$ defeated$][_{NP}$ John$]]]$

the category VP dominating the verb ***defeated*** also dominates the NP ***John*** and therefore the verb ***c-commands*** the NP ***John***.

Government is defined as minimal c-command which requires that there should be no intervening governor α and β in the definition in (21). Thus, whereas this is the case in example (22) above, so that the verb ***defeated governs*** (and assigns Case to) ***John***, this is not so for ***defeated*** and ***competition*** in (23):

(23) Mary $[_{VP}$ defeated John $[_{PP}$ $[_P$ in$][_{NP}$ the Competition$]]]$

Although the VP dominates both ***defeated*** and ***competition*** so that the verb c-commands the NP, the latter is ***minimally*** c-commanded within the prepositional phrase by the preposition ***in***, which governs (and assigns Case to) it. Because of this intervening governor it is not minimally c-commanded (and thus governed) by the verb ***defeated***.

The ***governing category*** for a constituent might be defined (cf. Chomsky 1981 : 211ff.) as

(24) the minimal category containing α, a governor of α and
a SUBJECT accessible to α

By SUBJECT is meant Agreement (AGR) or NP, and ***accessible*** to α means that α is in the c-command domain of the SUBJECT. Thus in (25)

(25) $[_S$ John$_i$ betrayed himself$_i]$

the anaphor ***himself*** is in the c-command domain of the SUBJECT ***John*** (the category S immediately dominating ***John*** dominates ***himself***). The anaphor is also governed by the verb ***betrayed***. Since S is the minimal category containing ***himself***, a governor of ***himself*** and a SUBJECT accessible to ***himself*** it is the ***governing category*** for ***himself***, within which, in accordance with (A) of the Binding theory, the anaphor must be bound.

Bound means that the element concerned must be coindexed with a c-commanding antecedent in an ***A*** (=argument) position. Thus in (25) above the anaphor ***himself*** is coindexed within its governing category with the c-commanding NP John, which is in an ***A*** position. The opposite is the

case in example (26):

(26) $[_S\ [_{COMP}\ who_i][_S$ did he betray $t_i]]$

Here the trace of the WH-word *who* is c-commanded by an antecedent in an $\bar{A}$ (non-argument) position, namely the *who* in COMP. At the same time it is not ***bound*** by any element in the S, in which it is governed by the verb ***betray*** and has an accessible SUBJECT, ***he***, and which is, therefore, its governing category. The trace is thus ***free*** in its governing category. However, the trace of WH-movement differs from that of NP-movement by the fact that it is operator-bound by the WH-phrase in Comp. Such a trace is a ***variable***, and, unlike anaphors, which "have no capacity for inherent reference" (see Chomsky 1981 : 102ff.), belongs to the class of ***R-expressions*** (referential expressions). These are subject to principle (C) of the Binding theory, which sentence (26) does not violate.

A violation of principle (C) would occur if an operator-bound variable were to be ***A-bound*** (bound from an argument position). Thus the LF interpretation of (26) above is (27):

(27) for which x, did he betray x

If ***he*** in the interpretation is replaced by the variable x:

(28) for which x, did x betray x

the object of ***betray*** can only be interpreted as an anaphor, since it is A-bound within its governing category. Thus, whereas, in accordance with (A) of the Binding theory (28) is the correct LF representation of (29):

(29) $[_S\ who_i\ [_S\ t_i$ betrayed $himself_i]]$

- here the operator-bound trace is free in its governing category (=S) and the anaphor ***himself*** is bound - as an LF representation of (26) it violates principle (C) and, as a result, is uninterpretable.

An important feature of the concept of government (which is central to the Binding theory) is the fact that $\bar{S}$ is an absolute barrier to government. Thus the subject position of clausal complements can only be governed from within the clause by INFL if this is [+ Tense]. In the case of infinitival complements, however, where INFL is [- Tense], the subject position remains ungoverned. This position, in the absence of a lexical

complementizer such as *for* (which acts as a governor) can therefore only contain an ungoverned empty category, namely PRO. Since PRO is ungoverned it does not have a governing category and is subject to (B) of the Binding theory. Principle (B) also applies to lexical pronouns.

The interaction of principles (A) and (B) can be illustrated by (30):

(30) (a) $[_S$ John$_i$ advised Mary$_j$ $[_{\bar{S}}$ PRO$_j$ to look after herself$_j$]]

(b) *$[_S$ John$_i$ advised Mary$_j$ $[_{\bar{S}}$PRO$_j$ to look after himself$_i$]]

(c) $[_S$ John$_i$ advised Mary$_j$ $[_{\bar{S}}$ PRO$_j$ to look after him$_{i/K}$]]

In sentence (30) (a) the pronominal PRO is ungoverned and *free* in accordance with principle (B). The anaphor ***herself***, however, is both governed and has an accessible SUBJECT, *PRO*. Since it is coindexed with PRO it is bound within its governing category and the sentence is accepted by principle (A). Principle (A) is violated, however, in (30) (b) where the anaphor ***himself*** in the embedded S, governed and with an accessible subject, *PRO*, is nevertheless free within this S. The pronoun ***him*** in (30) (c), on the other hand, is legitimately free in its governing category, since it is subject to (B) of the Binding theory.

There are two notable exceptions in English to the theory of infinitival complementation outlined above. Thus the verb ***believe*** in addition to a tensed clausal complement has an infinitival complement as illustrated in (31):

(31) John$_i$ believes [Mary$_j$ to be betraying herself$_j$.]

Here the embedded subject, though lexically realized, receives no case from the embedded INFL, since this is [- Tense]. The same is true for the infinitival complements of *seem*:

(32) Mary$_i$ seems [t$_i$ to be betraying herself$_i$]

Here, as in the case of the passive in English, the embedded subject is forced to move to the matrix subject position, where Case is assigned by the matrix INFL. Within the Binding theory traces of NP-movement are uniformly governed and have the binding properties of anaphors. To allow for government of the trace in (32) and of the lexical subject in (31) it is

necessary to introduce a marked rule of $\bar{S}$ ***deletion***, enabling the verb to govern the embedded subject position. In the case of ***believe***, though not *seem*, the verb assigns Case to the embedded subject; Case assignment of this kind is called *Exceptional Case Marking (ECM)*.

Apart from variables (traces of WH-movement), ***names*** are obvious examples of R-expressions, to which principle (C) of the Binding theory applies. How all three principles interact can be illustrated by the ($\bar{S}$ deletion) structures in (33):

(33) (a) *Mary_i/she_i believes [$_S$ Mary_i/her_i to be betraying herself_i]

(b) Mary_i/she_i believes [$_S$ Mary_j to be betraying herself_j]

(c) Mary_i believes [$_S$ herself_i to be betraying her_j]

In (33) (a) though the anaphor ***herself*** is correctly bound in its governing category, the embedded S, the options concerning the reference relations of the embedded and matrix subjects violate both (B) and (C) of the Binding theory. Under $\bar{S}$ deletion the embedded subject position is governed by the matrix verb and thus has the matrix S as its governing category (given the presence of an accessible SUBJECT, ***Mary/her***). If ***Mary*** is chosen as embedded subject, principle (C) is violated since the R-expression is bound (by the matrix subject) within its governing category. If ***her*** is chosen, principle (B) is violated for the same reason. In (33) (b), however, none of the principles is violated, since while the anaphor ***herself*** is legitimately bound in its governing category neither the pronoun ***her*** nor the R-expression ***Mary*** are coreferential with the matrix subject and are thus legitimately free. In (33) (c), on the other hand, the pronoun ***her*** is legitimately free in the embedded S, whereas the anaphor ***herself*** is legitimately bound in the matrix S, which is its governing category via $\bar{S}$ deletion.

The principles and definitions sketched out above represent the theoretical framework assumed from chapter 3 onwards, where it is argued that they predict the essential properties of the data. Thus the starting point of chapter 3 is the assumption of a bisentential structure for the constructions under consideration. This is determined by the Projection Principle, since the subcategorizational properties of the verbs require a sentential complement. It is then postulated that the coherence properties of the constructions are due to $\bar{S}$ deletion. Since the complement subject positions in each case must be governed, the Binding theory, principle (A), predicts that the complements of ***scheinen*** cannot be dislocated. The Case Filter (subsumed by the θ-Criterion) predicts the

same for *lassen* and perception verb complements, which are assumed to be instances of Exceptional Case Marking.

Chapter 4 is concerned with an ergative analysis (with in situ Case assignment) of 'raising' on the one hand and of passive and FLIP verb constructions on the other, bearing in mind that the latter can be embedded under *scheinen* and *lassen*. It is argued that the Projection Principle and the Extended Projection Principle require at all levels of representation a bisentential structure that includes a matrix subject position. In those cases where the latter is apparently empty the presence of an expletive (small) *pro* is assumed, such as has been suggested for PRO-drop languages (cf. Chomsky 1982 : 78ff.).

In chapters 5 and 6 it is argued that the expletive *pro* introduced in chapter 4 does not count as an accessible SUBJECT for the definition of governing category used in the Binding theory. The same applies to derived subjects. The Binding theory thus predicts not only the core cases of the reflexivization facts but also those concerning quantifier floating and the scope of negatives (chapter 6). Binding into a governing category in the remaining reflexivization cases is accounted for by contexts of demotion, as discussed by Koster (1982), which determine the anaphoric status of the reflexive (but not the reciprocal) pronoun. The parametrization of demotion introduced here thus complements that of the notion SUBJECT in the determination of governing categories.

Chapter 7 makes explicit the principle suggested throughout the discussion, namely that initial constituents in the *scheinen* constructions are the result of WH-movement, which, as is the case in other languages, is assumed not to violate subjacency in $\overline{S}$ deletion structures. Chapters 7 and 8 also acknowledge certain residual problems, not all of which, however, are limited to German. At the same time, it is argued that these residual problems are demonstrably offset by the wide range of sometimes apparently idiosyncratic data that are determined by the theory of Government and Binding.

1 Ambiguity between mono- and bisententiality

0. The common and characterizing feature of infinitival complement structures with the verbs *lassen*, *scheinen* and perception verbs is the ambiguity of their syntactic behaviour with respect to mono- and bisentiality. In the case of reflexivization, for example, the embedded subject in the *Accusative and Infinitive* (Acl) constructions seems to create an opaque domain in some contexts. In other contexts, however, it is transparent to coreference between the matrix subject and an embedded object. Other configurations, such as the apparent presence in the matrix sentence of a clitic that has its source in the embedded sentence, or the unacceptability of complement extraposition or 'VP pied piping' in relative clauses, seem to suggest a purely mono-clausal structure. The two basic positions taken up in the literature have thus been a base VP analysis on the one hand, suggested by Haider (1979) and Grewendorf (1982) for the complements of *lassen*, and, on the other, derivation of a mono-clausal structure from a bisentential base via a restructuring rule such as *Verb Raising* as proposed by Evers (1975). To demonstrate how these viewpoints have been arrived at the following presents evidence of the ambiguity within the context of arguments taken from the literature.

1. 'lassen'

1.1 Scope of negative quantifier

Normally, the placement of the negative quantifier in complex structures is a clear indication of its scope, either over the matrix sentence or the embedded sentence. Huber (1980) thus presents the following contrastive paradigm, where scope is quite clear in the case of a control verb like *zwingen (to force)* but ambiguous in the case of *lassen*:

(1) (a) Wir zwingen sie nicht, die Prüfung zu machen.
We are not forcing her to do the examination.
(b) Wir zwingen sie, die Prüfung nicht zu machen.
We are forcing her not to do the examination.
(cf. Huber 1980 : 166)

(2) Er lässt sie die Prüfung nicht machen.
(a) He doesn't make her do the examination.
(b) He makes her not do the examination.
(Huber 1980 : 166)

In fact, under normal intonation in the *lassen* construction the negative quantifier can only be placed in front of the embedded verb, regardless of its scope, and extraposition of the complement is always ungrammatical:

(3) (a) *Er lässt sie nicht, die Prüfung machen.
(b) *Er lässt nicht, sie die Prüfung machen.

(3) (a) demonstrates extraposition on a control verb analysis of *lassen* and (b) on the AcI analysis.

The paradigm in (1) and (2) can be interpreted in two ways. Thus from one point of view, since the negative element gravitates to the verbal complex, this is, in fact, evidence for a verbal complex in *lassen* constructions: in other words there is no S boundary between *machen* and the matrix clause in (2) above if *nicht* can have matrix scope from a position in front of *machen*. Haider (1979) argues, for example, that this positioning of the negative in front of two verbs (ie. the subordinate clause word order ... *weil er sie die Prüfung nicht machen lässt*) reflects the normal case in simple sentences with modal verbs:

(4) Weil er das Geld nicht abheben wollte, ...
Since he didn't want to collect the money, ...
(Haider 1979 : 124)

From this viewpoint a verbal-complex analysis for the *lassen* infinitival structure is well motivated since it reflects possible base structure.

From another point of view, however, the very fact that there are two possible scope interpretations ranging over the argument structure of each verb in (2) above is evidence for bisententiality. At the same time, Huber (1980) claims that with contrastive intonation the negative element *can* be positioned in front of the embedded infinitival, and with only matrix scope:

(5) Wir lassen *nicht* die Information weitergeben.
(a) We will not have the information passed on.
(b) *We will have the information not passed on.
(Huber 1980 : 165)

Furthermore, again under contrastive intonation, double negation in a *lassen* construction does not simply result in cancelling out the negatives as in a simple equivalence:

(6) (a) Ich mache *nicht* beim Sportfest nicht mit ≡
(b) Ich *mache* beim Sportfest mit.
I will *not* not take part in the sports day ≡
I will take part in the sports day.
(Huber 1980 : 170)

but rather results in a change of proposition:

(7) (a) Mein Vater aber lässt mich *nicht* beim Sportfest nicht mitmachen.
My father won't allow me not to take part in the sports day. ≡
(b) Mein Vater aber *lässt* mich beim Sportfest mitmachen.
My father is making me take part in the sports day.
(Huber 1980 : 170)

The equivalence in (7) in contrast to that in (6) presupposes a complex structure:

(8) (a) (=7) $\sim$ PERMIT ($\chi_i \sim P(y_i)$) ≡ FORCE (χ_i , $P(y_i)$)
(b) (=6) $\sim \sim P(y_i) \equiv P(y_i)$
(cf. Huber 1980 : 170ff.)

Facts such as these, matrix scope from an embedded position, plus double scope possibilities, underline the ambiguity of the structures concerned.

1.2 Negative incorporation

Almost exactly parallel to interpretation of the scope properties in *lassen* negative constructions, and indeed involving these scope properties, are the facts concerning *negative incorporation*. Thus normally negative incorporation, where the indefinite pronoun *etwas* (=something) combines with the negative quantifier to form *nichts* (=nothing), can only take place in an embedded infinitival with embedded scope. In other words, it cannot take place across an S boundary:

(9) (a) Sie veranlasste mich, nichts zu zahlen.
She forced me to pay nothing.
(b) Sie veranlasste mich nicht, etwas zu zahlen.
She didn't force me to pay something.
*She forced me to pay nothing.
(Huber 1980 : 174)

With *lassen*, however, there are both scope possibilities:

(10) Sie liess mich *nichts* zahlen.
She made me pay nothing.
She didn't make me pay something.
(Huber 1980 : 174)

Again, this can be interpreted in two ways, either as evidence for a single clause structure, which allows incorporation with matrix scope, or for a bisentential structure allowing double scope possibilities. As further evidence for the latter, Huber (1980) claims that in contrast to simple sentences, *lassen* constructions permit the optional non-application of negative incorporation, with unambiguous matrix scope:

(11) Sie lässt mich *nicht* etwas sagen.
She doesn't make/allow me to say something.
(Huber 1980 : 175)

The facts here are similar to those discussed in the previous section.

1.3 Theme-rheme data

Integral to a bisentential analysis of the *lassen* infinitival structure is the assumption that the surface object of the verb *lassen*, although morphologically accusative in case, is, in fact, the subject of the embedded sentence. Huber (1980) produces a convincing argument in support of this on the basis of the contrast between the word order of objects in simple sentences and that of the 'accusative subject' and embedded object in *lassen* constructions. Thus, under normal intonation in German the order of object NPs is determined by degrees of definiteness (cf. Lenerz 1977) so that a definite object NP, indicating known information (theme), precedes an indefinite NP:

(12) (a) Wir stellen *dem* Freund *einen* Gast vor.
[+Dat] [+Acc]
We introduced to the friend a guest.
(b) *Wir stellten *einen* Freund *dem* Gast vor.
[+Acc] [+Dat]
We introduced a friend to the guest.
(c) Wir stellten *den* Gast *einem* Freund vor.
[+Acc] [+Dat]
We introduced the guest to a friend.
(d) *Wir stellten *einem* Freund *den* Gast vor.
[+Dat] [+Acc]
We introduced to a friend the guest.

(Huber 1980 : 155)

In the case of *lassen* constructions, however, the word order condition: 'rheme NP after theme NP' appears to be violated:

(13) (a) Wir lassen *den* Freund *einem* Gast danken.
[+Acc] [+Dat]
We have the friend thank a guest.
(b) Wir lassen *einen* Freund *dem* Gast danken.
[+Acc] [+Dat]
We have a friend thank the guest.
(c) *Wir lassen *einem* Gast *den* Freund danken.
[+Dat] [+Acc]
*We have a guest (object) the friend (subject) thank.
(d) *Wir lassen *dem* Gast *einen* Freund danken.
[+Dat] [+Acc]
*We have the guest (object) a friend (subject) thank.

(Huber 1980 : 155)

Huber (1980) thus argues that the unacceptable variants in (13) above have violated the order of logical subject in front of logical object and this is also the reason why in (13) (b), for instance, the *lassen* construction ignores *Theme-Rheme Permutation*. As evidence that *subject-object* order overrides the permutation rule he gives the following example:

(14) *Dem Vernehmen nach, stellte *den* Gast *ein* Freund vor.
[+Acc]
According to protocol the guest (object) a friend (subject) introduced.

(Huber 1980 : 158)

Although, as will enter the discussion much later, subject-object inversion in German is possible for stylistic reasons, the point made by Huber

(1980) with the example in (13) is quite clear, namely that the accusative NP does not behave as an object in relation to the dative NP but rather as a subject. This, of course, presupposes a bisentential analysis.

1.4 Reflexivization

Although the matrix reflexivization data in *lassen* infinitivals present one of the best examples of structural ambiguity in these constructions, there is a separate argument, again produced by Huber (1980), which, as in the previous section, supports the concept of an embedded subject: this concerns complement reflexivization. Thus Huber (1980) argues for optionality of reflexivization in the case of object antecedents:

(15) (a) Wir erzählten Paul$_i$ von ihm$_i$ / sich$_i$ aus der Zeit vor seiner Sprachstörung.
We told Paul about him$_i$ / himself$_i$ in the period before his speech defect.
(b) Wir zeigten Fritzchen$_i$ ihn$_i$ / sich$_i$ im Spiegel.
We showed little Fritz$_i$ him$_i$ / himself$_i$ in the mirror.
(Huber 1980 : 336)

whereas, if the antecedent is in subject position reflexivization is obligatory:

(16) (a) Paul$_i$ erzählte von * ihm$_i$ / sich$_i$ aus der Zeit vor seiner Sprachstörung.
Paul$_i$ talked about * him$_i$ / himself$_i$ in the period before his speech defect.
(b) Fritzchen$_i$ sah * ihm$_i$ / sich$_i$ im Spiegel.
Little Fritz$_i$ saw * him$_i$ / himself$_i$ in the mirror.
(Huber 1980 : 335)

The obligatory nature of complement reflexivization in *lassen* constructions, under coreference with the accusative NP, suggests that this NP is, in fact, a subject:

(17) (a) Wir liessen Paul$_i$ von * ihm$_i$ / sich$_i$ aus der Zeit vor seiner Sprachstörung erzählen.
We had Paul$_i$ talk about * him$_i$ / himself$_i$ in the period before his speech defect.

(b) Wir liessen unseren Jüngsten$_i$ * ihm$_i$ / sich$_i$ im Spiegel sehen.
We had our youngest child$_i$ look at * him$_i$ / himself$_i$ in the mirror.

(Huber 1980 : 336)

The fact that many informants find reflexivization with object antecedents impossible anyway, rejecting the optionality in (15), just further supports the evidence in (17) that the accusative NP is in fact a subject.

The second and perhaps more central feature of the reflexivization data, first discussed at length in Reis (1976), is that of matrix reflexivization. Here the problem revolves around whether or not the accusative NP creates an opaque domain in the embedded S for object reflexivization under coreference with matrix subjects, as is the case with object control complements. In other words, the reflexivization facts either support or undermine the role of the accusative NP as a subject functioning in the Specified Subject Condition (SSC) or, in the more recent form of the theory, as an accessible SUBJECT defining a governing category for binding purposes. Thus, in the case of control verbs, sentences such as the following are ruled out by the SSC or Binding Theory, where in the first case the PRO subject of the complement disallows relation of elements within the embedded S to a constituent outside it and in the second case an anaphor would be free in its minimal governing category, defined by the accessible SUBJECT PRO:

(18) * Sie$_i$ forderte uns$_j$ auf [PRO$_j$ sich$_i$ nach Hause zu fahren]
*She$_i$ called on us$_j$ [PRO$_j$ to go to herself$_i$ (to her place)]

(cf. Huber 1980 : 2)

For *lassen* constructions, however, sentences such as (19) are possible

(19) Hans$_i$ lässt die Müdigkeit$_j$ über sich$_i$ kommen
Hans$_i$ lets tiredness$_j$ overcome himself$_i$

(Reis 1976 : 31)

It would seem, then, on the basis of examples such as this that the intervening non-coreferential NPs are not subjects in the sense of the SSC and that the matrix subject and embedded object are in fact clause mates.

Fortunately, for the bisentential analysis, however, the facts described in the last paragraph are not the only ones and *lassen* constructions do in fact demonstrate an SSC effect as well as the transparency shown in (19):

(20) Hans$_i$ lässt die Müdigkeit$_j$ * ihn$_i$ / sich$_i$ überkommen.
Hans$_i$ lets tiredness$_j$ overcome * him$_i$ / himself$_i$
(Reis 1976 : 29)

Not only does the intervening NP create an opaque domain for direct objects but also for prepositional objects:

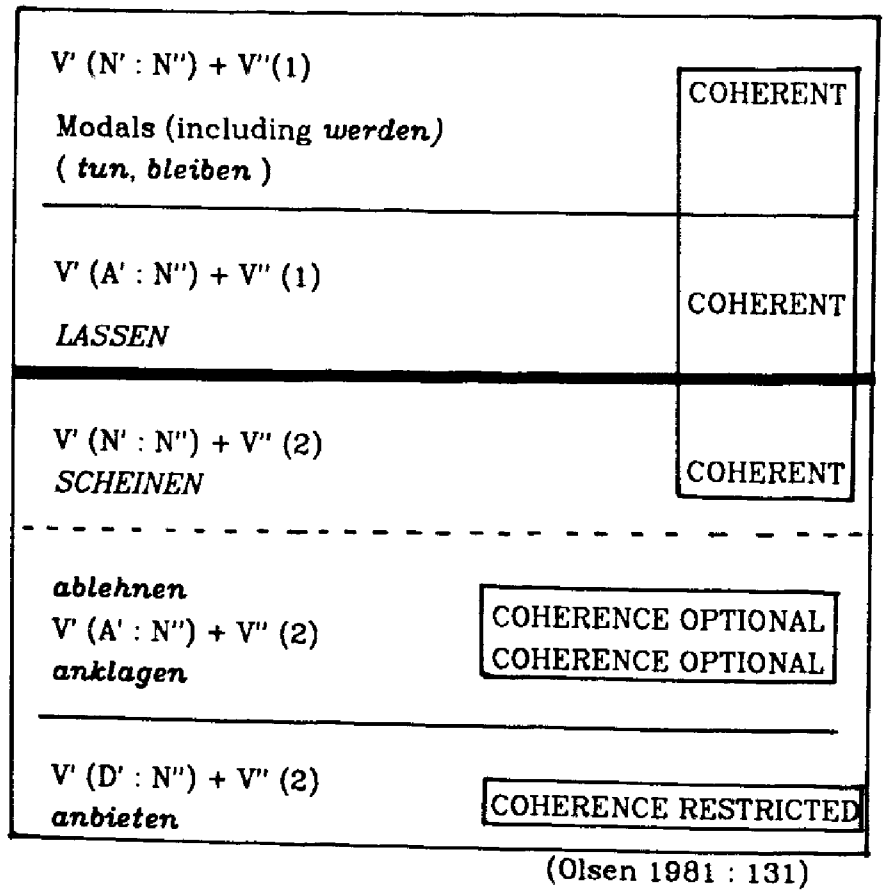
(21) Hans$_i$ liess, boshaft wie er war, die Leute$_j$
stundenlang nach ihm$_i$ /* sich$_i$ rufen, ohne zu reagieren.
Hans$_i$, malicious as he was, let people$_j$ call for him$_i$ /* himself$_i$
for hours, without reacting.
(Reis 1976 : 30)

The situation, then, is that the accusative NP in *lassen* infinitivals both behaves like a subject for opacity purposes and doesn't behave like a subject for opacity purposes, obviously a 'transformational-grammatical dilemma' as suggested by the title of Reis's (1976) paper.

1.5 Extraposition

In contrast with the evidence described so far, the extraposition, cliticization and pied piping facts support a mono-clausal viewpoint and do not reflect any inherent ambiguity. Thus Olsen (1981) draws up a table based on the discussion in Bech (1957):

(22)



(Olsen 1981 : 131)

V' is the *governor*. V'' is the infinitive. The number in brackets is the '*status*' of V'', which is as follows:

(23) 1. = bare infinitive
2. = Infinitive + *zu*
3. = participle

The brackets after V' contain the ' *orientation* ' of V' which is the nominal of its field which is understood as the logical subject of V''. Thus in the case of *lassen* this is the accusative object, in the case of *anbieten* the dative object and in the case of *scheinen* the nominative subject.

What the table above demonstrates is that *lassen* infinitivals, as well as *scheinen* , group with the modal verbs in that they form only *coherent* structures - *lassen* also groups with the modal verbs in terms of its bare infinitive. What Bech refers to as *coherent* is in fact the structure in which the complement is in an intraposed position. Thus control verbs allow both intraposed and extraposed positions, though there is a preference for the latter with object control verbs:

(24) (a) Weil wir Peter$_i$ [PRO$_i$ uns zu begleiten] zwangen, ...
(b) Weil wir Peter$_i$ zwangen, [PRO$_i$ uns zu begleiten]
Since we forced Peter to accompany us, ...

Under any analysis, control or AcI, extraposition of *lassen* complements, however, is ungrammatical:

(25) (a) *Weil wir Peter liessen, uns begleiten ...
(b) *Weil wir liessen, Peter uns begleiten ...
(c) Weil wir Peter uns begleiten liessen, ...
Since we made Peter accompany us, ...

Since this coherence is a feature of modal and auxiliary constructions and incoherence a feature of bisentential structure (it is almost obligatory in the case of finite complements) the conclusion suggests itself that *lassen* infinitivals are not bisentential.

1.6 VP pied piping

The conclusion suggested at the end of the previous section also suggests itself with respect to what Ross (1967) entitled 'VP pied piping'. Thus, in the case of control verbs, relative clauses allow the infinitive optionally to be fronted with the WH-moved element:

(26) (a) Der Mann, auf den$_i$ Hans t$_i$ zu warten beabsichtigte, ...
The man, for whom Hans intended to wait ...
(b) Der Mann, auf den zu warten$_i$ Hans t$_i$ beabsichtigte, ...
The man, to wait for whom Hans intended ...
(Ebert 1975 : 181)

This is not the case with *lassen* constructions:

(27) (a) Das ist der Bericht, den$_i$ der Präsident t$_i$
ignorieren liess.
That is the report which the president had ignored.
(b) *Das ist der Bericht, den ignorieren$_i$ der Präsident t$_i$ liess.
*That is the report, ignore which the president had.
(Huber 1980 : 118)

From the viewpoint of coherence, just as Ebert (1975) points out for the identical *scheinen* cases, in the VP pied piping constructions as well as in the extraposition structure, the infinitive complements cannot be detached from their intraposed position because obligatory coherence implies integration in the matrix S.

1.7 Clitic movement

Cliticization again raises the problem of opacity and subjecthood of the accusative object in the *lassen* infinitivals. Thus, in control structures presumably something like the Specified Subject Condition (SSC) applies to rule out movement of unstressed pronouns from the embedded sentence into the matrix sentence (where PRO is the specified subject):

(28) *Der Chef hat es ihn$_i$ [PRO$_i$ - zu versuchen] veranlasst.

SSC

The boss made him try to do it.

(Huber 1980 : 148)

In *lassen* constructions, on the other hand, such a movement is possible:

(29) Der Chef hat es ihn - versuchen lassen.

The boss made him try to do it.

(Huber 1980 : 148)

Again, the suggestion is that there may well not be a second governing category in such structures.

1.8 Conclusion

The evidence produced in the section on *lassen* so far shows no clear reason why a monosentential analysis might be preferred. Thus, while clitic movement, extraposition and VP pied piping facts indicate coherence and might argue for a simple structure, the latter would not be able to explain the double scope possibilities of negation, optional non-application of negative incorporation, the apparent subjecthood of the accusative NP both in terms of complement-reflexivization and of violation of theme-rheme word order, and the apparent creation of an opaque domain by this NP for at least some of the reflexivization data. The final set of facts are, of course, as has been shown, double edged and in their ability to be turned the other way demonstrate the structural ambiguity of *lassen* infinitivals.

2. The perception verbs

In most respects the perception verbs pattern like *lassen* in terms of the syntactic behaviour of their infinitival complements. As in the case of

lassen, the same question arises about the subjecthood of the accusative NP, particularly with respect to matrix reflexivization. Nevertheless, as will emerge much later in the discussion, where dialectal variance occurs, informants tend to find these complements "a little more" transparent or 'a little more' capable of displacement. Huber (1980) at the end of his discussion of reflexivization of *lassen* infinitivals even goes so far as to imply a double representation of perception verb complements as ambiguous between control and AcI. A premonition of this divergence is already given in the section on VP pied piping below.

2.1 Finite and non-finite complements

Unlike *lassen* constructions, those with perception verbs also have finite variants. Thus, the following non-finite example:

(30) Ich hörte ihn sich erschiessen.
I heard him shoot himself.
(Harbert 1977 : 125)

can have finite versions where the interpretations are more explicit:

(31) (a) Ich hörte, dass er sich erschoss.
I heard that he shot himself.
(b) Ich hörte, wie er sich erschoss.
I heard how he shot himself.

The practical synonymy between the relation of the matrix predicate to the embedded proposition in both finite and non-finite variants has given rise in the literature to the assumption of a bisentential base analysis, often contrasting with that proposed for *lassen* structures (cf. Haider 1979, Grewendorf 1982).

2.2 Negation

As in the case of *lassen* constructions, under normal intonation the negative element gravitates towards the verbal complex in perception verb infinitivals, where matrix interpretation is pragmatically the more usual:

(32) (a) Weil Peter sie nicht 'reinkommen hörte, ...
Since Peter didn't hear her come in ...
?Since Peter heard her not come in ...
(b) *... weil Peter sie 'reinkommen nicht hörte.

Again one can stress either the double scope possibility, or matrix scope from an embedded position when arguing respectively for bi- or monosententiality. Haider (1979), however, argues for an exclusively monosentential analysis on the grounds that double negation (in contrast to the case of ***lassen*** discussed in section 1.1 above) results in a simple equivalence:

(33) (a) Peter sah kein Auge nicht trocken bleiben.
Peter saw no eye not remain dry.

≡

(b) Peter sah alle Augen trocken bleiben.
Peter saw every eye remain dry.

(c) $\sim \exists \chi, \sim P\chi \equiv \forall \chi, P\chi$

(Haider 1979 : 125)

The weakness of this example, however, is that the argument for a simple structure only works if the accusative NP, ***kein Auge***, is taken as being in the matrix S: if it is in the embedded S the simple equivalence is to be expected since the negation operates inside a simple domain, namely the embedded S. From this viewpoint (33) feeds the theory that there actually is an embedded position. The logical equivalence in (33) (c) can only be embedded. Haider also does not consider the possibility that, as in the case with ***lassen***, the negative element can appear in front of the embedded sentence under contrastive stress, with exclusively matrix scope:

(34) Peter$_i$ hat ***nicht*** die Leute auf sich$_i$ zu kommen sehen.
Peter didn't see the people come towards him(self).

As in the case of ***lassen***, this again suggests two domains.

2.3 Reflexivization

Example (34) above, in addition to contrastive negation, illustrates the same transparency to reflexivization as discussed in the section on ***lassen***. Again the question arises whether there is in fact an embedded subject (and thus an embedded S) if this subject allows violation of the SSC or Binding Theory in relating a matrix subject with an embedded object. That the accusative NP in perception verb complements does have this blocking function, however, is illustrated by the following example (from Reis (1976)):

(35) *Nur mit Unbehagen sah Fritz$_i$ den Reporter$_j$ aus
ihm$_i$ /* sich$_i$ einen Helden machen.
Only with misgivings did Fritz$_i$ see the reporter$_j$ make
a hero of him$_i$ /* himself$_i$
(Reis 1976 : 31)

As in the case of *lassen* the opacity facts seem paradoxical, and the ambiguity between mono- and bisententiality remains.

2.4 Extraposition

With respect to extraposition, infinitival constructions with perception verbs, like those with *lassen* , are strictly coherent:

(36) (a) *Weil wir Peter sahen, uns begleiten, ...
(b) *Weil wir sahen, Peter uns begleiten, ...
(c) Weil wir Peter uns begleiten sahen, ...
Since we saw Peter accompany us, ...
(Haider 1979 : 153)

(36) (a) demonstrates the effect of extraposition on a control verb analysis and (36) (b) an AcI analysis. Again, one could argue here that since the possibility (sometimes necessity) of incoherence is a feature of bisententiality the structure in (36) is monosentential with respect to this; in other words the complement is integrated in the matrix S.

2.5 VP pied piping

It has been suggested (cf. section 1.5, 1.6) that VP pied piping like extraposition is almost a diagnostic for coherence. Thus, for most informants perception verb complements pattern like those of *lassen* in not allowing pied piping of the infinitive in relative clauses:

(37) (a) *Der Mann, den warten Hans sah, ...
(b) Der Mann, den Hans warten sah, ...
The man whom Hans saw waiting ...

Haider (1979), however, gives the following example, which he claims is acceptable in his dialect (Austrian German):

(38) die Stiegen, über die hinaufpoltern$_i$ Hans die
Gäste t$_i$ hörte
(the stairs, thundering up which, Hans heard the guests)
(Haider 1979 : 155)

On the basis of examples such as this and the unacceptability of the sentence if *liess* is substituted for *hörte* Haider distinguishes between a monosentential base for *lassen* infinitivals and a bisentential one for perception verbs. The question of what kind of analysis either *lassen* or perception verbs receive remains open at this stage. Nevertheless, it is clear that dialectal variance plays a role in the determination of some of the data.

2.6 Clitics

Dialectal variance is also evident in the judgement of the clitic data with perception verbs. Thus Haider (1979) places clitic climbing in a middle position on a judgemental scale between *lassen* and control verb structures:

(39) (a) Der Chef liess *es* den Lehrling - versuchen.
The boss had the apprentice try it.
(b) ?Der Chef sah *es* den Lehrling - versuchen.
The boss saw the apprentice try it.
(c) *Der Chef bat *es* den Lehrling - versuchen.
The boss told the apprentice to try it.
(Haider 1979 : 164)

In Evers (1975) and Thiersch (1978) clitic climbing with perception verbs is judged acceptable. Again the problem remains how such a movement might be reconcilable with a bisentential structure.

2.7 Conclusion

As suggested in the introduction to the section on perception verbs, some of the syntactic structures, for example negation, reflexivization and extraposition pattern in the same way as those with *lassen*. Others, such as VP pied piping, seem more controversial. Also in favour of a bisentential analysis for perception verb constructions is the parallel with finite complements under these verbs - something that *lassen* does not have. Nevertheless, there is enough common ground between the constructions to suggest at this stage that the analysis might be parallel.

3.'scheinen'

Infinitivals with the verb *scheinen* share some of the properties of the constructions with *lassen* and perception verbs, for example the kind of coherence factors demonstrated by extraposition and VP pied piping behaviour. Also, in common with the perception verbs, *scheinen* has a finite complement variant. There are differences in the nature of the

construction, however. Thus reflexivization would not be problematic under any analysis: even under a highly implausible control verb analysis, the anaphor would always be bound in its governing category. There are also other factors peculiar to the verb itself, such as the optional presence of a matrix experiencer.

3.1 Selectional restrictions

Ebert (1975) argues that *scheinen* constructions must contain an embedded sentence in view of the fact that selectional restrictions are always between the subject and the embedded verb and not *scheinen*. Thus the subject position is transparent for idiom parts or weather *es:*

(40) (a) Es scheint zu regnen/dämmern/dunkeln.
It appears to be raining/growing dark.
(b) Alle Herzen scheinen ihm zuzufliegen.
(All hearts appear to fly to him)
Everybody is attracted to him
(c) Die Sache scheint ihm über den Kopf gewachsen zu sein.
(The matter seems to have grown above his head)
He seems to be unable to cope with the matter.
(Ebert 1975 : 177)

At the same time active and passive are truth-functional equivalents, showing no deep structural relation between *scheinen* and the surface subject:

(41) (a) Die Einbrecher scheinen die Schreibmaschine gestohlen zu haben.
The burglars appear to have stolen the typewriter.
(b) Die Schreibmaschine scheint von den Einbrechern gestohlen worden zu sein.
The typewriter appears to have been stolen by the burglars.
(Ebert 1975 : 177)

To this extent the verb seems to behave like its equivalents in other languages.

3.2 Finite variants

Like its equivalents in other languages, for example English, French and Italian, *scheinen* can also take a finite complement. That the subject-

predicate relation in the finite complement directly reflects that between the subject of the *scheinen* construction and the infinitive verb seems to suggest that these, underlyingly, form a single proposition, in other words an embedded S:

(42) (a) Hans scheint das vergessen zu haben.
Hans appears to have forgotten it.
(b) Es scheint, dass Hans das vergessen hat.
It appears that Hans has forgotten it.

Once again the evidence seems to point to something like a raising derivation.

3.3 Matrix experiencer

Similar to the raising verbs *seem*, *sembler*, *sembrare*, *scheinen* optionally takes an experiencer. Thus, as pointed out by Olsen (1981) it is possible to construct sentences with two dative objects:

(43) Mir scheint ihm die Sache über den Kopf zu wachsen.
He appears to me to be unable to cope with the matter.

(Olsen 1981 : 136)

Since there is no possible base structure in German with two datives in a single clause the suggestion is that each dative belongs to a seperate sentence, in other words, that there is a bisentential structure.

3.4 Extraposition

As already shown in the summary of Bech's (1957) model in section 1.5, *scheinen*, although it takes an infinitive with *zu* , belongs to verbs for which a coherent structure is obligatory. Thus, as with *lassen* and the perception verbs, complement extraposition is ungrammatical:

(44) (a) *Er sagte mir, dass Hans scheint, auf mich zu warten.
(b) Er sagte mir, dass Hans auf mich zu warten scheint.
He told me that Hans appears to be waiting for me.

(Ebert 1975 : 181)

The conclusion, as in the case of *lassen* and the perception verbs is that

the complement is integrated into the matrix clause, since extraposability is characteristic of sentential complements.

3.5 VP pied piping

The conclusion at the end of the previous section applies equally to the VP pied piping facts for the same coherence reasons as in all the other cases. Thus VP pied piping in relative clauses results in ungrammaticality in the case of *scheinen* complements:

(45) (a) *Der Mann, auf den zu warten Hans scheint, ...
The man to be waiting for whom Hans appears, ...
(b) Der Mann, auf den Hans zu warten scheint, ...
The man for whom Hans appears to be waiting, ...
(Ebert 1975 : 181)

Again the claim is that the infinitive complement cannot be displaced because it is integrated into the matrix clause.

3.6 Initial constituents

Unlike the English, French and Italian equivalents *scheinen* constructions can take initial constituents which defy any conventional raising analysis. Thus in the following respectively a dative NP, a genitive NP and a prepositional phrase appear in sentence initial position:

(46) (a) Ihm scheint geholfen worden zu sein.
(Him appears to have been helped)
He appears to have been helped.
(b) Seiner scheint nicht mehr gedacht zu werden.
(Of him appears to be thought no longer)
He no longer appears to be remembered.
(c) An dem Wagen scheint noch gearbeitet zu werden.
(On the car seems still to be worked)
They still seem to be working on the car.
(cf. Ebert 1975 : 178)

It is clear that the source of these sentences are impersonal passive constructions of the type:

(47) Ihm ist geholfen worden.
(Him has been helped)
He has been helped.

However, Ebert (1975) points out that occurrence with these constructions is typical of modals and auxiliaries:

(48) Ihm kann geholfen werden.
He can be helped.

Clearly, control verbs would not allow such constructions to be embedded:

(49) (a) *Er versuchte, geholfen zu werden.
He tried to be helped.
(b) *Ihm versuchte, geholfen zu werden.
(Him tried to be helped)

Again the suggestion is that *scheinen* constructions might share with modals a monoclausal structure, at least at some point in the derivation of surface structure.

4. Conclusion

The evidence in the previous section as well as in the preceding sections has shown that there are individual arguments, such as selectional restrictions and the matrix experiencer in the case of *scheinen*, finite variants in the case of *scheinen* and the perception verbs, as well as themerheme data and complement reflexivization in the case of *lassen*, for a bisentential analysis of these constructions. Other examples, such as negation and matrix reflexivization demonstrate the structural ambiguity. Extraposition, VP pied piping and clitic climbing data on the other hand demonstrate the *coherence* of these constructions in Bech's (1957) terms. Whether or not coherence forces the conclusion that there is integration in the matrix sentence, however, is an open question at this stage. Similarly open is also whether integration, if it exists, is achieved transformationally or whether the constructions are base generated monosententially. In view of the ambiguity demonstrated so far it would seem, however, that the latter solution would be able to account satisfactorily for the data . Conseqently, restructuring or lexical reanalysis would be the first possibilities that spring to mind to account for these.

2 Previous approaches and proposals

0. The structural ambiguities presented in the last chapter have largely been pointed out in work extending from 1957 until the present day. Within the scope of some of the earlier work, for example up to Harbert (1977), more or less sketch-outlines have been given in each case to possible approaches. This excludes, of course the very concrete and seminal work done by Evers (1975) on verb raising in Dutch and German, where the constructions under consideration here fall in with more extensive consideration of infinitival complementation in the two languages. Also Reis (1976) discusses in some detail the theoretical problems within the framework of the theory at that time. More detailed discussions and analyses have taken place, however, in recent work such as by Thiersch (1978), Haider (1979), Huber (1980), Olsen (1981) and Grewendorf (1982). All these discussions have reflected different stages and approaches within the theory. Thus, some of the earlier work as well as that of Huber (1980) is within a Standard Theory framework. Reis (1976) on the other hand introduces the concept of markedness, and Thiersch (1978) is written largely within the framework of Chomsky and Lasnik (1977). Both Olsen (1981) and Haider (1979) draw upon Koster's (1978) variant of core grammar, but Haider also introduces the Binding Theory. The discussion of Grewendorf (1982), who works within the theory of Chomsky (1981), will be postponed until the chapter on reflexivization. In spite of diversity of approach, as well as the fact that individual work tends to focus only on one or other of the constructions concerned, insights occur both on theoretical as well as empirical levels and can be drawn upon in presenting a more theoretically unified treatment of these constructions.

1. Bech (1957)

Reference has already been made to Bech's pre-generative approach in the presentation of ***coherence*** in the previous chapter (section 1.5). Within his framework the ***coherent field*** contains an integration of members of different ***verbal fields*** (sentence parts dependent on the verb) with a field-final verbal complex (***das verbale Schlussfeld***). Interesting about this analysis is the fact that it is essentially a precursor of the

configuration derived by Evers's (1975) rule of verb raising. At the same time Bech, in not distinguishing between control and raising on the one hand, and control and AcI constructions on the other, from one viewpoint anticipates the neutralization of the PRO-trace distinction in Koster's (1978) approach, which is (partly) adapted by Haider (1979).

2. Reis (1973)

In her 1973 article Reis rejects the rule of *Subject to Object Raising* for *lassen* constructions, chiefly because of the possibility of embedding impersonal passives under this verb:

(1) (a) Emma lässt mir [+Dat] von Paul helfen.
(Emma has to me helped by Paul)
Emma has Paul help me.
(b) Emma lässt meiner [+Gen] von Paul gedenken.
(Emma has of me remembered by Paul)
Emma has Paul remember me.
(c) Emma lässt an mir von niemand herumnörgeln.
(Emma lets at me be picked by nobody)
Emma lets nobody pick at me.

(Reis 1973 : 520)

As in the case of embedding under *scheinen* (cf. chapter 1, section 3.6) subject raising cannot apply in these cases since a subject in German is characterized by nominative case and agreement with the finite verb. The examples in (1) together with the reflexivization facts already discussed (cf. chapter 1, section 1.4) lead her to propose clause integration via a rule of *S-Pruning*. A transformational derivation is necessary because, as already argued, selectional restrictions require a bisentential base but the reflexivization facts require the constituents concerned "to be clause-mates when the matrix clause is processed". Since raising does not take place, there is continued branching and Ross's (1967) *Tree Pruning Convention* , which depends on the absence of branching, cannot apply. Reis therefore modifies a convention proposed by Hankamer (1971):

(2) An embedded S_i is pruned, whenever it appears without a complementizer after COMPLEMENTIZER PLACEMENT on cycle $S_i + 1$

(cf. Reis 1973 : 526)

Under the assumption that *zu* is a complementizer, *lassen* is assigned ϕ ..... ϕ on cycle S_1+ 1 and this triggers pruning. Problematic with this kind of clause integration account, however, is that, regardless of its theoretical status as well as the motivation of the resulting structure, it does not capture the fact that, with respect to many of the cases of potential matrix reflexivization, *lassen* behaves bisententially, with "normal" operation of the SSC.

3. Ebert (1975)

In his discussion of the verb *scheinen*, Ebert, like Reis (1973) for *lassen* , points out the difficulties for a raising analysis (in this case Subject to Subject Raising) created by the embedding of impersonal passive infinitivals (cf. discussion chapter 1, section 3.6). Furthermore, he has to reconcile arguments for a bisentential source, demonstrated by selectional restrictions and the finite complement parallel, on the one hand, with coherence factors such as the inability of the infinitival complement to undergo extraposition or VP pied piping on the other. His conclusion is:

> The topological facts indicate that it is not raising of a single constituent of the lower clause into the higher clause which is involved, but rather integration of both clauses.
>
> (Ebert 1975 : 183)

To account for this he postulates *VP Raising*, which raises the VP_2 and attaches it either to VP_1 or S_1.

There is some convergence here with Haider's (1979) proposals for *lassen* infinitivals in that the result in both cases (here via pruning) is a stratified VP. The suggestion differs from Haider's in so far that although Ebert draws parallels with the occurrence of subjectless passives with modal verbs, Haider uses a base verbal complex structure in the case of modals to motivate a reanalysis of the stratified VP as a verb-complex structure:

(3) (a) ... $]_{VP}$... $]_{VP}$
(b) ...[V ... V]$_V$

Without pruning, VP raising, in itself, might not be such an extraordinary rule since VP movement exists under topicalization and in the French causative construction (cf. Rouveret and Vergnaud 1980). The question arises, however, of how it might be generalized, since in the case of AcI constructions, as suggested in the previous section, it cannot explain

reflexive facts, nor, as will emerge later, AcI topicalization facts. Without such generalization, it seems rather unmotivated.

4. Evers (1975)

Evers's (1975) postulation of a rule of verb raising seems extremely plausible when applied to Dutch, but more controversial when applied to German, though, arguably, it could be made to account for at least some of the ambiguity demonstrated by the data in chapter 1. Thus, it seems that Dutch disallows an intraposed complement infinitive at base structure to appear in this position on the surface and that either complete extraposition of the complement must take place or movement of the infinitive out of the complement into a position to the right of the matrix verb:

(4) (a) *omdat Cecilia [de kraanvogels te filmen] beweerde, ...
(b) omdat Cecilia beweerde [de kraanvogels te filmen,] ...
(c) omdat Cecilia [de kraanvogels] beweerde [te filmen,] ...
(Since Cecilia maintained to have filmed the cranes ...)
Since Cecilia maintained that she had filmed the cranes ...
(Evers 1975 : 6)

German is different from Dutch, however, in so far that, firstly it could be claimed that extraposition is always optional, even for finite complements, and secondly if there is a rule of verb raising for German, unlike in Dutch, it does not alter the order of verbs: contrast the serializations *te filmen beweerde/beweerde te filmen* in (4) (a) and (c) above with ... *zu filmen*] *behauptete* /[*zu filmen behauptete*] in the following:

(5) (a) Weil Cecilia [die Kraniche zu filmen] behauptete, ...
(b) Weil Cecilia die Kraniche [zu filmen behauptete]$_V$ (VR)
Since Cecilia maintained (to have) that she had filmed the cranes ...
(Evers 1975 : 6)

Evers, nevertheless, generalizes the rule from Dutch to German, arguing on the basis of various constructions for the derivation of a monosentential surface structure (He assumes S-pruning) from a bisentential base.

An argument already implied in the discussion of subcategorization is the question of lexical insertion. Thus, if lexical insertion is defined on a structure resembling the output of verb raising

(6) _____[(zu) $[\Delta]_V$ scheinen]$_V$
hören

(cf. Evers 1975 : 36)

the number of NPs selected by the verb (cluster) would be relative to the number of elements present in the verb cluster, which is clearly incompatible with any concept of lexical entry. For this reason, monosentential structures can only be derived from (at least) bisentential bases.

Evers also argues in the case of clause anaphora that the pronominalized element must replace a single string, which in the following presupposes independence of the verbs affected of any verb cluster:

(7) Es ist merkwürdig, dass, als sie Cecilia das Felsengebirge zu besteigen versuchen sehen wollten, ...
(a) wir es sie nicht zu besteigen versuchen sehen wollten
(b) wir es sie nicht _____ versuchen sehen wollten
(c) wir es ____ nicht ____ ____ sehen wollten
(d) wir es ____ nicht ____ ____ ____ wollten
It is astonishing that when they wanted to see Cecilia try to climb the cliff...
(a) we didn't want to see her try to climb it
(b) we didn't want to see her try ____ it
(c) we didn't want to see ____ ____ it
(d) we didn't want ____ ____ ____ it

(Evers 1975 : 32)

Contrasting with the argument above are data from *gapping*, where according to the *A over A Principle* "or some other major constituent principle" gapping refers to the whole verbal complex, such as in the following:

(8) (a) Weil Johann eine Elegie vorzutragen zu versuchen beschloss, und Cecilia eine Ode ____ ____ ____, ...
Since John decided to try to recite an elegy and Cecilia ____ ____ ____ an ode ...
(b) *Weil Johann eine Elegie vorzutragen zu versuchen beschloss, und Cecilia eine Ode abzuschreiben zu beginnen _____
Since John decided to try to recite an elegy and Cecilia _____ to begin to copy an ode

(Evers 1975 : 12)

The conclusion is that there must be a verbal complex here.

Further arguments for monosentential surface structures are the already familiar cliticization, negation and extraposition data. Since *Cliticization* is upward-bounded there should be no S boundary in the following:

(9) Weil wir *es* Cecilia ____ auf Arabisch erzählen hörten ...

Since we heard Cecilia tell it in Arabic ...

(cf. Evers 1975 : 25)

Unlike in the case of non-VR-complements double negatives are not allowed in the following:

(10) *Weil sie keine Kraniche nicht zu fotografieren pflegte, ...
*Since she wasn't in the habit of (not) photographing no cranes ...

(Evers 1975 : 28)

whereas matrix scope is possible from an embedded position:

(11) Weil sie keine Kraniche zu fotografieren pflegte
und er { *ebenso / ebensowenig }
Since she was in the habit of photographing no cranes,
and { so was he / neither was he }

(Evers 1975 : 29)

For extraposition, Evers claims on the one hand (incorrectly for German) that it is obligatory for sentential complements and non-extraposition indicates absence of sententiality:

(12) Weil mir Peter die Geschichte [zu erzählen pflegte] (+VR)...
Since Peter used to tell me the story ...

(cf. Evers 1975 : 20)

and on the other hand only VR can account for unboundedness in the following:

(13) Weil wir Peter die Geschichte t_i [erzählen hörten,]$_V$
[die Marie schon wusste]$_{S_i}$
Since we heard Peter tell the story, which Mary already knew ...
(cf. Evers 1975 : 22ff.)

As can be seen above, Evers's claim for a rule of verb raising extends beyond simply the constructions with *lassen*, *scheinen* and the perception verbs, and attempts to account for all coherent constructions.

An alternative approach to extraposition and negation will be discussed later as well as Thiersch's (1978) alternative account of cliticization. At this stage, it can be said that apart from the string vacuous nature of verb raising for German, it suffers the defect of all the rules described so far that effect clause integration, in so far that the latter does not account for the ambiguity of the reflexive data. Also, it seems likely that gapping and nominalization are processes outside the syntax, although some of the other phenomena, cliticization, negation, extraposition, might lend themselves to a VR analysis.

5. Reis (1976)

In her 1976 paper Reis gives a detailed exposition of the reflexivization data with *lassen* constructions and then considers theoretically possible approaches that would involve, for example, global rules, relational categories in rules, the SSC and markedness. She concludes that markedness does not exclude the other approaches but that they involve theoretical problems that might be difficult to solve: in other words the problem is still left open. Underlying any explanation of the data, however, are hypotheses and principles based on her empirical findings.

Reis's comprehensive survey of the reflexivization data reveals their complexity and is worth an initial summary here, although a detailed discussion of reflexivization will be postponed until later. In the following the focus is the possibility of reflexivizing an embedded NP under coreference with the matrix subject:

(14) All complement initial NPs must be reflexive
(a) Hans$_i$ liess sich$_i$/*ihn$_i$ fallen
Hans let himself$_i$ fall.
(b) Hans$_i$ lässt sich$_i$/*ihm$_i$ [+Dat] nicht nachspionieren
Hans$_i$does not allow himself$_i$ (=on himself) to be spied on
(Reis 1976 : 26)

(15) There is optional reflexivization of optional PPs (There is variation in the data here):

(a) Der Chef$_i$ lässt *die Leute$_j$* für sich$_i$/für ihn$_i$ arbeiten
The boss$_i$ has *the people$_j$* work for him$_i$/himself$_i$

(b) Hans$_i$ liess *Fritz$_j$* bei sich$_i$/?bei ihm$_i$ wohnen
Hans$_i$ let *Fritz$_j$* stay with himself$_i$/?him$_i$

(16) There is obligatory reflexivization of optional non-prepositional NPs if there is no transitive subject. If there is a transitive subject there is obligatory pronominalization:

(a) Hans$_i$ lässt sich$_i$/*ihm$_i$ *das Bürschchen$_j$* kommen
Hans$_i$ lets *the kid$_j$* come (round to see) to him

(b) Hans$_i$ lässt *die Leute$_j$* *sich$_i$/ihm$_i$ Schnaps besorgen
Hans$_i$ has *the people$_j$* get *himself$_i$/him$_i$ some Schnaps

(17) Obligatory non-prepositional NPs are pronominalized if there is an intervening non-coreferential subject

(a) Hans$_i$ liess *Fritz$_j$* *sich$_i$/ihn$_i$ töten
Hans$_i$ let *Fritz$_j$* kill *himself$_i$/him$_i$

(b) Hans$_i$ liess *Fritz$_j$* *sich$_i$/ihm$_i$ helfen
Hans$_i$ let/had *Fritz$_j$* help *himself$_i$/him$_i$

(Reis 1976 : 29)

Here Reis points out that sentences of this kind are extremely marginal in so far that speakers will almost always use a passive version such as in (14) above. She attributes this, however, to a surface structure constraint requiring pronominal elements to precede nominals in relation to the finite verb in root sentences (cf. Reis 1976 : 29ff.).

(18) Intervening non-coreferential subjects also block reflexivization in obligatory PPs, although there are exceptions here.

(a) Hans$_i$ liess, boshaft wie er war, *die Leute$_j$* stundenlang nach ihm$_i$/*nach sich$_i$ rufen, ohne zu reagieren.
Malicious as he was, Hans$_i$ let *the people$_j$* call for him$_i$/*himself$_i$ for hours, without reacting.

(b) Hans$_i$ liess die *Müdigkeit$_j$* über sich$_i$/*über ihn$_i$ kommen.
Hans$_i$ let *tiredness$_j$* overcome himself$_i$/him$_i$

(19) Passive subjects are transparent for reflexivization.
(a) Hans$_i$ liess sich$_i$/*ihm$_i$ von Fritz *den Vertrag$_j$* geben
Hans$_i$ let/had himself$_i$/him$_i$ be given *the contract$_j$* by Fritz.
(b) Die BRD$_i$ liess sich$_i$/*ihr$_i$ von der DDR *den Häftling$_j$* ausliefern.
The Federal Republic of Germany$_i$ had *the prisoner* handed over to themselves$_i$/them$_i$ by the GDR.
(Reis 1976 : 34)

(20) So-called FLIP constructions are obligatorily transparent to matrix reflexivization.
(a) Hans$_i$ liess sich$_i$/*ihm$_i$ *die Suppe$_j$* schmecken
(Hans$_i$ let himself$_i$/him$_i$ *the soup$_j$* taste well)
Hans ate the soup with relish.
(b) Hans$_i$ liess sich$_i$/*ihn$_i$ mal *was Neues$_j$* einfallen
(Hans$_i$ let himself$_i$/him$_i$ *a new idea* occur)
Hans thought up something new.
(Reis 1976 : 34)

Reis summarizes the defining characteristics of these constructions as follows:

(21) (i) Presence versus absence of specific types of complement subject.
(ii) Obligatory versus optional presence of the referentially identical NPs in question. (Object versus adverbial status)
(iii) NPs introduced by prepositions or without prepositions
(Reis 1976 : 35)

and offers the following underlying hypotheses:

(22) H1: Reflexivization in complements is only blocked by deep subjects.
H2: Reflexivization in complements is only blocked by transitive subjects.
(Reis 1976 : 37)

As far as the latter, H2, is concerned, on the assumption of, within Reis's framework, cyclic reflexivization a global rule must be assumed:

(23) The first NP in S_K does not block reflexivization under coreference with the subject of S_{K-1} if this NP on the level of deep structure did not stand in first position.

(Reis 1976 : 51)

This will distinguish between passive and FLIP cases and other cases but not between what Reis calls transitive and intransitive subjects.

An alternative to global rules would be to allow relational terms into transformational rules. Thus, on the basis of Anderson (1968) Reis creates the following feature distribution:

(24)

- **Erg.**	+ **Erg.**
Intransitive Subjects	Transitive Subjects
Passive Subjects	
FLIP Subjects	

(cf. Reis 1976 : 51)

The condition is then as follows:

(25) Only [+ Erg] subjects block reflexivization

(Reis 1976 : 52)

Another alternative is to view passive and FLIP as processes that primarily get rid of subjects and only in a secondary sense create new subjects. From the viewpoint of (21) (i) the following could be postulated:

(26) Only subjects block reflexivization

(Reis 1976 : 53)

Reis briefly considers the SSC but doubts its universality without modification in view of the data described above. From a markedness viewpoint, however, a lot of simplification could take place if some of the data were banned to the periphery of core grammar. Thus, if the transitive subject cases could be excluded as marginal and the role of PPs (as also in English) seen as needing a specific solution of their own, it would be possible to see *lassen* constructions as behaving like simple sentences. The problem here, however, is that a structure with, for example, three pure NP objects (the accusative "subject", accusative object and dative object) does not represent a possible base structure in German. Secondly, transformational grammar is supposed to generate all the grammatical sentences of a language regardless of the frequency of usage. For reasons

such as these, as stated earlier, the unorthodox postulations, while not excluded by markedness, nevertheless remain, and are difficult to solve.

Some of the central considerations which arise from Reis's analysis of the data and of theoretical problems coincide with approaches assumed elsewhere. Thus, Chomsky (1973) already considers the problem of agency of the subject in such examples as

(27) (a) Why are John and Mary letting the honey drip on each other's feet?
(b) *Why are John and Mary letting Bill drip honey on each other's feet?

(Chomsky 1973 : 124)

Huber (1980) modifies the SSC as *Actor-Subject Condition* for German and Grewendorf (1982) argues that *thematic subjects* determine governing categories in German. It is possible that the globality which Reis sees as required by cyclic reflexivization might be subsumed by trace theory and representation of chains. Properties that she considered expressible in relational terms might, in a modular concept be expressed by the interaction of theta-theory with the Binding Theory.

6. Harbert (1977)

Harbert (1977) reviews some of the *lassen* data and comes to the conclusion that within the framework of relational grammar conditions are met for *Clause Union* :

(28) (a) Such complements meet the necessary condition of simplex surface structure.
(b) They satisfy the restrictions characteristic of Clause Union causatives on transformations which affect verbal morphology.
(c) The Clause Union approach correctly predicts that intransitive subjects of *lassen* complements behave like direct objects with respect to matrix transformations, that embedded transitive subjects behave like indirect objects, and that embedded direct objects are more readily accessible to matrix passivization than are embedded transitive subjects.
(d) The Clause Union approach affords a motivated explanation for the relative ordering of embedded transitive subjects and embedded direct objects in *lassen* complements.

(Harbert 1977 : 141)

Statement (28) (a) is as in all clause integration cases only partially true, since the data in the previous section have shown that reflexivization is

true if the assumption is made that the participle in passive and perfect constructions suppletes to an infinitive under (causative) *lassen*:

(29) (a) Hans hat sie warten lassen/*gelassen.
Hans (has) made her wait.
(b) Er liess sein neues Lied von dem berühmten Sänger singen (*gesungen werden).
He had his new song sung by the famous singer.
(Harbert 1977 : 132)

The first part of (28)(c), however, is incorrect since in the following the matrix verb is not *causative lassen* (cf. discussion of Huber (1980)):

(30) (a) Man liess ihn warten.
They made him wait.
(b) Er wurde warten gelassen.
He was left waiting.
(≠ He was made to wait)
(Harbert 1977 : 138)

Harbert argues for subject demotion on the basis of the interchanged word order of subject and object in the following, where the subject is only superficially accusative and has really been demoted down the hierarchy to indirect object:

(31) (a) Ich liess ihn das Wort sagen.
(I let him say the word)
I let him speak.
(b) Ich liess es ihn sagen.
I let him say it.
(Harbert 1977 : 140)

The example in (31) (b) is doubtlessly problematic but the evidence that exists for the subjecthood of the accusative NP, for example the partial operation of the SSC and the theme-rheme and complement reflexivization facts described in chapter 1, seems to outweigh the contention that *ihn* has the status of indirect object, such as might be argued within Harbert's framework for the morphologically dative subjects in French and Italian causative constructions.

7. Olsen (1981)

Although Olsen (1981) is entirely devoted to a study of *seem* and *scheinen*, there is only a relatively short discussion of infinitival complements with the latter. The salient features of the analysis are an assumption of verb raising with S pruning, where a bisentential base is motivated by the possibility of two datives appearing in these sentences (cf. chapter 1, section 3.3) - one of them being the matrix experiencer - whereas the monosentential surface structure is necessitated by the non-nominative NP, S-initial constituents that appear on the surface. At the same time, the analysis of the infinitival complement interacts with that of the finite variant in so far that both complements are 'oblique' in Olsen's terminology: in other words neither can assume or be 'affiliated' with a nominal position. This is in contrast to other complement S's, which can also function syntactically as nominals. Olsen argues convincingly for a non-subject-sentence analysis for *scheinen*.

The initial constituent data already discussed in the section on Ebert (1975) above and repeated here for convenience concern, primarily, embedded impersonal passives:

(32) (a) [Ihm]$_{+Dat}$ scheint geholfen worden zu sein.
He (to him) appears to have been helped.
(b) [Seiner]$_{+Gen}$ scheint nicht mehr gedacht zu werden.
He (of him) appears to no longer be remembered.
(c) [An dem Wagen]$_{PP}$ scheint noch gearbeitet zu werden.
The (on the car) car still appears to be being worked on.
(Ebert 1975 : 178)

-the question arises of how such constituents could be subject to raising- but Olsen also adds the following active constructions:

(33) (a) Ihm scheint [$_S$ die Sache ___ über den Kopf zu wachsen]
(To him appears the thing to be growing over his head)
(b) Über den Kopf scheint [$_S$ ihm die Sache ___ zu wachsen]
(Over the head appears to him the thing to grow)
He appears to be no longer able to cope with it.
(Olsen 1981 : 135)

Here she claims that fronting of the dative NP (*ihm*) or the PP (*über den Kopf)* across the subject NP (*die Sache*) violates the SSC. A further problem occurs, even if no raising takes place, when the dative experiencer is VP-initial, as in the following example, since it is presumably preceded by an empty category, violating the Empty Category Principle (ECP):

(34) e [$_{VP}$ mir [$_{S}$ die Sache zu scheitern] scheint]
To me the thing seems to be a failure.

Note that regardless of the syntactic arguments against subject sentences Olsen also argues that rightward movement of the complement from subject position in (34) above would leave an illegitimately bound trace. On the basis of these examples, then, she claims that *scheinen* has "the reordering possibilities of a single clause"(cf. Olsen 1981 : 137). The solution at hand is Evers's verb raising. This will also account for the apparent unboundedness of extraposition with AcI verbs, for which she gives the following example:

(35) Weil wir Peter _____ [erzählen]$_{S}$ hörten]$_{S}$ $_{iV}$ dass der Bürgermeister sich weigerte zu bezahlen, ...
Since we heard Peter say that the mayor had refused to pay, ...
(Olsen 1981 : 140)

At this point a contradiction arises since Olsen claims that extraposition applies after VR on the cycle (p. 140), whereas on p. 152 she states:

> We assume that no rule of extraposition exists in the grammar for predicate sentential complements and that S's are freely generable by the base rules in either NP positions or in the S position.

This oversight can easily be rectified, however, if VR is reformulated as reanalysis.

The weaknesses of this analysis are, in the first place, those already pointed out for any clause integration approach, namely that they do not account for the reflexivization facts in the case of AcI constructions, and also that VR is string vacuous in German, and secondly that Olsen considers the non-nominative NP initial constituents to be derived, after clause integration, via ***topicalization*** , which she describes as a general movement rule that may permute constituents of

> certain kinds within a root sentence into sentence initial position at some late level in the derivation ...
>
> (Olsen 1981 : 176)

This ignores the fact that in any German root sentence the initial configuration is determined by a basic condition, which says that as long as the finite verb comes second any single constituent can occupy the initial position whether it is a nominative NP or an adverb, PP, VP or accusative or dative NP or perhaps even S. As shall become clear in the discussion of Thiersch (1978), this basic insight, which is captured by the proposals made there, is lost under Olsen's analysis.

Interesting about Olsen's analysis are the postulation of a post-VP S position in the base, motivated by *scheinen* finite-complements and available for base-generated extraposition in general, and the arguments for a non-subject sentence analysis for all *scheinen* complements plus the lack of nominal affiliation that these complements demonstrate. The essence of this conclusion parallels that reached independently by Huber (1980), in his Standard Theory approach, for non-NP status for *scheinen* and *lassen* complements.

The non-argument status of *scheinen* complements is reflected by the non-subjection of the subcategorization frame to a Lexical Redundancy Rule (LRR), which is otherwise valid for sentential complements. The subject complement part of the rule, (which is obligatory in English since sentential complements are only nominal-affiliated and cannot function syntactically as nominals) is as follows:

(36) **LRR**

i. Read the subcategorizational specification of a term $[_{NP}\ S]$
   a. dominated by S (ie. $[_S\ [_{NP}\ S]\ [_{NP}\chi\ V]]$)
      optionally as $[_S\ [_{NP}\ e]\ [_{VP}\ \chi\ V]\ S]$
ii. and, in so doing, insert the feature [+PRO] into the frame $[_{NP}\ e]$ simultaneously with the lexical insertion of the target verb into the frame $[_V$ _____$]$.

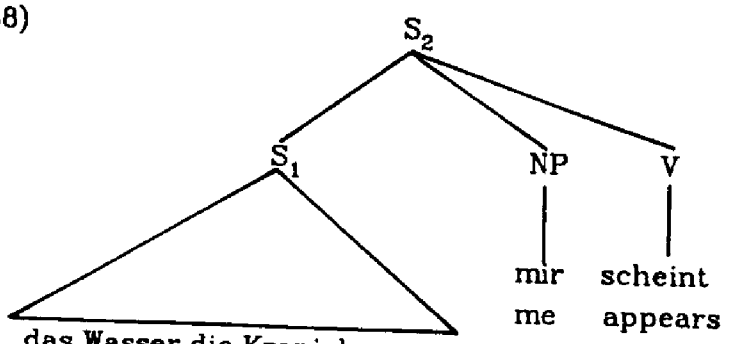
(Olsen 1981 : 153)

A later rule then inserts *es* into the PRO position. This rule does not apply to the subcategorization of *scheinen*, the complements of which, as the following demonstrates, never assume nominal functions:

(37) (a) Dass er sich regelmässig *Die Zeit* kauft, stimmt.
That he regularly buys *Die Zeit* is correct.
(b) *Dass er sich regelmässig *Die Zeit* kauft, scheint.
*That he regularly buys *Die Zeit* appears.
(Olsen 1981 : 117ff.)

Olsen also argues that the infinitival complements of ***scheinen*** cannot be subject-sententially generated since the presence of a matrix experiencer would block the structural description for verb raising.

(38)



(Olsen 1981 : 142)

The subcategorization frame for ***scheinen*** thus has a base-generated *es* , which only alternates with an empty position in the case of the infinitival complements, where it can be filled by the embedded subject:

(39) $[[\ \left\{\begin{matrix} es_i \\ e \end{matrix}\right\}\ ]\ [_{VP}\ (NP_{+Dat})\ S_2\ (zu)\ scheinen]\ S_i\ (dass)]$

(Olsen 1981 : 185)

The inconsistency of assuming cyclic VR within the framework of base-generated grammar can be disposed of if VR is seen as reanalysis, where in the infinitival case the bracket of the inner, S_2(***zu***), complement is deleted. The extraposition node can then accommodate the complement of an embedded verb:

(40) weil [$_S$ [$_{NP}$ Georg] zu versuchen scheint [$_S$ dabei wach zu bleiben]]
since Georg appears to be trying to stay awake (while doing it)

There are, of course, conceptual problems with this kind of analysis, also with respect to control theory. Nevertheless, it demonstrates the insight that the subject position of *scheinen* is a non-argument position.

8. Thiersch (1978)

0. Since it is Thiersch's (1978) aim to establish a fragment of German grammar, *scheinen* and AcI constructions are not the focus of his study but enter into it in his discussion of Evers's (1975) verb raising phenomena (in particular the extraposition data and clitic positions). Rejecting verb raising for German on the basis of its string vacuous nature, Thiersch takes the problem out of the transformational component and achieves the ordering effect via reanalysis in the Phonology and extraposition above this in the stylistic component (assuming a T model in the style of Chomsky and Lasnik 1977). This brings into focus a number of problems concerning extraposition, its obligatoriness or optionality, for example, its effect (if any) on extraction and above all its status, whether it is stylistic as suggested by Thiersch or base generated post verbally (on an SOV base!) as suggested by Olsen (1981) or whether in effect there are two kinds of extraposition, one (obligatorily) base-generated and the other stylistic and subject to pragmatic factors.

Discussion of extraction data (clitics with *scheinen* and WH-movement with perception verbs) brings into focus a set of factors which suggest almost a squish in terms of properties conditioning extractability, for example finiteness versus non-finiteness, intraposition versus extraposition, subject control versus object control, accusative case versus dative case, and the argument structure of the embedded verb. Implicitly, ***bridge conditions*** would seem to be involved here, as they might well be involved in deriving the initial constituents with ***scheinen*** , and these are mentioned in connection with the only example of extraction from an embedded infinitival (coherent) in the dissertation, namely a perception verb construction. It is not clear, however, how embedding and thus bridge conditions interact with the more speculative landing site structures proposed at the end of the dissertation.

What is of particular interest in Thiersch's dissertation, however, is the insight and degree of generality achieved by his (minimal) rule system, which might to a large extent be assumed to underlie any configurational description of German.

8.1 The grammar

The model outline is basically that of Chomsky and Lasnik (1977):

(41) (1) Base
(2) Transformations
(3) (a) Deletion (3) (b) Construal
(4) (a) Filters (4) (b) Quantification
(5) (a) Phonology
(6) (a) Stylistic

(cf. Thiersch 1978 : 80)

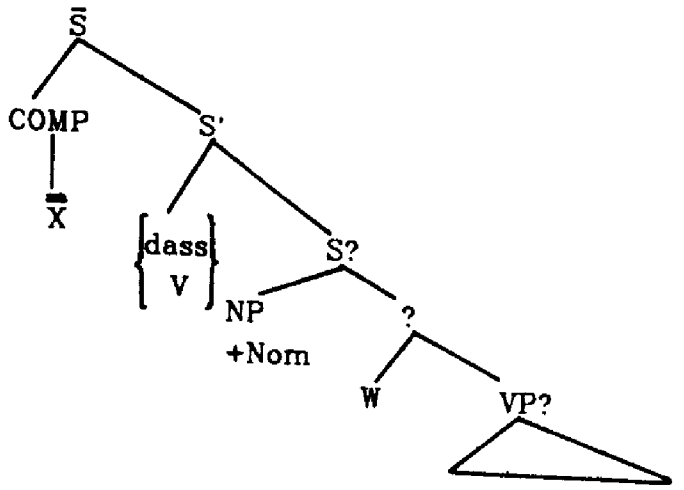
For the transformational component Thiersch argues for the following substitution rules, which can be subsumed under move α

(42) Cl. : W,....., $\begin{bmatrix} +PRO \\ -Dat \\ -Str \end{bmatrix}$ 3, 2, ϕ }
R1 : $COMP_1$,....., V [+Tns] 3, 2, ϕ } Move α
R2 : $COMP_2$,....., X 3, 2, ϕ }

(Thiersch 1978 : 164)

The base generates nodes with feature bundles to receive respectively clitics (W), complementizer or tensed verb ($COMP_1$) and any single constituent ($COMP_2$).

(43)



(Thiersch 1978 : 164)

On the main clause cycle R1 would apply to place the finite verb in second position (occupied by a complementizer in subordinate clauses) and R2 to place any single constituent in sentence initial position, thus capturing the nature of the verb second stipulation in German (missed by Olsen 1981), namely that it involves a single preceding constituent, which is not necessarily a nominative NP. An unstressed pronoun would move to W, the suggestion here being that this position may be universal. W stands for

"Wackernagel's position":

> Rule Cl. is basically a formalization of Wackernagel's idea that such unstressed items gravitate to sentence second position. [Wackernagel= Wackernagel I., 1892: über ein Gesetz der indogermanischen Wortstellung]
>
> (Thiersch 1978 : 86)

A simple example of the rules, then, would be the following, where a coindexed trace is left behind on movement:

(44) base: Ich dem Mann es gab

Cl. : Ich es dem Mann ____ gab

R1 : gab ich es dem Mann ___ ___

R2 : Ich gab ___ es dem Mann ___ ___

I gave it to the man.

(Thiersch 1978 : 85)

Contraction can follow in the Phonology:

(45) Ich gab's dem Mann.
I gave it to the man.

(cf. Thiersch 1978 : 84)

Such is the generality of R2, however, that it can move any constituent. Thus, Thiersch states "It was more or less tacitly assumed ... that rule R2 moves any NP, PP etc. whether or not it is marked [+WH]"(Thiersch 1978 : 127).This accounts for simple sentences such as the following:

(46) (a) Hans (+Nom) hat ___ mir das Buch gegeben
Hans gave me the book.

(b) Das Buch (+Acc) hat Fritz ___ auf der Strasse gefunden
The book, Fritz found in the street.

(c) [Auf der Strasse]$_{PP}$ hat Fritz einen Pfennig ___ gefunden
In the street, Fritz found a penny.

(d) [Was$_{+WH}$] hat der Fritz ___ gestern gefunden?
What did Fritz find yesterday?

(cf. Thiersch 1978 : 128)

but also for relativization:

(47) der Hund, den mein Vater ___ für Fritz gekauft hat ...
the dog which my father bought for Fritz ...

(cf. Thiersch 1978 : 132)

or direct statements introduced by a zero complementizer:

(48) Base : [Johann [er Maria gesehen habe]$_{S1}$ sagt]$_{S1}$

R2
Cycle 1: [Johann [er habe ___ Maria gesehen ___]$_{S2}$ sagt]$_{S1}$
R1

R2
Cycle 2: [Johann sagt ___ [er habe Maria gesehen] ___
R1

John said he saw Mary.

(Thiersch 1978 : 136)

Interpretability is assumed, presumably in LF, to guarantee a "proper application" of the rules (cf.Thiersch 1978 : 41ff.) so that failure of R1 to apply would indicate a dependent clause. If this condition were not met the sentence would be uninterpretable. If R1 applied by itself, the interpretation would be of a *Yes/No* question or a conditional:

(49) ging sie nach Hause ____
Did she go home?
If she went home, ...

(Thiersch 1978 : 43)

The implication is also that under bridge conditions R2 is recursive; thus Thiersch states:

> If R2 collapses Move WH and Move NP moving either one in COMP as assumed in chapter 2, successive cyclic movement producing apparently unbounded movement in surface structure will be possible if the appropriate bridge conditions are met.
>
> (Thiersch 1978 : 121)

If this is true, then one of the arguments for clause integration in the case of *scheinen* (cf. Olsen 1981, Reis 1973, Ebert 1975) disappears since non-nominative or non-NP initial constituents in the impersonal construction are not derived via *raising* (*Move NP*) but via *Move α* (R2) under bridge conditions: the latter, however, need some clarification and will be discussed later.

8.2 Cliticization and the perception verbs

Another important rule, as yet not discussed, is a rightward movement rule, which accounts for the order of NPs in the VP and which is based on the permutation rule, PERM, proposed in Lenerz (1973). Thiersch assumes that this is a stylistic rule, Stl., which reverses the unmarked order of constituents, for example dative NP - accusative NP under conditions of stress, definiteness, theme and rheme. (In Lenerz's discussion this is subject to an accessibility hierarchy, SKALA.) Thiersch formulates the rule as follows:

(50) Stl. $\bar{\bar{X}}, \bar{\bar{Y}} \rightarrow \bar{\bar{Y}}, \bar{\bar{X}}$ where X is the less definite, more heavily stressed, new information etc.
[-PRO]

(Thiersch 1978 : 51)

It is this rule that Thiersch calls upon to explain the cliticization facts discussed in Evers (1975). Thus in Evers (1975) the presence of the clitic *es* in front of the object in the following is only explainable via verb raising, since there would be an SSC violation if the embedded S were intact:

(51) $[_S$ weil ich *es* Cecilia ___ auf Arabisch $[_V$ singen - hörte]]

since I heard Cecilia sing it in Arabic

(Thiersch 1978 : 106)

Rejecting VR as string vacuous, Thiersch first considers leftward movement within the embedded sentence:

(52) [$_S$ weil ich [*es* Cecilia ___ auf Arabisch singen] hörte]

since I heard Cecilia sing it in Arabic

(Thiersch 1978 : 106)

This would in effect require a second cliticization rule to place the unstressed pronoun in sentence initial position. That it cannot be the effect of R2 can be seen from the inability of this rule to apply to pronoun objects in simple sentences:

(53) *Es gab ich dem Mann.
It, I gave to the man.

(Thiersch 1978 : 84)

The second clitic rule is suspect, firstly because it seems redundant, secondly because it would have to be prevented from applying in root sentences in order to avoid the effect in (53) and thirdly because it would have to be optional:

(54) Weil ich Cecilia *es* auf Arabisch singen hörte, ...
Since I heard Cecilia sing it in Arabic ...

(Thiersch 1978 : 107)

in contrast to the lack of optionality in the normal cliticization case:

(55) (a) *Weil ich dem Mann es gab, ...
(b) Weil ich es dem Mann gab, ...
Since I gave it to the man ...

(Thiersch 1978 : 107)

The optionality demonstrated in examples (52) and (54) suggests, then, that Stl. is operative rather than a clitic rule and that the subject NP moves rightward in example (52). This is supported by examples with full NPs where the moved phrase is less definite, more heavily stressed or presents new information:

(56) (a) Weil ich [[eine schlanke alte Dame][das Lied]
singen] hörte, ...

(b) Weil ich [___ [das Lied][eine schlanke alte Dame]

singen] hörte, ...
Since I heard a slim old lady sing the song ...
(Thiersch 1978 : 109)

The same account is also valid for control verb examples:

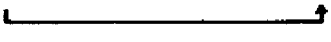
(57) Warum kennst du den *Liebestod* auswendig?
Why do you know the *Liebestod* off by heart?
(a) Weil ich eine sehr berühmte Sopranistin das Lied singen lehrte.
(b) Weil ich das Lied EINE SEHR BERÜHMTE SOPRANISTIN singen lehrte.
Because I taught the song to a very famous soprano.
(Thiersch 1978 : 111)

Looked at this way, the data cease to be an argument for VR and pruning of the embedded node. In Thiersch's model S boundary problems no longer exist for rightward movement in so far that he assumes reanalysis in the Phonology. The question of rightward movement will be discussed later in the more general context of empty subjects in German.

8.3 Extraposition

Thiersch tackles extraposition not from the viewpoint of coherence (the non-extraposibility of *scheinen* and AcI infinitival complements already discussed) but rather from the unboundedness effect that is the result of coherence. The boundedness effect is demonstrated on the basis of relative clause extraposition in English, which, since it is SVO does not show up the kind of complement extraposition which in German is due to bracketing by the verb or verbal elements (negatives etc.).

(58) (a) That the man [who Mary met yesterday] came surprised us.
(b) That the man ___ came [who Mary met yesterday] surprised us.



(c) *That the man ___ came ___ surprised us [who Mary met yesterday].

(Thiersch 1978 : 94)

This contrasts with the German perception verb facts, which are exactly the opposite of those in (58):

(59) (a) *Weil wir Peter die Geschichte ___ erzählen [die Marie schon wusste]$_S$ hörten

(b) Weil wir Peter die Geschichte ___ erzählen hörten, [die Marie schon wusste]$_S$

Since we heard Peter telling the story Mary knew already
(Thiersch 1978 : 94)

This is a problem if verb raising and extraposition apply cyclically. Thus from an SOV base line-up such as follows:

(60) ... V_3] V_2] V_1]

the following extraposition patterns are possible:

(61) (a) V_1[... V_2] [... V_3

weil er versuchte, zu glauben, kein schlechter Mensch zu sein

(b) V_2] V_1] [... V_3]

weil er zu glauben versuchte, kein schlechter Mensch zu sein

(c) V_2] [... V_3] V_1]

weil er zu glauben, kein schlechter Mensch zu sein, versuchte
since he tried to think (of) himself (as) not a bad person
(cf. Haider 1979 : 154)

In (61) (a) S_3 has extraposed on the S_2 cycle and S_2 (with extraposed S_3) has extraposed on the S_1 cycle. In (61) (c) S_3 has extraposed on the S_2 cycle and there has been no further extraposition. In (61) (b), however, there is apparently unbounded movement of S_3, and it is exactly this pattern that both demonstrates the VR phenomena (since it is obligatory; in other words the patterns (61) (a) and (61) (c) are unacceptable with VR verbs) and presents a problem for the formulation of the rule. The problem is that if extraposition and VR work cyclically, extraposition of S_3 on the S_2 cycle will have already applied before VR can apply on the S_1 cycle. This means that VR must apply across the extraposed S_3 , in other words to the configuration in (61) (c) (uniting V_2 and V_1).

If an intervening S is to be allowed into the structural description, the rule is undermined, since Evers assumes that no lexical material can

intervene between the verbs that are to be joined. If intervening material is to be allowed in the structural description of the rule, auxiliary clauses must be added to exclude the following from the rule, whereas the initial exclusion of intervening material in the structural description would have sufficed:

(62) (a) *weil er *sich* die Kraniche [zu sehen freute]$_V$
Since he was pleased to see the cranes
(b) *weil wir die Kraniche *in Erwägung* [zu filmen ziehen]$_V$
Since we were considering filming the cranes.
(Evers 1975 : 43)

For reasons such as these Thiersch takes up a suggestion by Jaeggli for Spanish that reanalysis takes place in the Phonology and extraposition above this in a stylistic component. This ordering would then circumvent the problem described above.

The reanalysis solution suggested here is itself rather controversial, as is the relegation of extraposition to outside the syntax (which is also the position taken in the theory of Koster (1978)). These and other relevant factors (for example, marginal 'double-constituent' topicalization data) will enter the discussion later. The question could be raised, however, whether the boundedness effect demonstrated by the English examples in (58) above actually applies to German since the example given for 'unbounded' movement in (61) (b) is neither an AcI nor a raising construction but a control verb complement.

8.4 'Ergative' structures

Generalizing from the argumentation in Lenerz (1973) Thiersch makes the crucial claim that common to FLIP, raising and passive structures is an unmarked word order of dative-nominative. This postulation of an 'ergative' structure (cf. den Besten 1981, 1982) is of direct relevance to the definition of governing category determining reflexivization facts in AcI constructions as well as to the derivation of *scheinen* constructions with non-nominative NP initial constituents. The question will be discussed in more detail in chapter 4.

Thiersch claims that movement analyses for passive and raising are string vacuous in German since the unmarked order is dative-nominative. Thus, in the following the only thing that has changed is case on the NP *das Buch*.

(63) (a) Weil Franz ihr das Buch schenkte, ...
+Dat +Acc
Since Franz made her a present of the book ...

(b) Weil ihr das Buch geschenkt wurde, ...
+Dat +Nom
Since she (to her) was made a present of the book ...

Similarly, he offers the following judgements for *scheinen* examples:

(64) (a) Weil [dem Eckhard] [sein Sohn] ein kluger Junge
+Dat +Nom
zu sein scheint
Since to Eckhard his son seems to be a bright kid ...
(b) ??Weil [der Hans] [seinem Vater] ein kluger Junge
+Nom +Dat
zu sein scheint
Since Hans, to his father, seems to be a bright kid ...
(Thiersch 1978 : 160)

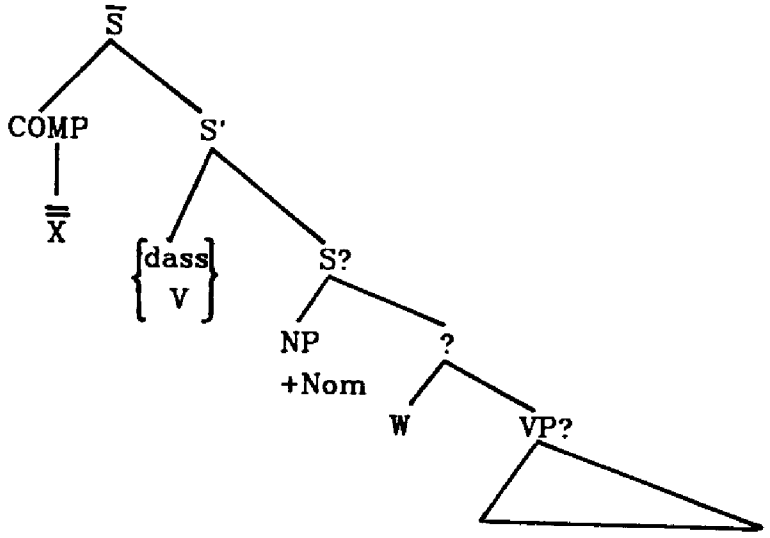
Problematic from this viewpoint, then, are cases with subject pronouns (Thiersch calls them "clitics") where obligatory NP movement seems to take place:

(65) (a) Weil *er* mir [ein kluger Junge zu sein] scheint ...
(b) *Weil mir [*er* ein kluger Junge zu sein] scheint ...
Since he seems to me to be a bright kid ...
(cf. Thiersch 1978 : 163)

(66) (a) weil [dem Kind] [ein Buch] gegeben wurde
+Dat +Nom
since the child was given a book
(b) *weil [ihm] [es] gegeben wurde
+Dat +Nom
(c) weil [es] [ihm] gegeben wurde
+Nom +Dat
(Thiersch 1978 : 161ff.)

As suggested already in section 8.0 Thiersch makes structural proposals towards the end of the dissertation which seem difficult to reconcile with earlier suggestions about the generality of R2 and its responsibility for unbounded movement under bridge conditions. Thus the structure in (43) (repeated here for convenience):

(67)



(Thiersch 1978 : 164)

represents the landing site possibilities of an active sentence. VP? is described as a binding category possibly similar to S in English. For FLIP and passive constructions the optional node S? is not generated and the base order in VP? is dative-nominative. An object clitic, however, can escape to the W position under ? and, given the absence of S?, the result is its sentence-initial status as in (66) (c). It is not clear, however, how this should apply in the *scheinen* case in (65) (a) since presumably the complement is embedded and if the *er* is to get into W position in the *scheinen* clause it must do so via movement from the lower *W* position if Cl. puts it there. It is not clear whether NP_{+NOM} to NP_{+NOM} takes place in this system, since extraction possibilities are in general no longer very obvious. Thus, Thiersch claims that there is dative-accusative asymmetry:

(68) (a) Was_i hat dein Vater die berühmte Friedlandia t_i in
+Acc
Wien singen hören?
What did your father hear the famous Friedlandia sing in Vienna?

(Thiersch 1978 : 134)

(b) *Wen_i sah Fritz den Jungen t_i ein Bild zeigen?
+Dat
Whom did Fritz see the boy show a picture?

(Thiersch 1978 : 168)

related to the presence versus absence of the node S?. If the structure is simply VP? a dative can be extracted and permutation between subjects and objects is also possible:

(69) (a) Wem$_i$ sah Fritz einen Stein t_i auf die Füsse fallen?
+Dat
(To whom did Fritz see a stone fall on the feet?)
On whose feet die Fritz see a stone fall?

(Thiersch 1978 : 169)

(b) Nein, ich glaube nicht, dass einem Lungenkranken
+Dat +Nom
dieses Medikament helfen würde.
I don't think this medicine would help someone with tuberculosis.

(Thiersch 1978 : 168)

This is not the case with S? structures unless a clitic has escaped from the binding VP? to the W position:

(70) (a) ?Ich glaube, dass den Porsche unser Chef besitzt.
+Acc +Nom
(I think that the Porsche, our boss owns)
I think our boss owns the Porsche.

(b) Weil es mein Bruder gestohlen hat, ...
+Acc +Nom
Since my brother stole it ...

(Thiersch 1978 : 167)

Apart from the controversial nature of the judgements here, problematic is also the implication that only VP? allows extraction, or that W (to which dative pronouns may not move!) is also instrumental in facilitating extraction. It is not clear how the Nodes NP_{+NOM} versus VP? can be reconciled with embedding under AcI constructions, nor why R2, if it applies to all kinds of constituents, should not apply blindly to dative NPs. Unclear is also how full NPs get to the top as in

(71) Das Lied$_i$ habe ich die berühmte Friedlandia t_i in Wien singen hören.
That song, I heard the famous Friedlandia sing in Vienna.

or initial constituents in *scheinen* constructions. In other words, no mention is made again of R2 and COMP to COMP movement, which although parametrized among dialects is similar in many respects to English, and whereas this concept might have (parametrically) overgenerated, the structural restrictions sketched at the end of the dissertation undergenerate. Further problems remain, of course, with the "ergative" structures, concerning the universality of subjects versus ECP on the one hand and

Case assignment on the other. These will be discussed in chapter 4.

Given the fact suggested at the very beginning of this section on Thiersch (1978) that extraction in German becomes increasingly difficult between coherent subject control structures on the one hand and incoherent object control structures on the other (particularly with more than one embedded object) it might well be argued that since this is essentially a processing factor and in principle most kinds of extraction are allowed, R2 can account for leftward movement (both NP and WH) across clause boundaries if appropriate conditions are met. The structures to which this might apply are somewhat controversial but COMP expansion might well be assumed to be along the lines suggested by Thiersch, if not in every detail, and with perhaps a more precise concept of binding category and of labelling.

9. Haider (1979)

0. Haider's treatment of *lassen* and perception verb infinitival complements is highly transitional in so far that it attempts to combine the base-generation variant of core grammar in Koster (1978) with the binding theory of Chomsky (1980) and Chomsky (1979). There is a problem of compatibility here, which Koster (1980) and Koster (1984) resolve, but these are not available to Haider (1979) and he does not himself resolve the problem. At the same time it is not clear from the discussion whether Haider actually settles for a matrix NP analysis of perception verb complements in the style of Koster (1978) or an $\overline{S}$ deletion type analysis compatible with Chomky's theory. Also, it seems that the reanalysis that he proposes in each case for the differently analyzed *lassen* and perception verb constructions is motivated in the case of *lassen* solely by rather marginal topicalization facts, and leads to some inconsistencies in the analysis. The topicalization data will be discussed later. As far as the Koster (1978) approach is concerned, it would seem to be able to capture, for example, the extraposition facts, as it is further developed in Koster (1980) and Koster (1984). The viewpoint of Koster (1978) is that extraposition is a later, stylistic rule.

9.1 'lassen'

Haider assumes a "stratified VP" ($\overline{VP}$) analysis for the *lassen* constructions with the alternative analysis of a VP with a verb-complex (VK). The basic premise here is that there are no convincing reasons in the first place for assuming a complex structure, since *lassen* does not have an explicit (dass-) S complement; it has the same pronoun movement facts as simple sentences, almost the same reflexive facts and does not allow extraposition or VP pied piping of its complement. He considers a transformational analysis such as VR suspect since it does not change the

terminal string.

As far as VP pied piping is concerned he argues that the familiar inability of *lassen* complements to engage in this movement is predicted by the $\overline{VP}$ analysis and some version of the A/A Condition such as Bresnan's (1976):

(72) No Transformation T can apply to a structure φ under a proper analysis X unless X is an r-maximal proper analysis of φ for T.

(Bresnan 1976 : 16)

Under an S analysis the complement VP is r-maximal but not under a $\overline{VP}$ analysis.

The extraposition facts are familiar. If a verb has a sentential complement it can interpret a post-verbal S which is the landing site for such a complement. *Lassen* complements cannot move to such a position since they are only VPs and *lassen* itself cannot interpret a post-verbal S because it doesn't take an S complement. The same VP analysis accounts also for the possiblity of clitic movement in *lassen* constructions which is disallowed in those with sentential complements.

(73) (a) *Er hat *es* dir zu machen geraten.
He advised you to do it.

(Haider 1979 : 165)

(b) Der Chef lässt *es* ihn versuchen.
The boss lets him try it.

(Haider 1979 : 164)

Haider's account of extraposition is interesting in so far that it introduces Koster's (1978) Locality Principle and thus the concept of domains defined by principles other than for example the SSC. The argument with respect to *lassen* is, however, somewhat circular since the *lassen* cases are supposed to show that the Locality Principle functions where the SSC cannot, namely within a simple sentence, but at the same time the Locality Principle is supposed to demonstrate that *lassen* constructions are simple sentences by explaining the role of intervening subject without mentioning an S-boundary. The whole argument founders in the end , as far as reflexivization is concerned, because whilst the Locality Principle analysis accounts for the blocking function of transitive subjects it still does not explain the immunity of certain prepositional objects to this blocking function, nor the transparency of the FLIP verb case.

The argument is somewhat strange since transparency to

reflexivization is taken by Haider to be further evidence for monosententiality, with examples such as the following, alongside FLIP and passive:

(74) Max_i liess sie näher an $\begin{cases} \text{sich}_i \\ \text{ihn}_i \end{cases}$ heranrücken.

Max let her snuggle up closer to him.

(Haider 1979 : 118)

The passive case is analyzed as active with a generic PRO subject, counterevidence to the blocking function of non-coreferential subjects:

(75) Sie lässt $[_S$ [e] $\underset{g}{}$ sich_i bedienen]

(She_i had PRO serve herself_i)

She_i let herself_i be waited on.

(Haider 1979 : 141)

If these structures are not bisentential then the SSC cannot explain opacity effects where they occur. The Locality Principle is thus introduced since this does not mention the S boundary:

(76) In the configuration

α_{i+1} ..... α_i ... Y..... α_i ... α_{i+1}

no rule can relate α_{i+1} and Y (α c-commands) ***except*** when α_{i+1} (or Y) is more prominent than α_i.

An NP_i is more prominent than NP_j if NP_i and NP_j are ***coarguments*** and $FL_i < FL_j$ according to the hierarchy

SU < IO < DO < (PO)

(FL: functional label: < = more prominent than)

Two NPs are coarguments if they receive their functional labels from the same lexical insertion rule.

(cf. Koster 1978 : 137, 152ff.,
Haider 1979 : 142, 145)

There are thus two possibilities to explain blocking of reflexivization (where it takes place): one is that the matrix NP and the transitive NP are coarguments but have the same prominence status, and the second is that they are not coarguments. Haider chooses the latter, arguing that an accusative NP cannot be a subject and that its object status is demonstrated by matrix reflexivization.

(77) Er wurde laufen gelassen.
(He was left to run away)
He was let go.

(Haider 1979 : 146)

(77), however, only confuses the issue since as is argued at great length in Huber (1980) causative *lassen* allows neither matrix passive nor participle form. The verb in (77) is thus non-causative *lassen*. Under the second alternative described above *lassen* is inserted separately under the sub-categorization condition:

(78) [VP (NP) VP ___]

(Haider 1979 : 150)

Under this analysis, however, the FLIP cases such as the following:

(79) Hans$_i$ liess sich$_i$ die Suppe schmecken.
Hans ate the soup with relish.

(Reis 1976 : 34)

cannot be explained as they otherwise might be if *Hans* and *die Suppe* are coarguments and *die Suppe* has a derived functional label through linking to a deep structural object position. What also cannot be explained, of course, are the other instances where reflexivization is allowed.

The non-argument with matrix reflexivization is also used as evidence for the stratified $\overline{VP}$ analysis. "topicalization" (in actual fact the examples show left dislocation) examples show that the embedded VP can be moved as a single constituent:

(80) [Zu mir kommen], das habe ich ihn wohl lassen müssen.
Come to (see) me, I had to let him do that.

(Haider 1979 : 150)

Negation on the other hand suggests the presence of a verbal complex since as already discussed in chapter 1 it gravitates to the embedded verb regardless of scope. Note that in Haider's example:

(81) (a) Peter hat es keinen Kollegen nicht machen lassen.
Peter let no colleague not do it.

■

(b) Peter hat es jeden Kollegen machen lassen.
Peter made every colleague do it.
(Haider 1979 : 168)

in the first place the scope is embedded and secondly under an AcI analysis both negatives are in the same (embedded) clause, thus giving the equivalence. Haider, nevertheless, assumes that the equivalence above is evidence of monosententiality.

Regardless of scope facts, the position of the negative element is in front of the embedded verb. Haider gives the following examples with simple sentences to demonstrate the existence already of the verbal complex structure with the negative attached to it:

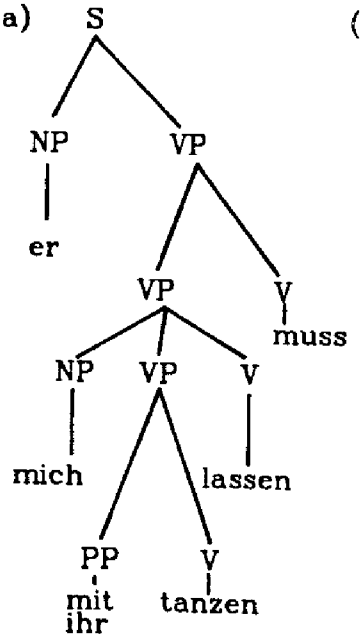
(82) (a) Weil er nicht kann.
Because he can't.
(b) Weil er das Geld nicht abgehoben hat, ...
Because he didn't withdraw the money, ...
(c) Weil er das Geld nicht abheben wollte, ...
Because he didn't want to withdraw the money, ...
(d) Weil er das Geld nicht abheben zu wollen schien, ...
Because he didn't appear to want to withdraw the money, ...
(Haider 1979 : 124)

Further evidence for a verbal complex comes from topicalization:

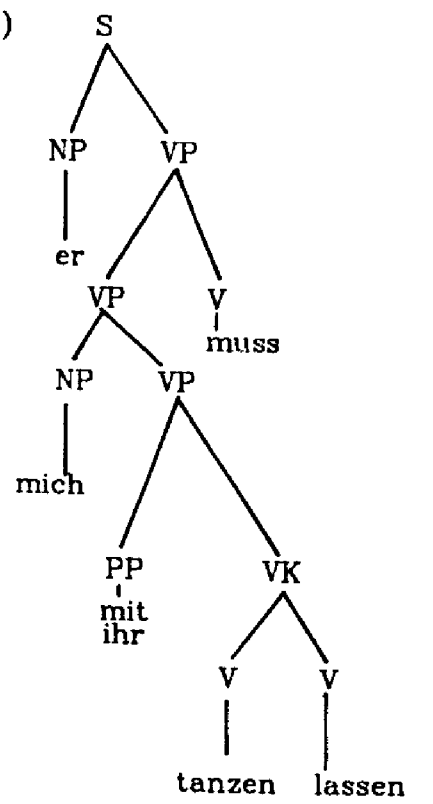
(83) (a) Er muss mich mit ihr tanzen lassen.
He must let me dance with her.
(b) ***Mich*** muss er ja doch mit ihr tanzen lassen.
Me, he must let dance with her.
(c) ***Mit ihr*** muss er mich ja doch tanzen lassen.
With her, he must let me dance.
(d) ***Mich mit ihr tanzen lassen*** muss er ja doch wohl.
(Me dance with her he must let)
(e) ***Mit ihr tanzen*** muss er mich doch wohl lassen.
(Dance with her, he must indeed let me)
(f) ***Tanzen lassen*** muss er mich ja doch mit ihr.
(Let dance, he must indeed me with her)
(Haider 1979 : 170)

All of these examples can be derived from a stratified $\overline{VP}$ except the last, (f), which would follow from a verbal-complex analysis:

(84) (a)



(b)



(Haider 1979 : 170)

Haider argues that either topicalization does not reflect constituent structure or there are different structures here. On the basis of the Verb Second criterion he assumes different structures. Restructuring, he suggests should be via reanalysis rather than transformation, because of the following facts:

(85) (a) There are no differences in the serialization.
(b) The alternation is triggered by a particular lexical element (*lassen*).
(c) The alternative structure is isomorphic with a base-generated structure (VK structure of modal verbs).
(d) The structural alternation concerns only adjacent constituents.

(Haider 1979 : 171ff.)

Before considering reanalysis, in which also the perception verbs are concerned, an inconsistency in the argumentation so far should be pointed out, and that is that if the $\overline{VP}$ analysis is supposed to rule out VP pied piping under the A/A principle, because the embedded VP is not maximal, then the same should also apply in the topicalization case. (83) (e) above, however, shows that this is not the case.

9.2 The perception verbs

Haider distinguishes between *lassen* and the perception verbs on the basis that the latter in contrast to the former have a bisentential analysis, since (it is Haider's claim) they allow VP pied piping in relative clauses. This contrasts with the fact that "As far as reflexivization is concerned, there are no differences between *lassen* and the perception verbs". Furthermore, the pronoun and negation facts are also taken as evidence for a simple surface structure. It would seem, then, that the VP pied piping data, are the sole evidence for structural differences between the two constructions. Topicalization again demonstrates the same ambiguity as in the case of *lassen* constructions between independent VP structures and verbal complexes. The conclusion then is that there is reanalysis as in the *lassen* case, the alternatives here being S versus VK. Reanalysis is also used to account for the extraposition facts and to overcome the ordering problem in Evers's VR analysis, discussed in the section on Thiersch (1978) above.

The reflexivization facts are already familiar, with blocking by intervening subjects in the case of direct objects:

(86) *Hans$_i$ sah die Leute sich$_i$ betrügen.
Hans$_i$ saw the people deceive himself$_i$.
(Haider 1979 : 152)

but transparency in the case of (certain) prepositional objects:

(87) Hans$_i$ sah die Leute neben sich$_i$ Platz nehmen.
Hans$_i$ saw the people sit down next to himself$_i$.
(Haider 1979 : 152)

Haider finds pronoun movement such as the following

(88) ?Der Chef sah *es* den Lehrling versuchen.
The boss saw the apprentice attempt it.
(Haider 1979 : 164)

not as good as in the *lassen* cases but better than in control verb cases. For negation he argues that the following demonstrates the equivalence properties of simple sentences:

(89) (a) Peter sah kein Auge nicht trocken bleiben.
Peter saw no eye not remain dry.
≡
(b) Peter sah alle Augen trocken bleiben.
Peter saw every eye remain dry.
(Haider 1979 : 125)

However, as argued already, the equivalence is not surprising since the double negation operates over the embedded proposition. Thus, (89) is not an argument for monosententiality.

The main contrast appears in the case of VP pied piping and examples such as the following:

(90) (a) die Stiegen, über die hinaufpoltern Hans die Gäste hörte/*liess ...
(the steps thunder up which Hans heard/*let the guests)
The steps Hans heard the guests thundering up ...
(b) die Glasscheiben, die im Sturm zerbrechen ich gehört habe/*liess (indem ich die Fenster nicht zumachte)
(the window pane which break in the storm I heard/*let (in so far that I did not close the window))
The window pane which I heard break in the storm ...
(Haider 1979 : 155)

where Haider assumes at this point that the subject NPs are in the embedded sentence. The examples in (90) are somewhat controversial and it is possible that they might be dialect-specific.

Topicalization demonstrates the same VP/VK ambiguity as in the *lassen* case, with the embedded VP topicalized in (91) (a) and the matrix and embedded verbs in (91) (b):

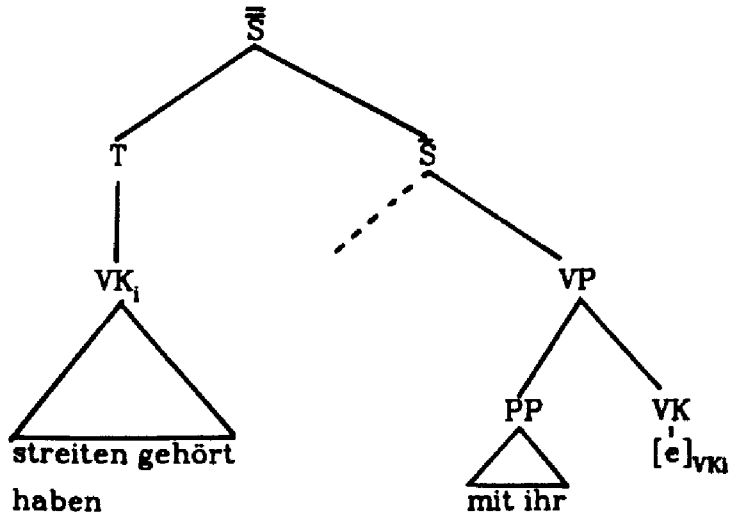
(91) (a) [$_{VP}$ Mit ihr streiten] muss er mich doch nicht gehört haben.
(Quarrel with her, he mustn't have heard me)
(b) [$_{VK}$ Streiten gehört (haben)] muss er mich doch nicht (gerade) mit ihr
((to have) heard quarrel, he mustn't me particularly with her)
He mustn't have heard me quarrelling with her.
(Haider 1979 : 189)

These examples determine that the monosentential structure is a VK structure as in the *lassen* case.

Haider argues that there is redundancy in storing distributional features both in phrase structure (PS) rules and in the subcategorizational features of Lexical Entries (LE). In particular, under reanalysis the structures produced by PS rules would be destroyed on lexical insertion (LI). The solution is as follows: the structural conditions for LI are the subcategorizational features of the LE. Trees are not generated by successive application of PS rules put together out of sub-structures. A PS rule is simply a well-formedness-condition on part of the structure of the tree into which an LE is inserted. A further condition is Structure Preservation so that the structure resulting from an LI must be identical with the well-formedness-condition of an independently existing class of LEs. Thus, for example, in the case of reanalysis for perception verbs and *lassen* the VK target structure is accepted by a well-formedness-condition independently motivated by structures with modal verbs. Reanalysis itself is simply the replacement of one well-formedness-condition by another.

How the description above works can be seen on the basis of the topicalization examples. Thus the S analysis simply is replaced by the VK analysis as a well-formedness-condition if two verbs are inserted into sentence initial position:

(92)

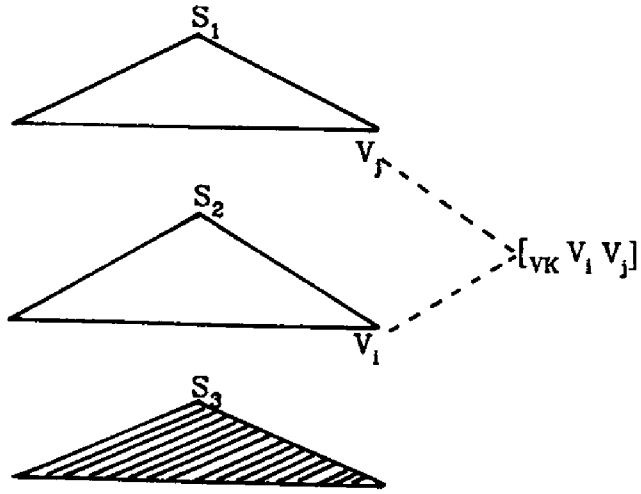


(Haider 1979 : 190)

Notice that Haider does not go into details about the line-up of NPs in structures of this kind and that the topicalization concept is similar to that suggested for English rather than the R2 rule suggested for German by Thiersch (1978).

Reanalysis is also used in the account of extraposition since it obviates the rule ordering problems encountered in Evers (1975). Thus in the following:

(93)



Franz die Tür öffnen

(Haider 1979 : 178)

a cyclical analysis would allow S_3 to be extraposed to the end of S_2, and verb raising, uniting the V of S_2 with that of S_1, would have to apply across S_3, which in any case could not remain in this position if V_j were *scheinen* or an AcI verb. The base reanalysis thus accounts for the unbounded movement in the following:

(94) dass Peter Franz [$_{VK}$ versuchen sieht] [$_{S}$die Tür zu öffnen]
that Peter sees Franz trying to open the door
(Haider 1979 : 177)

There are problems, however, in the account of extraposition, which, as suggested earlier, have to do with the attempt to reconcile Binding theory with a base-generated grammar, which ignores the PRO-Trace distinction.

The problem with the Binding theory proposed by Haider is what constitutes a governing category. Thus, the theory does without principle (C) of Chomsky's (1979) Conditions:

(95) (C) If α is pronominal, then α is free in every governing category.
(Chomsky 1979 : 16)

(96) (Haider)
(A) If $\alpha = NP_{[+Case]}$, then (1) α = anaphor, or
(2) α = free in every governing category

(B) If $\alpha = NP_{[e]}$, then (1) α = variable, or
(2) α = bound in every governing category
(cf. Haider 1979 : 204)

This results in a Binding Configuration that is "symmetric without gaps":

(97) (a) [.....V NP_i [e_i.....]] (a) Raising (S - O)
± Arg. (b) Object Control

(b) [NP_i... V [e_i .....]] (a) Raising (S - S)
± Arg. (b) Subject Control
(Haider 1979 : 211)

Thus, in the case of *seem*

(98) John seems [$_S$ to go]

John is in a non-argument position and the sentence is well-formed only if it is bound to an ungoverned argument position, in this case the subject of the infinitive. The same is also true of control cases since *Bill* in the following is a non-argument "in relation to the verb *kiss* ":

(99) John forced $Bill_i$ [e_i to kiss Mary]
(Haider 1979 : 204)

In this case once again the governed non-argument is bound with the ungoverned argument position. Binding involves coindexing under conditions of c-command. The principle that is fulfilled in each of these cases is Freidin's (1978) Functional Uniqueness Principle:

(100) Each lexical NP $\in S_i$ with non-null semantic content must be bound with *one and only one argument position of* Σ_i
(Σ_i is the interpretation of S_i)
(cf. Haider 1979 : 201)

From the above, however, it is not clear what constitutes a governing category, since in each case the assumption is that the infinitival subject position is ungoverned. Koster (1980), for instance, distinguishes intrinsically the PRO-trace effects by assuming that *to* in English absorbs Case

and thus the inherent government assumed for all nodes that are not lexically governed. In *believe* cases the effects of absorption are neutralized by the Case assigner *believe* ; in *seem* cases the effect of government, but not Case-assignment, is similarly saved. Extraposition of a *scheinen* infinitival , on analogy with *seem* , would result in an ECP violation, subsumed in Koster's theory by the stipulation that a θ-role can only be inherited from a lexically governed empty NP (the subject of the extraposed *scheinen* complement would presumably be ungoverned). The same principle of government and in this case Case assignment would rule out the extraposition of AcI complements, which in Koster (1980) have embedded lexical subjects. These principles, however, are not available in Haider (1979), and it is not clear how the Binding theory described in (96) should actually operate nor how it can distinguish between, for example, extraposition of control verb complements and those of the constructions under consideration.

Haider's explanation of the extraposition facts seems to directly contradict the analysis proposed in (96) above. He thus says (p. 219) "A structure such as [63]

(101) [63] ... $V[_S$ NP inf ...]

(Haider 1979 : 219)

can be excluded for perception verbs on independent grounds: perception verbs are not control verbs; therefore the subject position of the infinitival complement S cannot be interpreted. If this position is, nevertheless, lexically filled it is subject to the Case filter since it is an ungoverned position. The remaining possibility is the only one that leads to a grammatical result: through reanalysis the subject NP enters the government domain of the matrix verb. Reanalysis is not possible, however, in the extraposed form, since it is locally conditioned." This account, though compatible with an $\overline{S}$ deletion analysis of the AcI construction, is not compatible with the configuration in (96) where the accusative NP is in the matrix S. Such a configuration could be explained in terms of Koster (1980), if it is treated in the same way as *seem / scheinen* , where the lexical object (in the AcI case) is unable to inherit a θ-role since it is a non-argument position and the empty argument category from which it should inherit the θ-role (subject of the infinitive) is ungoverned.

Haider's approach is extremely interesting in terms of the principles it brings to bear on the constructions under consideration. Problematic at this stage, though, is the compatibility of Koster's (1978) variant of core grammar and Chomsky's (1979, 1980) Binding theory. Also problematic, as seen above, is the degree of actual explanation achieved for the constructions themselves, as well as the criteria involved as evidence

for monosententiality, for example negative scope, and consistency in the analysis, for example the A/A argument for the *lassen* pied piping facts in contrast to the topicalization facts.

10. Huber (1980)

In contrast to the more recent theoretical approaches described in the previous sections Huber (1980) employs a pre-EST framework and, for instance, derives infinitival complements from a finite base S, which involves a process of "reduction", reducing the embedded S to a VP. Important features of his extensive discussion of the *lassen* construction are the bisententiality arguments already mentioned in chapter 1, the ±causative distinction, which is of great importance in determining the data and which is overlooked in Harbert (1977) and Haider (1979), ±nominal status for infinitival complements (note parallels with Olsen (1981)) to account for VP pied piping and extraposition facts (but note also the independent arguments), a (stylistic?) rule of Linearization, which accounts for the clitic, topicalization and negative incorporation data, and a reformulation of the Specified Subject Condition as the Actor-Subject Condition for German, with auxiliary hypotheses in the style of Koster (1978) for peripheral deviations from the central condition.

10.1 ± Causative

Huber gives an extensive set of arguments to distinguish between causative *lassen*, meaning *let* (with the sense of *permit*), *make*, *have*, and a non-causative *lassen*, meaning *leave (let* in the sense of *not stop)*. The tests also lead to the establishment of constituency, where the accusative subject is in the embedded clause in the causative instance but in the matrix clause in the non-causative case; in other words, the latter is a control verb.

One of the diagnostics of causativity is the presence or absence of the participle form. This applies equally in the case of the perfect tense as well as in the passive construction, where matrix passivization is discovered only to be possible with non-causative *lassen* (in contrast to the *believe* cases in English). The perfect participle distinction can be illustrated by the following:

(102) (a) Ich habe Kaffee und Kuchen stehen gelassen/lassen und bin aus dem Lokal gegangen.
I left the coffee and cakes standing there and went out of the cafe.

(b) Ich habe mir Kaffee und Kuchen kommen lassen/*gelassen.
I had coffee and cakes brought to me.

(cf. Huber 1980 : 35)

Only with the non-causative variant, (102) (a) is the participle form *gelassen* possible. This is also the case with passivization, where only non-causative *lassen* allows matrix passivization:

(103) (a) *Kaffee und Kuchen wurden von uns bringen gelassen/lassen.
(Coffee and cakes were had brought by us)
(b) Kaffee und Kuchen wurden von uns stehen gelassen.
Coffee and cakes were left standing by us.
(Huber 1980 : 60)

The opposite is true of complement passivization, where only the infinitive form (and causative interpretation) may appear:

(104) Auch wenn ich es nicht veranlasste/genehmigte,
Even though I didn't order it/allow it
(a) liess ich ihn die Wand streichen.
I left him painting the wall.
(b) *liess ich von ihm die Wand streichen.
(I left the wall being painted by him)
(105) Ich liess von ihm die Wand streichen.
I had the wall painted by him.
(Huber 1980 : 59)

Even under reflexivization, causative and non-causative *lassen* behave differently, where the latter behaves as might be expected of a control verb, namely under no conditions allowing through matrix reflexivization:

(106) Als Hans ins Zimmer kam, war seine Frau gerade dabei,
intime Sachen aus seiner Jugend zu erzählen.
When Hans entered the room his wife was recounting
Bntimate details of his youth.
(a) Obwohl es ihn$_i$ ärgerte, hat er sie ruhig weiter
über *sich$_i$/ihn$_i$ reden gelassen/lassen.
Even though it annoyed him he didn't stop her continuing
to talk about *himself$_i$/him$_i$.
(b) Weil ihn$_i$ das mordsmässig ärgerte, hat er$_i$ sie nie
wieder über sich$_i$/*ihn$_i$ reden lassen/*gelassen.
Since that annoyed him enormously he never again let
her talk about himself$_i$/*him$_i$.
(Huber 1980 : 57)

As can be seen from the English version in (106) (a) it is essential to distinguish between the permissive and passive interpretations which are both subsumed by the English verb *let*.

The passive and reflexivization behaviour above suggests that non-causative *lassen* is a control verb (in Huber's terms, one causing "obligatory reduction") and causative *lassen* has an embedded subject. Constituency tests such as topicalization, left dislocation, pseudo-clefts, pronominalization and WH-pronominalization seem to confirm that in the causative case the accusative NP and the infinitive are in fact a single constituent. It should be noted that the judgements in these cases are relative and that apart from the unacceptability of these test cases in a non-relative context, all the dislocated complement examples violate the theory of Government and Binding, as will be discussed later.

If the NP and infinitive are topicalized together, there should be relative acceptability in those cases where they represent a single constituent and unacceptability where a matrix controller is fronted with an embedded S. The latter is shown to be the case with non-causative *lassen* :

(107) (a) *Den Kaffee und Kuchen stehen hat der Gast gelassen, nicht aber das Eis.
(The coffee and cakes standing, the guest left, but not the ice cream)

(b) Kaffee und Kuchen bringen hat der Gast lassen, nicht aber Eis.
(Coffee and cakes brought, the guest had, but not ice cream)

(Huber 1980 : 81)

As might be expected in the non-causative case, fronting of the infinitive independently of the accusative NP is acceptable:

(108) Auf der Strasse liegen hat nur einer der Autofahrer den Betrunkenen gelassen.
(Lying on the road, only one of the drivers left the drunk)
Only one of the drivers left the drunk lying on the road.

(Huber 1980 : 104)

Pseudo-clefts behave in much the same way, where in the following ✓ means "more acceptable than*":

(109) (a) *Was der Autofahrer liess, war den Verletzten liegen.
(What the driver left was the injured man lying (there))
(b)✓ Was der Autofahrer liess, war den Verletzten einsteigen.
(What the driver let/had was the injured person get in)
(Huber 1980 : 75)

WH-pronominalization again suggests the constituency of the accusative NP and infinitive in the causative cases and their lack of constituency in the non-causative cases:

(110) (A): Sag mal, *was* hat Erna lassen?
Tell us, *what* did Erna have?
(B): Ihren kleinen Bruder entgegen seinem Willen Klavierstunden nehmen.
Her little brother take piano lessons against his will.
(111) (A): Sag mal, *was* hat Erna gelassen?
Tell us, *what* did Erna not stop?
(B): *Ihren kleinen Bruder stundenlang auf dem Klavier herumklimpern.
Her little brother tinkling away for hours on the piano.
(112) (A): Sag mal, *was* hat Erna ihren kleinen Bruder gelassen?
Tell us, *what* did Erna not stop her little brother doing?
(B): Stundenlang auf dem Klavier herumklimpern.
Tinkling away for hours on the piano.
(Huber 1980 : 90)

Arguments such as these then suggest that whereas non-causative ***lassen*** behaves like a control verb, causative ***lassen*** has an embedded subject.

A final interesting parallel is the case of the causative ***machen***, which unlike ***lassen*** has a finite complement as well as an infinitival. Comparison with the finite complement here suggests that the accusative NP cannot be matrix direct object but is part of the embedded proposition:

(113) (a) Nur der Clown machte die Kinder lachen.
Only the clown made the children laugh.
(b) Nur der Clown machte, dass die Kinder lachten.
(Only the clown made that the children laughed)
(c) *Nur der Clown machte die Kinder$_i$, dass sie$_i$ lachten.
(Only the clown made the children that they laughed)
(Huber 1980 : 247)

(113) (c) contrasts with those control cases where there is a finite parallel (the examples are from Haider (1979)):

(114) (a) weil wir Peter empfahlen, uns zu begleiten
since we advised Peter to accompany us
(b) weil wir Peter$_i$ empfahlen, dass er$_i$ uns begleitet
since we advised Peter that he should accompany us
(Haider 1979 : 154)

This evidence again supports the viewpoint that the *lassen* infinitival has an embedded lexical subject in the causative case.

10.2 ±NP status of complements

On the basis of structural evidence such as left dislocation and functional evidence such as passive and tough movement, Huber argues that infinitival complements in German have nominal status. Note that Olsen (1981) makes this claim on the basis of independent evidence, arguing that in contrast to Edmond's (1970) examples for English, complements in German can assume nominal positions, though the data are somewhat marked:

(115) (a) Ist, dass Köln am Rhein liegt, auch in Amerika bekannt?
(Is that Cologne is on the Rhein also known in America?)
Do people in America also know that Cologne is on the Rhein?
(b) Mir ist, dass Köln am Rhein liegt, schon bekannt.
(To me is, that Cologne is on the Rhein, already known)
I already know that Cologne is on the Rhein.
(Olsen 1981 : 147)
(c) *She won't tell she is sick to the doctor.
(Olsen 1981 : 69)

Although the data are somewhat controversial, both Huber and Olsen distinguish between *scheinen* and *lassen* complements and those of control verbs on the basis of the -nominal status of the former in contrast to the +nominal status of the latter. Coherence factors such as extraposition and VP pied piping are then made dependent by Huber on NP status, where the A/A Condition is called upon to guarantee the movement in control verb cases of VP pied piping. A clause has to be added, of course, to ensure optionality of VP as opposed to simple NP extraction. It is interesting to note that Haider (1979) and Huber (1980) manipulate the A/A Condition in different ways here to explain the same factors: thus in

Haider (1979) the embedded VP cannot be extracted under a $[_{\overline{VP}}\ [_{VP}]]$ analysis of *lassen*, since the embedded VP is not maximal under the definition, whereas in Huber (1980) this non-maximality has to be bypassed in order to allow for the non-VP extraction cases. The A/A Condition would facilitate VP pied piping in the *lassen* case, but there is no maximal NP for it to apply to except the simple, embedded object NP.

If full NPs are substituted for pronouns in left dislocation constructions a contrast can be established between control verb complements and those of *lassen:*

(116) (a) Zu heiraten, das versprach Erna dem Jungen.
To marry, that, Erna promised the boy.

(b) Zu heiraten, so einen Knüller$_{[+Acc]}$, versprach Erna dem Jungen.
To marry, such a cool thing, Erna promised the boy.
(Huber 1980 : 97)

(117) (a) Den Betrunkenen einsteigen, das hat sofort einer der Autofahrer lassen.
(The drunk get in, that one of the drivers had (happen) immediately)
One of the drivers had the drunk get into the car immediately.
(Huber 1980 : 103)

(b) *Den Betrunkenen einsteigen, diesen Vorgang hat nur einer der Autofahrer lassen.
(The drunk get in, this action had only one of the drivers (happen))
Only one of the drivers had the drunk get into the car.
(Huber 1980 : 104)

In the control verb example in (116) (b) the accusative case of the appositive phrase, *so einen Knüller*, indicates the nominal-object status of the infinitival complement it parallels. This kind of nominal, in apposition to the infinitival complement, is not allowed in *lassen* constructions, as is demonstrated in (117) (b).

Functionally, such appositive NPs undergo case change under passivization, suggesting that the parallel infinitival complement has actually become syntactic subject, though an object complement at deep structure:

(118) Zu heiraten, so ein Knüller[+Nom] wurde dem Jungen von Erna versprochen.
To marry, such a cool thing, was promised the boy by Erna.
(Huber 1980 : 100)

Such a fronting under passivization is excluded in all cases under the verb *lassen*:

(119) (a) *Den Betrunkenen einsteigen, das wurde von einem Autofahrer sofort gelassen.
(The drunk get in, that was had (happen) immediately by one of the drivers)
(b) *Den Betrunkenen einsteigen wurde von einem Autofahrer sofort gelassen.
(The drunk get in was had (happen) immediately by one of the drivers)
(Huber 1980 : 104)

Huber concludes on the basis of evidence such as this that *lassen* complements, in contrast to control verb complements, do not have NP status.

If extraposition is made dependent on NP status of the complement the contrast can be explained between the behaviour of *lassen* complements, which do not extrapose and control verb complements, which do. The data are already familiar:

(120) (a) Man erzählt sich, dass sie ihn beschuldigt, ein Betrüger zu sein.
People are saying that she accuses him of being a swindler.
(b) *Man erzählt sich, dass er sie lässt sitzen.
(People are saying that he her let sit)
People are saying that he dropped her.
(Huber 1980 : 111)

Huber also extends the analysis to *scheinen*, saying that in contrast to the retention of NP status of the complement after deletion under identity in Equi, raising destroys the NP by moving the rest of the sentence under VP (he assumes a sentential subject analysis). This explains the inability of *scheinen* complements to undergo extraposition:

(121) *Man erzählt sich, dass er ihr scheint ein Betrüger zu sein.
People are saying that he appears to her to be a swindler.
(Huber 1980 : 111)

Huber assumes "obligatory reduction" under Equi which results in S-Pruning, so that infinitival complements have the same $[_{NP}[_{VP}]]$ structure assumed in Ross (1967). Under Ross's (1967) Convention, either the maximal NP or the (VP-) embedded NP can be extracted:

(122) *Ross's Convention*
Any transformation which is stated in such a way as to effect the reordering of some specified node NP, where this node is preceded and followed by variables in the structural index of the rule, may apply to this NP or to any non-coordinate NP which dominates it, as long as there are no occurrences of any coordinate node, nor of the node S, on the branch connecting the higher node and the specified node.
(Ross 1967 : 114)

The Convention, whilst excluding pied piping of finite clauses, allows for the following German examples:

(123) (a) Das ist der Bericht$_i$,$[_{NPi}$ den] der Vizepräsident zu ignorieren veranlasste.
That is the report which the Vice President induced (people) to ignore.
(b) Das ist der Bericht$_i$,$[_{NP2}[_{VP}[_{NPi}$ den] zu ignorieren] der Vizepräsident veranlasste.
(That is the report to ignore which the Vice President induced people)
(Huber 1980 : 118)

The *scheinen* and *lassen* cases are excluded simply because there is no NP node to which the Convention can apply, except that dominating the object itself:

(124) (a) *Das ist der Bericht, den zu ignorieren der Vizepräsident scheint.
(That is the report to ignore which the Vice President seems)
(Huber 1980 : 120)

(b) *Das ist der Bericht, den ignorieren der Vizepräsident liess.
(That is the report to ignore which the Vice President had)
(Huber 1980 : 118)

In this way then Huber accounts for the coherence facts of extraposition and VP pied piping.

10.3 Linearization

Other coherence facts, such as those demonstrated by cliticization and the kind of topicalization data discussed in Haider (1979) cannot be accounted for by ±NP status of the infinitival complement. Huber argues that examples of infinitive extraction with control verbs are ungrammatical:

(125) *Zu schreiben hat er mich den Bericht ermuntert.
(To write he encouraged me the report)
He encouraged me to write the report.
(Huber 1980 : 130)

and that this can be explained by the A/A Condition, on the assumption that the VP from which the infinitive is extracted is a maximal projection. Note that the A/A Condition, as stated already, is by-passed in the case of VP pied piping by making the stipulation of application to the maximal category optional if there is an intervening node Z (= VP between NP maximal and NP minimal):

(126) ... $[_A [_Z W \_\_\_{Ai} \_\_ X]]$ ...
(3) ***Optionally*** if A is specified for movement and $Z \neq \phi$ and $W = \phi$
(Huber 1980 : 126)

In (125), however, where there is no intervening node Z between VP and V, the condition applies obligatorily:

(127) (2) ***Obligatorily*** if W or X are specified for movement and $Z = \phi$ and the minimal phrase of A is a preterminal category.
(Huber 1980 : 126)

Contrasting with (125), ***lassen*** infinitivals allow the extraction of the infinitive:

(128) Schreiben hat er mich den Bericht lassen.
(Write he had me the report)
He had me write the report.

(Huber 1980 : 131)

The same is true of *scheinen*:

(129) Zu schreiben scheint er den Bericht nun doch nicht.
(To write he appears the report not after all)
He doesn't appear to be writing the report.

(Huber 1980 : 132)

To account for this difference in behaviour Huber assumes a late rule of Linearization, which destroys the configurational hierarchy, but from which complements with NP status are exempted. This is also supposed to account for the cliticization facts and those of negative incorporation.

Linearization applies contra-cyclically from top to bottom:

(130) In structures of the form
$[_S \chi[_A \ldots]] \ldots$
A is deleted, where A=VP, S and $\chi \neq \phi$, A

(Huber 1980 : 134)

This results in intermediate structures of the following kind:

(131) (a) $[_{NP}]\ [_V]\ [_{VP}]$
$[_{VP}$ Mich mit dir tanzen lassen] muss er ja doch
(Me with you dance let he really must)
(b) $[_{NP}]\ [_V]\ [_S]\ [_V]$
$[_S$ Mich mit dir tanzen] muss er ja doch lassen
(Me with you dance he must really let)
(c) $[_{NP}]\ [_V]\ [_{NP}]\ [_{VP}]\ [_V]$
$[_{VP}$ Mit dir tanzen] muss er mich ja doch lassen
(With you dance) he must really let me
(d) $[_{NP}]\ [_V]\ [_{NP}]\ [_{PP}]\ [_V]\ [_V]$
(i) $[_{NP}$ Mich] muss er ja doch mit dir tanzen lassen
Me he must really allow to dance with you.
(ii) $[_{NP}$ Mit dir] muss er mich ja doch tanzen lassen

With you he must really let me dance.
(iii) [$_V$ Tanzen] muss er mich ja doch mit dir lassen
He must really let me dance with you.
(Huber 1980 : 137)

As demonstrated in (131) topicalization can apply after each linearization step. After full linearization, adjacent constituents can be topicalized together:

(132) (a) [$_{NP}$ Mich] [$_{PP}$ mit dir] hat er tanzen lassen, aber nicht dich mit mir.
(Me, with you, he let dance but not you with me)
(Huber 1980 : 144)
(b) [$_V$ Tanzen] [$_V$ lassen] muss er mich ja doch mit dir.
(Dance, let, he must me with you)
(c) [$_{VP}$ Mit dir tanzen] [$_V$ lassen] muss er mich ja doch.
(With you dance, let, he really must me)
(Huber 1980 : 137)

This accounts for the structural paradox demonstrated by (131) (c) versus (132) (b) (the incompatibility of PP+V as an apparent constituent in the first case with V+V as an apparent constituent in the second case - cf. figure (84)), which Haider resolves via reanalysis.

Linearization also, within Huber's analysis, accounts for the negative incorporation facts described in chapter 1, where matrix scope is possible for the ***nicht*** compounded with ***etwas*** (= ***nichts***) in the following:

(133) Sie liess mich ***nichts*** zahlen, und er auch nicht.
She didn't let me pay something and neither did he.
(Huber 1980 : 174)

Linearization destroys the configurational hierarchy so that matrix ***nicht*** and embedded ***etwas*** are linearly adjacent after Neg-Movement, and Incorporation can take place. Huber uses the same linearization account to explain the movement of the object clitic in front of the embedded subject in the following:

(134) Der Chef hat *es* ihn versuchen lassen.
The boss allowed him to do it.
(Huber 1980 : 148)

in contrast to the impossibility of such movement in control verb cases:

(135) *Der Chef hat *es* ihn zu versuchen veranlasst.
The boss caused him to do it.
(Huber 1980 : 148)

The assumption, then in the case of cliticization, topicalization and negative incorporation is that these processes take place in a stylistic component and that they presuppose linearization.

10.4 Reflexivization

Unlike the case of the preceding examples, Huber assumes that reflexivization is subject to standard conditions and in particular that the generality of the SSC is upheld, with auxiliary hypotheses for the (perhaps more marginal or language specific) cases where the SSC is violated. The data, to recapitulate, demonstrate that transitive subjects under *lassen* block reflexivization of an embedded object under coreference with the matrix subject unless the object is in a certain kind of prepositional phrase. Huber argues that only prepositional objects that are strictly subcategorized for by the verb are exempted from the SSC and that adverbial PPs generated under Adv.P are subject to it, as far as reflexivization is concerned.

(136) (a) Hans$_i$ liess mich$_j$ für sich$_i$ waschen.
(Hans$_i$ let/had me$_j$ wash for himself$_i$)
(Huber 1980 : 15)
(b) Er$_i$ liess mich$_j$ nach ihm$_i$/*sich$_i$ eintreten.
He$_i$ made/let me$_j$ go in after him$_i$/*himself$_i$.
(Huber 1980 : 380)

At the same time the possibility of reflexivization in the FLIP cases suggests that the notion of *agency* is involved in the definition of specified subject in German:

(137) (a) *Hans$_i$ liess die Leute$_j$ sich$_i$ Schnaps besorgen.
(Hans$_i$ had the people$_j$ get himself$_i$ Schnaps)
(Reis 1976 : 27)

(b) Hans$_i$ liess sich$_i$ die Suppe$_j$ schmecken.
(Hans$_i$ had to himself$_i$the soup$_j$ taste)
Hans$_i$ ate the soup with relish.
(Reis 1976 : 34)

In (137) (a) *die Leute* is an agentive subject, whereas *die Suppe* in (137) (b) is not. The same transparency as in (137) (b) applies also in the case of derived (passive) subjects:

(138) Hans$_i$ liess sich$_i$ Schnaps besorgen.
(Hans$_i$ had himself$_i$ got Schnaps)
Hans had Schnaps got for him.
(Reis 1976 : 28)

Huber thus accommodates these facts in a modified version of the SSC.

Huber generalizes the structure for the Tensed S Condition and the Specified Subject Condition to cover all German object complements, adding stipulations to account for the exceptional data:

(139) In the structure
X ... [$_A$ ... Z ... - UYW - ...] ...
no rule can involve X and Y, where X dominates Y if,
(1) A is a morphologically marked sentence (Tensed S)
(2) Z is a lexically specified Actor-Subject of UYW, where Y≠Prepositional Object
(3) Z is a lexically unspecified pronominal subject of UYW, where optional Y≠Prepositional Object, if X=causative subject.
(Huber 1980 : 397ff.)

The Tensed S clause thus accounts for facts such as the following (although this would also be excluded by the SSC):

(140) *Sie$_i$ teilte uns$_j$ mit, dass wir$_j$ zu sich$_i$ nach Hause fahren.
(*She$_i$ informed us that we were to go to herself$_i$ to her home)
She informed us that we were to go to her place.
(Huber 1980 : 2)

The Actor-Subject condition accounts for the facts in (136) to (138). The PRO-Subject condition, clause (3), accounts for the opacity effects of

control verb infinitivals:

(141) *Sie$_i$ forderte uns$_j$ auf, zu sich$_i$ nach Hause zu fahren.
(She$_i$ asked us$_j$ [PRO$_j$ to go to herself$_i$ to her home])
She asked us to go to her house.
(Huber 1980 : 2)

The same applies, of course, in the case of non-causative *lassen*:

(142) Erna$_i$ hat uns$_j$ für sich$_i$ kämpfen *gelassen/lassen.
(a) (Erna$_i$ left us$_j$ fighting for herself$_i$)
(b) (Erna$_i$ had/let us$_j$ fight for herself$_i$)
(Huber 1980 : 385)

Note that clause (3) in (139) above has the additional stipulation

where optional Y≠Prepositional Object, if X=causative subject

to cover the following, where Huber claims that control verb causatives allow reflexivization into prepositional objects though not into non-prepositional objects:

(143) (a) Er$_i$ zwang uns$_j$ *sich$_i$/ihn$_i$ mitzunehmen.
(He$_i$ forced us$_j$ to take himself$_i$ with us.)
(Huber 1980 : 347)
(b) Er$_i$ zwang mich$_j$, für sich$_i$/ihn$_i$ zu arbeiten.
(He$_i$ forced me$_j$ to work for himself$_i$/him$_i$.)
(Huber 1980 : 398)

Data such as these, however, are difficult to confirm.

Some of the data discussed in Huber are rather controversial, as will appear later in the discussion of reflexivization where diametrically opposed hypotheses emerge from the conflicting analyses of Huber (1980) and Grewendorf (1982). Also problematic in Huber's account are the principles of his model, as well as his derivational analyses and the status of rules such as linearization. On the other hand the ±causative determination is an important empirical insight underlying any analysis, as are also the ensuing constituency tests, as well as the arguments for mono- and bisententiality (in particular the latter) discussed in chapter 1.

11. Conclusion

The investigations discussed in this chapter reveal the empirical complexity of the constructions under consideration (in particular the *lassen* reflexivization data), the necessity for a unified theoretical approach, as well as some of the theoretical problems that arise in attempting a description of the data. Thus Evers's (1975) rule of verb raising, while well-motivated for Dutch, is string-vacuous for German and involves rule-ordering. The effect of the latter is captured by reanalysis in the accounts given by Thiersch (1978) and Haider (1979), where in the former this takes place in the Phonology and in the latter in the base. The choice of complements here, however, presents a further issue to be decided in any approach which uses a modular model, and will be discussed again when problems like topicalization or subject inversion are dealt with. As far as the former is concerned, it has to be decided whether topicalization is, for example, stylistically or pragmatically determined or whether it is syntactically central, as suggested by Thiersch's R2 rule. The same question arises for extraposition - whether it is base-generated in position, as suggested by Olsen (1981), or is a stylistic late rule (in the Phonology?) as suggested by Thiersch (1978) for German, or Koster (1978) for Dutch. On the other hand, the importance of string vacuity as an argument might be questioned. A recent analysis of Italian passives by Chomsky (1981), for example, has vacuous movement, which is not required by the data. Nevertheless, clause-integration approaches, such as consequent on Evers's rule or the analysis in Olsen (1981), Haider (1979), Ebert (1975), Reis (1973) and Harbert (1977) are still unable to account for the reflexivization facts.

Apart from the theoretical problems discussed by Reis (1976) as well as arising from the diverse approaches discussed in this chapter, numerous empirical insights arise from the work discussed, for example the evidence for "oblique" complements to *seem* and *scheinen* in Olsen (1981), the ±causative distinction in Huber (1980), the original underlining of the coherence phenomena in Bech (1957), Ebert (1975) and Reis (1973). Huber (1980) also introduces an interesting counterargument to the contention that the absence of a finite complement parallel in the case of *lassen* is a reason why it should be analyzed differently, namely the affinity with the causative *machen*, which does have a finite parallel. At the same time, his constituency arguments, as well as the bisententiality discussed in chapter 1, seem much more convincing than the fairly indecisive analysis in Haider (1979), although the latter is suggestive of how more recent theoretical insights might deal with the descriptive problem. Much of this empirical and theoretical work can be drawn upon in approaching the problem of a unified account of the data.

3 Dislocation of $\bar{S}$ deletion complements and the theory of Government and Binding

0. One of the original arguments for requiring a monosentential structure, either via derivation or base generation, for *scheinen* or AcI infinitival complement constructions was the coherence first pointed out by Bech (1957), discussed by Reis (1973), Ebert (1975) and Evers (1975) and generally assumed on an empirical level in the work discussed in chapter 1 and 2. A basic diagnostic for this coherence was the inability of the infinitival complements under consideration to engage in extraposition or VP pied piping in relative clauses. This phenomenon interacted with other apparently monoclausal behaviour and led in many cases to the suggestion of some kind of clause integration. The latter, however, seemed suspect, theoretically because a rule such as VR was string vacuous in German, empirically because it could not account for the reflexivization facts. In the following the assumption is made that the AcI constituency tests discussed by Huber (1980), the subcategorization arguments and other bisentential arguments discussed in chapter 1, as well as the obvious structural similarity with *believe* and *seem* type constructions in English and other languages (French and Italian) lead to a treatment similar to that proposed for these constructions, namely the $\bar{S}$ deletion approach proposed in various works by Chomsky from 1979 until the present day. The following is thus the starting point for an analysis which claims that not only the coherence factors mentioned above but also other factors discussed in the preceding chapters can be accounted for under an $\bar{S}$ deletion approach within the theory of Government and Binding of Chomsky (1981). Section 2, on the other hand, suggests a possible parameter of variation, not considered in the preceding chapters, by examining the interaction of Government and Binding theory and LF reconstruction in the light of a comparison of the German facts with English and Italian data.

1. $\bar{S}$ deletion approach

1.1 The PRO-trace distinction

The task of any approach is to explain how in the following extraposition

paradigm the sentences in (1) (b) to (d) are to be excluded:

(1) (a) Weil wir Peter zwangen, uns zu begleiten, ...
Since we forced Peter to accompany us ...

(b) *Weil wir Peter liessen, uns begleiten, ...
or
*Weil wir liessen, Peter uns begleiten, ...
Since we had Peter accompany us ...

(c) *Weil wir Peter sahen, uns begleiten, ...
or
*Weil wir sahen, Peter uns begleiten, ...
Since we saw Peter accompany us ...

(d) *Weil Peter scheint, uns zu begleiten, ...
Since Peter appears to be accompanying us ...

(2) (a) Weil wir Peter uns zu begleiten zwangen, ...
Since we forced Peter to accompany us ...

(b) Weil wir Peter uns begleiten liessen, ...
Since we had Peter accompany us ...

(c) Weil wir Peter uns begleiten sahen, ...
Since we saw Peter accompany us ...

(d) Weil Peter uns zu begleiten scheint, ...
Since Peter appears to be accompanying us ...

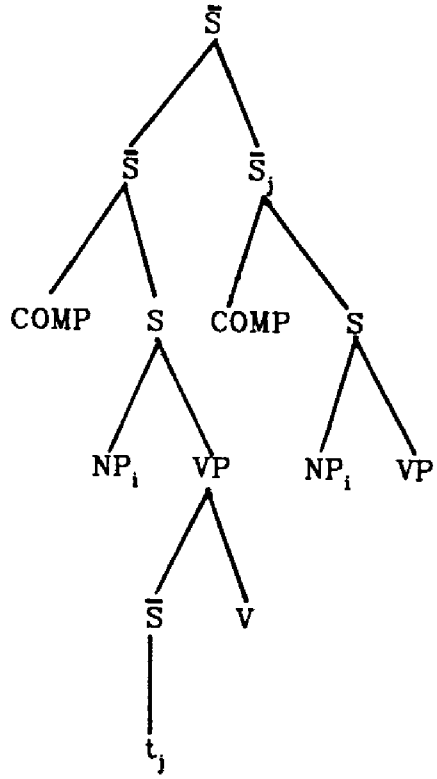
It was argued in the section on Huber (1980) in chapter 2 that the configuration resulting from the neutralization of the PRO-trace distinction in Koster (1978) and adopted by Haider (1979) would not explain the distinction between (1) (a) and (b) to (d), because of its very symmetric nature:

(3) (a) $[\ldots\ldots \underset{[\pm Arg.]}{NP_i} [e_i \ldots] V]$ a. Raising [S - O]
b. Object Control

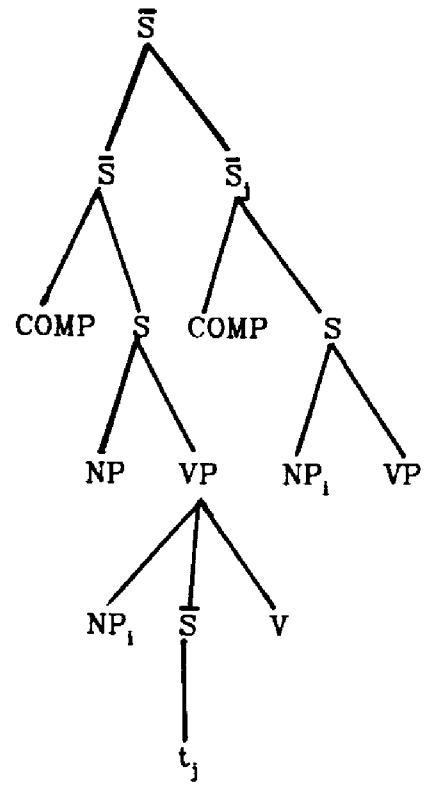
(b) $[\underset{[\pm Arg.]}{NP_i} \ldots\ldots [e_i \ldots] V]$ a. Raising [S - S]
b. Subject Control

Thus, whatever extraposition structure is assumed, VP final or $\bar{S}$ adjunction, the symmetry is preserved:

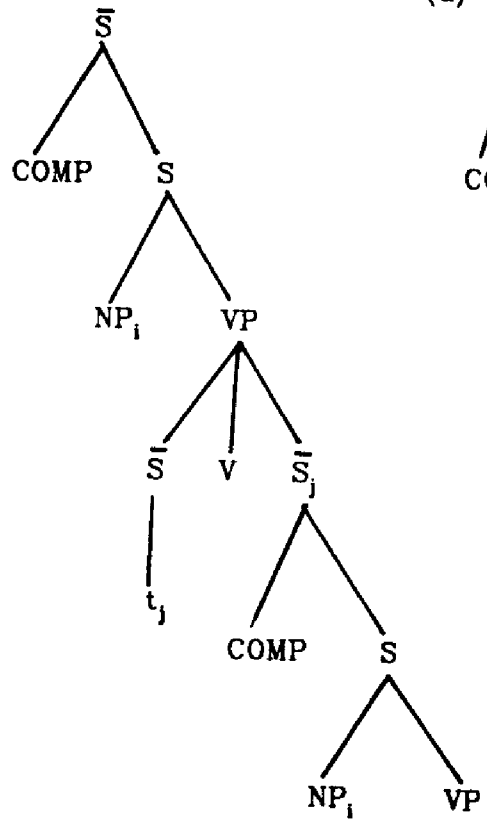
(4) (a) *Raising/Subject Control*



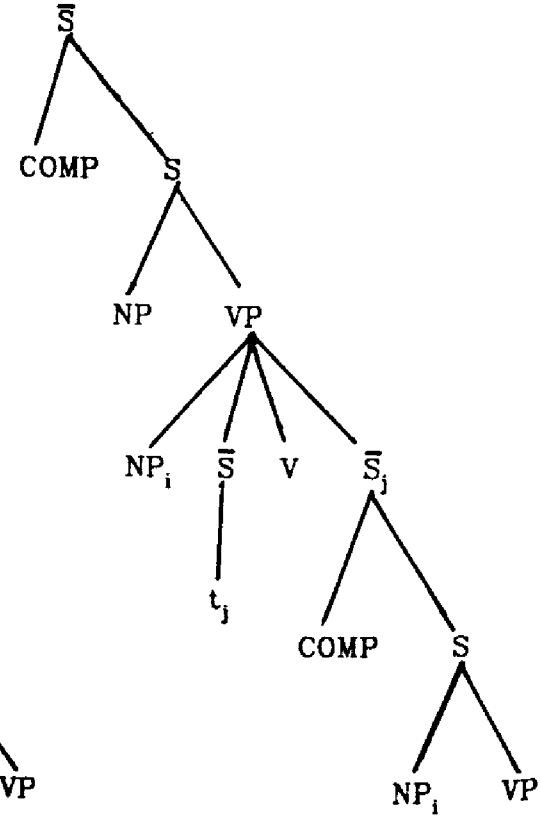
(b) *AcI/Object Control*



(c)



(d)



Under Koster's (1978) coindexing procedure:

(5) (a) X^i_j ..... $Y^i \rightarrow X^i_j$ ..... Y^i_j
(where X c-commands Y, and X and Y are both α N and β V)
(b) A node α c-commands a node γ, iff the first branching node dominating α, dominates γ, and α does not dominate γ.
(Koster 1978 : 65)

either the structures in (4) (a) and (b) would exclude all the sentences in (1) or the structures (4) (c) and (d) accept them all. For this reason Koster (1978) assumes that extraposition comes after coindexing (in a stylistic component?). As already discussed in the section on Haider (1979), Koster (1980), on the other hand, is able to distinguish the structures in (1) by essentially accommodating the PRO-trace effect. Thus, as was stated there, *to* in English absorbs Case and the inherent government assumed for all nodes that are not lexically governed: thus PRO is ungoverned. In *believe* and *seem* cases, absorption of government for the latter and of government and Case assignment for the former, is neutralized by the special properties of these verbs. If a *scheinen* complement is extraposed, then, analogous to the *seem* case, the subject would not be able to inherit a θ-role, since the empty subject position of the extraposed complement would not be governed. The same lack of government would result in the subject of an extraposed *lassen* complement being unable to receive Case. Thus, in both instances lack of government results in respectively ECP and Case Filter violations.

The effects described above are essentially those achieved under an $\bar{S}$ deletion analysis in conjunction with the theory of Government and Binding, (cf. Chomsky 1981), in other words with a hidden PRO-trace effect. Koster (1984), however, further neutralizes the PRO-trace effect by arguing that there are two kinds of PROs, those that are optional and which alternate with lexical NPs under a *for* complementizer and those that are obligatory and which do not have such free alternation. Whereas the former are subject only to control theory, the latter are subject to the same principles of binding as traces, and like traces are governed as the result of $\bar{S}$ deletion. Since the data on which the argumentation is based seem rather controversial, and in view of the fact that it is no longer clear under this new system how the distinctions accounting for (1) and generalized from Koster (1980) might be maintained, I will not pursue this approach any further here, but, leaving it open as a variant of core grammar, will assume, for ease of exposition, the $\bar{S}$ deletion approach such as in Chomsky (1981).

1.2 $\overline{S}$ deletion

AcI constructions and (subject) raising constructions differ from control structures in so far that the object in the first and the subject in the second are non-arguments in relation to the matrix verb. Thus in the following the VP of which *seem* is the head does not assign a θ-role:

(6) *John seems.

nor does the verb *believe* assign a θ-role to the object in the following:

(7) *John believed the harpsichord.

For this reason the following cannot be control structures:

(8) (a) *John$_i$ seems [$_{\overline{S}}$ PRO$_i$ to admire Mary]
(b) *John believed the harpsichord$_i$ [$_{\overline{S}}$ PRO$_i$ to have been out of tune]

Since the only available θ-roles are assigned by the embedded VPs to the respective PROs, as in (6) and (7) the NP *John*, which is a referential (R) expression, remains without a θ-role. At the same time control theory is violated since the PROs do not have antecedents with θ-roles (cf. Chomsky 1981 : 56).

If in contrast to the examples in (8) the NPs *John* and *the harpsichord* are analyzed as belonging to the argument structure of the embedded clauses they receive the θ-roles assigned by the VPs of which the respective verbs are heads:

(9) (a) John admires Mary.
(b) e seems [$_S$ John to admire Mary]
(10) (a) The harpsichord was out of tune.
(b) John believes [$_S$ the harpsichord to have been out of tune]

$\overline{S}$ deletion is introduced to account for the assignment of Case.

For (9) (b) unless the embedded S is finite and the subject position filled by *it*, as in:

(11) It seems [$_{\overline{S}}$ that John admires Mary]

the lexical NP *John* must move to the matrix subject position to receive Case via government by Inflection (INFL) and avoid violation of the Case Filter (cf. Chomsky 1981). At the same time the movement eliminates what would otherwise be an uninterpretable empty category in subject position at S-structure.

$\bar{S}$ deletion is required since the trace left by the moved element *John* must be governed. This stipulation distinguishes PRO from trace in the Binding Theory, which determines the nature of anaphor antecedent relations:

(12) A. An anaphor is bound in its governing category.
B. A pronominal is free in its governing category.
C. An R-expression is free
(Chomsky 1981 : 188)

where ***bound*** means coindexed with a c-commanding antecedent. Since PRO is not governed it is free.

$\bar{S}$ deletion for government purposes is also required in example (10) (b). Here, however, it is necessary for Exceptional Case Marking (ECM), whereby the matrix verb ***believe*** governs and assigns Case to the embedded subject ***the harpsichord***, once again avoiding a violation of the Case Filter.

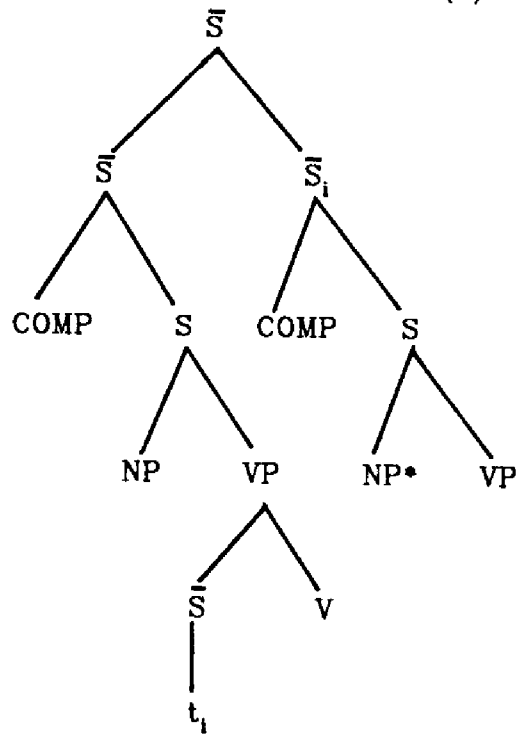
That the mechanism described here might be applicable to ***lassen*** and the German perception verb complements has already been suggested by the parallel AcI analysis for these constructions, emerging, for example from Huber's (1980) constituency arguments discussed in the preceding chapter. For ***scheinen*** the similarity with ***seem*** is demonstrated by the unacceptable absence of a complement in the following:

(13) *Hans scheint.
*Hans seems.

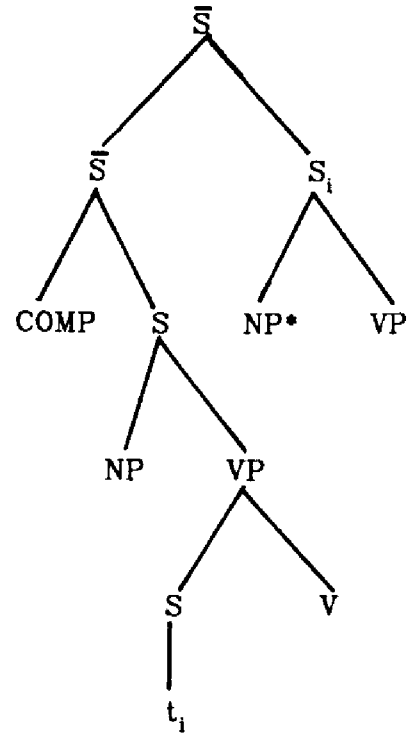
with the familiar result that the R-expression *Hans* is without a θ-role.

Applied to extraposition, then, the control versus non-control cases can be illustrated respectively by (a) and (b) in the following:

(14) (a)



(b)



In the adjunction structure above (a post VP or S final structure would make no difference), NP* remains ungoverned. Thus, for control complements there is no violation of Binding and the output is grammatical:

(15) Weil wir Peter zwangen, uns zu begleiten, ...
Since we forced Peter to accompany us ...

In the case of *scheinen*, however, principle A of the Binding Theory is violated. In the case of AcI verbs, the Case Filter is violated:

(16) Every lexical NP is an element of a chain with Case.
(Chomsky 1981 : 334)

The output is thus ungrammatical:

(17) (a) *Weil Peter scheint, uns zu begleiten, ...
Since Peter seems to be accompanying us ...

(b) *Weil wir {liessen / sahen} , Peter uns begleiten, ...

Since we {had / saw} Peter accompany us, ...

Note that in the case of the AcI constructions the Case Filter is subsumed by the Θ-criterion. Thus, since NP* in (14) (b) is not properly governed and does not receive Case, it is not part of a chain to which a Θ-role can be assigned, given the following definition from Chomsky (1981):

(18) Suppose that the position P is marked with the Θ-role R and $C=(\alpha_i, ..., \alpha_n)$ then C is assigned R by P iff for some i, α_i is in position P and C has Case or is headed by PRO.

(Chomsky 1981 : 334)

Since *Peter* in (17) (b) is an argument of the embedded S, it must by the Θ-criterion receive a Θ-role, which it cannot under (18) above. It thus violates the Θ-criterion, principle (i):

(19) Θ-*Criterion*

Given the structure S, there is a set K of chains, $K= \{C_i\}$, where $C_i=(\alpha^i_1, ..., \alpha^i_n)$, such that:

(i) if α is an argument of S, then there is a $C \in K$ such that $\alpha=\alpha^i_j$ and a Θ-role is assigned to C_i by exactly one position P.

(ibid. : 335)

Note that these principles are enough to guarantee non-extraposition for AcI and *scheinen* infinitival complements. Reuland (1980), on the other hand, argues (for Dutch) that such extraposition also violates the Projection Principle (Chomsky 1981). The relevant clauses are as follows:

(20) *The Projection Principle*

(ii)If α selects β in γ as a lexical property, then α selects β in γ at L_i.

(iii) If α selects β in γ at L_i, then α selects β in γ at L_j.

(Chomsky 1981 : 38)

(The configuration is

(a) $[\gamma \ldots \alpha \ldots \beta \ldots]$

(b) $[\gamma \ldots \beta \ldots \alpha \ldots]$)

Reuland argues that in ECM cases subcategorization can mention the complement subject NP, for example:

(21) $+[_{VP} [_S$ NP ...] _____]

If there is extraposition, however, as in the structure(14) (b) above, the verb only governs the trace of S, which fails to meet the subcategorization frame above, thus violating (iii) in (20). The assumption here is that there is no "layering of traces", a principle that will be considered in some detail in the second part of this chapter. Apart from its redundancy as an explanation of extraposition facts, this suggestion of Reuland's seems counter-intuitive in its proposal that a non-argument of the verb should be mentioned in the subcategorization frame of the verb.

1.3 VP pied piping

The question arises whether the approach assumed so far can be made to work for the VP pied piping cases discussed in chapter 1 and 2. The paradigm is repeated here for convenience:

(22) (a) Der Mann, ***auf den zu warten*** Hans beabsichtigte ...
(The man, to wait for whom Hans intended, ...)
(b) *Der Mann, ***auf den zu warten*** Hans scheint, ...
(The man, to be waiting for whom Hans seems ...)
(c) *Der Mann, ***den warten*** Hans sah, ...
(The man who waiting Hans saw ...)
(d) *Der Mann, ***den warten*** Hans liess, ...
(The man who wait Hans had/let ...)

(23) (a) Der Mann, ***auf den*** Hans zu warten beabsichtigte ...
The man Hans decided to wait for ...
(b) Der Mann, ***auf den*** Hans zu warten scheint, ...
The man Hans seems to be waiting for ...
(c) Der Mann, ***den*** Hans warten sah, ...
The man Hans saw waiting ...
(d) Der Mann, ***den*** Hans warten liess, ...
The man Hans had/let wait ...

What has to be explained here is, firstly, how WH-movement in general takes place and, secondly, what it is that distinguishes (22) from (23).

$\bar{S}$ deletion presents certain problems for the principle of subjacency, constraining movement rules, which can be formulated as follows (cf. Chomsky 1977):

(24) ... a cyclic rule cannot move a phrase from position Y to position X (or conversely) in (6):
(6) ...X ... [α ...[β ... Y ...] ...] ... X ...
where α and β are cyclic nodes

(Chomsky 1977 : 73)

Thus an analysis dispensing with cyclicity and assuming an optionality of COMP in the expansion of $\bar{S}$:

(25) $\bar{S} \rightarrow$ (COMP) S

(Chomsky 1981 : 304)

can characterize bounding nodes as follows:

(26) (i) $\bar{S}$ is a bounding node if and only if it is in the context: ___ [±WH]
(ii) S is a bounding node if and only if it is in the context: [±WH] ___

(Chomsky 1981 : 305)

giving one step WH extraction both in control and $\bar{S}$ deletion structures:

(27) (a) what did you try $[_{\bar{S}}\ [_S$ PRO to do t]]
(b) who did John expect $[_S$ Bill to see t]

(Chomsky 1981 : 305)

(c) who did John seem [t to like t']

Here, under the definition, neither S nor $\bar{S}$ qualify as bounding nodes. It seems, however, that the S which is governed as a result of $\bar{S}$ deletion might well qualify as a bounding node in order to rule out NP movement in examples such as the following in languages which do not observe WH-island violations:

(28) (a) *John seems $[_S$ that $[_S$ it is certain $[_S\ t_i$ to like ice cream]]]
(b) *John$_i$ is clear $[_S$ to whom $[_S$ it seems $[_S\ t_i$ to like ice cream]]]

(Chomsky 1981 : 309)

Chomsky (1981) thus adds the following to (26) above:

(29) S is a bounding node when governed

(Chomsky 1981 : 307)

This, however, requires a reversion to cyclicity and a requirement that the collapsing of $[_{\bar{S}}$ - t - $[_S$ to $[_S$ under $\bar{S}$ deletion does not affect the

COMP to COMP derivation of WH extractions in examples such as (27) above or the Italian example given in Chomsky (1981):

(30) i libri che$_K$ sai [$_{\bar{S}}$ a quanta gente$_i$ [$_S$ Piero$_j$ pareva t_i
[$_{\bar{S}}$ COMP [$_S$ t_j aver prestato t_K]]]]
(the books that you know to how many people Piero seemed to have lent)

(Chomsky 1981 : 307)

Whatever version of bounding is chosen here it is clear in any case that WH extraction from the embedded S does not violate subjacency in $\bar{S}$ deletion structures. The question arises, then, of whether the generality suggested for Thiersch's (1978) rule R2, discussed in chapter 2, can include all forms of leftward movement.

As suggested in chapter 2, R2 can apply to move any constituent to sentence initial position in root sentences:

(31) (a) *Ich* sah den Mann gestern.
(b) *Den Mann* sah ich gestern.
(c) *Gestern* sah ich den Mann.
I saw the man yesterday.

This can include $\bar{S}$:

(32) (a) So früh am Abend nach Hause zu gehen, hatte ich eigentlich nicht vor.
(To go home so early in the evening, I didn't actually intend)
I didn't actually intend to go home so early in the evening.
(b) Dass er ein Verbrecher sei, habe ich nicht behauptet.
(That he was a criminal, I didn't say)
I didn't say he was a criminal.

In the case of $\bar{S}$ deletion complements, though there is some variation, as will be seen in section 2, most informants find the application of R2 to embedded S's unacceptable:

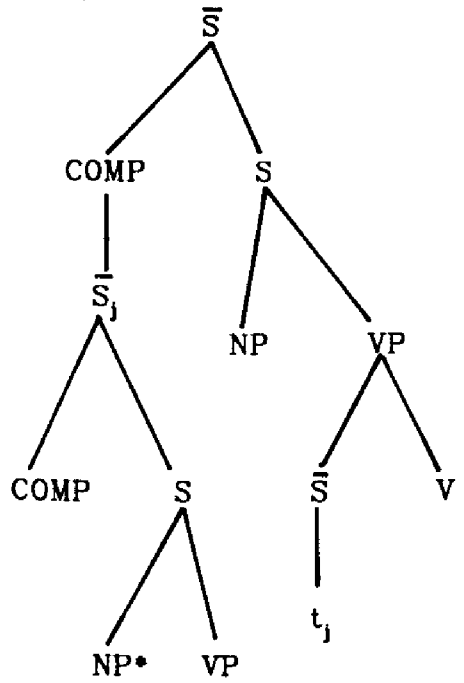
(33) (a) *?Vollkommen zerstreut zu sein scheint er.
(To be completely distracted he seems)
He seems to be completely distracted.

(b) *?Dich reinkommen habe ich überhaupt nicht gehört.
(You come in I never heard at all)
I never heard you come in at all.

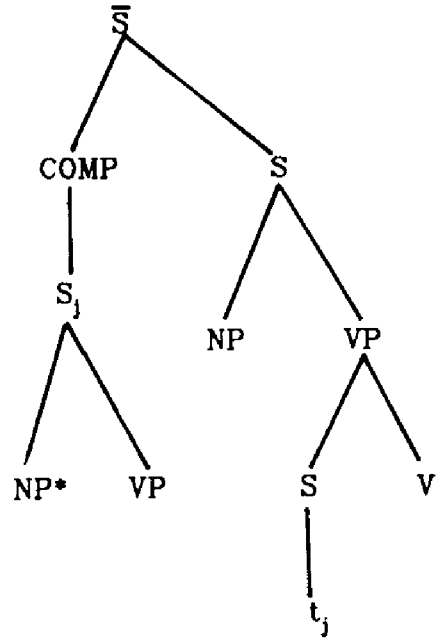
(c) *?Die Putzfrauen das ganze Gebäude reinigen liess er.
(The cleaners clean the whole building he had)
He had the cleaners clean the whole building.

Ignoring the precise structure of COMP, the following structures might be postulated for (32) and (33):

(34) (a)



(b)



A comparison with the extraposition structures in (14) above shows that the same conditions hold and that whereas NP* (=PRO) is legitimately ungoverned, the fact that it is ungoverned in (34) (b) violates the Binding Theory (or generalized ECP) in the case of trace, and the Case Filter (or θ-Criterion) in the case of a lexical NP. The question now arises of whether or not what has so far been assumed to be VP pied piping might not in fact be $\bar{S}$ pied piping.

Tilmann Hoehle (personal communication) suggests that the following is evidence for $\bar{S}$ pied piping, because unless the WH-word *den* moves to an embedded COMP the normal dative-accusative order of objects is violated:

(35) Der Mann [den ihr vorzustellen] ich versuchte...
(The man whom to introduce to her I tried)
The man whom I tried to introduce to her.

How strong an argument this is is difficult to establish, since it is normally the case that the dative-accusative order undergoes permutation when the accusative object is a pronoun. (This is in fact the case covered by Thiersch's (1978) clitic rule, Cl.) Note, however, that pied piping of the verbal element is not confined to German but exists in both English and Italian, where on the SVO base the relative pronoun is to the right of the verb:

(36) (a) questi argomenti [a discutere dei quali] verrò al piu presto, mi sembrano molto interessanti
(These arguments to talk about which I will come shortly, seem to me to be very interesting)
These arguments, which I will come to talk about shortly, seem to me to be very interesting.
(Rizzi 1982 : 7)

(b) The elegant parties [to be invited to one of which] was a privilege were held at Delmonico's.

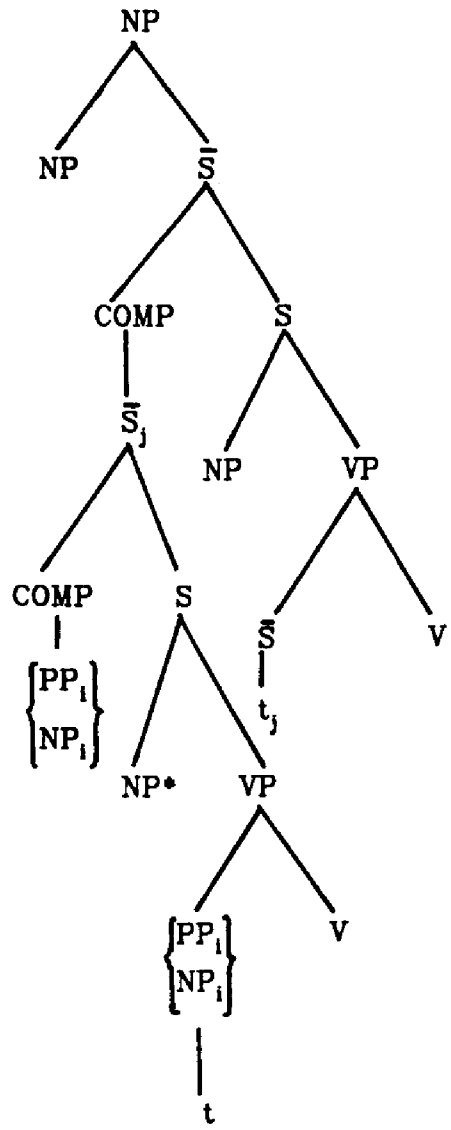
Sentence (36) (b) is from Nanni and Stillings (1978) who star the following version with a lexical subject:

(37) *The elegant parties, [for us to be invited to which] was a privilege, were held at Delmonico's.
(Nanni & Stillings 1978 : 311)

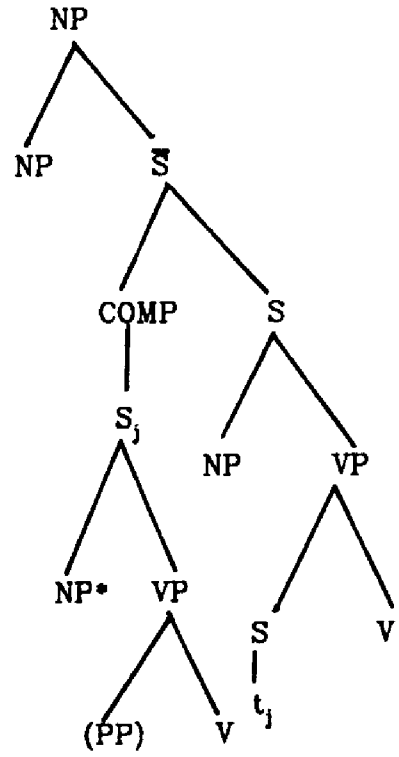
My own intuitions are that (37) is acceptable, however. Note that in this case it is no longer possible to assume simply VP pied piping, but that the whole $\bar{S}$, including complementizer and lexical subject, must have been moved with the WH-word (still in its original position).

Variation in judgements will be discussed in section 2. Nevertheless, if S ($\bar{S}$) pied piping is assumed for the German sentences the following structures will result:

(38) (a)



(b)



Note that in the (b) structure, representing the $\bar{S}$ deletion constructions in (22) (b) to (d), there is no internal COMP for the WH-word to move to, so that it stays in place, unlike in the control structure represented in (38) (a). The government facts are once again the same as those in (14) (extraposition structure) and (34) ("topicalization" structure); in other words the $\bar{S}$ pied piping analysis predicts that complements with *scheinen* and AcI verbs will be ruled out because they will respectively result in ECP and Case Filter type violations. Note that internal movement to COMP is not necessary for (38) (a), in view of the new concept of Bridge conditions. Nevertheless, it might be suggestive of why there is a requirement in German that the WH-word be the leftmost element in a relative clause, being preceded at the most by a preposition. The following examples thus cannot be "rescued" since there is no internal COMP for the relative pronoun to move to:

(39) (a) *Das Lied [den Mann *das* singen Hans {liess / hörte}] ...

(The song the man sing which Hans {had / heard} ..)

(b) *Ich habe dem Mann, der Brief an *den* verloren ging, schliesslich telephoniert.
I finally rang the man the letter to whom got lost.

The effect, however, cannot be tested with control constructions since movement to COMP would not be distinguishable from the normal NP VP structure.

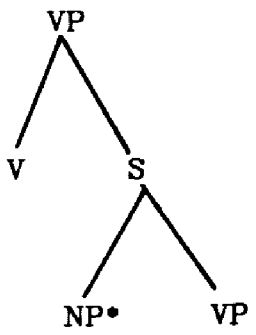
2. The dislocation of $\bar{S}$ deletion complements

0. In the previous section an $\bar{S}$ deletion approach was established to account for the distinction between control verb structures and those with AcI verbs and *scheinen*. The configuration was generalized to include the same kind of distinctions with respect to topicalization and VP pied piping, now reformulated as $\bar{S}$ pied piping. At the same time it was suggested that there might be some variation in judgements concerning, for example, topicalization in German or pied piping in English. The suggestion was also considered that the extraposition facts might be explained via subcategorization and the Projection Principle, whereby if "layering of traces" was not allowed as a principle, this would exclude extraposition in the $\bar{S}$ deletion cases. The following focuses on the concept of reconstruction at LF implied in the discussion of Reuland (1980), applied, however, not to the Projection Principle but to government relations in the structures under consideration. Belletti and Rizzi (1981), for example, argue that reconstruction of a limited kind takes place in Italian. A survey of English and German constructions, beyond those considered in section 1, reveals that judgements are rather insecure with respect to the movement of infinitival complements, and that if reconstruction of government relations is parametrized some dialectal or idiolectal variance might be captured.

2.1 Complement dislocation

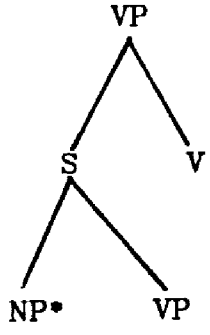
The discussion in section 1 suggests that if the embedded S in the following:

(40) (a)



(English etc.)

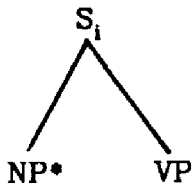
(b)



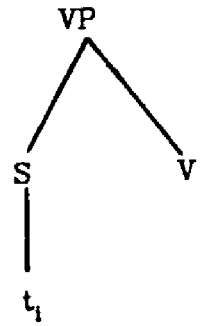
(German etc.)

is displaced, as represented in (41):

(41) (a)

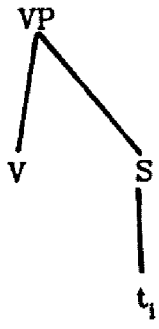


(b)



(German etc.)

(c)



(English etc.)

the contents of S_i cannot be reconstructed in such a way at LF that government of NP* can be recovered. This seemed to account for the views on complement extraposition or pied piping discussed in chapter 1 and 2. The question arises whether this can be generalized to other configurations where a complement has been displaced, so that the predictions are uniform for the following constructions:

(42) complement extraposition
S ($\bar{S}$) pied piping
topicalization
left/right dislocation
cleft
pseudo-cleft
inverted pseudo-cleft

It should be noted that the assumptions made in section 1 about $\bar{S}$ pied piping run counter to Ross's (1967) original Convention, discussed already in chapter 2, which does not allow for any occurrence of S

between the target NP and (in Ross's analysis) any NP dominating it. This stipulation is meant to rule out sentences such as the following:

(43) *They will give me a hat that I won't like which I know.
(Ross 1967 : 112)

Nevertheless, it seems to me that even in the case of finite clauses intuitions are not as clear-cut as Ross assumed. Thus, given appropriate conditions of weight and emphasis not only is the *for* complementizer possible in pied piping constructions (rejected by Nanni and Stillings 1978), but also complex NPs containing S's and $\overline{S}$'s like (43) with appropriate weight:

(44) (a) The elegant party, for us to be admitted to which they had arranged well in advance, turned out to be a vile and disgusting orgy.
(b) They turned down the proposal, the possibility that anyone might object to which, Mrs. Thatcher hadn't even considered.
(c) ?They will give me a hat, that I won't like which I can tell you in advance.

The intuitions in these sentences received confirmation from some native speakers, though not from others.

It seems that confusion arises in the processing of finite versions such as (44) (c) because of a tendency to interpret *that* as a relative pronoun rather than a complementizer. The existence of such a tendency is supported by the discussion in Chomsky (1981) of Pesetzky's suggestion that *that* takes on the index of the WH-phrase that deletes:

> This is rather natural, in view of the fact that the complementizer *that* in relative clauses has quasi-pronominal properties, being preferable with (or, for some speakers, limited to) inanimate antecedents ...
> (Chomsky 1981 : 245)

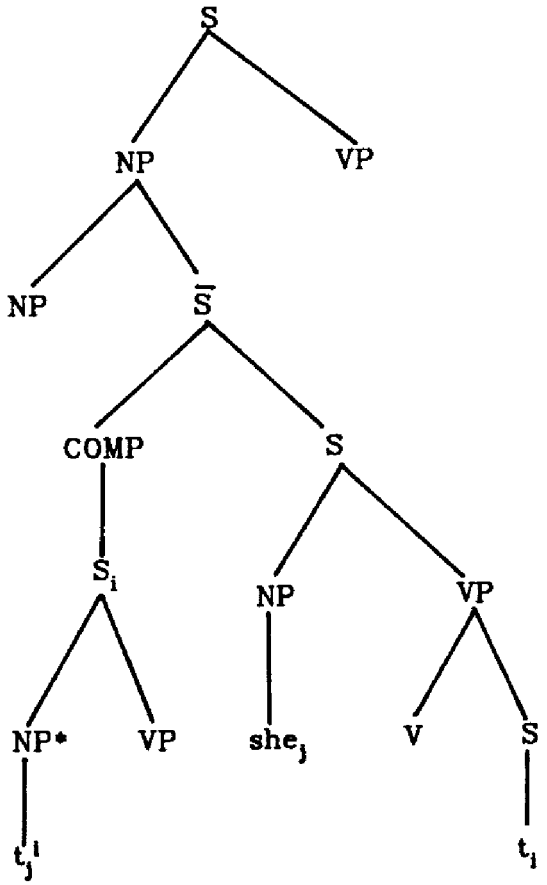
More interesting, however, is the following example, which seems reasonably acceptable:

(45) The state of consciousness to be entering which she now seemed was accompanied by a change in temperature.

The structure contains, nevertheless, a displaced $\overline{S}$ deletion complement

with an ungoverned subject:

(46)



Examples with *believe* and the verbs of perception, on the other hand, seem rather bad:

(47) (a) *The car, Suttcliffe get into which the taxidriver saw, ...
(b) *The decadent orgies, his wife to have gone to which he refused to believe, ...

In contrast to (47), (45) seems to be of the same level of acceptability as the following control verb examples:

(48) (a) the decadent orgies, to attend which he had always managed ...
(b) the decadent orgies, to attend which he had persuaded all his friends ...

The suggestion, then, is that there might be some variation, in spite of the violation of the theory of Government and Binding.

2.2 Topicalization, clefts, pseudo-clefts, inverted pseudo-clefts

Topicalization has already been discussed in section 1, where it was assumed that cases of $\bar{S}$ deletion were predictably unacceptable due to the ungoverned subject position. Nevertheless, given appropriate conditions of stress, intonation, lexical content and an appropriate context, not all $\bar{S}$ deletion examples seem to compare unfavourably with the control example, (49)

(49) [PRO to be 18 years old] is what everyone wants most
(Chomsky 1981 : 145)

(50) (a) ?To reach Mary at 6 o'clock, he tried.
(b) ?*To go through the whole damn'd thing once again, he persuaded them.
(c) To really be in love with her he/*John seems.
(d) Them all get up and applaud, he heard.
(e) ?*Them to be here at last, I can hardly believe!

Note that it is necessary also to bear in mind the extent to which peripheral elements are considered to be within the domain of the S concerned: (51) is a considerable improvement on (50) (e) for instance:

(51) Them to be here at last! I can hardly believe it.

For German, native speakers gave the following judgements for AcI, *scheinen* and control verb examples with topicalized infinitive complements:

(52) (a) *lassen*
Die Mädchen stehen, liess nur unser Lehrer.
(The girls stand, had only our teacher)
Only our teacher had the girls stand.
*= 90% (But note that the following example from Hans Braun was found to be acceptable but not if the pronoun is replaced by a full NP):
Rauchen dürfte ich nicht, aber mich nach Hause gehen liess er.
(Smoke I couldn't but me go home he let)
I couldn't smoke but he let me go home.)

(b) *Perception verbs*

Die Kinder singen, habe ich leider nicht gehört.
The children sing, I have unfortunately not heard)
Unfortunately I haven't heard the children sing.
*= 60%

(c) *scheinen*

Ein ganz widerlicher Kerl zu sein, scheint er nicht.
(To be a completely repulsive person, he doesn't seem)
He doesn't seem to be a completely repulsive person.
*= 30% (60% =?)

(d) *Control (subject)*

Die Informationen weiterzugeben, beabsichtigen wir nicht.
(To pass on the information, we don't intend)
We don't intend to pass on the information.
*=10%

(e) *Control (dative object)*

Das Buch zu lesen, verbiete ich dir!
(To read that book, I forbid you)
I forbid you to read that book.
*= 0.0%

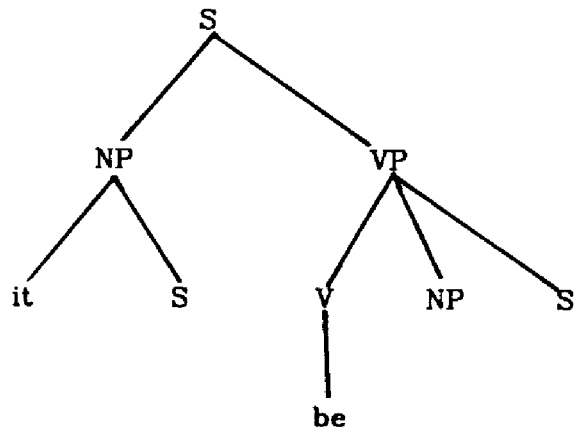
(52) clearly demonstrates a gradation in unacceptability from ***lassen*** (but cf. example in brackets) at one extreme to control verbs at the other.

Topicalization is just one instance of the general lack of clarity concerning the restrictions on infinitives in focus position. Thus Higgins (1973 : 159) states "I give no examples of topicalized infinitive phrases because they are of low acceptability in my idiolect." As far as cleft sentences are concerned, Akmajian (1979) appeals to Emonds (1976) for the assumed unacceptability of

(53) *It was for John to go that I wanted.
(Akmajian 1979 : 142)

Emonds (1976) excludes infinitives from clefts on the basis of the non-structure-preserving occurrence of two S's in the VP in the structure he assumes for clefts:

(54)



and gives the following judgement:

(55) *It was to buy a new house that I wanted.

Gee (1977) cites Chomsky as claiming that complementizerless sentences cannot occur in focus position, and gives the following pseudo-cleft examples:

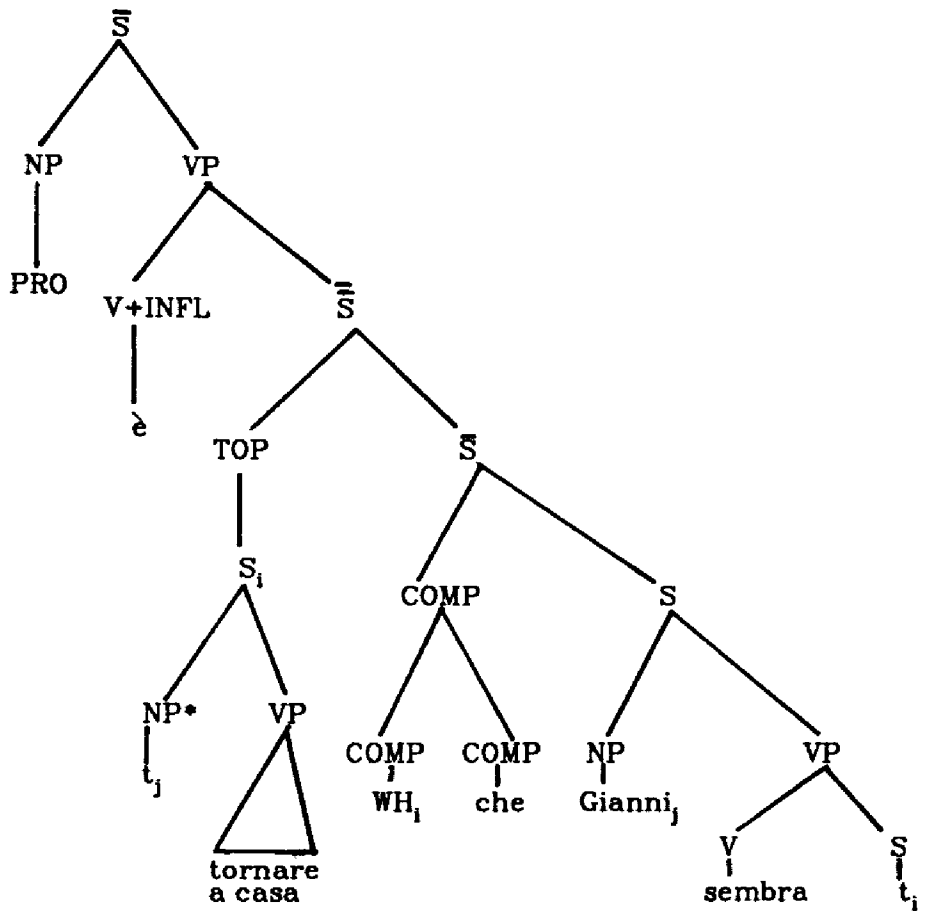
(56) (a) What we wanted was for John to tell the truth for a change.
(b) ?*What we wanted was John to tell the truth for a change.
(Gee 1977 : 479)

Chomsky (1981), however gives the acceptable topicalization example, (49), above, and the following cleft examples:

(57) (a) It is [PRO to be 18 years old] that everyone wants most.
(Chomsky 1981 : 145)
(b) *è tornare a casa che Gianni sembra
(It is to come back home that Gianni seems)
Gianni seems to be coming back home.
(c) è tornare a casa che Gianni vuole
It is to come back home that Gianni wants.
(Chomsky 1981 : 62)

Examples (57) (b) and (c) are introduced as evidence for the PRO-trace distinction, (b) being an $\bar{S}$ deletion complement with an ungoverned subject position. Presumably the structure for (57) (b) is something like the following:

(58)



The sentence should be excluded for the familiar reasons demonstrated in the topicalization, extraposition and $\bar{S}$ pied piping cases.

Gee (1977) gives the following pseudo-cleft examples with perception complements:

(59) (a) ??What physicists believe today is the orbit of the moon to be a parabola.

(b) ?*What we saw was John steal the car.

(Gee 1977 : 479)

and the following cleft:

(60) *It was the moon rise over the mountains that we saw.

(Gee 1977 : 462)

My own intuitions are that all these sentences are acceptable. The following, then, is a possible set of cleft, pseudo-cleft and inverted pseudo-cleft judgements over a sample of $\bar{S}$ deletion and control verb patterns:

(61) *Perception verbs*

(a) It was them all get up and applaud that he heard.

(b) What he heard was them all get up and applaud.

(c) Them all get up and applaud is what he heard.

(62) ***believe***

(a) ?It's them to be here at last that I can hardly believe.

(b) ?What I can hardly believe is them to be here at last.

(c) ?Them to be here at last is what I could hardly believe.

(63) ***seem***

(a) ??It is really to be in love with her that he seems.

(b) ?What he seems is really to be in love with her.

(c) ?Really to be in love with her is what he seems.

(64) *Causative*

(a) *It was them wait for an hour that he had.

(b) *What he had was them wait for an hour.

(c) *Them wait for an hour is what he had.

(65) *Object control*

(a) ?*It was to go through the whole damn'd thing again that he pursuaded them.

(b) *What he pursuaded them was to go through the whole damn'd thing again.

(c) *To go through the whole damn'd thing again is what he pursuaded them.

(66) *Subject control*

(a) ?It was to reach Mary at 6 p.m. that he tried.

(b) What he tried was to reach Mary at 6 p.m.

(c) ?To reach Mary at 6 p.m. is what he tried.

What emerges here is the fact that neither the complements of ***seem*** and the verbs of perception nor even ***believe*** complements are completely to be excluded from focus position, and in some cases seem quite good. Control verbs, particularly object control complements, seem to be subject to a set of restrictions that varies with verb type and construction type. The only case that seems uniformly bad when the complement is displaced is the causative construction.

For German, native speakers gave the following judgements for Pseudo-clefts:

(67) (a) ***lassen***

Was der Autofahrer liess, war, den Betrunkenen einsteigen.

(What the driver had, was, the drunk get in)

What the driver did was have the drunk get in.

***= 80%**

(b) *Perception verbs*
Was ich nicht gehört habe, war, dich reinkommen.
What I didn't hear was you come in.
*= 60 %

(c) *scheinen*
Was er auf jeden Fall nicht scheint, ist, ein Idiot zu sein.
What he in any case doesn't appear to be is a fool.
*= 50% (40% =?)

(d) *Control (subject)*
Was wir nicht beabsichtigen, ist, die Information weiterzugeben.
What we don't intend is to pass on the information.
*= 0.0%

(e) *Control (dative object)*
Was ich dir verbiete, ist, das Buch zu lesen.
What I forbid you (to do) is to read that book.
*= 0.0% (20% =?)

The gradation in unacceptability from *lassen* on the one hand to control verbs on the other seen already in the case of topicalization, (52) above, is repeated here. It would seem, then that perception verb complements are felt to be less rigidly coherent than those with *lassen* and those with *scheinen* are less coherent to an even greater degree. The distinction in the behaviour of the AcI verbs will appear again in the discussion of reflexivization, and may intuitively underlie the independent proposals by Haider (1979) and Grewendorf (1982) to analyze these verbs differently.

2.3 Reconstruction in WH-movement and 'ne' cliticization in Italian

As already suggested at the beginning of section 2, some form of LF reconstruction that allowed the layering of traces would account for those examples of complement dislocation that were found to be acceptable in spite of their violations of the theory of Government and Binding. Arguments for LF reconstruction come from Belletti and Rizzi (1981) in a discussion of NP and WH-movement asymmetry in Italian *ne* - cliticization. The paradigm is essentially as follows:

(68) (a) [Quanti t] ne ha letto Gianni?
How many of them has John read?
(b) *[Quanti PRO] ha letto Gianni?
How many has John read?
(c) *[Tre t] ne sono stati letti da Gianni.
Three of them have been read by John.
(d) [Tre PRO] sono stati letti da Gianni.

Three have been read by John.

(Belletti & Rizzi 1981 : 138)

In (68) (a) and (68) (c) t is the trace of the cliticized *ne*.

The argument begins with the comparison of examples like (68) (c) and (d). Thus, the trace in (c) is illegitimately ungoverned, whereas PRO in (d) is legitimately ungoverned. The claim here is that Case assignment is "attributable to the properties of the whole structural context" since "no obvious lexical governor is available". Governing Category is then defined as follows:

(69) α is the governing category for β iff α is the minimal NP or S which contains β, and
B&R (17) (1) β is governed in α or
(2) β is in a context of
Case assignment in α

(Belletti & Rizzi 1981 : 125)

The mechanics of this are further explained in footnote (14):

(70) (fn. 14)
the configuration $[_{NP}$ Q PRO] in the context "_____ tensed VP" receives nominative Case. Thus, the whole NP has the governing category S, while PRO, which fulfills neither (1) nor (2) of (17) is left without a governing category, as required

(Belletti & Rizzi 1981 : 147)

The grammaticality judgements in (68) (c) and (d) would be predictably reversed if the NPs concerned were in a governed context:

(71) (a) Gianni ne ha letto $[_{NP}$ tre t]
John has read three of them.
(b) *Gianni ha letto $[_{NP}$ tre PRO]
John has read three.

(cf. Belletti & Rizzi 1981 : 118ff.)

The problem is why these judgements do not hold for the WH-moved phrases in (68) (a) and (b), where the judgements are the opposite of those in (68) (c) and (d), and (71) (a) and (b); in other words in (68) (a) a trace appears to be acceptable in an ungoverned position, whereas in (71)

trace appears to be acceptable in an ungoverned position, whereas in (71) (b) PRO is unacceptable in this position.

To account for the above, Belletti and Rizzi propose reconstruction, which clearly is only applicable in the case of WH-movement: "what seems to happen is that the WH-phrase in COMP acts for government and c-command requirements as if it were in the position of its trace in S". They thus propose the following convention:

(72) In a configuration like
$[\alpha]_i [_S \ldots [e]_i \ldots]$
where α_i is peripheral to S and $[e]_i$ is the trace of α in S:
α_i belongs to all and only the c-domains and the government domains which $[e]_i$ belongs to.
(Belletti & Rizzi 1981 : 140ff.)

This means, then, that in the case of the WH-moved phrases in (68) (a) and (b) government of the trace of ***ne*** is recoverable from the trace of the WH-moved NP, which contains it:

(73) $NP_j \ldots NP_i \ldots [t_j \ldots t_i \ldots]$

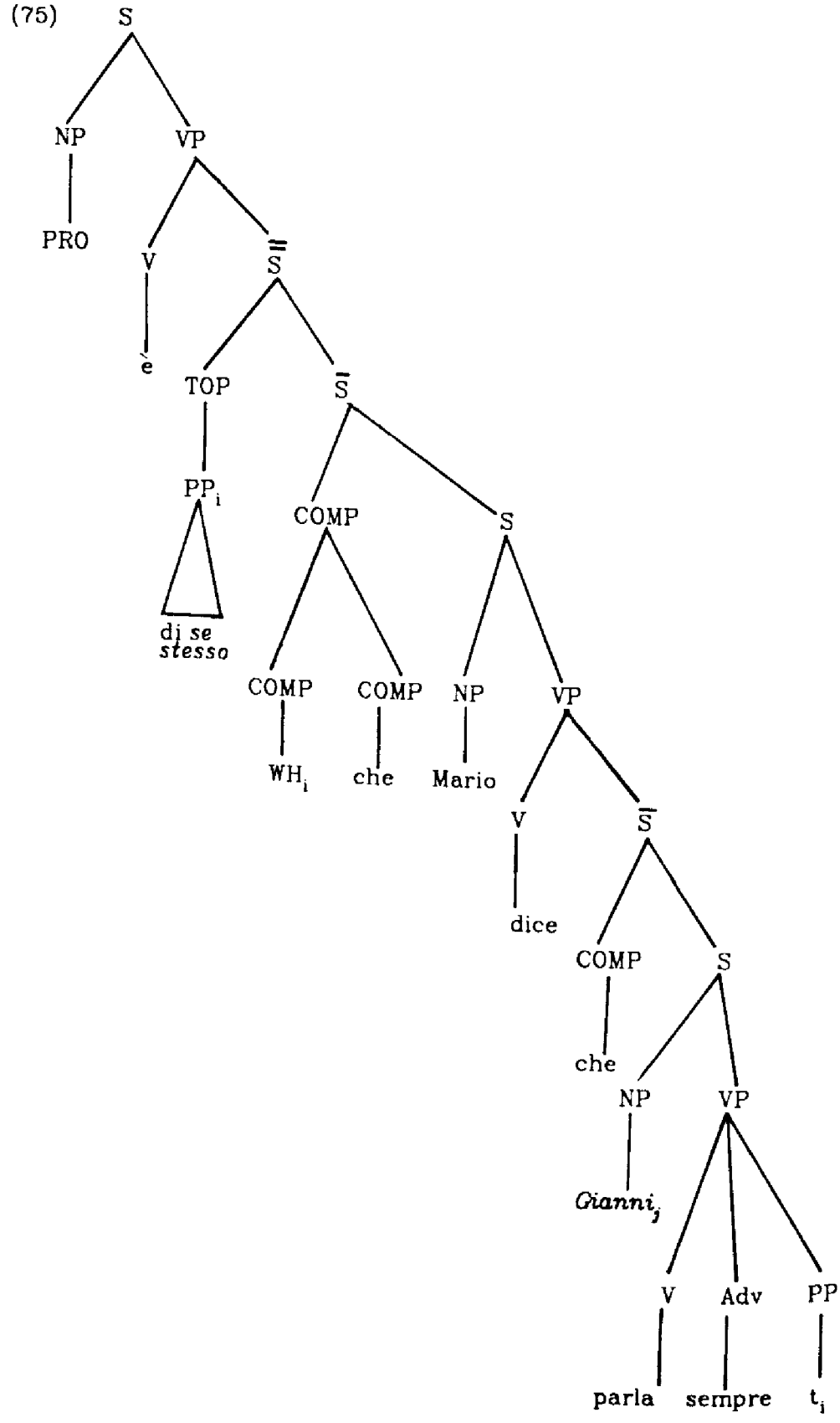
Since PRO is also traced back to a governed position (68) (b) is ungrammatical.

Belletti and Rizzi claim that the device in (72) is "an independently motivated convention on interpretation concerning phrases peripheral to S". Presumably, apart from the $[_{NP}$ Q t] configuration, they are referring to examples such as the following cleft sentences where the co- and disjoint references of the NPs in the focussed PPs are recoverable from the site marked by the PP trace:

(74) (a) È di ***se stesso***$_i$ che Mario dice che Gianni$_i$ parla sempre t
It is about himself$_i$ that Mario says that Gianni$_i$ is always talking.
(b) È di ***lui***$_j$ che ***Mario***$_j$ dice che Gianni parla sempre t
It is about him$_j$ that ***Mario***$_j$ says that Gianni is always talking.
(Belletti & Rizzi 1981 : 140)

The (lexical) anaphor in (74) (a) behaves just like the trace in (68) (a), government and binding being recoverable only via the trace of a larger

constituent (in this case the PP) containing it. Note that, once again, the position is peripheral to S:



2.4 Conclusion

The conclusion naturally follows that $[\alpha_i]$ in (72) above could also be S, so that in the cases discussed in section 2 of this chapter, where there is some degree of acceptability, in spite of the violation of Government and Binding, convention (72) applies. Unconstrained application of (72), however, would also allow through all the ungrammatical cases. The device, thus, seems rather suspect since as it stands it neutralizes the effect of Government and Binding in the area of peripheral elements. To account for the data in (68) it could be restricted to the heads of maximal projections, so that government of a category could be reconstructed at the most via a trace of a maximal projection of the same category. This, however, would not suffice for recovery of the binding relation of the anaphor *se stesso* in the prepositional phrase $[_{PP}$ di se stesso] in (74). At this stage, it can only be assumed, then, that (72) can apply freely to NPs and PPs but, given the assumption that its purpose is to allow government of a category indirectly via the trace of a constituent containing it, only in extremely marked, and dialect-specific, cases can α= S.

3. Summary

In this chapter it was shown that the neutralization of the PRO-trace effect in Koster (1978) could not as it stands explain the coherence factors of Acl and *scheinen* constructions with respect to extraposition and VP pied piping. Although this could be explained by the development of this variant of core grammar in Koster (1980), the clarity was lost sight of in the further development of this model in Koster (1984). For ease of exposition it was decided to assume the $\bar{S}$ deletion approach suggested for similar constructions in English. The coherence properties were thus explained via the violation of Government and Binding theory that would occur if complements were displaced from their governed positions. The displacement of the extraposition and VP pied piping (reanalyzed as $\bar{S}$ pied piping) configurations was generalized to other focussing structures where the same predictions should hold. A parameter of variation was revealed where coherence was most strongly demonstrated by the *lassen* constructions and most weakly with *scheinen*. Variation might be accounted for by parametricizing the application of reconstruction at LF, which is needed in the most simple case for PPs in English as well as in the Italian cases considered by Belletti and Rizzi (1981). Such a parametrization, however, would have to be strictly restrained, perhaps by principles of markedness.

4 Empty subjects in German

0. In chapter 2 it was shown that Reis (1973), Ebert (1975) and Olsen (1981) adopt a clause-integration approach to infinitival complement constructions with *scheinen* and AcI verbs partly on the basis of the possibility of embedding impersonal passives under these verbs. Thus in earlier versions of the theory, Raising could not account for *scheinen* constructions where the initial constituent was not a nominative NP, or *lassen* constructions where instead of an accusative "object" there was a dative or genitive NP, or a prepositional phrase. The paradigm is repeated here for convenience:

(1) (a) Emma lässt *mir* von Paul helfen.
(Emma has to me helped by Paul)
Emma has Paul help me.
(b) Emma lässt *meiner* von Paul gedenken.
(Emma has of me remembered by Paul)
Emma has Paul remember me.
(c) Emma lässt *an mir* von niemand herumnörgeln.
(Emma has on me got at by nobody)
Emma does not let anybody get at me.
(Reis 1973 : 520)

(2) (a) *Ihm* scheint geholfen worden zu sein.
(To him appears to have been helped)
He appears to have been helped.
(b) *Seiner* scheint nicht mehr gedacht zu werden.
(Of him appears no longer to be remembered)
He no longer appears to be remembered.
(c) *An dem Wagen* scheint noch gearbeitet zu werden.
(On the car seems still to be worked)
The car still seems to be being worked on.
(cf. Ebert 1975 : 178)

Olsen thus assumes that in the case of *scheinen*, after verb raising there is a "late rule" of topicalization, fronting the appropriate constituent (cf.

Olsen 1981 : 176). Note that she assumes this also for sentences where there is no impersonal passive, but still a non-nominative NP constituent in initial position:

(3) (a) Uber den Kopf scheint ihm die Sache zu wachsen.
(Above his head the thing appears to be growing for him)
(b) Ihm scheint die Sache über den Kopf zu wachsen.
(For him appears the thing above his head to grow)
He appears to be unable to cope with things.
(Olsen 1981 : 144)

However, as Thiersch (1978) has demonstrated it is possible to assume a general rule, R2, that places any single constituent in sentence initial position, and that German *Verb Second* is defined on the existence of such a rule. Though this will be discussed in more detail in chapter 7, for the moment it will be assumed that the initial constituents in (2) and (3) as well as the following control verb "topicalization" are derived via the application of R2.

(4) Das Buch verbot er mir zu lesen.
The book, he forbade me to read.

The problem still remains, however, of the nature of the subject position in sentences such as in (1) and (2).

In connection with the problem of the subject position it should be remembered that Thiersch (1978) argues for a dative-nominative analysis of the *scheinen* constructions, in other words, that this is the unmarked word order. The same analysis applies to passive and FLIP verbs. Under such an analysis, he assumes non-movement for *scheinen* and passive, that is, in situ Case assignment, and a base structure, VP?, without an [NP, S] subject position. This kind of flat structure is also assumed by Tappe (1982). Den Besten (1981, 1982) also assumes optionality of subjects. Nevertheless, both these positions raise serious problems. A flat structure would require a complete revision of control theory, for instance, since it would involve governed PROs, whereas optionality of subjects on the other hand, by definition abandons the Extended Projection Principle (cf. Chomsky 1982) claim that the subject position is universal. The following, then continues to assume configurationality for German as well as $\overline{S}$ deletion for the structures under consideration.

Apart from the "raising" problems discussed by Reis (1973) and Ebert (1975), the role of the subject is crucial in determining an opaque domain, or in the Government and Binding theory, a governing category.

It has already been noticed by Reis (1976) and Huber (1980) that transparency to matrix reflexivization occurs in passive and FLIP verb constructions. Again, as stated above and discussed in chapter 2, Thiersch (1978) as well as den Besten (1980, 1981) have proposed "ergative" structures for these cases. For these reasons, as well as to establish the distinction with control verb cases, it is crucial to clarify the position and nature of the embedded subject in German infinitival complement structures. In the following it will be argued that German does not violate the Extended Projection Principle but makes some use of an element already assumed for Italian, under Chomsky's (1982) analysis, namely (small) *pro*.

1. Empty subjects and stylistic inversion

The range of constructions that have an apparently empty subject position in German includes the following:

(5) *Impersonal passive*
  (a) Weil gestern getanzt wurde, ...
    Since there was dancing yesterday ...
  (b) Weil ihm geholfen wurde, ...
    Since he was helped ...

(6) *Passive*
  Weil dem Kind [+Dat] das Fahrrad [+Nom] geschenkt wurde, ...
  Since the child was given the bicycle ...

(7) *Impersonal active*
  (a) ... weil mich friert.
    Since I am cold ((it) freezes me)
  (b) ... weil mir vor euch grauste.
    Since you frightened me ((it) shuddered to me)

(8) *Stylistic subject inversion*
  (a) Weil den Dirigenten und den Virtuosen lautes Händeklatschen begrüsste ...
    Since the conductor and the virtuoso were greeted by loud applause
    (... loud applause greeted)
  (b) Wir hoffen, dass nächstes Jahr wieder viele Ausländer nach England kommen.
    We hope that next year once again many foreigners will come to England.

(Hammer 1971 : 380)

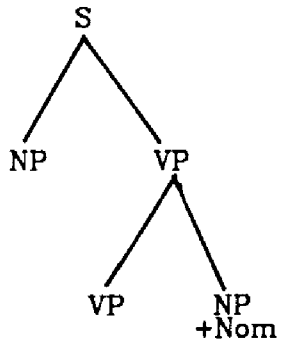
(9) *Raising*
  (a) Weil mir Hans nicht besonders interessiert zu sein scheint, ...
    Since to me Hans doesn't appear to be particularly interested

(b) Weil ihm geholfen worden zu sein scheint, ...
Since he appears to have been helped (... him appears ...)

Common to the structures in (5) to (9) is that with the exception of (8), stylistic subject inversion, the [NP, S] position is uniformly a non-argument position and does not receive a θ-role. In (8), however, the subject has been postposed for reasons of emphasis, theme and rheme etc. The question then arises whether example (5) to (9) can be given a uniform treatment or whether (8) must be treated differently from the others.

Given the apparently pragmatic factors conditioning sentences like those in (8) it is reasonable to ask whether they might be accommodated by a structure such as suggested for subject inversion in Italian or presentational *there* in English:

(10)



(cf. eg. Chomsky 1981 : 86, 333)

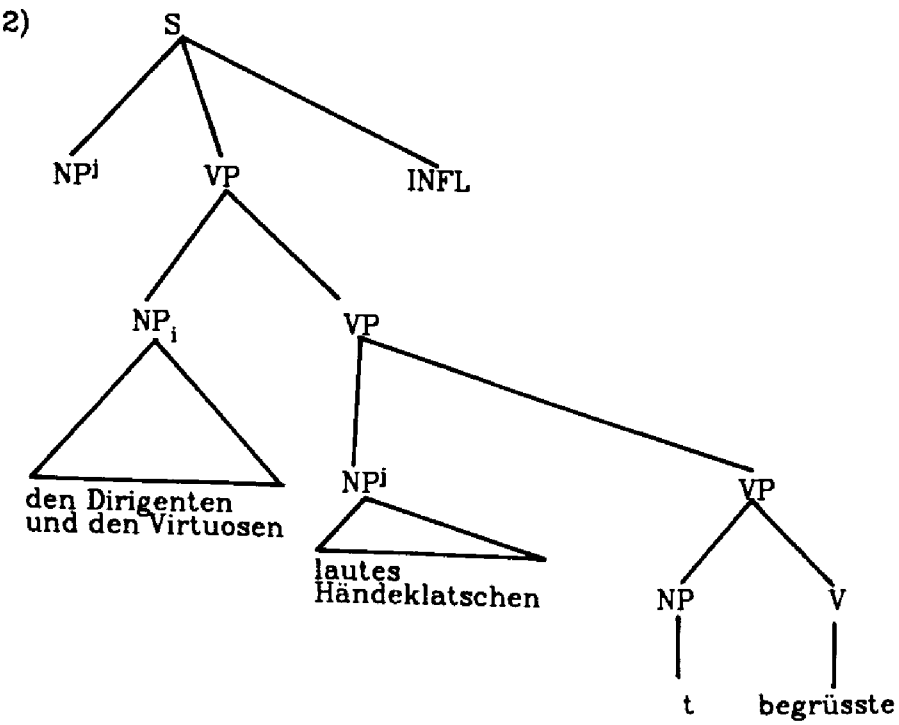
That such an adjunction structure would not work for German, however, can be seen immediately, since in contrast to English and Italian, although the subject has been postposed in (8) above, the verb is still the final element in the sentence. That this is also the case in root sentences can be seen in the following:

(11) (a) Zwei Tage darauf wurde gegen die Streikenden Militär eingesetzt.
Two days later soldiers were used against the strikers
(... were used against the strikers soldiers ...)
(b) Gestern hat mich den ganzen Tag niemand gestört.
(Yesterday me the whole day nobody disturbed)
Yesterday, nobody disturbed me, the whole day.
(Hammer 1971 : 380)

Thus, postposed subjects in German are not post-verbal subjects as in English, French and Italian.

An adjunction analysis of the examples in (8) and (11) would involve at least two movements and structure-building, also in non-root sentences:

(12)



Either there is redundant adjunction of the subject to the left of the VP and adjunction of the object to the left of the adjoined subject or there is adjunction of the subject to the right of the object. The sole function of such movement in the first case would be to facilitate the permutation achieved by the second movement.

Arguing against base generation of the subject in VP in general are control structures, where a PRO subject in the VP would be governed, plus the impossibility of topicalizing the subject and verb together in examples such as (8) and (11) in contrast to the truly ergative cases:

(13) (a) *Lautes Händeklatschen begrüsst hat den Dirigenten und Virtuosen.
(Loud applause greeted has the conductor and virtuoso)

(b) Ein Fehler unterlaufen ist meinem Lehrer noch nie.
(A mistake run under his guard has to my teacher never yet)
My teacher has never made a mistake yet.

Only in sentence (13) (b) is there evidence of base generation of the subject in the VP.

An alternative to base generation of subjects in VP or the adjunction analysis in (12) is the rule already discussed in chapter 2, proposed by Thiersch as a formulation of the general permutation processes discussed by Lenerz (1973). Thus, his solution to apparent clitic climbing in coherent constructions, as illustrated in the following:

(14) Weil ich *es* Cecilia auf Arabisch erzählen hörte ...
Since I heard Cecilia tell it in Arabic ...
(Thiersch 1978 : 96)

was to suggest that the subject had moved rightwards. The argument here was that contrary to normal cliticization the permutation was optional and the clitic ended up apparently in clause-initial rather than clause second position. Also, examples with full NPs demonstrated a similar permutation that could not be due to cliticization:

(15) Weil ich das Lied [eine schlanke alte Dame] singen hörte ...
(because I heard the song a slim old lady sing)
(Thiersch 1978 : 109)

Similar movement was possible with control examples, with the object controller moving across the clause boundary to the right of the clitic.

Returning to the sentences in (8) and (11), it might be argued that permutation (Lenerz's PERM, Thiersch's Stl.) has applied. Thus in (8) (a) subject and object permute:

(16) Nun begrüsste $[_{NP}$ den Dirigenten und den Virtuosen$]$ $[_{NP}$ lautes
[+Acc] [+Nom]
Händeklatschen]
Loud applause greeted the conductor and the virtuoso.

If in (8) (b) the two adverbials can be analyzed as forming a single constituent, on the assumption that Adverb Placement is probably a late rule, permutation takes place with the subject:

(17) Wir hoffen, dass $[_{Adv}$ nächstes Jahr wieder$]$ $[_{NP}$ viele
[+Nom]
Ausländer] nach England kommen.
We hope that next year, once again, many foreigners will come to England.

In (11) (a) the PP and NP permute:

(18) Zwei Tage darauf wurde [$_{PP}$ gegen die Streikenden] [$_{NP}$ Militär]
[+Nom]
eingesetzt.
Two days later soldiers were used against the strikers.

and in (11) (b), on the assumption of cliticization of the pronoun object, subject and adverbial permute:

(19) Gestern [$_{V}$ hat mich] [$_{Adv}$ den ganzen Tag] [$_{NP}$ niemand]
[+Nom]
gestört
Yesterday, nobody disturbed me the whole day.

If this approach is adopted, then, according to Thiersch, the permutation is a late rule, taking place either in a stylistic component or the Phonology. This approach will be reconsidered towards the end of the chapter.

2. Passive, raising and FLIP verbs

2.1 Non-movement for passive

The Lenerz (1977) tests quoted by Thiersch (1978) reveal the unmarked order of NPs in passive sentences to be dative-nominative, reflecting the underlying order of dative-accusative:

(20) (a) Lenerz
[58] Wem ist das Fahrrad geschenkt worden?
Who was the bicycle given to?
(b) [58a] Ich glaube, dass das Fahrrad dem KIND geschenkt
[+Nom] [+Dat]
worden ist.
I believe that the bicycle was given to the child.
(c) [58b] Ich glaube, dass dem KIND das Fahrrad geschenkt
[+Dat] [+Nom]
worden ist.
I believe that the child was given the bicycle.
(d) [59] Was ist dem Kind geschenkt worden?
What was given to the child?
(e) [59a] Ich glaube, dass dem Kind das FAHRRAD geschenkt worden ist.
I believe that the child was given the bicycle.

(f) [59b] *Ich glaube, dass das FAHRRAD dem Kind geschenkt worden ist.
I believe that the bicycle was given to the child.
(Thiersch 1978 : 70; Lenerz 1977 : 116)

According to Lenerz the unmarked order of constituents may be changed under conditions of stress, definiteness, theme and rheme, according to an accessibility hierarchy (Lenerz: SKALA). As seen already, Thiersch formulates the rule as follows:

(21) $\text{Stl}_{[-\text{PRO}]}\ \bar{\bar{X}}, \bar{\bar{Y}} \rightarrow \bar{\bar{Y}}, \bar{\bar{X}}$ where X is the less definite, more heavily stressed, new information etc.
(Thiersch 1978 : 51)

In (20) (b) the dative NP can move to the right because it is stressed. In (20) (c) and (e) there is no permutation. In (20) (f) there is a violation of the SKALA since the moved element, ***dem Kind***, does not carry stress. On the basis of this reasoning, then, Thiersch draws the conclusion that if the unmarked order in the surface structure of passive constructions is dative-nominative, movement to [NP, S] on analogy with English is redundant, since the only thing that has changed is Case and not word order. Under a configurational analysis, then, Case must be assigned in situ.

2.2 Movement for passive

Haider (1982) argues that German only has lexical passives since most of the characteristics of syntactic passives are missing from German: for example, the only candidates for nominative Case are accusative objects. This is, however, not entirely true, since if the small clause analysis of ***regard*** type verbs in English holds:

(22) (a) They regard [John as an idiot]
(b) John_i is regarded [t_i as an idiot]

the same movement of the embedded subject must take place in the passives of German equivalents:

(23) (a) Man betrachtet [John als Idioten]
(b) John_i wurde von denen [t_i als Idiot] betrachtet
(24) (a) Ich halte [John für einen Idioten]
(b) John_i wurde [t_i für einen Idioten] gehalten

A second argument against a purely lexical passive in German is the fact that idiom chunks can be passivized:

(25) (a) Ich weiss, dass der rote Hahn auf's Dach gesetzt wurde.
(I know that the red cock was put on the roof)
I know that the roof was set on fire.
(b) Ihm wurde der Garaus gemacht.
(To him was given the death blow)
He was killed.

An argument for a movement passive on the other hand is the fact that passive subjects cannot be topicalized with the participle:

(26) (a) [$_{VP}$ Ihm$_{[+Dat]}$ gedankt] wurde nun doch nicht
(to him thanked was now after all not)
He wasn't thanked after all.
(b) *[er$_{[+Nom]}$ ausgezeichnet] wurde nun doch nicht
(he decorated was now after all not)
He wasn't decorated now after all.

A second and stronger argument is the possibility of control structures with passive complements, where under a non-movement analysis PRO would be governed:

(27) (a) man$_i$ riskierte [PRO$_i$ [$_{VP}$ t$_i$ totgeschlagen zu werden]]
One risked being beaten to death.
(b) sie$_i$ fürchteten [PRO$_i$ [$_{VP}$ t$_i$ verhört zu werden]]
They were afraid of being interrogated.

In a double object construction under a control verb the unmarked order is by definition subject-dative object:

(28) Er$_i$ wollte es vermeiden [PRO$_i$ [$_{VP}$ [$_{NP}$ denen]$_{[+Dat]}$ t$_i$ vorgestellt zu werden]]
He wanted to avoid being introduced to them.

Evidence of this kind, suggests that there must be at the very least a movement passive in German, regardless of the question whether there is more than one form of passive.

2.3 'scheinen' and FLIP verbs

As seen already in chapter 2, Thiersch extends the dative-nominative analysis for passive to *scheinen* infinitivals, claiming that the matrix experiencer precedes the embedded subject in the unmarked cases:

(29) (a) Weil dem Eckhard sein Sohn ein kluger Junge zu sein scheint, ...
Since to Eckhard his son appears to be a bright boy ...

(b) ??Weil der Hans seinem Vater ein kluger Junge zu sein scheint, ...
Since Hans to his father appears to be a bright boy ...

(c) Weil ihm der Hans ein kluger Junge zu sein scheint, ...
Since to him Hans seems to be a bright boy ...

(d) *?Weil der Hans ihm ein kluger Junge zu sein scheint, ...

(Thiersch 1978 : 160)

These judgements of markedness were not universally substantiated, however, and while some speakers preferred a nominative-dative (=experiencer) order, others felt that the order depended entirely on theme and rheme.

In the case of FLIP verbs the data seem to be more idiosyncratic, and thus Lenerz (1973) states that whether the unmarked order is nominative-dative or dative-nominative depends on the selectional restrictions of the verb. In some cases the feature [+animate] must precede [-animate], where the FLIP metaphor captures the fact that the original agent is in the object position. An example of this is the following from Lenerz (1973):

(30) (a) Oft fehlt einem Schauspieler das nötige Talent.
(Often there lacks to an actor the necessary talent)
An actor often lacks the necessary talent.

(b) *Oft fehlt ein Engagement dem Schauspieler.
(Often there lacks a commitment to the actor)
An actor often lacks commitment.

(Lenerz 1973 : 31)

(31) (a) Immer wieder gelang einem Füssener der Durchbruch.
(Again and again a man from Füssen succeded in breaking through)
Again and again a man from Füssen succeded in breaking through.

(b) *Immer wieder gelang ein Tor dem Füssener.
(Again and again succeded a goal to the man from Füssen)
Again and again the man from Füssen succeded in scoring.
(Lenerz 1973 : 32)

While there may be some variation in judgement, it would nevertheless seem to be the case that all speakers allow for the order dative-nominative in these constructions under certain conditions, as well as the order nominative-dative.

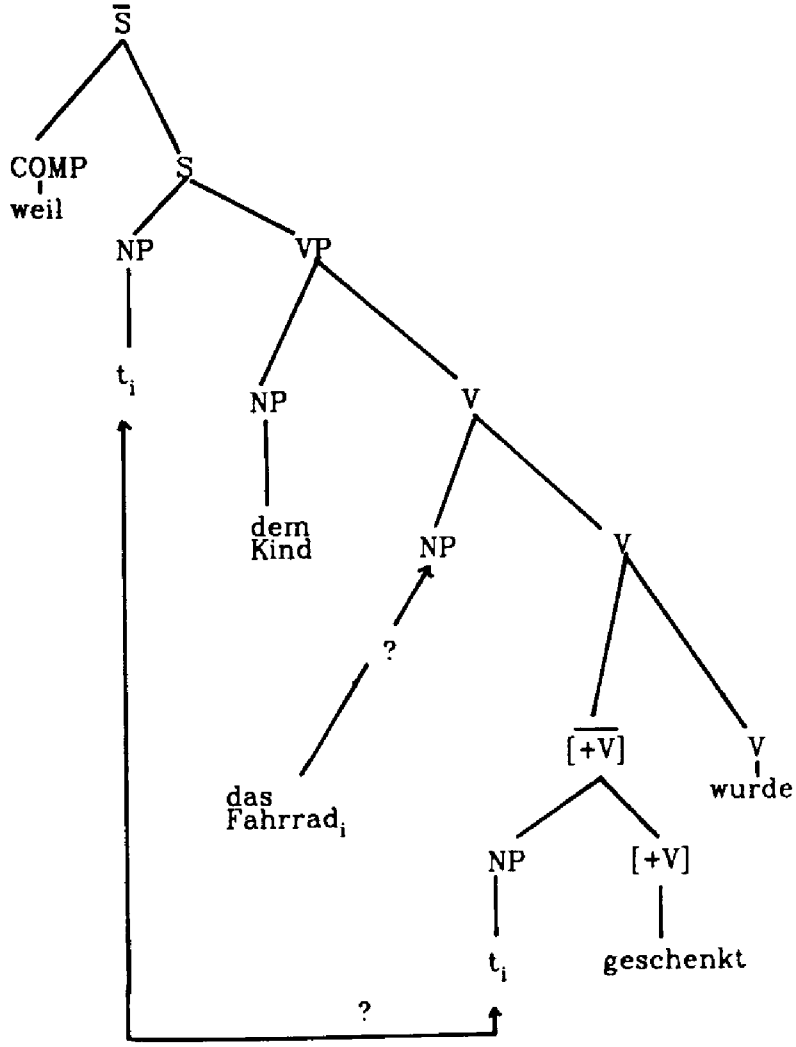
2.4 Case assignment via movement for both orders

If both nominative-dative and dative-nominative orders are acceptable, the problem arises of how the $NP_{[+Nom]}$ receives Case. The null hypothesis would be that, as in English passive and raising, Case absorption always forces movement to [NP, S]. Since the resultant structure is not only an option but obligatory in the control cases, one could assume that all post-posed subjects are products of movement in PF. Nevertheless, whatever the mechanics of PF movement are, this would be redundant in the case of passive, raising and FLIP verbs, with the NP moving in the syntax to [NP, S] to receive Case and returning at PF either to its original deep structure position or to a position adjoined to it:

(32) (a) *Passive*

Weil dem Kind das Fahrrad geschenkt wurde, ...

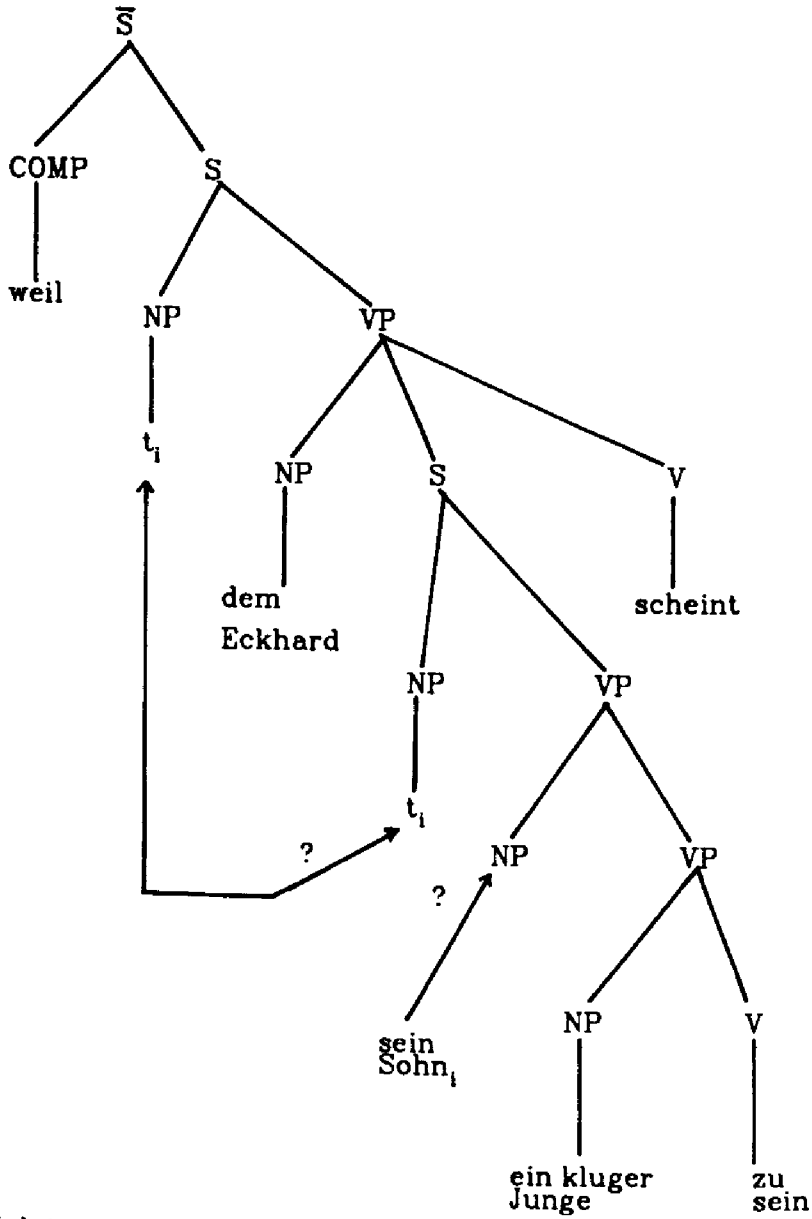
Since (to) the child was given the bicycle ...



(b) *Raising*

Weil dem Eckhard sein Sohn ein kluger Junge zu sein scheint, ...

Since to Eckhard his son appears to be a bright boy ...

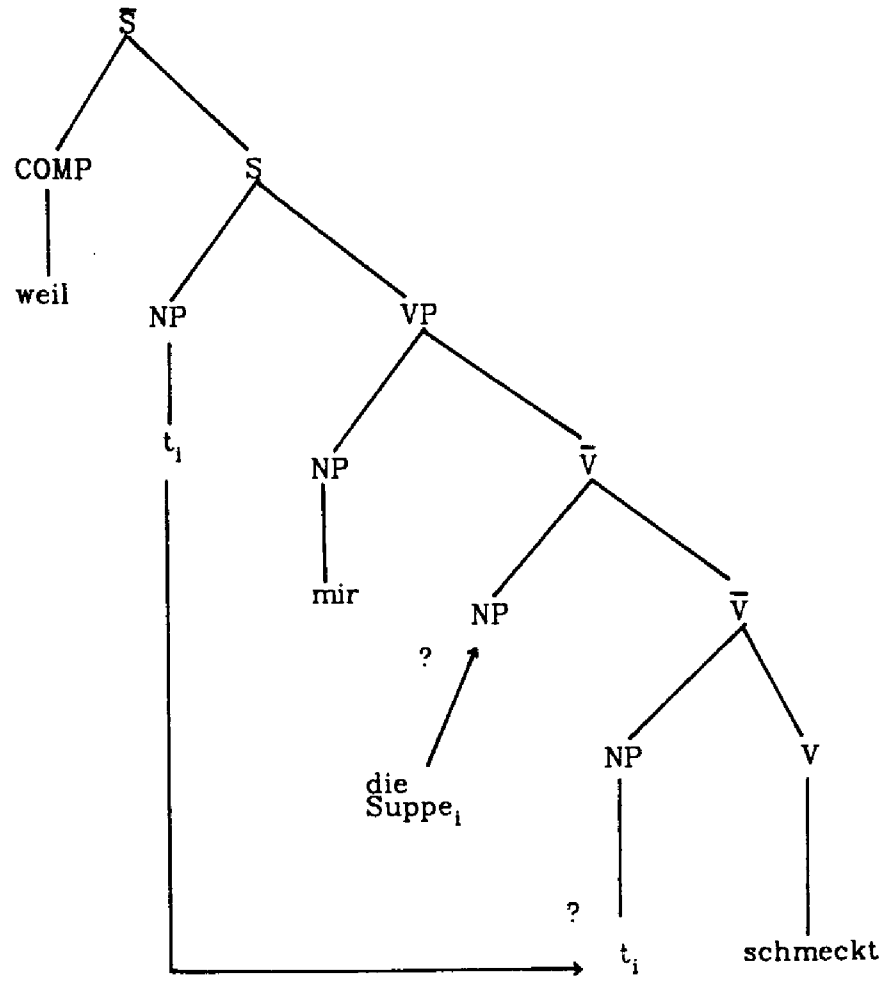


(c) *FLIP*

Weil mir die Suppe schmeckt, ...

(Since to me the soup tastes)

Since I find the soup good, ...



In order to dispense with this kind of redundant movement it would be necessary to assume that German, similar to what was originally proposed for postposed subjects in Italian, has both possibilities, namely movement to [NP, S] *and* Case assignment in situ.

3. In situ Case assignment

In a configurational analysis of German it would seem that there are three possible approaches to in situ Case assignment in the constructions under consideration:

(33) (a) Chain-government (as in den Besten 1981 and 1982)
(b) Expletive [$_{NP}$ e] (as proposed by Safir 1981 for French and Italian)
(c) R - in syntax (as proposed by Chomsky 1981 for Italian)

3.1 Chain-government

Den Besten (1981, 1982) postulates the mechanism of chain-government, by means of which an NP governed by a non-Case-assigner can acquire Case from a higher Case-assigner, provided that it is chain-governed by this assigner. Chain-government is defined as follows:

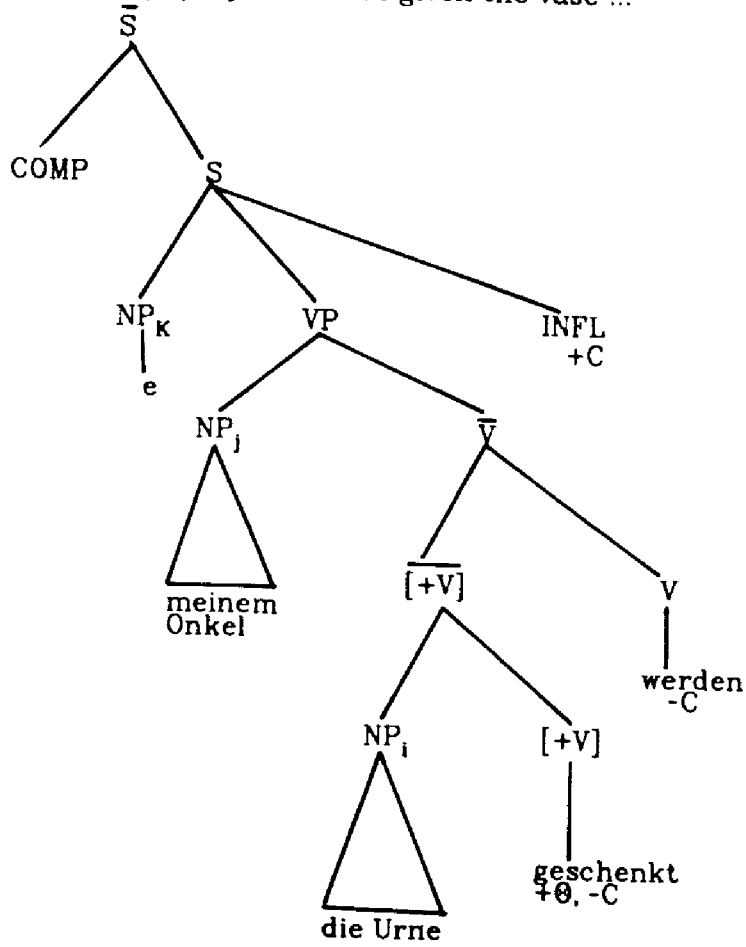
(34) (a) If an NP is governed by a category K which cannot or may not assign Case, the NP receives its Case from the first Case-assigner by which it is chain-governed.

(b) α *chain-governs* β iff α governs Y_1, Y_1 governs Y_2, ..., Y_{n-1} governs Y_n, and Y_n governs β ($n \geq 1$)

(den Besten 1982 : 4)

In a passive construction this would work as follows:

(35) Weil meinem Onkel die Urne geschenkt wurde, ...
Since (to) my uncle was given the vase ...



C=Case assigner

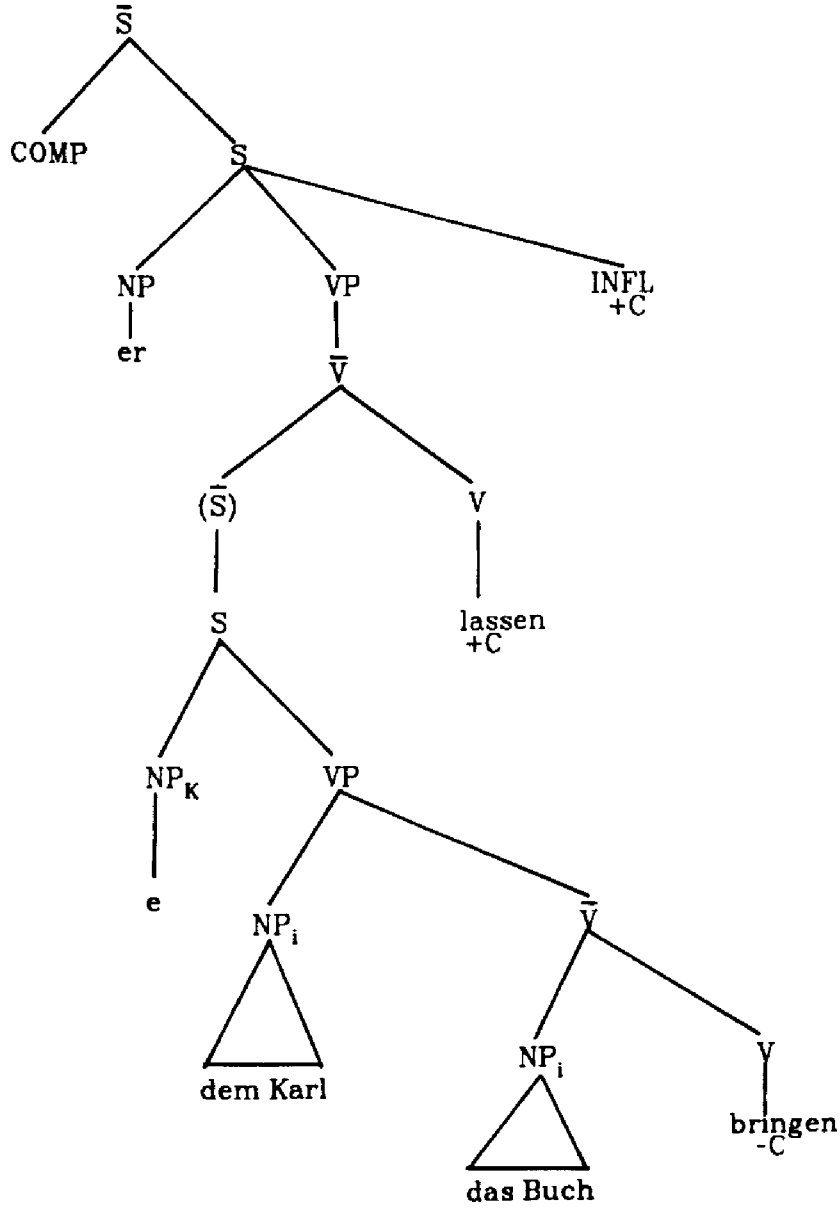
(den Besten 1982 : 5)

NP_i does not receive Case from [+V] as a result of Case-absorption. To get Case it must either move into NP_K or is assigned Case in situ by INFL, which is the first Case-assigner by which it is chain-governed. If NP_i does not move, NP_j, which is structurally Case-marked as sister of V, can move to NP_K. Den Besten (1982) alternatively allows for the optionality of subject positions, so as to avoid an ECP violation.

The structure in (35) can be embedded under $\bar{S}$ deletion verbs, where the Case-assigner element is the matrix verb:

(36) *AcI*

Weil er dem Karl das Buch bringen liess, ...
(Since he had to Karl the book brought)
Since he had the book brought to Karl ...



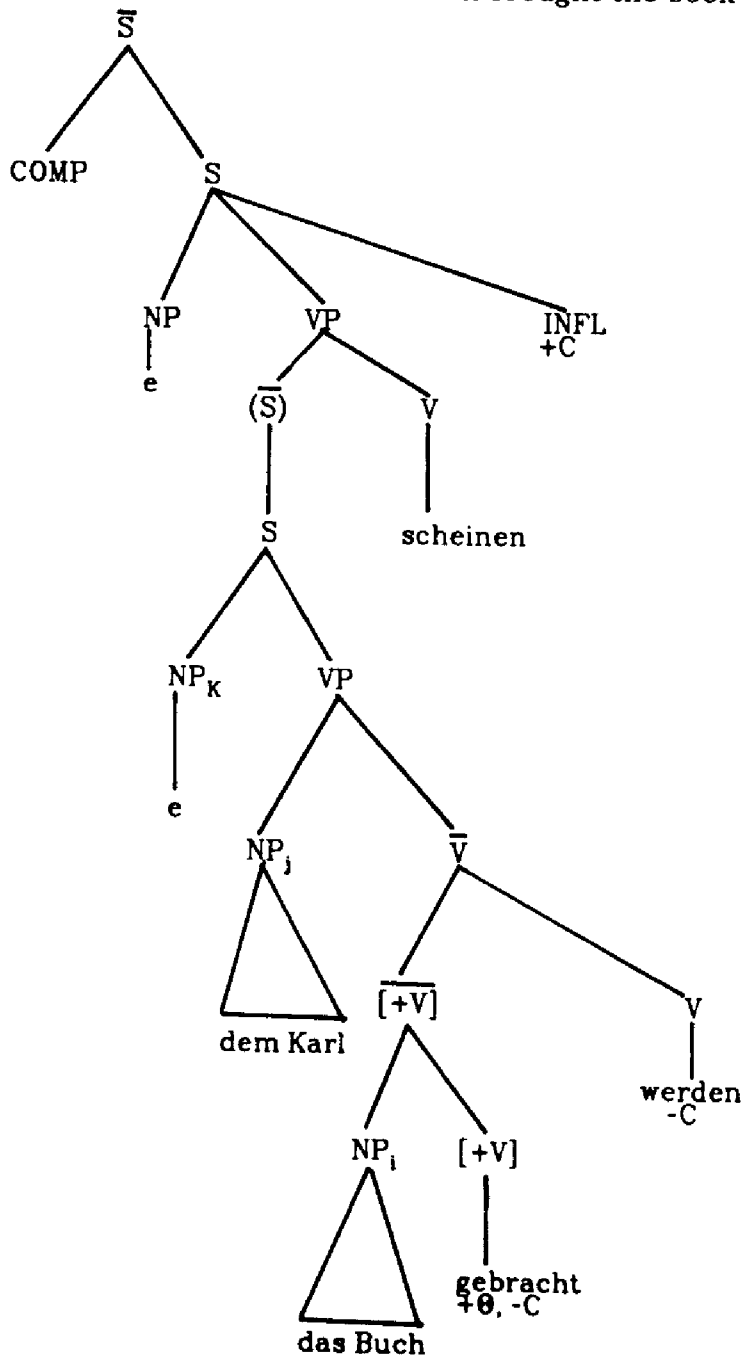
(den Besten 1982 : 9)

Here den Besten assumes that despite the absence of passive morphology the verb ***bringen*** absorbs Case and does not θ-mark its subject. Case is therefore assigned either via movement to NP_K or in situ with either movement of NP_i to NP_K or optional generation of the subject position.

A similar process occurs with ***scheinen***:

(37) *Raising*

Weil dem Karl das Buch gebracht worden zu sein scheint, ...
(Since to Karl the book seems to have been brought)
Since Karl seems to have been brought the book ...



(den Besten 1982 : 2)

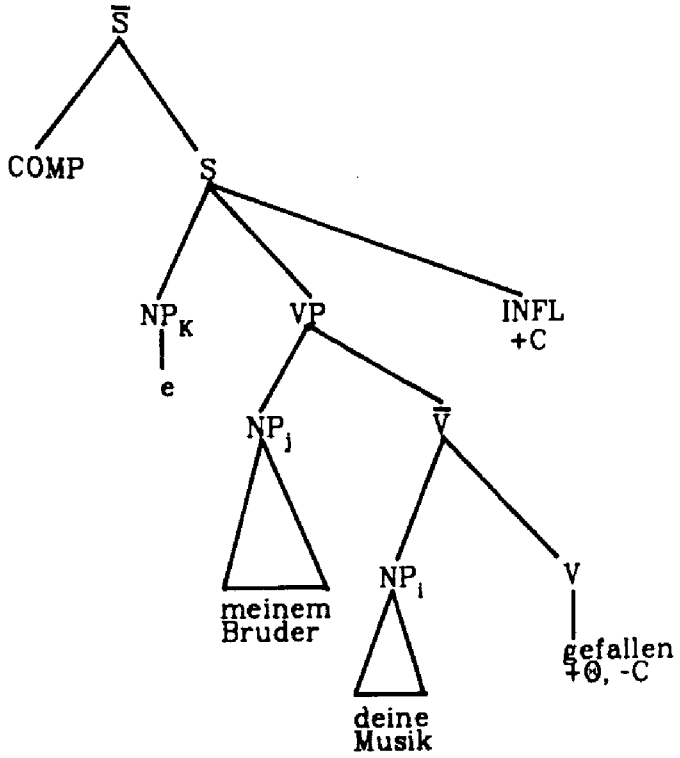
Here NP_i either moves to the matrix [NP, S] position via NP_K or is chain-governed in situ by the matrix INFL. Note that if there is no movement both matrix and embedded subject positions must be optional. This optionality is forced in the case of embedded impersonal passives, such as the following:

(38) Weil Karl geholfen worden zu sein scheint, ...
Since (to) Karl appears to have been helped ...

since there is neither an embedded subject nor an embedded direct object.

For FLIP, the situation is the same as in the case of the passive:

(39) *FLIP*
Weil meinem Bruder deine Musik gefällt, ...
(Since to my brother your music pleases)
Since my brother likes your music ...



(den Besten 1982 : 6)

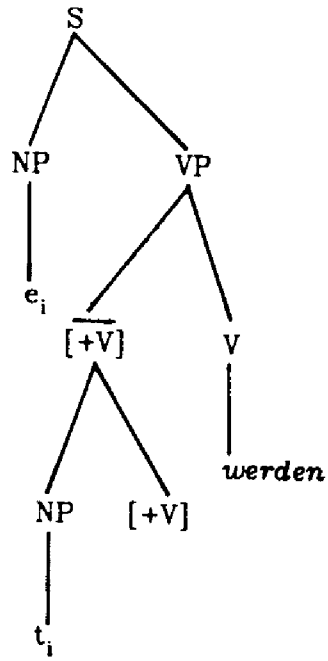
Again, Case is either assigned by movement or in situ, with consequent movement of NP_j or alternative non-generation of the subject position.

Problematic about this approach is on the one hand the necessity of abandoning the Extended Projection Principle or on the other hand of allowing a dative NP to move into an [NP, S] position without a Case conflict arising.

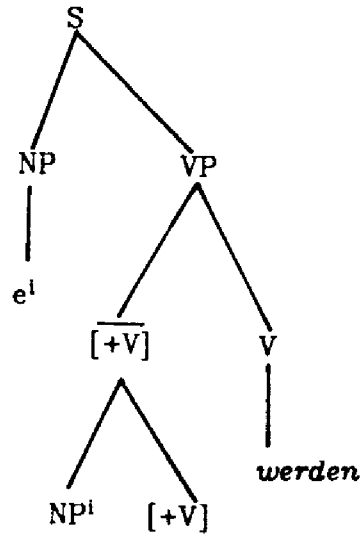
3.2 Expletive [$_{NP}$ e]

A second possibility is to postulate for German an expletive element, inserted in much the same way as lexical expletives in English and French but never phonetically realized. This is the suggestion made in Safir (1981) for the empty [NP, S] position after subject cliticization in French, or more generally for the PRO-drop phenomena manifested in Italian. According to Safir such an element appears in non-argument positions which are θ-less and governed but not properly governed (ie. governed by a verb or coindexed with Agreement). The ECP, in turn, applies only to elements which are properly governed. Extending Safir's approach to the German constructions under consideration the following structures could be postulated:

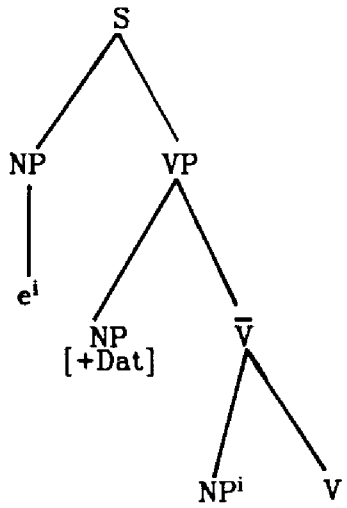
(40) (a) *Impersonal passive*



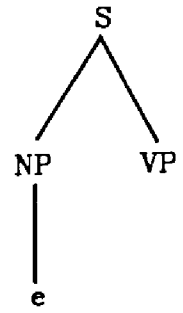
(b) *Passive*



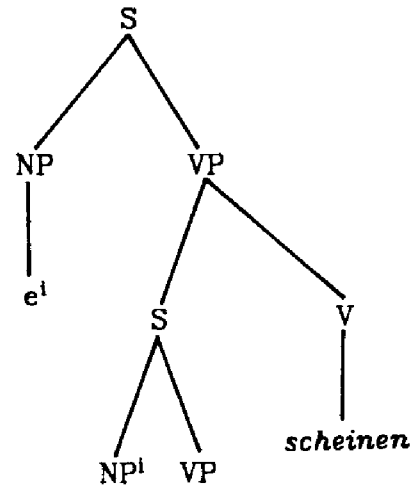
(c) *FLIP*



(d) *Impersonal actives*



(e) *Raising*



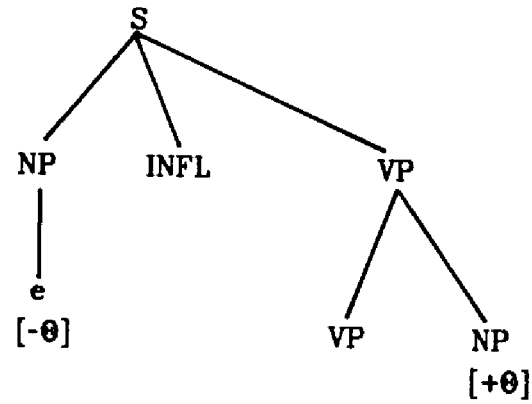
Thus in the case of (40) (b), (c) and (e) the subject is co-superscripted with an NP in the VP, either by stipulation as suggested for PRO in Italian in chapter 6 of Chomsky (1981) or upon insertion as originally suggested for PRO in the ergative cases in Italian. In (40) (a) the expletive element is raised to the subject position, leaving a coindexed trace, and in (40) (d) it is base-generated in subject position but is not co-superscripted with an NP in the VP. This is for examples such as:

(41) Weil mich friert, ...
(Since me freezes)
Since I am cold ...

The advantage of this approach is that it is possible to state for German that there is uniformly no rule R in the syntax such as suggested by Chomsky for Italian.

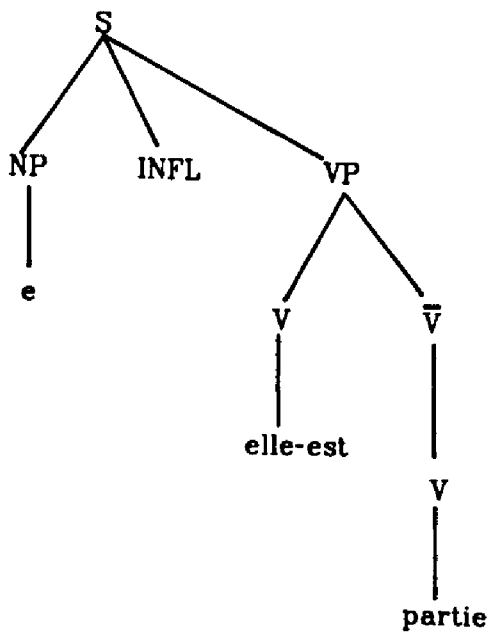
Note that in Safir's original approach there is no assumption of co-superscripting except in the Italian subject-inversion case. Thus, the post-verbal subject construction is disallowed for English since there is no way of transmitting Case:

(42)



and nominative Case is stipulated as being realized lexically in English and French. In French, on the other hand, INFL can assign Case to a subject clitic, which leaves a θ-less, governed but not properly governed, expletive $[_{NP}$ e] in the [NP, S] position:

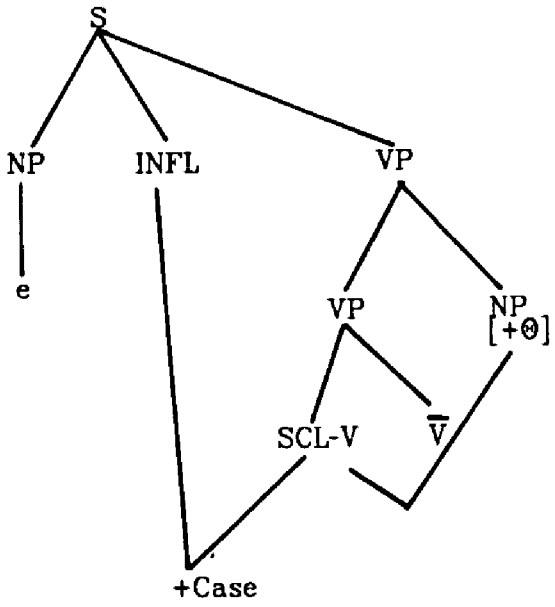
(43)



(Safir 1981 : 6)

In Italian, nominative need not be lexically realized. At the same time, a phonetically null subject clitic can assign nominative Case if it itself is assigned nominative Case:

(44)



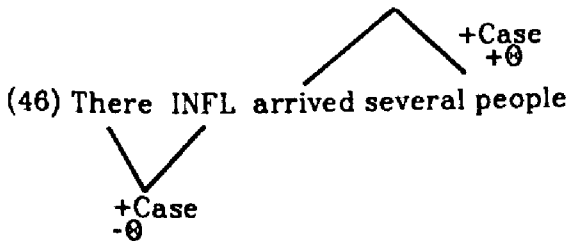
(Safir 1981 : 18)

which is tantamount to being co-superscripting.

What Safir fails to establish, however, is the structural parallelism between the Italian post-verbal subject cases and presentational *there* in English and *il* in French. Thus, for the following example he suggests that Case is assigned to the post-verbal subject by the verb:

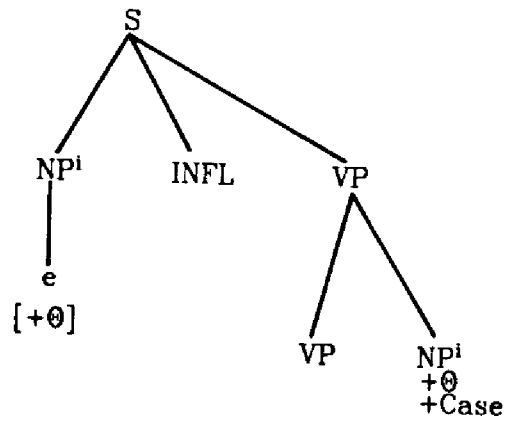
(45) Il est arrivé quelqu'un.
There arrived someone.

On this account, however, nominative would be assigned twice, both by verb and by inflection:



If Case were transmitted (in either direction) by co-superscripting, on the other hand, this would result in the structure:

(47)



acceptable in Italian and in the German constructions under consideration but not for English. Under these conditions, the stipulation that Case be lexically realized must be further specified, namely that it must be realized at least in [NP, S] position in English (but not in Italian and in German under certain conditions).

The element Safir postulates for the expletive $[_{NP}$ e] is minus the subset of grammatical features Φ which Chomsky (1981 : 340) assumes for the characterization of empty categories. Safir assumes that these features are assigned optionally. If $[_{NP}$ e] were assigned these features in any of the cases where Safir assumes an expletive $[_{NP}$ e], the sentence would be excluded, since if $[_{NP}$ e] were trace, it would be free in its governing category, if it were PRO it would be governed, and if it were a variable it would not be operator bound. With respect to those properties, namely the complementary distribution of empty categories, Chomsky states:

> Their combined distribution (virtually) exhausts the distribution of NP, again without stipulation.
>
> (Chomsky 1981 : 342)

The disadvantage then of a coindexing approach as suggested in (40) above, which parallels the post-verbal subject construction in English, French and Italian, is that it introduces a fourth empty category to complicate the simplicity of statement noted by Chomsky above. The alternative, then, is that German might participate to a limited extent in PRO-drop strategies.

3.3 The PRO-drop parameter

With the exception of the impersonal constructions (active and passive), the German constructions in (5) to (9) are characterized by the fact that the subject NP, in other words the nominative NP, is in the VP rather than in [NP, S] position. Because of the verb final nature of German it is not possible to talk of post-verbal subjects as in English, French and Italian.

Nevertheless, disregarding the position of the verb, the structures are parallel, otherwise, to presentational constructions in English and French:

(48) (a) There walked into the room a well known linguist.
(b) Il est arrivé quelqu'un.
There arrived someone.

as well as ergative and subject-inversion constructions in Italian:

(49) (a) Vengano molti stranieri.
(There come many foreigners)
A lot of foreigners come.
(b) Ha telefonato Giovanni.
(has telephoned John)
John has telephoned.

For the Italian structures Chomsky (1981) initially proposed a rule of PRO-insertion and co-superscripting similar to *there*-insertion for English or *il*-insertion for French. This Insertion rule, however, failed to capture the principle stated at the end of the previous section, namely that the exact nature of an empty category can be deduced from its properties in terms of the theory of Government and Binding. It is thus no longer necessary to stipulate a PRO-Insertion rule since the fact that the empty category appearing in the Italian constructions must be PRO can be derived from the properties of these structures. Thus in the following structures:

(50) (a) $\alpha[_{VP}$ V - AGR $\beta]$
(b) $\alpha[_{VP}\,[_{VP}$ V - AGR ...] $\beta]$

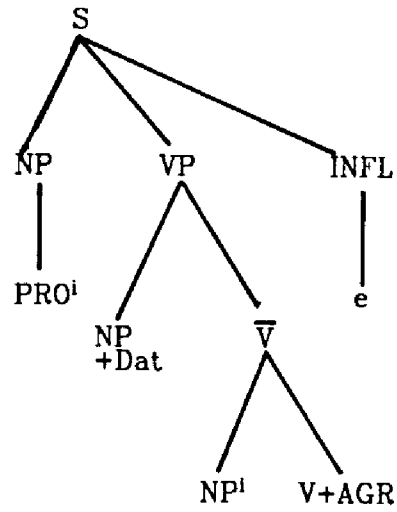
(cf. Chomsky 1981 : 339ff)

where R has applied in the syntax to adjoin AGR to the verb, α is co-superscripted with but not c-commanded by β and is thus free. By virtue of the rule R, α is not governed. Therefore, α can only be PRO. The Φ features of the post-verbal NP are either introduced into the position α via co-superscripting or else the features defining the empty category, as opposed to the null category, are already generated in this position in deep structure.

Ignoring for a moment the conditions under which R might be assumed to apply in the syntax in German, which is normally a non-PRO-drop language, analogous to the Italian ergative structures the following

could be postulated for FLIP verbs in German:

(51)



where R has applied in the syntax to give

(52) Weil PRO^i mir [die Suppe] schmeckt
NP ^{i}
(Since to me the soup pleases)
Since I find the soup good.

Problems arise, however, in extending the analysis proposed for the Italian passive to the passive in German. Thus in his initial discussion of the passive Chomsky assumes that no movement is necessary in the following Italian cases

(53) (a) Fu arrestato Giovanni.
John was arrested.
(b) Si mangiano le mele.
The apples are being eaten.
or
Apples are for eating.

because Italian "assigns nominative Case in the post-verbal position". (Chomsky 1981 : 122). Later, however, in his analysis of the *si* construction he assumes that Case-absorption forces movement. Analogous to the derivation proposed for the *si* construction, then, the analysis of passive would be

(54) (i) $[_{NP}$ e] fu arrestato $[_{NP}$ Giovanni]

(ii) $[_i$ Giovanni] fu arrestato t_i

(iii) β_i $[_{VP}$ $[_{VP}$ fu arrestato $t_i]$ $[_i$ Giovanni]

(iv) β_i^i $[_{VP}$ $[_{VP}$ fu arrestato $t_i]$ $[_i^i$ Giovanni]

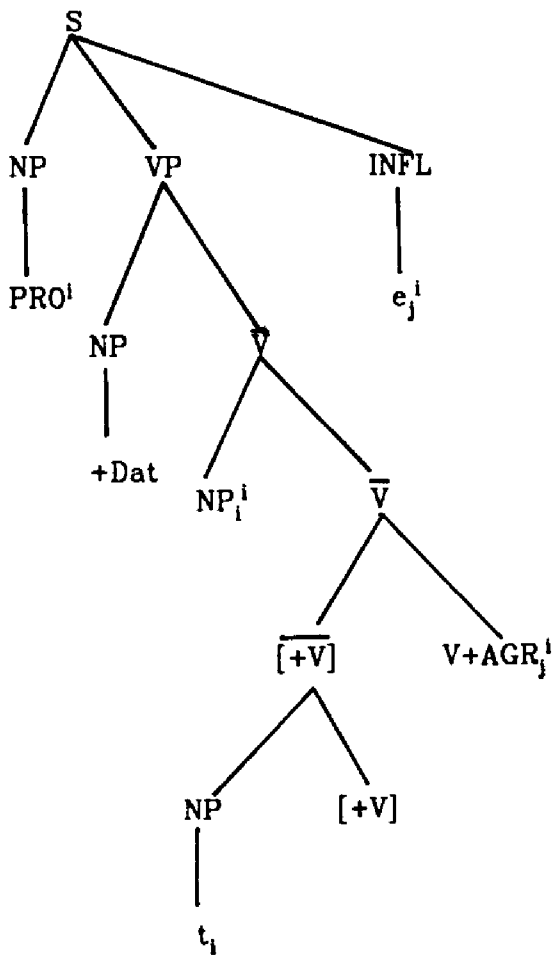
John was arrested.

(cf. Chomsky 1981 : 341)

where (ii) and (iii) are the result of Move α and (iv) the result of co-superscripting.

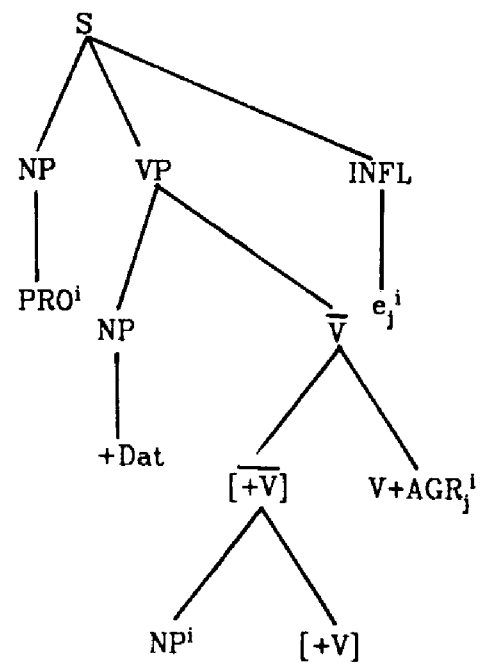
Applied to German the same kind of string vacuous movement would result in the following structure:

(55)



If movement did not apply, the following structure would result:

(56)



It is difficult at this point to see why movement should take place, since if R takes place in the syntax the object is governed by Agreement both in Italian and German. Since, the object is co-superscripted with the position governed by AGR at D-structure it is also co-superscripted with the AGR governing it at S-structure and so may be assigned Case by AGR, in spite of Case absorption.

Further problems arise in the case of raising, due to differences in the German vs. English and Italian data. Thus, whereas German apparently allows the subject to remain in the embedded S:

(57) (a) Weil mir Karl ein kluger Junge zu sein scheint, ...
Since to me Karl appears to be a bright lad ...
(b) Mir scheint Karl ein kluger Junge zu sein.
To me Karl appears to be a bright lad.

both English and Italian do not allow the subject to immediately follow the matrix verb:

(58) (a) *There seem several new people to have arrived.
(b) *Sembra Gianni aver telefonato.
(Seems John to have telephoned)

For both English and Italian there must be either raising or subject inversion and raising of, respectively, *there* or PRO:

(59) (a) Several new people seem to have arrived.
(b) There seem to have arrived several new people.
(c) Gianni sembra aver telefonato.
John seems to have telephoned.
(d) PRO sembra aver telefonato Gianni
(Seems to have telephoned John)

In discussing the Italian data, Chomsky (1981) stipulates that, of the two following principles, the first must apply at D-structure:

(60) (a) AGR is coindexed with the NP it governs.
(b) Nominative Case is assigned to (or checked for) the NP governed by AGR.
(Chomsky 1981 : 259)

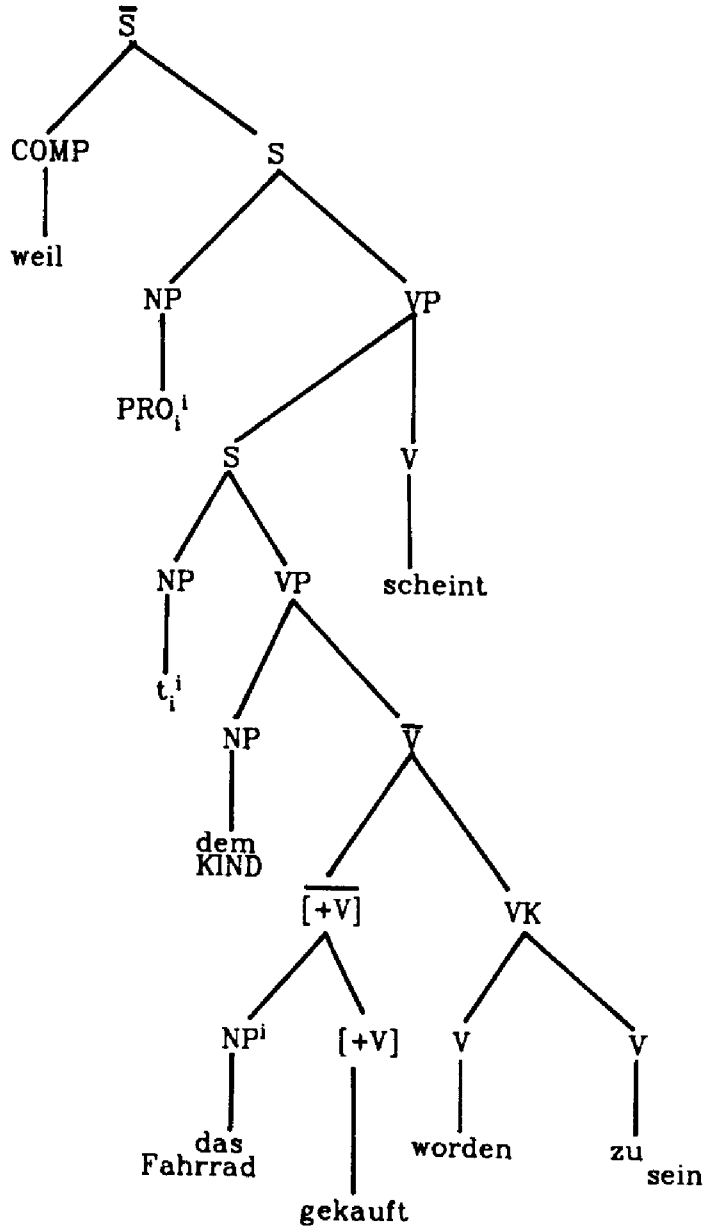
If the coindexing of AGR were possible at S-structure, in situ Case assignment would be possible, giving the unacceptable output in (58) (b). Thus, the derivation of (59) (d) is as follows:

(61) PRO_i^i $\underset{V+AGR}{sembra}$ $[_S\ t_i^i$ aver telefonato $_{NP}{}^i$ Gianni]
PRO seems to have telephoned John.

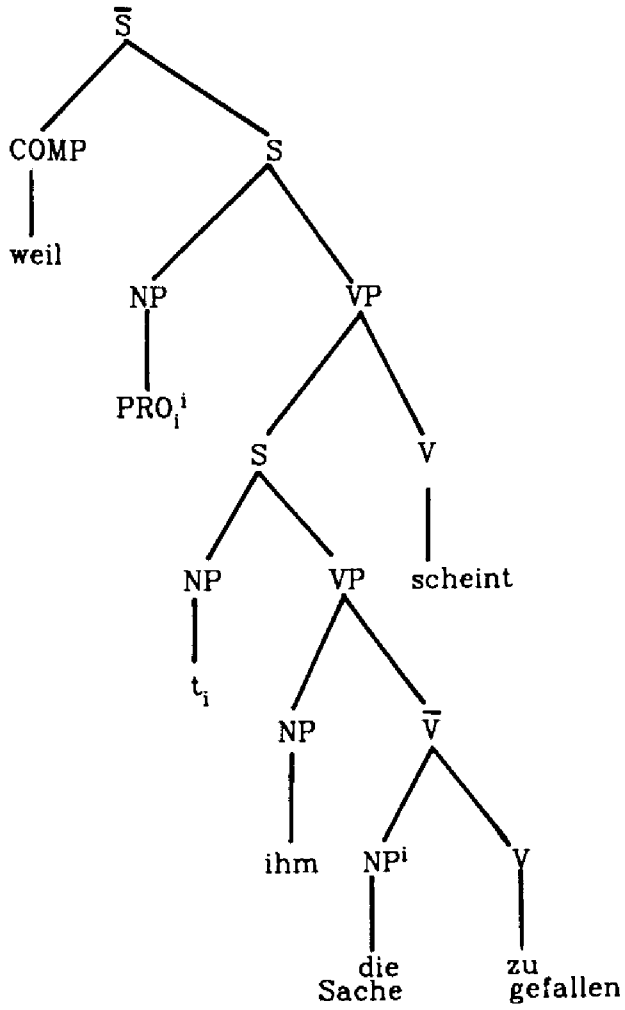
Inversion and co-superscripting take place in the embedded S and PRO is then raised into the matrix position governed by AGR in D-structure and is coindexed with AGR. t, which forms a chain with PRO, thus is also coindexed with AGR and governed by it after R in the syntax. The Case assigned to the index of t is inherited by the lexical, post-verbal NP co-superscripted with t.

Extending the analysis to German *scheinen* constructions with embedded passives and FLIP verbs does not present any problems since presumably a co-superscripted PRO is raised into the matrix S:

(62) Weil dem Kind das Fahrrad gekauft worden zu sein scheint, ...
(Since for the child the bicycle seems to have been bought ...)
Since the bicycle seems to have been bought for the child ...



(63) Weil ihm die Sache zu gefallen scheint, ...
(Since to him the thing seems to please)
Since he seems to like the thing ...



The problem arises with active, transitive embeddings where one cannot argue on grounds of ergativity that the embedded [NP, S] position is not occupied. Given appropriate conditions of stress, speakers accept the following examples, where the dative *mir* is interpreted as matrix experiencer and not as an embedded benefactive:

(64) (a) Weil der Karl mir den Wagen gekauft zu haben schien, ...
Since Karl seemed to me to have bought the car ...

(b) Weil mir der Karl den Wagen gekauft zu haben schien, ...
Since to me Karl seemed to have bought the car ...

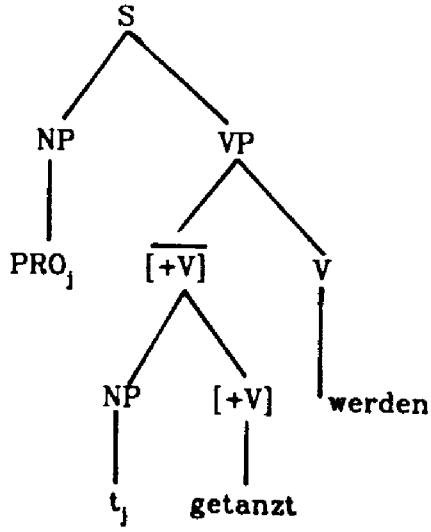
To account for nominative Case assignment in the (b) sentence either there must be raising to the matrix subject position followed by permutation back to the original embedded subject position or coindexing with the matrix AGR must be allowed to apply at S-structure in German (after R in the syntax) or the embedded subject must be co-superscripted with the matrix subject position across the intervening S (under conditions of S deletion) just as the [NP, S] position is co-superscripted across VP in the passive and ergative cases. This is tantamount to saying that *scheinen* is an ECM verb in German. Note that there would, nevertheless, have to be raising for PRO to cover the previous cases just as there must always be the NP movement option for passive infinitivals under control verbs.

Under the analysis assumed so far impersonal constructions such as the following

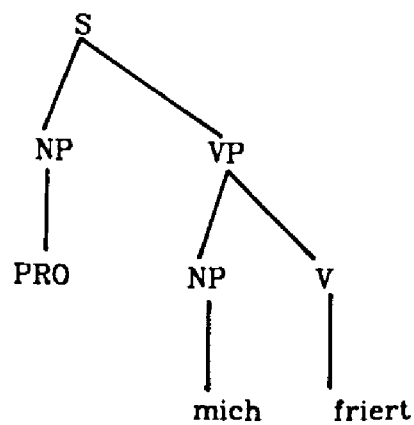
(65) (a) ***Impersonal passive***
(i) Gestern wurde getanzt.
(ii) Weil gestern getanzt wurde, ...
Since there was dancing yesterday ...
(b) ***Impersonal active***
(i) Mich friert.
(Me freezes) I am cold.
(ii) Mir graust vor euch.
(To me shudders at you)
You make me shudder.

might be assumed to have the following structures:

(66) (a) ***Impersonal passive***

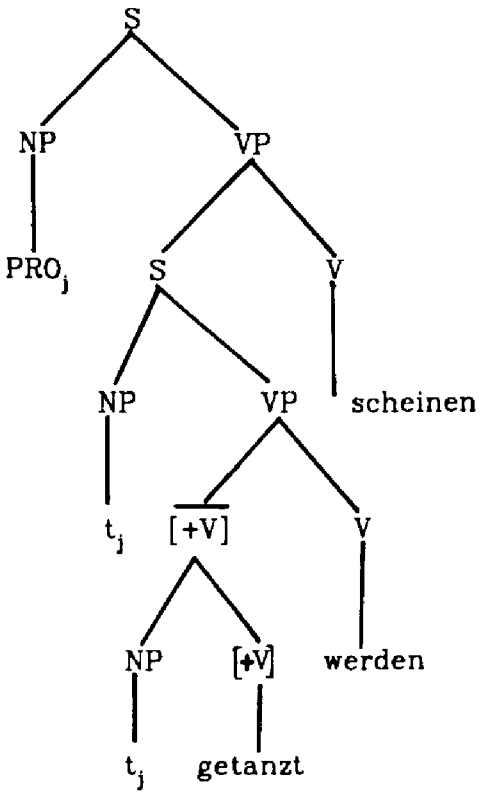


(b) ***Impersonal active***



Embedded under *scheinen* presumably PRO would move twice in the impersonal passive constructions:

(67) Weil getanzt worden zu sein scheint, ...
Since there seems to have been dancing ...



The question now arises of what kind of element PRO might be in these constructions, since in contrast to the other cases discussed so far it is not co-superscripted with a lexical NP in the VP.

Parallel to lexical realization such as in English, three types of argument status can be distinguished for PRO in Italian:

(68) (a) *True argument*
(i) He has arrived.
(ii) PRO è arrivato
(b) *Quasi-argument*
(i) It is raining.
(ii) PRO piove

(c) *Non-argument*
(i) It seems that S
(ii) There walked into the room a well known linguist.
(iii) PRO^i sembra che S^i
(iv) PRO^i e arrivato Gianni^i

The true arguments and quasi-arguments on the one hand are distinguished from the non-arguments on the other by the fact that they are not co-superscripted with a post-verbal NP. The conclusion which suggests itself is that PRO in the case of German impersonal passives is a quasi-argument rather than a non-argument.

In his distributional analysis of the German PRO-forms *es*, Pütz (1975) distinguishes amongst the various occurrences of *es* the following paradigm:

(69) (a) Dann knallte es.
(Then banged it)
(b) *Dann knallte.
(Then banged)
Then there was a bang.
(c) Mich friert es.
(Me freezes it)
(d) Mich friert.
(Me freezes)
I am cold.

What is of interest here is the fact that in the case of the active impersonals under discussion the option exists of having lexical subjects. That this subject behaves like a quasi-argument can be seen from the fact that it can act as a controller just as weather *it* can act as a controller in English:

(70) (a) It often rains after PRO snowing.
(b) Weil es [$_S$ PRO mich vor euch zu grauen] anfing.
(Since to me it began to shudder at you)
Since you began to make me shudder.
(c) Weil es [$_S$ PRO mich zu frieren anfing]
(Since it me to freeze began)
Since I began to get cold.

Parallel to (b) and (c) are examples without *es*:

(71) (a) Weil mir vor euch zu grauen anfing, ...
Since you began to make me shudder ...
(b) Weil mich zu frieren anfing, ...
Since I began to get cold ...

It would seem then that in the case of impersonal constructions with certain verbs such as *grauen* and *frieren* *es* or PRO are alternatives as quasi-arguments.

In the case of the impersonal passive the question remains of whether PRO is a pseudo-argument as in the active cases or a non-argument as in the case of ordinary passives. Either PRO is derived as a pseudo-argument from an object position as in the case of true-argument PRO in control structures:

(72) (a) weil PRO_j t_j getanzt wurde
Since there was dancing ...
(b) He_j didn't intend PRO_j to be arrested t_j
(c) Er_i riskierte PRO_i t_i totgeschlagen zu werden.
He risked being beaten to death.

but involving some kind of (pseudo-) transitivization of the verb or it is simply inserted in [NP, S] position. In either case, given the fact that it is not co-superscripted with a lexical NP in the VP, it will be interpreted as a pseudo-argument rather than as a non-argument.

The interpretation given so far parallels with respect to R in the syntax that suggested for Italian. The problem remains of how to prevent an argument PRO appearing in [NP, S] position as is the case in Italian:

(73) (a) *PRO geht
PRO goes
(b) PRO va
PRO goes

One possibility is to stipulate that R may apply in the syntax in German if the verb concerned is not a Case-assigner or has undergone Case absorption. Another possibility would be to stipulate that R may apply in the syntax if [NP, S] = -Θ. A more natural possibility, however, would be to allow the rule to apply as in Italian:

(74) R may apply in the syntax

and to take as a further condition for German the stipulation suggested by Safir (1981) for French and English (but inadequate inside his framework) that nominative Case must be lexically realized in German except for certain marked verbs (*frieren*, *grauen*) and the passive, where it *may* be lexically realized, lexical realization being determined by the Case Filter for 'normal' passives. This reduces them to chains consisting either of one member (the lexical [NP, S] subject) or of co-superscripted PRO and a lexical NP in the VP. If we accept the string vacuous nature of the stylistic inversion analysis discussed in section 1 above, the analysis may also be extended to these cases, too, although certain overlaps with Stl will remain in these cases.

4. Embeddings under the verb 'lassen'

The account given so far seems to suggest that German might incorporate to a limited degree strategies of PRO-drop languages, allowing for a non-argument PRO co-superscripted with an NP in the VP or else to a more limited extent pseudo-argument PRO as the subject of marked verbs and possible subject of passive constructions. Evidence that this cannot be the case, however, comes crucially from the embedding of passive, pseudo-passive and FLIP verb constructions under the verb *lassen*.

Under the assumption that *lassen* takes an S complement, in contrast to Haider's (1979) and Grewendorf's (1982) VP embedding analysis, it would seem that in disallowing passive morphology and the auxiliary *werden* but allowing agent phrases, *lassen* itself optionally absorbs the Case of the V in its complement. Thus, in examples of the following kind Case absorption appears to force movement to the embedded [NP, S] position where Case is assigned via ECM:

(75) Sie liessen den Verdächtigen von der Polizei kontrollieren.
They had the suspect searched by the police.

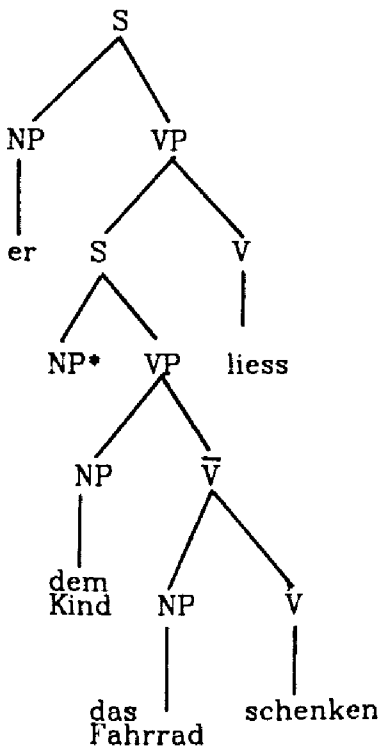
Problems arise, however, in the case of examples such as

(76) (a) Er liess dem Kind das Fahrrad schenken.
(He had to the child the bicycle given)
He had the bicycle given to the child.
(b) Er liess ihm helfen.
He had (to) him helped.
(c) Er liess tanzen.
(He had danced)
He got the dancing going.

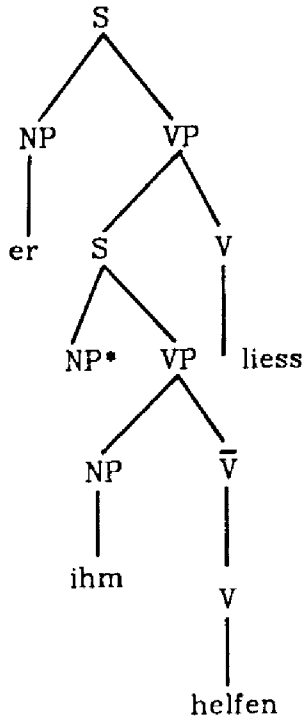
(d) Er liess sich die Suppe schmecken.
(He had to himself the soup taste)
He ate the soup with relish.

for which the following structures might be postulated:

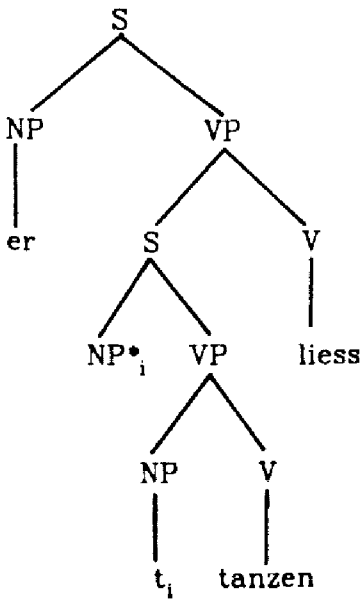
(77) (a)



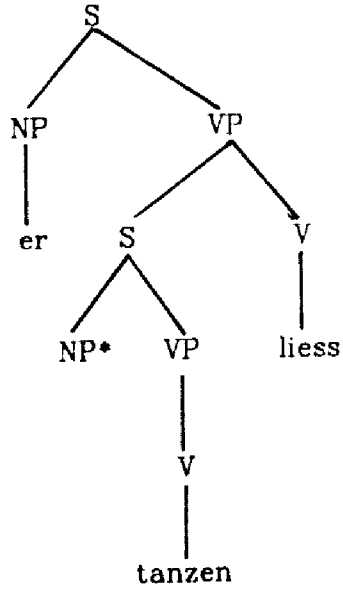
(b)



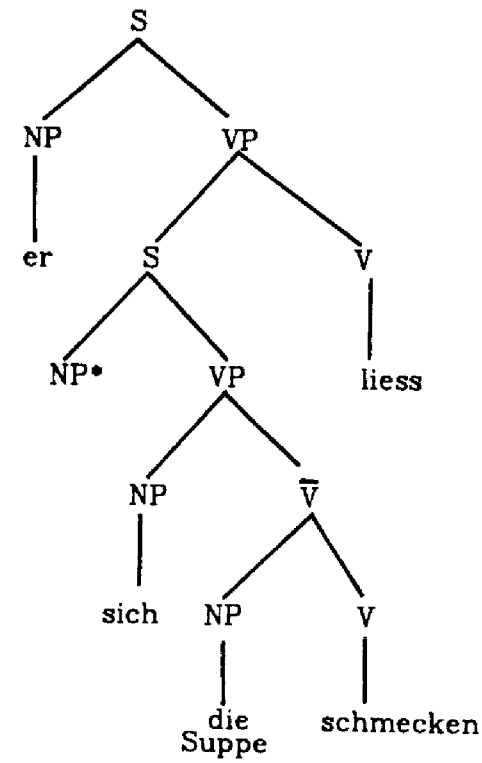
(c)



(c')



(d)



If NP* were PRO in these cases it would be governed and all of the sentences excluded by the Binding theory. If NP* is not PRO it can only be a null category or filled by a governable element. Note that it cannot be trace since it is free in its governing category, nor can it be a variable since it is not operator-bound. Note, furthermore, that NP* cannot be the same as the expletive $[_{NP}\ e]$ postulated by Safir (1981) since not only is it governed in (77) but it is also properly governed.

The examples above make it necessary to abandon the proposition that NP* is PRO. The advantage of this is, of course, that it is now possible to state for German uniformly that R does not take place in the syntax. As a consequence, however, it is necessary to postulate some governable element, neither trace, PRO nor variable for those constructions where the subject position appears to be empty. Such an element is in fact introduced in Chomsky (1982) for a revised analysis of Italian.

In Chomsky (1982) the analysis of the "missing subject" in Italian as PRO is abandoned, since unlike the PRO found in control constructions the 'PRO' in Italian is not anaphoric; in other words it has independent reference. Chomsky thus introduces *pro* (small PRO), which, with the features [-anaphor, +pronominal], fills the gap in the paradigm of empty categories formed by NP-trace, [+anaphor, -pronominal], PRO, [+anaphor, +pronominal] and variable, [-anaphor, -pronominal]. Unlike PRO, *pro* holds an exclusively governed position in Italian, namely that governed by AGR. If *pro* is substituted for PRO the empty subject position in German

might be interpreted along lines similar to Italian, although some differences remain.

For passive, FLIP (= ergative) and the *scheinen* cases the following paradigm emerges:

(78) (a) Weil *pro* ^{i} dem Kind das Fahrrad^{i}
geschenkt wurde
(since to the child the bicycle given was)
Since the child was given the bicycle ...

(b) Weil *pro* ^{i} [mir die Sache^{i} gefällt]
(since to me the thing pleases)
Since I like the thing ...

(c) Weil *pro* ^{i} dem Eckhard [$_{S}$ sein Sohn^{i} ein kluger
Junge zu sein scheint]
(Since to Eckhard his son appears to be a bright boy)

R does not take place in the syntax and in contrast to English and Italian co-superscripting takes place across S in the case of the 'raising' verb in (c). As in the case of presentationals in English and French and subject inversion in Italian the co-superscripted element in subject position is a non-argument.

It might be argued in the case of both the impersonal active and passive that German has a limited occurrence of quasi-argument *pro*, involving in the first case selection by the verb, analogous to the selection of *es*, *it*, *il* or *pro* for weather verbs in German, English, French and Italian respectively. As already described above this alternates with *es* and can be a controller. For the passive an alternative approach to the one above is that suggested by Reuland (1983), where passive morphology requires the 'externalization' of a θ-role, also for intransitive verbs in German and Dutch. Thus here the *pro* in structural subject position is coindexed, rather than co-superscripted, with an NP position (quasi-argument) in the VP, to which the verb assigns a θ-role. The paradigm is as follows:

(79) (a) Weil *pro* ^{i} [$_{VP}$ mich friert] AGR^{i} ...
(Since (it) me freezes)
Since I am cold ...

(b) Weil *pro* ^{i} [$_{VP}$ t_{i} getanzt wurde] AGR^{i} ...
(Since danced was)
Since there was dancing ...

Note that the empty category in the VP in (b) is functionally defined as

trace, thus diverging from the account for *pro* in Italian given in Chomsky (1982). There the properties of *pro* are defined by its adjacency to INFL in deep structure. Such an adjacency is not possible anyway in German, due to its verb-final structure. A further difference is the fact that *pro* is governed by the main verb instead of AGR when embedded under *lassen* as illustrated in (76) above.

The fact that *pro* cannot be identified via deep structural adjacency to INFL as claimed by Chomsky (1982) for the Italian examples requires some revised form of identification. Since Case and the structural position at S-structure seem to be defining properties of *pro* in German, the following stipulation can be formulated, borrowing from a notion in Haider (1983):

(80) In German the Case index of *pro* must be realized externally.

This formulation guarantees that *pro* is always external to VP at S-structure (though not at D-structure) while at the same time allowing for government by the matrix verb in the case of AcI constructions.

5. Conclusion

The discussion in this chapter has shown that in the case of German FLIP, passive and raising constructions it seems likely that both movement and non-movement strategies must be available. Thus, the possibility of control structures involving passivization, for example, forces movement on the one hand, while the possibility of a dative-nominative line up, alongside a nominative-dative alternative, suggests that there is also a non-movement option, since movement in these cases would be complex and redundant. As far as the non-movement option is concerned, den Besten (1981, 1982) has suggested a 'chain-government' analysis with either optional generation of the subject position or the possibility of movement of the dative NP to the subject position. The disadvantage with this analysis is firstly the presence of the dative in the [NP, S] position where normally nominative is assigned and secondly the abandoning of the Extended Projection Principle. A PRO-drop analysis for the German data, on the other hand, fails in the case of embedding under *lassen* constructions if PRO is analyzed as the same element as in control structures. If, however, PRO is replaced by *pro*, the German facts parallel those of Italian with respect to non-argument *pro*, though some differences remain. The distribution of *pro* in German, then, can be summarized as free in the case of non-argument status as in Italian, non-existent in the case of argument status and limited in analogy with weather verbs, in the case of quasi-argument status, to selection by the verb, as in Italian, or to those

instances of passive morphology with intransitive verbs peculiar to German (and Dutch). The process of co-superscripting in German differs from English and Italian in so far that whereas in the latter it is associated with movement, in the former it is associated with non-movement and can take place across S and not just VP. Note that in contrast to the analysis proposed in Grewendorf (1982) it is assumed that Case is not assigned by the embedded infinitive under *lassen* but that *lassen* itself causes Case-absorption and thus triggers either movement to the [NP, S] position or else co-superscripting and insertion of the expletive element. As will be seen in the next chapter, *pro* will not function as an accessible SUBJECT in the definition of governing category for opacity purposes. For this reason it seems probable that the construction described as 'stylistic inversion' in this chapter cannot be accounted for under the co-superscripting convention, unless it can be shown that it is isomorphic, as far as the opacity facts are concerned, with the so-called ergative cases.

5 Reflexivization

0. As suggested at the end of the previous chapter, the status of the subject position in German is relevant not only to the derivation of sentence-initial constituents in *scheinen* constructions and embedded sentence-initial constituents under *lassen* , as in the case of impersonal passives, but also to the determination of opacity with respect to the complex reflexivization facts discussed by Reis (1976) and mentioned in chapter 2. Thus, as stated in the last chapter, Grewendorf (1982) assumes that in the case of *lassen* passives the embedded infinitive, in contrast to the participle under perception verbs, does not absorb Case but assigns Case as in active sentences. Since, in contrast to his assumptions for perception verbs, there can be no forced-movement to [NP, S] for Case-assignment purposes, the latter position is superfluous and is dropped. The same analysis applies in the FLIP cases, which are viewed as examples of ergativity. Transparency to reflexivization in these cases is thus attributed to VP embedding. The latter, however, seems a rather suspect solution, partly because of discrepancies in the analysis of *lassen* and perception verb constructions but also on grounds of the constituency and bisentential arguments already discussed in chapters 1 and 2 and because the Projection Principle (cf. Chomsky (1981)) requires uniformity of representation at all levels. In the following it will be argued that an analysis such as proposed in the previous chapters can be made to account for the reflexivization facts by incorporating some of the suggestions in Grewendorf (1982) as well as the approach proposed for Dutch and English by Koster (1982). To some extent, Grewendorf's concept of *thematic subject* independently incorporates the SSC modification in Huber (1980) into the more recent Government and Binding Theory. Koster (1982) and (for English) Lebeaux (1982), on the other hand, suggest an account for apparent violations of Binding Theory under reflexivization along the lines of the functional approach proposed for empty categories in Chomsky (1981). Thus, the same phonetic element may be differently defined according to its properties, demonstrating pronominal behaviour in one context and anaphoric behaviour in another. The extension of this approach to the German data thus demonstrates that these are not an isolated phenomenon. At the same time, however,

empirical investigation of the data reveals that judgements are fairly insecure and that the proposals made here must concern core cases, with variation at the periphery.

1. Koster's theory

According to Koster (1982), within the class of syntactically dependent elements (***d-elements***) anaphors form a subclass, bound to their antecedents in accordance with a function f, representing the characteristics of ***obligatoriness*** (they may not be free) and ***uniqueness*** (they cannot have split antecedents). In these respects they contrast with pronouns as is demonstrated in the following:

(1) *Obligatoriness*
  (a)*I saw ***himself***.
  (b) I saw ***him***.
(2) *Uniqueness*
  (a) . ***John*** confronted ***Bill*** with ***himself***.
  (b) *****John*** confronted ***Bill*** with ***each other***.

(cf. Koster 1982 : 6ff.)

Anaphors are thus called ***f-elements*** and the domains within which they are bound ***f-domains***.

Evidence from English and Dutch, however, seems to suggest that within the class of ***f-domains*** there is a further subclass, which might be characterized as a ***strict f-domain***. Thus, Dutch, for example, has two reflexives, ***zich*** and ***zichself***. The distribution of these seems to correspond to that of reflexives and pronouns in prepositional phrases in English simple sentences. Thus, contrary to expectation, in certain prepositional contexts a reflexive is impossible in English:

(3) John$_i$ saw a snake near him$_i$/*himself$_i$

(Koster 1982 : 56)

The same is true of ***zichself*** in Dutch:

(4) Jan$_i$ zag een slang naast zich$_i$/*zichself$_i$
  (John saw a snake near himself/himself)

(Koster 1982 : 59)

That *zich* , nevertheless, is also a reflexive can be seen from the following overlapping distribution:

(5) Jan_i waste $zich_i$/$zichself_i$
John washed himself/himself

(Koster 1982 : 58)

Koster thus suggests that whereas *zichself* and *himself* are *strict f-elements*, *zich* in Dutch can have dual status as an *f-element* as well as a *strict f-element*. Similarly, *him* in English can have dual status as a pronoun and as an *f-element*. The status is conditioned by certain prepositions such as *local* or *directional*. Thus, within the context of local or directional prepositions *zich* is *demoted* to the status of *f-element* and *him* is *promoted* to this status. Note that *f-elements* are still distinguishable from other *d-elements* by the fact that they must be bound. The crucial distinction within the class of *f* and *strict f-elements* is the domain of binding. Note also that in the English case presumably only the binding properties distinguish *him* as an *f-element* from *him* as a *d-element*. For Dutch, *zich* can only be distinguished as an *f* versus *strict f-element* via its binding properties.

The binding properties are defined over domains. Thus, Koster defines *strict f-domains* as:

(6) (i) the minimal domains containing an accessible SUBJECT
(ii) PPs that are not strictly subcategorized

(Koster 1982 : 56)

All anaphors have to be bound within their minimal governing $\bar{S}$, but only *strict f-elements* may and must be bound in *strict f-domains*. The explanation for (3) and (4), then, is that the prepositional phrases are not strictly subcategorized and are thus, by the definition, *strict f-domains*, within which *strict f-elements* such as *himself* and *zichzelf* must be bound. Since this will always be impossible, only *f-elements*, which must be free in *strict f-domains*, will give grammatical results.

Notice that as it stands Koster's definition in (6) above does not make the correct prediction for (3) and (4), since in each case the whole sentence is by (6) (i) a *strict f-domain*, since it is the minimal domain containing an accessible SUBJECT. Either a requirement has to be made that an *f-element* be free in a *minimal strict f-domain*, or else the definition of *strict f-domain* has to be altered to prevent recursion:

(6') ***Strict f-domains*** are
(i) PPs that are not strictly subcategorized
(ii) minimal domains containing an accessible SUBJECT and not containing (i).

Under this definition the ***f-elements*** in (3) and (4) are bound within their minimal governing $\bar{S}$, which is not a ***strict f-domain***.

The data discussed by Reis (1976) and reviewed in chapter 2 may be summarized by the following structures:

(7) (a) $[_{S1}$ NP1 $[_{S2}$ NP2 ... NP3 V2] V1]
(b) $[_{S1}$ NP1 $[_{S2}$ NP2 ... P NP3 V2] V1]
(c) $[_{S1}$ NP1 $[_{S2}$ NP3 $\left\{\begin{matrix}\text{von NP2}\\ \text{NP2}\end{matrix}\right\}$ V2] V1]

Thus, (7) (a) and (b) represent $\bar{S}$ deletion structures with intervening subjects and active infinitives. (7) (c) represents FLIP and passive. Applied to (7) (a) and (b) Koster's theory makes the following predictions: if the embedded S contains an accessible SUBJECT and there is no non-subcategorized PP, it is a ***strict f-domain***, within which ***strict f-elements*** must be bound. For Dutch, Koster gives the following examples, where ***zich*** and ***zichself*** are not bound within this domain:

(8) (a)*Peter$_i$ zag [$_S$ Mary$_j$ zich$_i$ wassen]
(Peter saw Mary wash himself)
(b)*Peter$_i$ zag [$_S$ Mary$_j$ tevreden over zichzelf$_i$ zijn]
(Peter saw Mary satisfied with himself (be))
(Koster 1982 : 60)

Note that in (8) (a) ***zich*** remains a ***strict f-element*** because it is not in a context of demotion. In the following, on the other hand, two things concur to allow ***zich*** to be bound outside the embedded S:

(9) (a) Peter$_i$ zag [$_S$ Mary$_j$ naast zich$_i$ toe komen]
(Peter saw Mary come towards himself)
(b) Peter$_i$ liet [$_S$ Mary$_j$ naast zich$_i$ zitten]
(Peter let Mary sit next to himself)
(Koster 1982 : 61)

In the first place, ***zich*** is demoted to ***f-element*** in the context of the directional and local prepositions. Secondly, since the prepositional phrases are not subcategorized for, they constitute ***strict f-domains*** inside which ***zich*** may be free. Since ***f-elements*** only have to be bound in S, ***zich*** is bound in both cases outside the embedded S. The irreflexive predicate makes this the only plausible result in (9). However, Koster gives an example where there is ambiguity in the binding:

(10) Peter$_i$ zag [$_S$ Mary$_j$ de slang [$_{PP}$ achter zich$_{i/j}$] bekijken]
Peter saw Mary look at the snake behind himself/herself
(Koster 1982 : 62)

The determination of where the ***f-element*** is bound in $\bar{S}$ in this case must be subjected to the pragmatic component, ultimately.

It is possible to imagine a stricter situation than that described so far, where S would be taken as the ***f-domain***, so that where PP was a ***strict f-domain*** an ***f-element*** would have to be bound in the embedded S. Similarly, where a verb subcategorized for a local or directional PP the ***f-element*** resulting from the demotion context would have to be bound outside the embedded S. This can be illustrated as follows:

(11) (a) [$_{\bar{S}}$ [$_S$ f-domain [$_{PP}$ strict f-domain]]

f-elements in S must be bound in S

(b) [$_{\bar{S}}$ [$_S$ strict f-domain [$_{PP}$]]

f-elements in S must be bound outside S

The result would be no reflexivization under coreference with the matrix subject in the first place and obligatory reflexivization in the second. At least the first part of this empirical result is present in German, namely that in certain prepositional contexts in infinitivals embedded under ***lassen*** no reflexivization is possible under coreference with the matrix subject. The second part of the prediction, namely obligatory reflexivization under coreference with the matrix subject as opposed to free variation is not quite as clear in terms of speaker judgements. What is also by no means as clear cut as suggested in the discussion so far is the set of factors conditioning demotion (if it exists) and the distribution of domains. Thus, Huber (1980) makes empirical assumptions that would

comply with the first suggestion above, namely that non-subcategorized PPs do not allow reflexivization under coreference with the matrix subject. Interestingly enough, Grewendorf (1982) makes exactly the opposite empirical assumption, namely that it is only in the case of non-subcategorized prepositional phrases that we have free variation between pronouns and reflexives: in the subcategorized cases there are only pronouns. On the other hand, Huber's subcategorized PPs look remarkably similar at times to Koster's non-strictly subcategorized PPs, for example:

(12) Elvira$_i$ hat den Mops zu sich$_i$/*ihr$_i$ auf's Sofa springen lassen (H. 4.44)
(Elvira$_i$ had Mops jump up to herself$_i$ on the sofa)
(Huber 1980 : 349)

(9) (a) Peter$_i$ zag [$_S$ Mary$_j$ naar zich$_i$ toe komen]
(Peter saw Mary come towards himself)
(Koster 1982 : 61)

Grewendorf's non-subcategorized PPs resemble Koster's subcategorized PPs:

(13) Hans$_i$ lässt die Leute über sich$_i$/ihn$_i$ reden (G. 197)
(Hans$_i$ let the people talk about himself$_i$/him$_i$)
(Grewendorf 1982 : 58)

(14) (a) *Jan* schoot op ***zichself***/**zich*
(b) *John* shot at ***himself***/**him*
(Koster 1982 : 59)

Data such as these support Reis's comment (cf. Reis 1976 : 32) that it is difficult to establish a clear cut boundary between "real" prepositional objects and obligatory adverbial complements. Given the apparent empirical bias of various approaches, I will continue with an elucidation of the predictions that these make before returning to confront the data and to see how Koster's theory might apply to German.

2. Grewendorf's approach

0. Problematic in the approach in Grewendorf (1982) is the distinction in the analysis of *lassen* constructions and those with perception verbs, which seems to be based ultimately on opacity effects that are contradicted both by the data and the argumentation. VP embedding for *lassen* passives as well as for ergatives is a logical outcome of the apparent

absence of a subject in those cases (but cf. chapter 4). Subcategorization for a VP does not seem well motivated, however, nor in any sense necessary, and since *lassen* subcategorizes for an S in the active cases, there seems to be little reason to suppose that it does not do so in the passive cases. Elements of the approach that are interesting are suggestions about the nature of "free" PPs, the extension of "ergativity" beyond the FLIP cases and the suggestion that in German the concept of "thematic" subject alone might be relevant for the definition of accessible SUBJECT. This suggestion is compatible with the approach to empty subjects outlined in chapter 4.

2.1 Passive

As noted already, Grewendorf does not assume Case-absorption for "passive" complements of *lassen* since he relates this to the morphology of the participle. As only the infinitive form appears under *lassen*:

(15) Weil Peter das Auto von Hans reparieren lässt, ...
(Since Peter the car by Hans to repair has)
Since Peter is having the car repaired by Hans ...
(cf. Grewendorf 1982 : 22ff)

objective Case is assigned by the infinitive, just as in the active infinitivals. Note, however, that the infinitive *functions* as a participle also in the perfect tense:

(16) Er hat den Kinderwagen reparieren lassen.
(He had the pram to repair to have)
He had the pram repaired.

and that a rule of infinitivization exists elsewhere in the grammar (the double infinitive construction) as the following demonstrates:

(17) weil er kommen gekonnt hätte →
weil er hätte kommen können
(Since he had to come to be able)
Since he could have come ...

Under the non-Case-absorption analysis of (15), the subject position in an S analysis of the complement, would contain, from an empty category viewpoint, a Case-marked, non-operator-bound empty category. For this reason, Grewendorf assumes that there is no S but an embedded VP.

The analysis of *lassen* contrasts with that of perception verb passives, since here there is actual passive morphology (the example is from Grewendorf):

(18) Peter hörte das Konzert von ihm gespielt.
Peter heard the concerto played by him.
(Grewendorf 1982 : 32)

Case absorption forces movement to the [NP, S] position, where, in the example above, the syntactic subject creates an opaque domain for reflexivization purposes. That there is no such opacity effect in the *lassen* passives is demonstrated by the following:

(19) (a) Peter$_i$ liess das Auto$_j$ bei sich$_i$/*bei ihm$_i$ reparieren.
(Peter had the car by himself/*by him to repair)
Peter had the car repaired at his place.
(Grewendorf 1982 : 32)

(b) Hans$_i$ lässt sich$_i$ Schnaps$_j$ besorgen.
(Hans has to himself Schnaps get)
Hans has someone get him some Schnaps.
(Grewendorf 1982 : 24)

However, Grewendorf also produces examples of the following kind:

(20) (a) Hans$_i$ sieht sich$_i$ die gelbe Karte$_j$ gezeigt.
(Grewendorf 1982 : 36)

(b) Hans$_i$ sieht die gelbe Karte$_j$ sich$_i$ gezeigt.
(Hans sees to himself the yellow card shown)
Hans sees himself shown the yellow card.
(Grewendorf 1982 : 37)

arguing that here, since the NP is not governed by a preposition and since, according to Burzio (1981), VP is transparent to government, reflexivization can take place because the matrix verb also governs the NP. In cases such as this, the operative criterion for determining the governing category is the ***thematic*** subject. Note that reflexivization cannot be ascribed to the fronting of the dative pronoun, as the (b) version demonstrates. Clearly the distinction involved here is the presence versus absence of agent, respectively, in examples (18) and (20). This will be considered in more detail in section 2.4.

2.2 Prepositional objects

Grewendorf argues along the same lines of VP transparency also for those active sentences which allow reflexivization for prepositional objects coreferent to matrix subjects. The minimal pair here is:

(21) (a) Hans$_i$ lässt Emma$_j$ für ihn$_i$/sich$_i$ votieren.
(Hans has Emma for him/himself vote)
Hans has Emma vote on his behalf.
(ie. he delegates his vote)
(Grewendorf 1982 : 65)

(b) Hans$_i$ lässt Emma$_j$ für ihn$_i$/*sich$_i$ votieren.
(Hans has Emma for him/himself vote)
Hans has Emma vote for him.
(ie. in order to elect him)

In the (a) version, then, the prepositional phrase represents a free adverbial, whereas in the (b) version the NP is the prepositional object of the verb. Grewendorf adopts a suggestion by Marantz (1981) (cf. Grewendorf 1982 : 66ff.), where in "free" prepositional phrases such as in (21) (a) the θ-role is assigned by the preposition itself, rather than, as in the (b) example, by the verb via the preposition. Analogous to languages where such prepositional elements are free with respect to the verb they affix to, PPs that have their own independent argument structure are transparent to government by the matrix verb, S being transparent in any case. The NP in such a prepositional phrase may choose either S as its governing category and thus the effect of free variation is achieved as in (21) (a).

2.3 Ergatives

With respect to the so-called FLIP cases, but also with respect to sentences such as the following:

(22) Hans$_i$ liess sich$_i$/*ihm$_i$ das Bürschchen$_j$ kommen.
(Hans$_i$ had/let to himself$_i$/*him$_i$ the kid$_j$ come)
Hans let the kid come over to him.
(Grewendorf 1982 : 39)

Grewendorf adopts the ergative hypothesis, whereby nominative Case is assigned in object position [NP, VP], and extends this to a whole class of verbs for which he establishes a set of diagnostic principles. Consistent with the analysis of *lassen* passives, these are analyzed as VP embeddings

and not S, because of the apparent absence of a subject position. As in the case of *lassen* passives, this explains the transparency to reflexivization demonstrated in (21) above, or in the following FLIP example:

(23) Hans$_i$ lässt sich$_i$ die Suppe$_j$ schmecken.
(Hans$_i$ has to himself$_i$ the soup$_j$ taste)
Hans eats the soup with relish.

The reflexivization analysis of AcI complements that emerges, then, is as follows:

(24) *VP analysis*
(i) *lassen* passives
(ii) *lassen* and perception verb ergative infinitivals

S analysis
(i) *lassen* and the perception verb active infinitivals
(ii) Perception verb passives.

2.4 Problems in the approach

One problem, not confined to Grewendorf's discussion, and which will not be pursued exhaustively here, is variation in judgements of the data. With respect to Grewendorf, I shall give two examples of this here. The first is that of his examples (200) to (213), and is illustrated in the following:

(25) (a) Hans$_i$ hört (lässt) den Professor$_j$ mit ihm$_i$/*sich$_i$ sprechen
(Hans$_i$ hears (lets) the professor$_j$ speak to him$_i$/*himself$_i$
(G. 202)
(b) Hans$_i$ sieht (lässt) Maria um ihn$_i$/*sich$_i$ trauern
Hans$_i$ sees (lets) Maria mourn for him$_i$/*himself$_i$.
(G. 211)
(c) Hans$_i$ hört (lässt) Fritz$_j$ mit ihm$_i$/*sich$_i$ hadern
Hans$_i$ hears (lets) Fritz$_j$ quarrel with him$_i$/*himself$_i$
(G. 205)

(Grewendorf 1982 : 59)

which he gives to demonstrate that subcategorized PPs exclude reflexives. One informant found reflexives good in all these sentences. Other informants were more conservative but nevertheless accepted free variation with pronouns in three cases and obligatory reflexivization in two cases.

The second example is the following from Reis (1976):

(26) James Bond$_i$ liess/sah den Spion$_j$ mit dem Revolver
auf sich$_i$/?ihn$_i$ zielen (R. 58c.)
(James Bond$_i$ let/saw the spy$_j$ aim the revolver at himself$_i$/
?him$_i$)

(Reis 1976 : 14)

This parallels the following example in Koster (1982), where strictly subcategorized PPs, which are not ***strict f-domains***, result in the S itself being a ***strict f-domain***, requiring a ***strict f-element*** :

(27) (a) Jan$_i$ schoot op *zich$_i$/zichself$_i$
(John shot at himself/himself)
John$_i$ shot at *him$_i$/himself$_i$

(Koster 1982 : 59)

In other words, the judgement in (26), confirmed by other informants, contradicts Grewendorf's assumption that subcategorized PPs allow only pronouns. It should be noted, however, that the opposite assumption in Huber (1980), that only subcategorized PPs allow reflexives, though supported in (26), is contradicted in a similar fashion by examples such as:

(28) Hans$_i$ sieht Maria$_j$ neben sich$_i$/ihm$_i$ trauern (G. 213')
(Hans sees Maria beside himself/him mourn)
Hans sees Maria mourning beside him.

also confirmed by other informants. Note that a great deal depends on the question of ± subcategorization in all three approaches, Huber's (1980), Koster's (1982) and Grewendorf's (1982).

Leaving aside the specific properties of prepositional phrases, the central problem that remains concerns the question of the role of subjects in opacity. Thus, as already pointed out, Grewendorf distinguishes the reflexivization possiblities in examples such as (18) and (20) (a) via the presence versus absence of a thematic subject (cf. Grewendorf 1982 : 36ff.):

(18) Peter$_i$ hörte das Konzert von ihm$_i$ gespielt.
Peter$_i$ heard the concerto played by him$_i$.
(Grewendorf 1982 : 32)

(20) (a) Hans$_i$ sieht sich$_i$ die gelbe Karte$_j$ gezeigt.
Hans$_i$ sees himself$_i$ shown the yellow card.
(Grewendorf 1982 : 36)

Since both sentences are passive this can only refer to the presence of the agent phrase in (18) and its absence in (20). Note that this kind of differentiation contradicts the contention that the syntactic subject in (18) creates an opaque domain, whereas this is not the case in examples with *lassen* (cf. Grewendorf 1982 : 36):

(19) Peter$_i$ liess das Auto$_j$ bei sich$_i$/*bei ihm$_i$ reparieren.
(Peter had the car by himself/*by him to repair)
Peter had the car repaired at his place.

This is in fact the sole argument for assuming an embedded S for the perception verbs and not for *lassen*.

The data with perception verb passives are, in any case, highly controversial and are probably dialect-specific. Even from a conceptual viewpoint sentences such as (18) are odd. Thus, the perception of "the playing" in (18) can only be from an "alienated" perspective, either psychological or physical: for example Peter enters a room and hears a record of his own performance of the concerto. However, under this interpretation informants claim that coreference with the main clause subject is only possible if *sich* is substituted for *ihm*. This seems perfectly natural since the thematic subject in the sense of deep-structural subject is coreferential with the main clause subject and, being governed by the matrix verb, in the active version would automatically be reflexivized. Also it would seem that the introduction of an agent phrase such as *vom Schiedsrichter* in example (20) (a) would make no difference to the acceptability of the reflexive in this example, though it is difficult to test this since it is hard to find informants who accept (20) (a) as it stands. Certainly, the introduction of an agent phrase such as *von einem Freund* in (18) makes no difference to the acceptability of the reflexive, though this is predictable under a VP-embedding analysis such as Grewendorf's. It seems likely that the decisive factor determining opacity is not the presence versus absence of an explicit agent phrase but whether or not the syntactic subject is thematic and thus acts as an accessible SUBJECT. If this is generally the case, then Reis's (1976) generalization of transparency to reflexivization in passives to all AcI verbs can be maintained.

If the generalization mentioned in the last paragraph holds, there seems to be little reason to distinguish the perception verb cases from the *lassen* passives or the ergative embeddings, since according to Grewendorf opacity alone seems to be the criterion for movement to [NP, S] in the perception verb passives. In other words, under his analysis Case absorption also takes place in the ergative constructions, yet the VP embedding requires (or presupposes) in situ Case assignment (from the matrix verb). If this is the case for ergatives and *lassen* passives, then there is little reason to assume that it is different for perception verb passives, which consequently should also be analyzed as containing embedded VPs rather than S's. The alternative viewpoint, of course, is that there is no VP embedding in any of these cases and that the *pro* subject in [NP, S] position is not available for the definition of accessible SUBJECT.

3. Predictions and the German data

0. With respect to the binding of NP1 and NP3 in the configurations represented in (7) above and repeated here for convenience:

(29) (a) $[_{S1}$ NP1 $[_{S}2$ NP2 ... NP3 V2] V1]
(b) $[_{S1}$ NP1 $[_{S2}$ NP2 ... P NP3 V2] V1]
(c) $[_{S1}$ NP1 $[_{S2}$ NP3 $\left\{\begin{matrix}\text{von NP2}\\ \text{NP2}\end{matrix}\right\}$ V2] V1]

there are the following possibilities (ie. binding in S2 will not be considered here):

(30) (a) Complementary distribution in S1
(b) Free variation in S1
(c) No reflexivization in S1

The predictions made by Reis (1976), Huber (1980) and Grewendorf (1982) are as follows:

(31) *Complementary distribution*
(i) Passive
(ii) Ergative

Free Variation
(i) Non-subcategorized PPs (Grewendorf)
(ii) Subcategorized PPs (Huber)

No reflexivization
(i) Active S's with non-PP-objects
(ii) a. Subcategorized PPs (Grewendorf)
b. Non-subcategorized PPs (Huber)

The following represents the results of an investigation of all the reflexive examples in Reis (1976), Huber (1980) and Grewendorf (1982). Where their examples coincided, there was no disagreement in terms of acceptability judgements. However, there was a fair amount of disagreement among informants with regard to some of the examples, and in some cases the whole sentence was rejected. Conclusions, therefore, indicate tendencies, and it is possible that, in this peripheral area, overgeneralization of each particular pattern may influence the judgements.

3.1 The ±causative distinction (Huber 1980)
Huber (1980) claims an object control analysis for -causative *lassen* and an AcI analysis for +causative *lassen*, where the former presents the normal $\bar{S}$ case of opacity for reflexivization. The data showed that the only interpretation for -causative *lassen* was the "leave" type and that there were no distinctions between the permissive reading "let" or "allow" and the factive "make" or "have" in terms of their effect on reflexivization.

3.2 Distinction between 'lassen' and the perception verbs
Taking into account disagreement among native speakers, it would seem in the case of the data examined that transparency to reflexivization differs marginally, if at all, for *lassen* and the perception verbs, and that where it does differ, *lassen* is "more transparent".

3.3 Complementary distribution in S1
Thirty-seven examples were found with obligatory disjoint reference in the case of pronouns and coreference in the case of reflexives. Of these, four were not ergative according to Grewendorf's tests. Thus, for example, *sprechen*, *nachdenken*, *hin- und herrennen* and *springen* allow impersonal passives, agent phrases and nominalizations with *-er*:

(32) (a) Hans$_i$ liess Taten$_j$ für sich$_i$ sprechen.
(Hans$_i$ let actions$_j$ speak for himself) (R. 18)
(Reis 1976 : 14)

(b) Fritz$_i$ liess Franz$_j$ eine Weile über sich$_i$ und seine Probleme nachdenken.
(Fritz$_i$ let Franz$_j$ think for a while about himself$_i$ and his problems) (R. 19)

(Reis 1976 : 14)

(c) Hans$_i$ liess das Kind$_j$ zwischen Paula und sich$_i$ hin- und herrennen.
(Hans$_i$ had/let the child$_j$ run backwards and forwards between Paula and himself$_i$) (R. 49. e.)

(Reis 1976 : 27)

(d) Elvira$_i$ hat den Mops zu sich$_i$ auf's Sofa springen lassen.
(Elvira$_i$ let Mops jump up to herself$_i$ on the sofa) (H. 46)

(Huber 1980 : 349)

Seven examples had alternative judgements with free variation, eight with no reflexives. Eighteen were arguably ergative, though usually only some of the tests applied. The conclusion is, then, that although there are counter-examples and variation in judgements, ergative verbs require reflexivization. As far as passives are concerned, only the perception verbs needed to be examined, since there is general agreement about the transparency of passives under *lassen*. As already stated above, where passive complements of perception verbs were allowed, reflexivization was preferred.

3.4 Free variation

Of fourteen examples where pronominalization and reflexivization were in free variation under coreference with the matrix subject, eight had differing judgements and six had either obligatory or optional prepositional objects as well as non-subcategorized PPs, for example:

(33) (a) James Bond$_i$ liess/sah den Spion$_j$ mit dem Revolver auf sich$_i$/ihn$_i$ zielen.
(James Bond$_i$ let/saw the spy aim at himself$_i$/him$_i$ with the revolver) (R. 58. c.)

(Reis 1976 : 31)

(b) Hans$_i$ liess Emma$_j$ den Kinderwagen (nicht) neben sich$_i$/ihm$_i$ abstellen.
(Hans$_i$ let (didn't let) Emma$_j$ leave the pram beside himself$_i$/him$_i$)

(Reis 1976 : 42)

The conclusion here is that free variation seems more restricted and that the ±subcategorization distinction does not play a major role. To this extent, neither Huber's nor Grewendorf's assumptions are supported here.

3.5 No reflexive

Of thirty-three examples where only pronominalization was allowed, thirteen were with direct objects, ten had alternative judgements, six were subcategorized PPs, two were non-subcategorized PPs and two were contained in adverbial phrases. Again, the judgements do not support a specific role for ±subcategorization, and the "normal" case seems to be that of non-prepositional objects. Interestingly enough, although Huber (1980) claims that adverbial phrases that are maximal projections of an adverbial head are opaque for reflexivization, informants found that in the following, the choice of the reflexive depended on degree of identification with the subject:

(34) Die Soldaten$_i$ liessen uns$_j$ seitwärts von ihnen$_i$/sich$_i$ hinknien.
(The soldiers$_i$ made us$_j$ kneel down at the side of them$_i$/ themselves$_i$)

(Huber 1980 : 380)

The same judgements were ellicited by Jan Koster at the Salzburg Linguistic Summer School 1982, with the following Dutch example:

(35) Jan$_i$ zag de wereld onder zich$_i$/hem$_i$ verdwijnen.
(Jan$_i$ saw the world under himself$_i$/him$_i$ disappear)

3.6 Prepositions

On the basis of the data examined the class of prepositions allowing reflexives did not seem to be confined in any way to a particular feature such as directionality or locality, and was larger than the class of those not allowing reflexives:

(36) (a) **+Reflexive**
über, zwischen, auf, neben, für, an, in, aus, wegen, mit
above, between, on, beside, for, to, in, from, because, with
(b) **-Reflexive**
um, nach, an, mit
for, after, to, with

Note that as already stated ±subcategorization seems to be a distinctive property only in the case of particular prepositions such as *für ... votieren*, meaning either to vote for or to vote on behalf of someone.

3.7 Conclusion

Despite variation in judgements, it would seem that the core tendencies reaffirm in part the original positions in Reis (1976), Huber (1980) and Grewendorf (1982). Thus, complementary distribution seems to be generally the case with passives and ergatives (though note Grewendorf's examples with perception verbs). Similarly pronominalization is obligatory with intervening subjects in the case of direct objects and some prepositional objects. Note again as discussed in the section on Reis (1976) in chapter 2 (cf. Reis 1976 : 29) that sentences with pronominalized direct objects are extremely marginal, anyway, a passive with reflexivized object being the "normal" usage:

(37) (a)?Hans$_i$ liess den Taxifahrer ihn$_i$ zum Bahnhof bringen.
Hans$_i$ had the taxi-driver take him$_i$ to the station.
(b) Hans$_i$ liess sich$_i$ (vom Taxifahrer) zum Bahnhof bringen.
Hans$_i$ had himself$_i$ driven (by the taxi-driver) to the station.

As far as prepositional objects are concerned, ±subcategorization does not seem to be distinctive in determining transparency or opacity. Similarly, the type of preposition that might be involved in a demotional context in terms of Koster's approach seems difficult to define. It thus seems that prepositional phrases remain the area hardest to classify and unexplained by the assumptions in Huber (1980) and Grewendorf (1982).

4. A possible analysis

This chapter began with mention of a functional approach to reflexives and pronouns along the lines of that suggested for empty categories in Chomsky (1981). Lebeaux (1982), for instance, claims that the extended notion of governing category given in Chomsky (1981) is a spurious generalization, since long distant anaphors in English, such as the following, have the same binding properties as pronouns:

(38) (a) John argued with Mary about whether each other's prosecutions were successful or not.
(Lebeaux 1982 : 8)

(b) John and Mary knew that it would be a bother for themselves/ them to have to do it again.

(Lebeaux 1982 : 9)

(c) Each other's noise is much easier to put up with than that from other people.

(Lebeaux 1982 : 11)

Thus in (38) (a) there is a split antecedent, disallowed in the simple, bound case:

(39) John asked Mary about herself/himself/*themselves/*each other.

(Lebeaux 1982 : 4)

(38) (b) demonstrates free variation with pronouns, contrary to the simple, bound case, again illustrated in (39). (38) (c) illustrates freeness of reference, which is not possible in the simple bound case:

(40) *John saw himself (himself≠John)

(Lebeaux 1982 : 8)

Examples such as these, then, suggest that similarly to the Dutch examples discussed by Koster, in certain contexts English reflexives might be demoted, in the sense that they have the same binding properties as pronouns. Note that in the earlier discussion at the beginning of this chapter the focus was on contexts where English pronouns were promoted in status, these being identical to contexts of demotion for the Dutch reflexive ***zich***. The question arises whether Koster's approach may be extended to German.

With respect to the question of domains, PP as a smaller ***strict f-domain*** does not seem to be relevant to German. Thus in (41)

(41) ..... $[_S\ [_{PP}\ P\_\_\_\_\_\ ]\ ]$

strict f-domain

for Dutch only ***zich*** may appear and for English only a pronoun. German, however, does not have the ***zich/zichzelf*** contrast, ***sich selbst*** being an emphatic version of ***sich***, rather in the style of emphatic use of ***himself*** in English. The status of ***sich***, therefore, if there is demotion, can only depend on its context and binding properties, the effect being invisible phonetically. One could thus imagine a situation where in (41) PP is a

strict f-domain but not a context of demotion, so that ***sich*** remains a ***strict f-element***, which must be bound in PP but cannot, and the sentence is unacceptable. However, the only situation where ***sich*** cannot be bound in S2 in $\bar{S}$ deletion structures is where the predicate is irreflexive; in other words, the case is semantically or pragmatically rather than syntactically determined. In simple sentences such as

(42) John$_i$ sah Mary$_j$ neben sich$_i$
John saw Mary beside him.

the prepositional object is in a context of complementary distribution. For German, then, Koster's approach will only be relevant for the domains of S and $\bar{S}$, although prepositions are still involved as contexts of demotion.

Given the general tendencies of judgement for the German data outlined above, the following account can be given. The "normal" case of opacity is that of active sentences with embedded, non-prepositional objects, where an anaphor must be bound in the lower S, which is a governing category defined by the role of the thematic and syntactic subject as an accessible SUBJECT. This accounts for such examples from Reis (1976) as the following:

(43) (a) Hans$_i$ lässt Fritz *sich$_i$/ihn$_i$ nicht ausnutzen.
Hans$_i$ does not let Fritz use *himself$_i$/him$_i$.
(Reis 1976 : 29)
(b) Er$_i$ sah/fühlte die Begeisterung der anderen auch *sich$_i$/ihn$_i$ mitreissen.
He$_i$ saw/felt the enthusiasm of the others also sweep *himself$_i$/him$_i$ along.
(Reis 1976 : 29)

Examples of complementary distribution, where a pronoun can only have disjoint reference are of the following kind:

(44) (a) Hans$_i$ liess sich$_i$/*ihm$_i$ die Suppe$_j$ schmecken.
(Hans$_i$ had to himself$_i$ the soup taste)
Hans ate the soup with relish.
(Reis 1976 : 34)

(b) Hans$_i$ liess sich$_i$/*ihm$_i$ das Bürschchen$_j$ kommen.
(Hans$_i$ let the child$_j$ come over to himself$_i$)
(Reis 1976 : 28)

(c) Hans$_i$ liess sich$_i$/*ihm$_i$ (von den Leuten) Schnaps$_j$ besorgen.
(Hans$_i$ had Schnaps$_j$ got for himself$_i$)
(Reis 1976 : 28)

Examples, such as these were accounted for by Grewendorf by VP embedding, both for *lassen* passives and ergatives. Within the framework of chapter 4, however, the same obligatory transparency can be achieved, if it is assumed that the *pro* in [NP, S] position, or the derived subject, if the object moves to this position, do not count for the definition of accessible SUBJECT.

For cases of free variation such as the following:

(45) (a) Der Chef$_i$ liess die Leute für sich$_i$/ihn$_i$ arbeiten.
(The boss$_i$ made people work for himself$_i$/him$_i$)
(Reis 1976 : 27)

(b) Er$_i$ hörte die Leute über sich$_i$/ihn$_i$ reden.
(He heard the people talking about himself$_i$/him$_i$)
(Reis 1976 : 27)

it could be argued that in the context of certain prepositions *sich* in German *may* (but not *must*) be demoted to the status of *f-element*, where $\bar{S}$ is the domain in which all *f-elements* must be bound, and a *strict f-domain* is

(46) The minimal domain containing an accessible SUBJECT.

This is tantamount to saying that, as in the case of long distant anaphors described by Lebeaux, there are certain contexts in which certain anaphors have the binding properties of pronouns. Notice that in German these are only reflexives and not reciprocals.

Thus by means of the minimal assumption of a single instance of demotion to *f-element* together with the exclusion of derived subjects and *pro* from the definition of accessible SUBJECT, it is possible to maintain a uniform S analysis of AcI complements and account for the reflexivization facts.

6 Quantifier movement

The role of *pro* in [NP, S], introduced in chapter 4, is not only relevant to the determination of transparency effects with respect to reflexivization, as discussed in the last chapter (it does not participate in the definition of accessible SUBJECT), but, unexpectedly, seems relevant also to constructions involving quantifiers. Thus, as has already been discussed in chapters 1 and 2, Haider (1979) takes examples involving negation as evidence for a VP analysis of *lassen* complements, since the negative element gravitates to the verbal complex. In other words in the following the negative can have matrix scope, with the interpretations

(1) (a) Since he isn't making her do the examination ...
(b) Since he isn't letting her do the examination ...

even though it appears in front of the embedded verb, which is, in fact, the only position in which it may appear:

(2) (a) Weil er sie die Prüfung *nicht* machen lässt, ...
(b) *Weil er sie die Prüfung machen *nicht* lässt, ...

At the same time, Tappe (1982) argues that in coherent constructions in general, even those involving control verbs, the following is evidence for monosententiality:

(3) (a) ... weil die Jungen die Maria *beide* zu küssen versuchen.
(since the boys Maria both to kiss try)
(b) ... weil Paul die Maria *nicht* zu küssen versucht ...
(since Paul Maria not to kiss tries)
(Tappe 1982 : 5)

In sentence (3) (a) the quantifier *beide* is presumed to have moved from the matrix sentence to a position adjacent to the verb. This movement is

not possible with object-control complements:

(4) *... weil die Jungen dem Karl die Maria *beide* zu küssen vorschlagen.
(since the boys to Karl Maria both to kiss suggest)
(Tappe 1982 : 5)

Similarly, in sentence (3) (b), as in (2) above, the scope of the negative can on one reading include the matrix verb in the sense:

(5) Paul didn't try to kiss Mary.

as opposed to embedded scope in the sense

(6) Paul tried not to kiss Mary.

This is again not the case with object-control verbs:

(7) ?... weil Paul dem Karl Maria nicht zu küssen vorschlägt.
(since Paul to Karl Maria not to kiss suggests)
(Tappe 1982 : 5)

This can only mean

(8) Since Paul advised Karl not to kiss Maria, ...

and not

(9) Since Paul didn't advise Karl to kiss Maria, ...

Evers (1975 : 27ff.) takes examples such as these as further evidence for a general rule of verb raising in German, by means of which, in coherent constructions, a mono-sentential structure is achieved. In the following, however, it will be argued that an $\overline{S}$ deletion approach to AcI complements, as assumed so far, is compatible with the 'Q- and Neg Float' facts, and that the unwelcome effects of VP embedding or clause-integration can be avoided. Similarly, in the case of control structures, under the definitions of subjacency in Chomsky (1981) discussed already in chapter 3, nothing need happen to change the status of the S complement.

1. The quantifier 'beide'

1.1 'Anaphoric status'

Beide (and *alle*) in German demonstrate exactly the same opacity effects as discussed for *R-Tous* movement in French by Quicoli (1976) and for which a solution has been proposed by Kayne (1981) and Belletti (1979) (discussed by Jaeggli 1982). Thus, Jaeggli (1982) gives examples in French, Spanish, Italian and English for *R-Tous* movement under subject-control verbs, parallel to the movement of *beide* in (3) (a):

(3) (a) Weil die Jungen die Maria *beide* zu küssen versuchen
Since the boys tried to both kiss Maria
(Tappe 1982 : 5)

(10) (a) Esos muchachos decidierón ir *todas* al cine.
(b) Quei ragazzi hanno deciso di andare *tutti* al cinema.
(c) Les gars voulaient aller *tous* au cinéma.
The kids tried to *all go to the movies*.
(Jaeggli 1982 : 76ff.)

Similar movement under object control verbs is not possible:

(4) *Weil die Jungen dem Karl die Maria *beide* zu küssen vorschlagen ...
*Since the boys advise Karl to both kiss Maria
(Tappe 1982 : 5)

(11) (a) *Esos muchachos obligaron a Juan a ir *todos* al cine.
(b) *Quei ragazzi hanno costretto Maria ad andare *tutti* al cinema.
(c) *Les gars ont forcé Jean à aller *tous* au cinéma
(d) *The kids forced John to *all* go to the cinema.
(Jaeggli 1982 : 76ff.)

At the same time, under the $\overline{V}$ preposing analysis of causative constructions proposed by Rouveret and Vergnaud (1980), *R-Tous* is only possible with *laisser* if $\overline{V}$ preposing has taken place:

(12) (a) *Mes amis ont laissé ce garçon manger *tous* de la salade.
(My friends have let this boy eat all the salad)
(b) Mes amis ont laissé manger *tous* de la salade à ce garçon.
(My friends have let eat all the salad to this boy)
My friends have all let this boy eat the salad.

The same kind of contrast can be seen in *lassen* constructions where a quantifier in the embedded S can only be construed with the matrix subject if there is no intervening active subject in the embedded S:

(13) (a) Die Jungs liessen diesmal den Wirt ihnen * ***beide/beiden*** nichts mehr vermiesen.
(The boys let this time the landlord to them
*both(+Nom)/both(+Dat) nothing more spoil)
This time the boys didn't let the landlord spoil anything for them both.

(b) Die Jungs liessen diesmal das $Fest_j$ sich t_i ***beide/beiden*** nicht mehr vermiesen.
(The boys let this time the party to themselves
both(+Nom)/both(+Dat) no more spoil)
(i) This time the boys both didn't let the party be spoiled for them again.
(ii) This time the boys didn't let the party be spoiled for both of them again.

(Huber 1980 : 362)

As can be seen in the glosses, in (13) (a) only the dative, ***beiden***, is possible, to be construed with the dative ***ihnen***, whereas in (13) (b) the nominative, ***beide***, and the dative, ***beiden***, are equally possible. The reflexive, ***sich***, in this case, in contrast to the pronoun, ***ihnen***, indicates the transparency of the complement S.

The solution suggested in Kayne (1981) and Jaeggli (1982), is that ***tous*** under rightward movement is an anaphor, since it is subject to opacity. In the subject control examples, (3) and (10), then, it is bound by PRO. In the object control cases, (4) and (11), it is free in the governing category created by the non-coreferential PRO subject. In the ***lassen*** example (13) (b), under the analysis in chapter 4 ***pro*** in [NP, S] position is not available for the definition of accessible SUBJECT. Thus, in (13) (b) ***beide*** can be bound in the matrix S since this is the governing category. In (13) (a) ***beide*** can only be bound in the embedded S since the active subject, ***den Wirt***, creates a governing category.

1.2 A note on Case

The sentences in (13) highlight the fact that in German Case on quantifiers is morphologically realized where it is invisible in the other languages from which the examples in (10) and (11) are taken. Jaeggli points out that there is some Case agreement, as well as gender and number, in French simple sentences and relative clauses:

(14) (a) Je leur ai donné des bonbons *à tous*
(I to them have given the sweets *to all)*
I gave sweets to them all.
(Jaeggli 1982 : 79)

(b) Ces généraux, à qui j'ai envoyé des bombes *à tous*
(These generals, to whom I have sent bombs to all)
These generals, to all of whom I have sent bombs
(Jaeggli 1982 : 80)

In German, however, this appears across the clause boundary in sentence (13) with ***beide*** marked nominative, as opposed to the dative ***beiden***, and also in the subject-control sentence (3) (a):

(3) (a) Weil die Jungen die Maria ***beide*** zu küssen versuchen ...
Since the boys try to both kiss Maria...
(Tappe 1982 : 5)

Under an analysis which assumes anaphor status for the quantifier embedded under subject-control verbs the features on the quantifier are presumably transmitted via coindexing. The question, then, arises of whether Case, as one of these features is transmitted ultimately from the controller in the matrix sentence via the PRO in the embedded sentence, or whether Case, contrary to standard assumptions, is realized independently on the PRO. The test case is the possibility of Quantifier Float with object-control constructions in German where the controller is (morphologically) marked for non-nominative Case and the quantifier in the embedded sentence is not (morphologically) marked for this Case or is actually marked morphologically for nominative. In the case of quantifiers such as ***alle*** and ***beide***, morphological Case shows up only as dative or non-dative. The following dative-control example, thus, shows a Case distinction between the controller in the matrix clause and the Case on the quantifier, which is presumably coindexed with the embedded controller (PRO):

(15) Ich habe den zwei Kindern geraten, sich beide zu beteiligen.
+Dat -Dat
I have advised the two children to both take part.

Tilman Höhle (personal communication) has suggested that the clearest evidence comes from sentences with the quantifier phrase ***einer nach dem anderen*** , where nominative Case is clearly marked on the first element in the phrase:

(16) Ich habe den zwei Kindern (+Dat) geraten, einer (+Nom) nach dem anderen hineinzugehen.
I advised the two children to go in one after the other.

This example suggests, then, that since Case on *einer* cannot be transmitted via control, the controller being dative, it is the result of coindexing with PRO and that PRO is perhaps Case-marked. Note that an alternative viewpoint was given recently in a talk in Groningen (May 1983) by Hubert Haider, in which he argues that external arguments trigger nominative congruence. Thus, in the following AcI examples, although the embedded subject is Case-marked accusative via ECM, the attributive NP is nominative:

(17) (a) Wir sahen ihn ein guter Vater werden.
We saw him become a good father (+Nom)
(b) Lass mich dein guter Herold sein.
Let me be your good herald (+Nom)

Details of Case assignment here are not clear. Note, however, that in the *lassen* example, (13) (b), congruence can only be determined by the matrix subject, as a result of transparency, since the embedded clause does not have an external argument.

1.3 Quantifier scope

Problematic in the anaphor analysis suggested by Kayne (1981) is the compatibility of scope-interpretation such as via a rule of quantifier raising (QR) at LF, as proposed by May (1977), with the anaphor-status of the quantifier. That scope interpretation is necessary can be seen from the differences in scope in extraposed infinitivals and the ambiguity of scope that arises in the case of coherent sentences. Thus, in extraposed infinitivals scope is determined by the speech pause, in other words by whether the quantifier comes before or after the comma:

(18) (a) Sie haben geglaubt, alle verloren zu haben.
(b) Sie$_i$ haben geglaubt [PRO$_i$ alle$_i$ verloren zu haben.]
(They believed to have all lost)
(19) (a) Sie haben geglaubt alle, verloren zu haben.
(b) Sie$_i$ haben geglaubt alle$_i$ [PRO$_i$ verloren zu haben.]
(They all believed to have lost)

In the coherent version scope is ambiguous between matrix and embedded clauses:

(20) Weil sie alle verloren zu haben glaubten, ...
(Since they all lost to have believed)
(Since they believed to have all lost)

Note that here, given the absence of a speech pause, the quantifier could be analyzed as belonging to the matrix sentence in the case of matrix scope interpretation. This cannot, however, be the case in (13) (b) above since the embedded (syntactic) subject visibly precedes the quantifier:

(13) (b) Die Jungs liessen diesmal das Fest$_j$ sich *beide* t_i
nicht mehr vermiesen.
This time the boys both didn't let the party be spoiled for them again.
(Huber 1980 : 362)

In any case, it seems difficult to reconcile a rule of quantifier raising with the anaphoric interpretation suggested by the opacity facts discussed in section 1.1. In other words, if QR raises the quantifier, the empty element that remains in the following structure will be both an anaphor and a variable, bound respectively by PRO and the quantifier:

(21) $[_S\ Q_i\ [_S\ PRO_i \ldots t_i \ldots]]$

The latter case will result in a violation of the Θ Criterion since the chain will not be assigned a Θ-role, as it does not contain an argument position.

One possibility is to assume that scope is determined at LF but that quantifier float takes place at PF. This would, however, lose the explanation of the opacity effects. Another possibility is that the binding (agreement) properties of the quantifier are different to those of anaphor binding, but, then again, the opacity explanation is lost. A possible approach would be to assume some kind of reconstruction at LF similar to the reconstruction by Belletti and Rizzi (1981) for *ne* / WH-movement constructions in Italian, discussed in chapter 3.2.3 and reproduced here for convenience:

(22) (a) [Quanti t_i]$_j$ ne_i ha letto t_j Gianni?
How many of them has John read?
(b) *[Quanti PRO]$_j$ ha letto t_j Gianni?
How many has John read?
(Belletti and Rizzi 1981 : 138)

In the German construction the quantifier would be raised at LF to the NP it quantifies and the quantified NP then raised by QR:

(23) (i) NP_i PRO Q_i (ii) NP_i PRO_i Q_i

QR QR

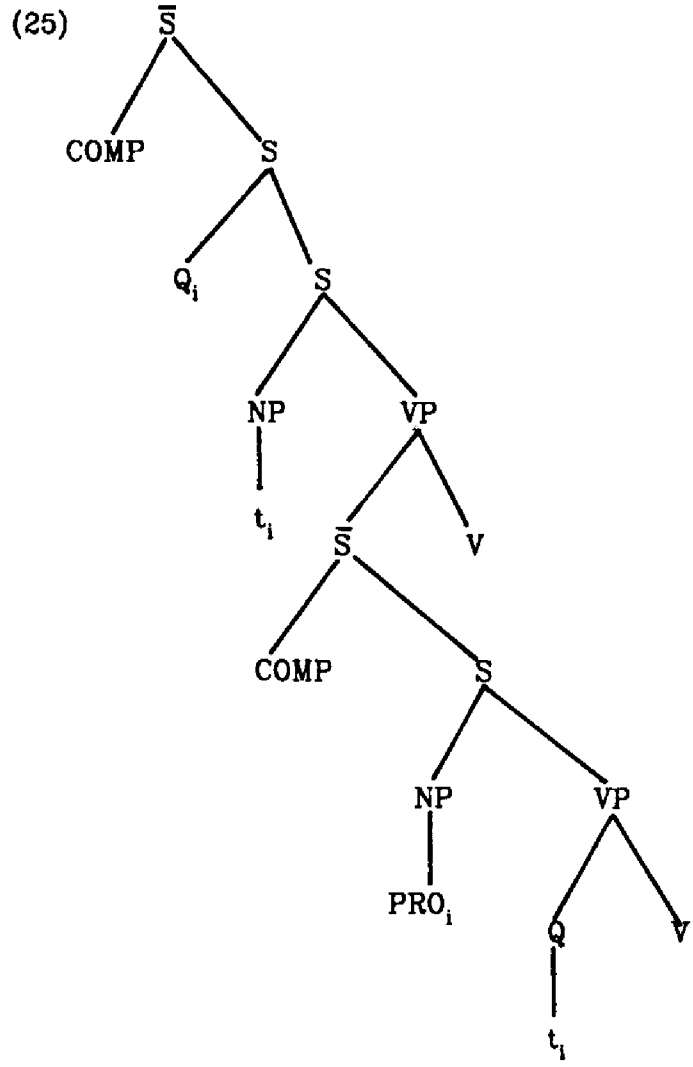
(23) (i) represents matrix scope and (23) (ii) embedded scope. The pattern that emerges can be compared with the Italian case:

(24) **German**	**Italian**
(i) ... NP ... Q	(i) ..... [Quanti ne] ...
(ii) ... NP+Q ... t_i...	(ii) ... ne_j ... [Quanti t_i] ...
(iii) [NP+Q_i]$_j$ ... t_j ... t_i	(iii) [Quanti t_i]$_j$ ... ne_i ... t_j ...

For Italian the binding relation for t_i has to be recovered via reconstruction. For German the "anaphoric" relation between the quantifier and the NP binding it in (24) (i) has to be reconstructed from (24) (iii) in a similar manner.

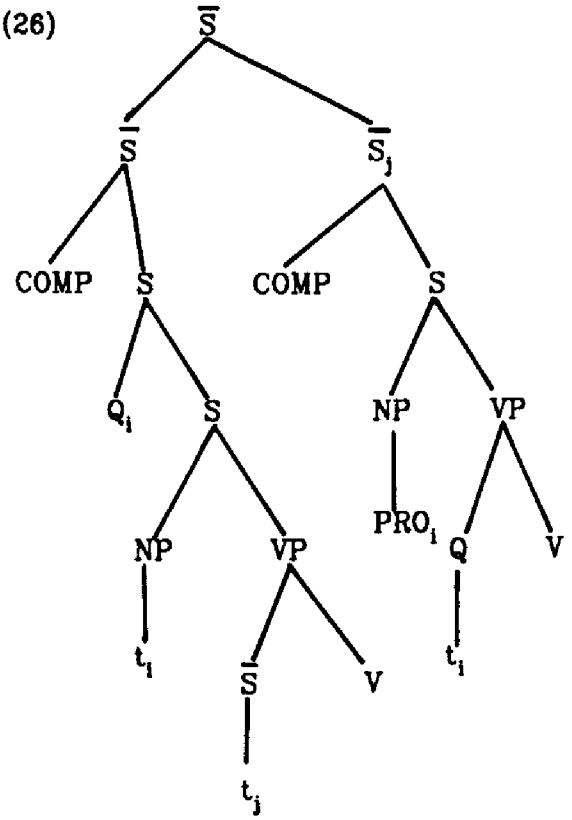
Movement such as in (23) (i), then, is possible only if the trace of the original quantifier position is c-commanded by the NP position to which the quantifier is initially raised. This would be the case for coherent structures such as the following:

(25)



but not for extraposition structures, if the assumption is made that COMP is the head of $\bar{S}$, so that the $\bar{S}$ nodes in the following are not available for an extended version of c-command:

(26)



For sentence (18) (a), then,

(18) (a) Sie haben geglaubt, alle verloren zu haben.
They believed that they had all lost.
(to have all lost)

it would not be possible to relate the embedded quantifier to matrix subject and thus to a matrix QR-adjunction position. The structure for (18) (a) at LF would be as follows:

(27) Sie$_i$ haben geglaubt [$_{\bar{S}}$ [$_S$ [PRO alle]$_i$ [$_S$ x_i t_i verloren zu haben]]]

where the embedded quantifier position is c-commanded both by the NP which it quantifies and the QR-adjunction position to which this is raised.

For the coherent construction (20):

(20) Weil sie alle verloren zu haben glaubten, ...
(Since they all lost to have believed)

both the matrix and embedded scope interpretations are possible since the original quantifier position is c-commanded in each case. Matrix scope interpretation is thus as follows:

(28) $[_{\bar{S}}$ weil $[_S$ [sie alle]$_i$ $[_S$ x_i $[_{\bar{S}}$ $[_S$ PRO_i t_i verloren zu haben]] glaubten]]]
Since they all believed that they had lost

and embedded scope as follows:

(29) $[_{\bar{S}}$ weil $[_S$ sie_i $[_{\bar{S}}$ $[_S$ [PRO alle]$_i$ $[_S$ x_i t_i verloren zu haben]]] glaubten]]
Since they believed that they all had lost

For sentence (13) (b)

(13) (b) Die Jungs liessen diesmal das Fest sich beide/beiden nicht mehr vermiesen.
(The boys let this time the party to themselves both(+Nom)/both(+Dat) no more spoil)
(Huber 1980 : 362)

(30) $[_S$ [die Jungs beide]$_i$ $[_S$ x_i $[_S$ das Fest sich t_i nicht mehr vermiesen] liessen]]
This time both the boys didn't let the party be spoiled for them.

and with ***beiden***

(31) $[_S$ die Jungs $[_S$ [sich beiden]$_i$ $[_S$ das Fest x_i t_i nicht mehr vermiesen]] liessen]
This time the boys didn't let the party be spoiled for both of them.

In this way, then, it is possible to account for quantifier floating, without assuming that it is an argument for monosententiality. Within Kayne's (1981) analysis the control examples can be accounted for straight forwardly under the Binding Theory and the concept of governing category determined by an accessible SUBJECT. Given the assumptions about the [NP, S] position in passive constructions made so far the same analysis can be extended to ***lassen*** infinitivals. The scope properties of the

quantifiers can then be determined via QR, on the additional assumption that the quantifier is initially raised to the NP it modifies, where the trace of this initial movement must be bound as required by the Binding Theory.

2. Negation

0. The two aspects of negation used as evidence for the monosententiality of certain embedded infinitival structures are those of scope and negative placement. Thus, Tappe (1982) argues that in object control cases such as the following:

(32) (a) ? Weil Paul dem Karl Maria nicht zu küssen vorschlägt ...
(Since Paul to Karl Maria not to kiss suggests)
Since Paul suggests to Karl that he not kiss Maria ...
(Tappe 1982 : 5)

(b) Weil Paul dem Karl nicht Maria zu küssen vorschlägt ...
(Tappe 1982 : 5)

(c) Weil Paul dem Karl Maria zu küssen nicht vorschlägt ...
(Since Paul to Karl (not) Maria to kiss (not) suggests)
Since Paul does not suggest to Karl that he kiss Maria...

the negative has narrow scope in the (a) sentence and wide scope in the remaining cases (sentence (b) is Tappe's example). In the subject control example, however, there is scope ambiguity between matrix and embedded S, when the negative is in front of the embedded verb:

(33) Weil Paul die Maria nicht zu küssen versucht ...
(Since Paul Maria not to kiss tried)
(Tappe 1982 : 5)

As far as negative placement is concerned, subject control sentences such as (33) have variants with unambiguous wide scope, where the negative is placed in front of the matrix verb, as in the case of object control verbs:

(33') Weil Paul die Maria zu küssen nicht versucht ...
(Since Paul Maria to kiss not tries)
Since Paul doesn't try to kiss Maria...

This is not the case, however, for $\overline{S}$ deletion complements. where the negative with wide scope appears in front of the embedded verb:

(34) (a) Weil er sie das Buch nicht lesen liess ...
(Since he her the book not read let)
(b) *Weil er sie das Buch lesen nicht liess ...
(Since he her the book read not let)
Since he didn't let her read the book...

(35) (a) Weil er sie nicht 'reinkommen hörte ...
(Since he her not come in heard)
(b) *Weil er sie 'reinkommen nicht hörte ...
(Since he her come in not heard)
Since he didn't hear her come in...

Reasons such as these, as has already been stated, are taken to be evidence for a $\overline{VP}$ analysis in Haider (1979) and for VR in Evers (1975).

2.1 Negative placement

In simple sentences the positioning of the negative element may be determined by scope, where the negative is placed in front of the constituent over which it has scope:

(36) (a) Die Kinder sollten ***nicht abends lange fernsehen***.
(The children should not in the evening long watch television)
The children shouldn't watch television for a long time in the evening.
(b) Die Kinder sollten abends ***nicht lange fernsehen***.
(The children should in the evening not long watch television)
In the evening the children shouldn't watch television for a long time.
(c) Die Kinder sollten abends lange ***nicht fernsehen***.
(The children should in the evening long not watch television)
What the children shouldn't do for a long time in the evening is watch television.

(Heidolph, Flämig & Motsch 1981 : 221)

This is not always the case, however, and in the following the negative can have scope either over the whole sentence or, contrastively, simply over the verb:

(37) (a) ***Er wird das Grundstück nicht verkaufen*** (er behält es).
He won't be selling the piece of land. (He'll be keeping it)

(b) Er wird das Grundstück *nicht verkaufen* (sondern *verpachten*).
He won't be *selling* the piece of land (but *leasing* it).
(Heidolph, Flämig & Motsch 1981 : 221)

As far as the gravitation of the negative towards the verb is concerned, the following seems to be true: the negative comes between the verb and its direct object but in front of a predicative NP, AP, or ADV:

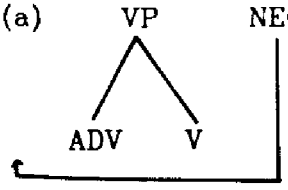
(38) (a) Weil er das Buch *nicht* las...
(Because he the book not read)
Because he didn't read the book ...
(b) Da er *nicht* mein sohn ist ...
(Because he not my son is)
Because he isn't my son ...
(c) Wenn es heute *nicht* kalt ist ...
(If it today not cold is)
If it isn't cold today ...
(d) Weil der Wagen glücklicherweise *nicht* auf einem Nebengleis stand...
(Since the wagon fortunately not on a siding stood)
Since fortunately the wagon wasn't standing on a siding
(Heidolph, Flämig & Motsch 1981 : 198)

For contrastive purposes the negative may come between a strictly sub-categorized adverbial and the verb:

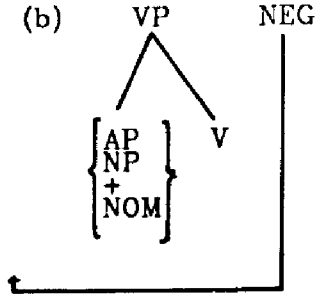
(39) Klaus ist auf einen Baum *nicht* geklettert (sondern ...)
(Klaus is up a tree not climbed (but ...))
Klaus didn't CLIMB up the tree (but ...)
(Heidolph, Flämig & Motsch 1981 : 222)

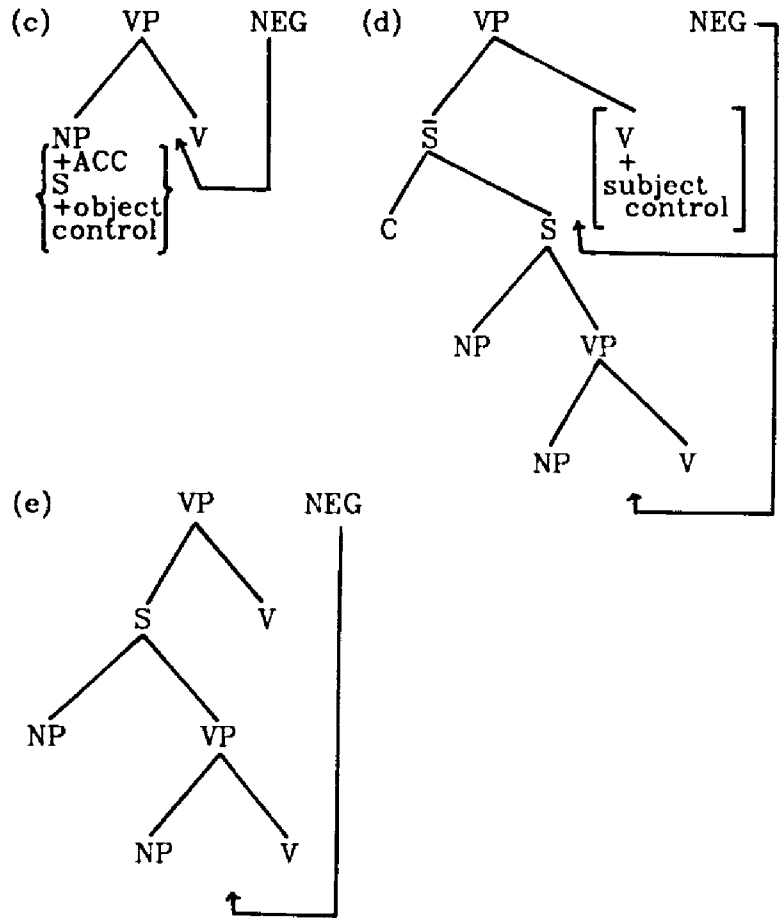
Configurationally, then, the following pattern emerges:

(40) (a)



(b)





The task is to explain why the negative is not permitted between V and the S in the $\bar{S}$ deletion cases, although it appears in this position for NP and $\bar{S}$ objects. Note that what is true of the negative element in this case seems also to be true of adverbs.

It would appear, then, that although there is normally no adjacency requirement for verbal government in German, in the case of $\bar{S}$ deletion adjacency is required. Normally the verb can be separated from the direct object by adverbial material:

(41) (a) Weil er die Kinder lange beobachtet hat ...
(Since he the children long observed had)
Since he had observed the children for a long time ...
(b) Weil es seine Frau gestern den ganzen Tag störte, dass ...
(Since it his wife yesterday the whole day disturbed that ...)
Since it disturbed his wife the whole day yesterday that ...

This is also true for $\bar{S}$ complements:

(42) Weil er sie zu erreichen lange versuchte
(Since he her to reach long tried)
Since he had been trying to reach her for a long time

but not in the case of $\bar{S}$ deletion:

(43) (a) *Weil er sie reinkommen gerade hörte...
(Since he her come in just heard)
(b) Weil er sie gerade reinkommen hörte...
(Since he her just come in heard)
Since he had just heard her come in...
(c) *Weil er zu überlegen lange schien...
(Since he to think long seemed)
(d) Weil er lange zu überlegen schien...
(Since he long to think seemed)
Since he seemed to think for a long time...

It would appear, then, that there is a locality requirement for government across an S boundary, and that in the subcategorization frame of $\bar{S}$ deletion verbs no material may appear between the verb and its S complement.

2.2 Scope interpretation

In a recent talk at Groningen (May 1983) Henk van Riemsdijk suggested that in the case of Zürich German the scope of adverbs and negation is determined in the base and actual placement at PF, and that this is fundamentally different to the treatment of quantified noun phrases. Note that an assumption of "late" adverbial placement was also made in chapter 4 in the discussion of stylistic subject postposing, and that this seems to be rather natural, given the phonological and pragmatic factors influencing the positioning of adverbs and the negative element. Nevertheless, in such an account the adjacency requirement for government outlined above would be lost as an explanation for the obligatory nature of (40) (e), unless the same requirement might be assumed to exist at PF for Case checking or alternatively for the morphological realization of the Case index. At the same time, there seem to be obvious parallels with the configurationality of scope interpretation in the case of *beide* and *alle* and the same feature of contrast with WH-movement facts.

Although judgements vary and semantic and pragmatic factors may be involved in the various cases, WH-movement is possible from intraposed and extraposed infinitival complements of object control as well as subject control verbs:

(44) (a) Wen hat er versucht, frühzeitig genug zu warnen?
(who had he tried early enough to warn)

(b) Wen hat er frühzeitig genug zu warnen versucht?
(who had he early enough to warn tried)
Who did he try to warn in time?
(c) Den Soldat hat er versucht, frühzeitig genug zu warnen.
(The soldier had he tried early enough to warn)
(d) Den Soldat hat er frühzeitig genug zu warnen versucht.
(The soldier had he early enough to warn tried)
The soldier, he had tried to warn early enough.

(45) (a) Was hat der Vater seinem Sohn zu lesen empfohlen?
(what had the father to his son to read recommended)
(b) Was hat der Vater seinem Sohn empfohlen zu lesen?
(What had the father to his son recommended to read)
What did the father advise his son to read?
(c) Das Buch hat der Vater seinem Sohn empfohlen zu lesen.
(The book had the father to his son recommended to read)
(d) Das Buch hat der Vater seinem Sohn zu lesen empfohlen.
(The book had the father to his son to read recommended)
The book, the father advised his son to read.

It is generally felt that extraction is better from intraposed sentences and optimal in the case of subject control verbs, but extraction is, nevertheless, possible in the extraposed and object control cases. At the same time, in contrast to the claim in Tappe (1982) that embedded negatives may have wide scope only in the case of subject control complements, informants not only found wide scope possible, but in some cases unambiguous in the following example:

(46) Weil der Vater seinem Sohn das Buch nicht zu lesen empfahl ...
(Since the father to his son the book not to read recommended)
Since the father didn't advise his son to read the book...

Where there was found to be ambiguity, this disappeared after extraposition, where only embedded scope was possible:

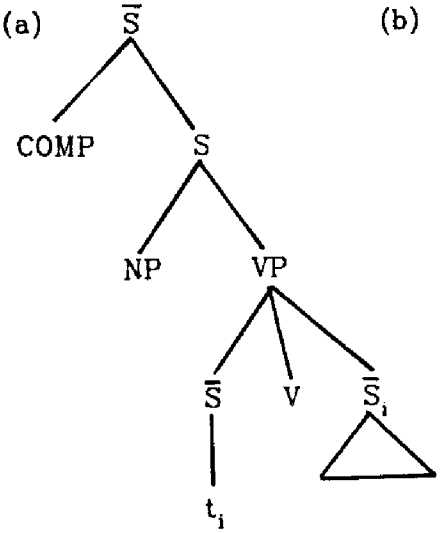
(47) Weil der Vater seinem Sohn empfahl, das Buch nicht zu lesen ...
(Since the father to his son recommended the book not to read)
Since the father advised his son not to read the book...

There thus seems to be asymmetry between WH-extraction possibilities and those of negative interpretation, where although WH-movement is sometimes possible from an extraposed infinitival complement, matrix

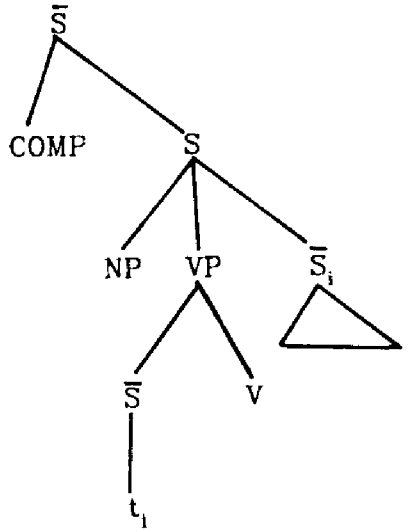
scope interpretation for a negative is not. Note that the same impossibility of matrix scope interpretation for quantifiers in extraposed complements has already been discussed above (cf. diagram (26)).

It has already been suggested in chapter 3 that extraposition is a diagnostic for S deletion in German in that the dislocation of S deletion complements will always, in the core case, result in violations of Binding Theory or the θ-Criterion, though there may well be dialectal possibilities of a limited reconstruction at LF. From this viewpoint, then, extraposition is in the syntax and is input to LF. Within this framework, the effects described above would be achieved by any configuration involving the displacement of the infinitival complement to the right, on the assumption that government properties cannot be reconstructed via the trace of the displaced S. The following are thus possible candidates for extraposition structure:

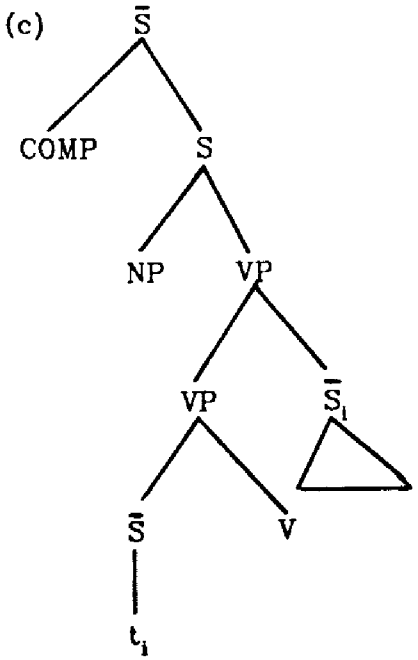
(48) (a)



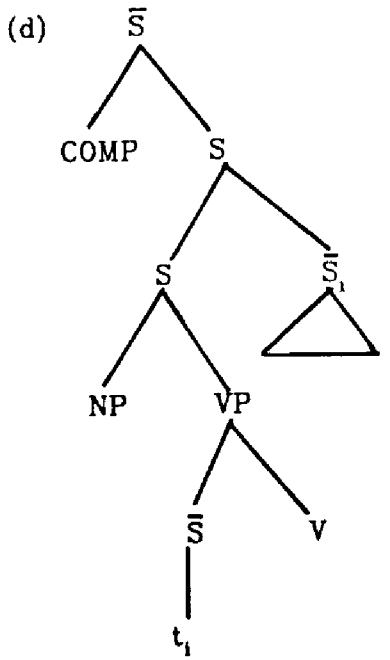
(b)

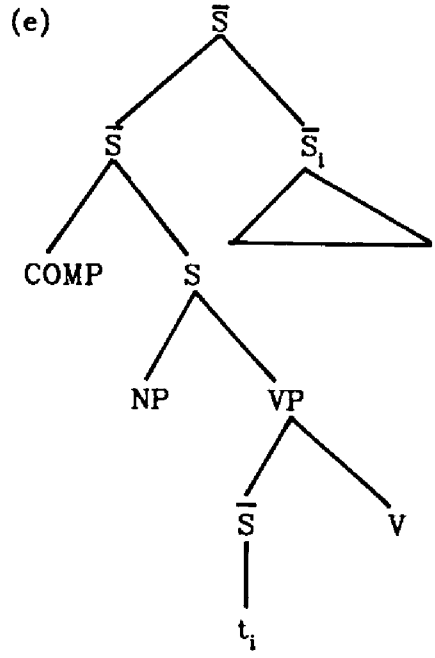


(c)

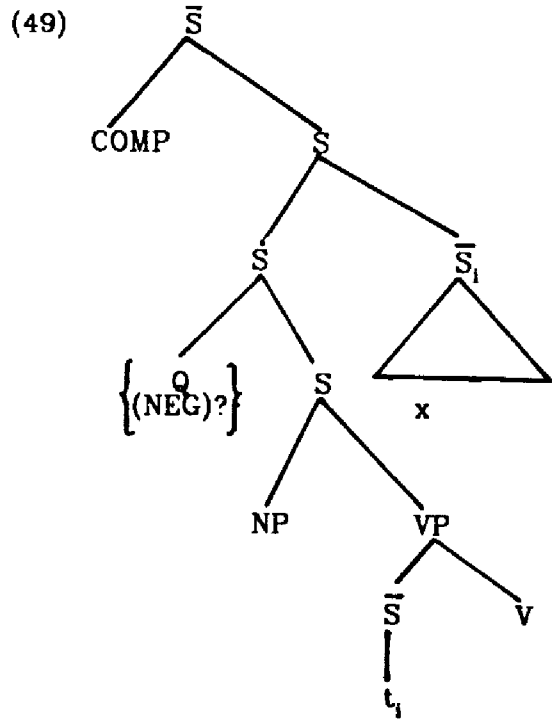


(d)



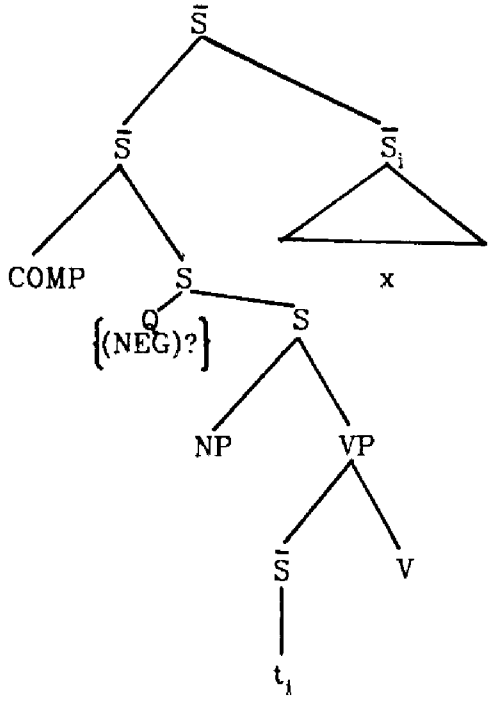


In any of these structures an element in COMP would c-command its trace in the extraposed $\bar{S}$. Under quantifier raising, however, the quantifier is not adjoined to COMP but to the S over which it has scope. Thus in the structures (a) to (c) a quantifier would c-command an extraction site in the extraposed $\bar{S}$. In (d), however, it could only be interpreted as doing so if an extended version of c-command was able to take the higher S node as the maximal projection dominating the quantifier:



Such an extended version of c-command would be excluded in (e) under the assumption that the head of $\overline{S}$ is COMP:

(50)



It would not exclude, however, binding of a variable in the extraposed complement by a WH-element in the matrix COMP. The asymmetry thus reduces to the distinction between elements that are adjoined to S and those which are in COMP.

3. Conclusion

Both rightward "movement" as in the case of *beide* and leftward "movement" as in the case of negative scope interpretation, together with the restrictions on negative placement in $\overline{S}$ deletion constructions cannot be taken as convincing arguments for monosentential structures that are either the result of base-generation or of verb raising. The rightward movement data are the same as the *R-Tous* data in English, French, Spanish and Italian and are compatible with quantifier raising if, within the framework of Jaeggli's (1982) anaphoric interpretation, a primary LF movement is assumed which rejoins the quantifier with the element it modifies prior to QR. As far as negation is concerned, the government properties of $\overline{S}$ deletion verbs and an adjacency requirement for this purpose would account for the placement facts on the one hand, and a QR account of scope would capture the parallelism with the facts of quantifier scope and the similarity of contrast with WH-movement possibilities. If, on the other hand, it is assumed, as seems natural from the viewpoint of phono-

logical and pragmatic conditions, that Neg Placement is a late rule in PF, some adjacency requirement might be assumed to apply for Case assignment or checking. The details of such PF movement are unclear, however, and in the absence of insight into PF conditions, the QR approach would seem preferable, because of its generality.

7 Initial constituents, topicalization and clitics

0. It has been demonstrated so far that many symptoms of surface monosententiality raised in earlier approaches, such as coherence factors in relation to 'VP' pied piping and extraposition, plus transparency in the case of quantifiers and reflexives, can be accounted for under an $\overline{S}$ deletion approach to *scheinen* and AcI infinitival complement structures. What still needs to be made explicit with respect to the original 'initial constituents' arguments for monosententiality in Reis (1973), Ebert (1975) and Olsen (1981), are the conclusions about the subject position reached in chapter 4. At the same time, some of the marginal topicalization data given by Huber (1980) and Haider (1979) still raise basic questions about the nature of topicalization and the interaction of components in a modular grammar. In a sense both these issues concern fundamental properties of structure and movement in a grammar of German, and in particular the extent to which the generality of Thiersch's (1978) R2 can be maintained. A further problem concerning proposals made in Thiersch (1978) are the cliticization facts. Thus, although it was tacitly assumed in chapter 2 and chapter 4 that these fall under the Stl. (rightward) movement analysis proposed by Thiersch, this account still does not explain the examples given by Harbert (1977) and Huber (1980) where a clitic pronoun precedes an embedded *pronominal* subject:

(1) (a) Ich liess es ihn sagen.
(I let it him say)
I let him say it.
(Harbert 1977 : 140)

(b) Der Chef hat es ihn versuchen lassen.
(The boss has it him try let/have)
The boss let/had him try it.
(Huber 1980 : 148)

In the following it will be argued that although there is some evidence for a limited reanalysis in the lexicon, with respect to some 'topicalization' facts, this does not interact with other phenomena peculiar to these constructions, so as

to warrant any extension of the restructuring possibility to account for these phenomena.

1. Topicalization

0. Although in general 'topicalization' is taken to be a test of constituency in German, so that the following is often offered as evidence for a VP node:

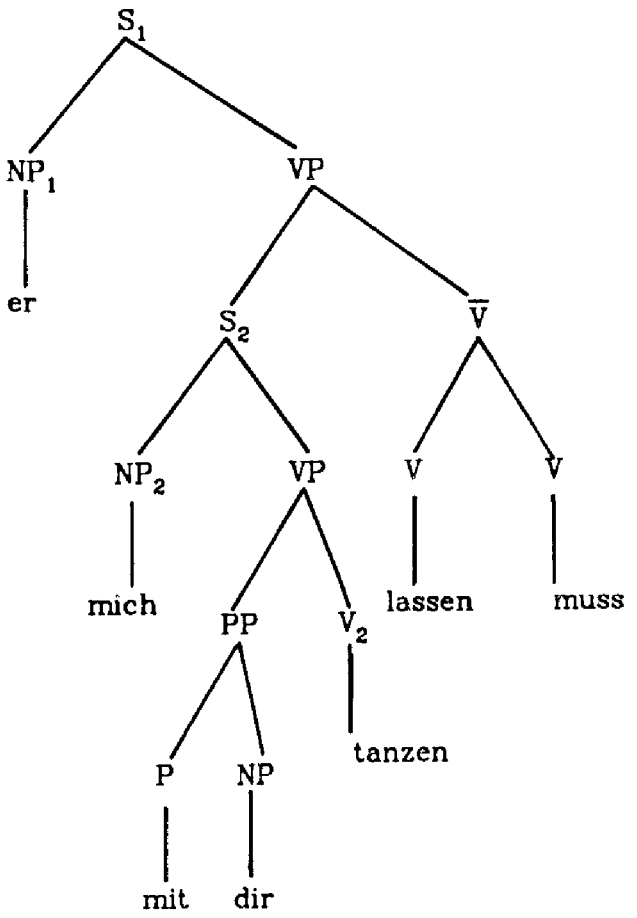
(2) [$_{VP}$ Den Hund geschlagen] hat Hans
(The dog beaten has Hans)
Hans beat the dog.

in the following examples (from Huber's manuscript) discussed by Haider (1979) and Huber (1980), not only are two constituents topicalized, but in some cases these are from different S's:

(3) (a) Mich mit dir hat er tanzen lassen, aber nicht dich mit mir.
(me with you has he dance let, but not you with me)
He let me dance with you but not you with me.
(Huber 1980 : 144)
(b) Tanzen lassen muss er mich ja doch mit dir.
(dance let must he me indeed after all with you)
(c) Mit dir tanzen lassen muss er mich ja doch.
(with you dance let must he me indeed after all)
He has to let me dance with you after all.
(Huber 1980 : 137)
(4) Streiten gehört (haben) muss er mich doch nicht (gerade) mit ihr.
(quarrel heard (have) must he me after all not (precisely) with her)
He mustn't have heard me quarrelling with her (of all people).
(Haider 1979 : 189)

Thus, if the structure underlying (3) (and (4)) is as follows:

(5)



in (3) (a) the embedded subject, NP_2, is topicalized with the PP in VP, in (3) (b) the embedded verb, V_2, is topicalized with the matrix verb, and in (c) the embedded VP is topicalized with the matrix verb. In (4) the embedded verb and the matrix verb are topicalized together. The question, then, arises of how such a double topicalization might be analyzed.

1.1 Double topicalization, R2 and PF

As has already been discussed in chapter 2, Huber (1980) assumes a late rule of Linearization, which destroys the configuration of S's, but not of $\overline{S}$'s (in his terminology, S's dominated by NP), thus applying to the complements of *lassen* but not to those of control verbs. Adjacent constituents that are the output of this rule may be topicalized together. From the viewpoint of a more recent (T) model of grammar, such as proposed by Chomsky and Lasnik (1977), such a process might be allocated to the PF component, or even a later component such as the pragmatics.

Although topicalization of this kind, in those dialects where it is allowed, is likely to be pragmatically determined, there is little evidence to suggest that the rule that fills the sentence initial node in root sentences does not take place in the syntax. Thus, as already argued from chapter 2 onwards, Thiersch's (1978) rules R1 and R2

(6) R1: COMP1, ..., $\underset{[+Tns]}{V}$ 3, 2, ϕ

R2: COMP2, ..., X 3, 2, ϕ

(Thiersch 1978 : 164)

capture the verb second characterization of root sentences in German. As already seen, R2 can put almost any constituent (in the following subject, object or adverb) in sentence initial position:

(7) (a) Base: ich Hans gestern sah
(I Hans yesterday saw)
(b) R1: sah ich Hans gestern_____
(saw I Hans yesterday)
(c) R2: ich sah____ Hans gestern_____
I saw Hans yesterday.
(d) R2: Hans sah ich____ gestern_____
(Hans saw I yesterday)
(e) R2: gestern sah ich Hans____ ____
(yesterday saw I Hans)

To the extent that choice of initial constituent is always determined by pragmatic conditions - even question formation is determined pragmatically - it seems likely that R2 is part of Move α, and the output is checked, along with everything else, in the pragmatic component.

It seems unlikely in view of the ultimate checking function of the pragmatic component that a second rule of topicalization exists, perhaps in PF, to move to COMP a second constituent, adjacent to the trace of the first. Where doubly filled COMP exists in Standard German, it is usually a case of two adverbials:

(8) (a) [Gestern] [am Strand] hat sie sich mit ihm getroffen
(Yesterday on the beach has she met him)
She met him yesterday on the beach.
(b) [Mit dem Ball] [ins Gesicht] hätte er ihm nicht werfen sollen
(with the ball in the face had he to him not throw should)
He shouldn't have hit him in the face with the ball.
(Heidolph, Flämig & Motsch 1981 : 182)

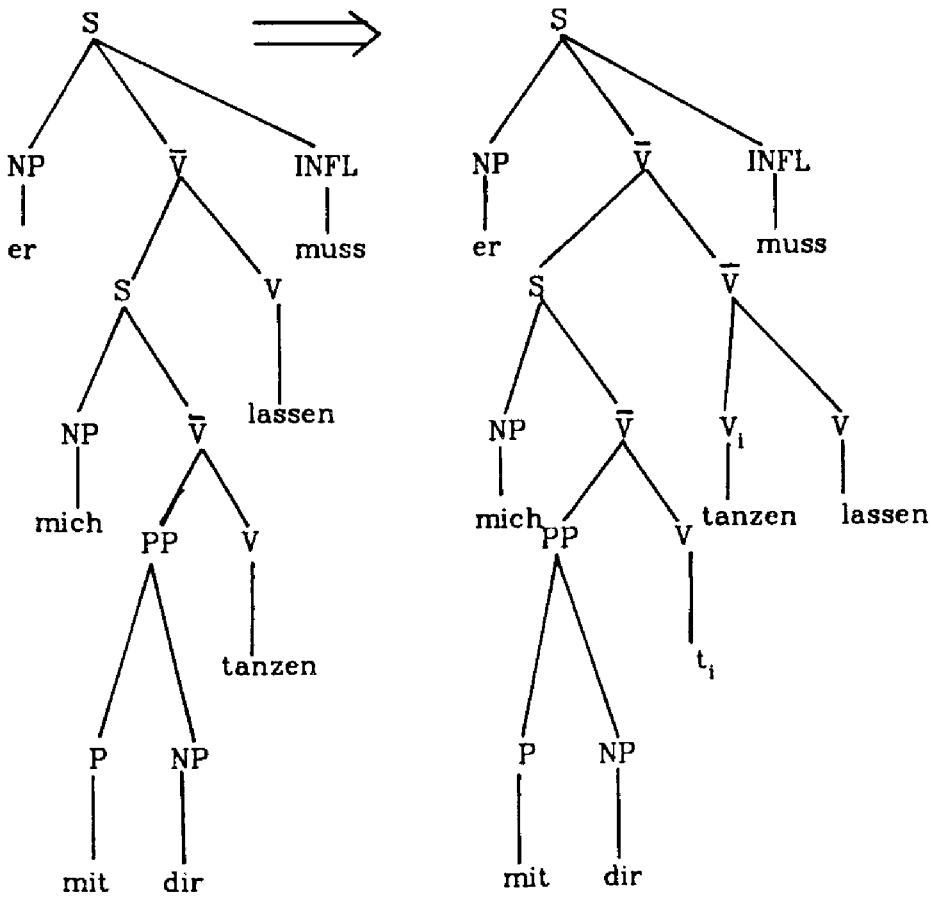
Here, as suggested in chapter 4, it is possible that adverbs are generated under a single node anyway. Note that if $\bar{S}$ topicalization and extraposition were late rules, they would not be subject to LF and the explanation for non-extraposition and non-'VP' pied piping, in other words the non-dislocation of $\bar{S}$ deletion complements, proposed in chapter 3 would be lost. If topicalization

and extraposition are input to LF they cannot take place at PF.

1.2 VR

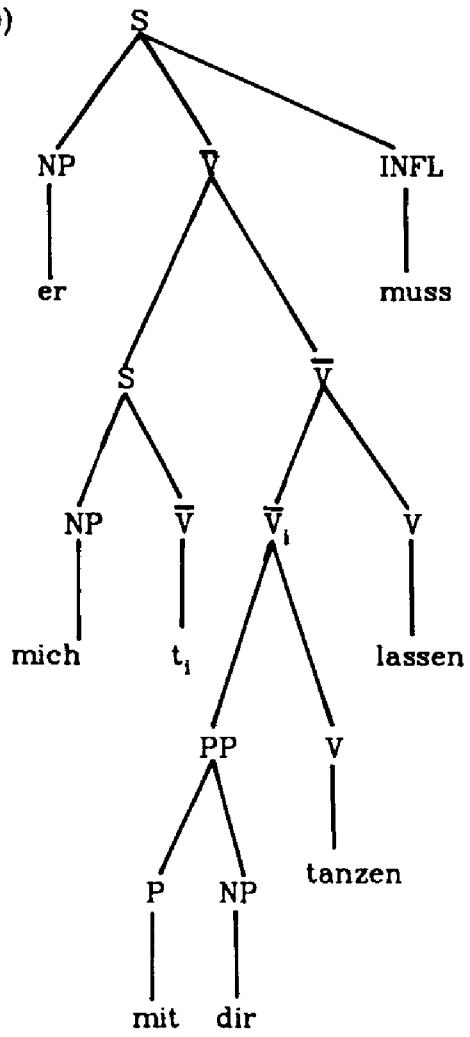
The two remaining possibilities for the structures in (3) and (4) are restructuring or Verb or $\bar{V}$ Raising, analogous, perhaps, to $\bar{V}$ preposing in the French causative construction (cf. Rouveret and Vergnaud (1980)). Thus, for sentence (3) (b) one could postulate that VR has taken place prior to topicalization:

(9)



Note that for ease of exposition it has been assumed, following a suggestion for auxiliaries in Dutch by Reuland (1981 : 164), that the modal is base generated under the Tense element in INFL. A layered VP analysis, however, would make no difference to the argumentation, as long as the modal remains a constituent outside the verb and $\bar{V}$ (=VP) complexes which are fronted. For sentence (3) (c), on the other hand, it would be necessary to postulate $\bar{V}$R.

(10)



Arguing against $\bar{V}R$ as an explanation of topicalization, however, is the fact that it cannot explain sentence (3) (a), where the constituents preposed are inside the embedded S, in other words are the subject and prepositional object. The question also arises whether $\bar{V}R$ might explain more than sentence (3) (c), namely the idiosyncrasies of AcI transparency to reflexivization. If $\bar{V}R$ is to explain reflexivization, however, it must at the very least distinguish between $[_{VP}$ NP V] and $[_{VP}$ PP V] as in the following:

(11) (a) Hans$_i$ liess Emma$_j$ für sich$_i$ votieren.
(Hans let Emma for himself vote)
Hans let Emma vóte on his behalf.
(Grewendorf 1982 : 65)

(b)*Hans$_i$ liess die Leute$_j$ sich$_i$ Schnaps besorgen.
(Hans let/had the people to himself Schnaps buy)
Hans had the people get him some Schnaps.
(Reis 1976 : 28)

and between the prepositional phrase in (11) (a) and in the following:

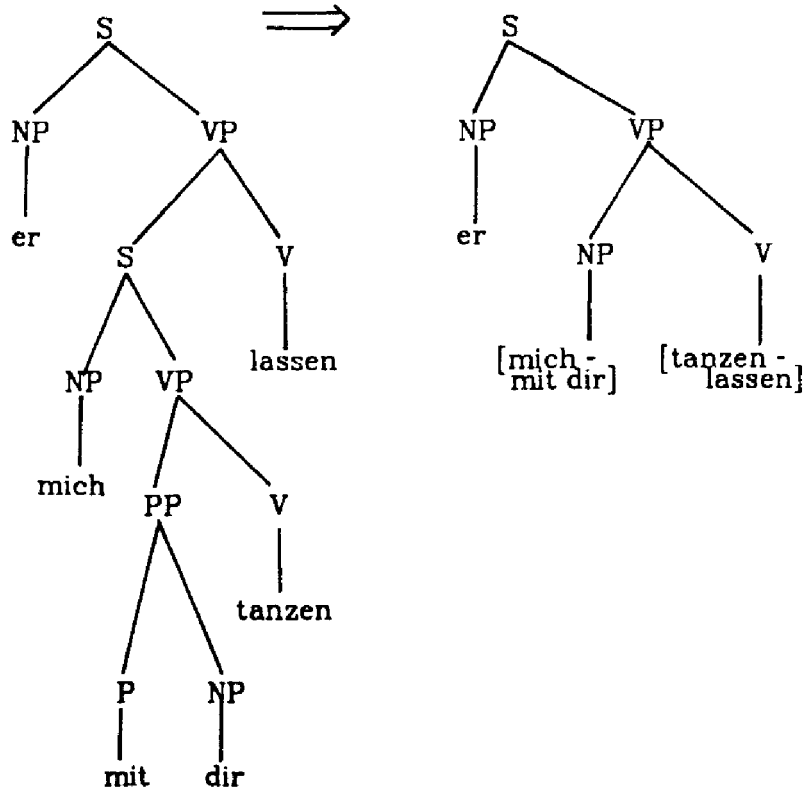
(12)*Hans$_i$ liess die Schülerin$_j$ mit sich$_i$ tanzen.
(Hans let/had the schoolgirl with himself dance)
Hans let the schoolgirl dance with him.
(Grewendorf 1982 : 62)

It should be pointed out that speakers who rejected (12) also rejected all examples of double topicalization of the kind exemplified in (3) and (4). Since it was not possible to find speakers who accepted (3) and (4) it was not possible to test reflexivization judgements of such speakers. The fact remains, however, that whereas reflexivization of prepositional objects in AcI complements, under coreference with the matrix subject, is generally accepted under certain conditions, the majority of speakers do not accept the kind of topicalization that might be fed by $\bar{V}R$. The prediction that matrix reflexivization is possible just in those cases where $\bar{V}R$ has taken place, therefore, cannot be substantiated.

1.3 Reanalysis or restructuring

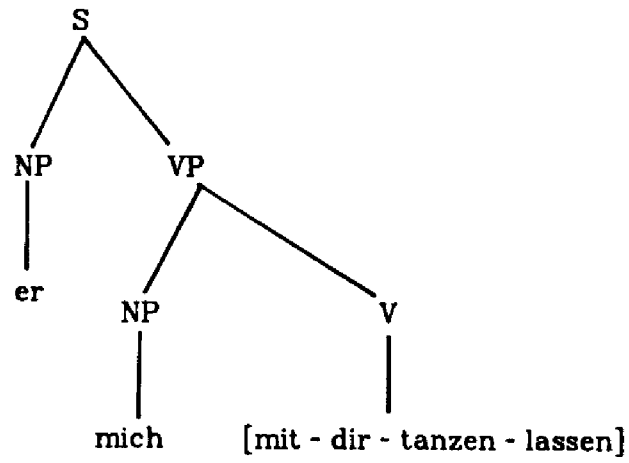
The remaining possibility is that there is reanalysis in the lexicon or else that a rule of restructuring applies. Since, by definition, restructuring destroys the bracketing between adjacent constituents, the following derivation might be postulated, preliminary to the topicalization in (3) (a) and (b).

(13)



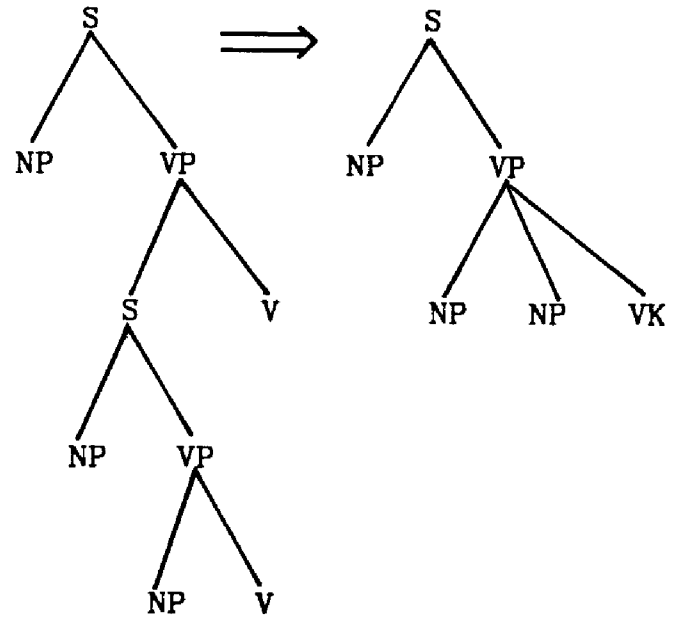
The structure required for (3) (c), however, is less convincing

(14)



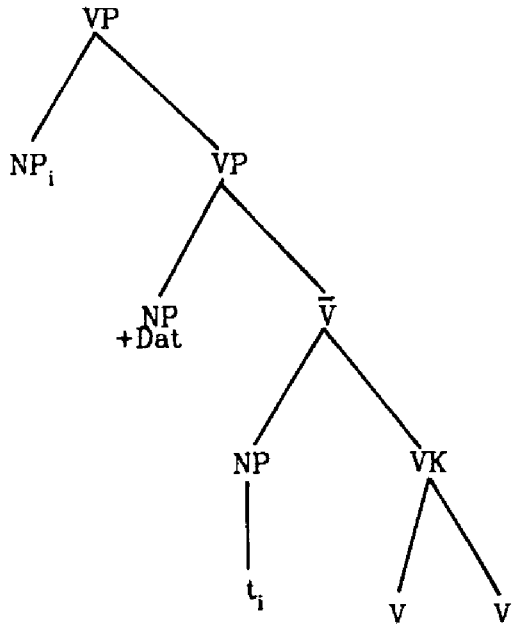
Although Chomsky (1982 : 15) states that "reanalysis and restructuring processes may yield phrase-markers that are not representable as tree structures", the question arises of how Case might be assigned or checked in such examples. Thus, in (13) above, the target structure closely resembles possible base structures, where it might be assumed that the verb (complex) assigns to the noun phrase Case, which percolates down to its head. Such an account is not possible, however, where there are two noun phrases, for example subject and object with the same or differing Cases:

(15)



The only possible structure where Case would be differentiated is the kind of structure-building adjunction that might be postulated for stylistic subject-postposing (cf. chapter 4) but which is scarcely compatible with restructuring:

(16)



One might restrict restructuring in principle to cases where the resultant structure is a 'possible' base structure. Thus, although most speakers reject the topicalization of double constituents, the (b) sentence in the following was found to be completely acceptable, in contrast to the (a) sentence:

(17) (a)*Holen lassen musste er seinen Sohn Zigaretten für sich.
(get have had he his son cigarettes for himself)
He had to get his son to get some cigarettes for him.
(b) Holen lassen musste er die Zigaretten.
(get have had he the cigarettes)
He had to have someone get the cigarettes.

Here the verbs have undergone an apparently lexical reanalysis, analogous to the following examples in English:

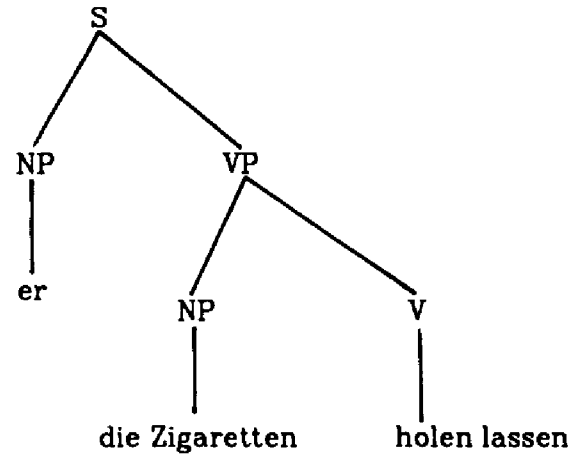
(18) (a) He made-believe that they had gone.
(b) He made-believe that they were still there.

In both cases the presence of a thematic subject blocks the reanalysis:

(19)*He made-believe everyone that they had gone.

It seems likely, then, that a limited reanalysis such as in (17) (b) is generally possible, whereby simple sentence structure is achieved:

(20)



In some dialects the process is extended, in a way that has to be made clear, to embedded S's containing further constituents. Note that restructuring does not explain the reflexive data, for the same reason that $\overline{V}R$ does not, namely because in active AcI infinitivals (as opposed to passive and FLIP infinitivals) reflexivization is reserved for NPs in the context of certain prepositions, a fact that cannot be captured by $\overline{V}R$ or restructuring.

2. Initial constituents

In the previous section it was argued that Thiersch's (1978) R2, subsumed under Move α, is responsible for deriving all initial constituents in German root sentences. This conclusion was already anticipated in chapter 2 where in the discussion of Olsen's (1981) approach to initial constituents in *scheinen* infinitivals it was suggested that her analysis (a 'late rule' of topicalization after VR) did not achieve the generality and insight of the R2 rule. The data discussed by Olsen were the impersonal passive embeddings under *scheinen*, discussed by Ebert (1975), going back, perhaps, to the discussion of impersonal passives under *lassen* in Reis (1973). Olsen, however, claims that not only the following demonstrate 'simple sentence structure':

(21) (a) An dem Wagen scheint gearbeitet zu werden.
(On the car appears worked to become)
The car seems to be being worked on.

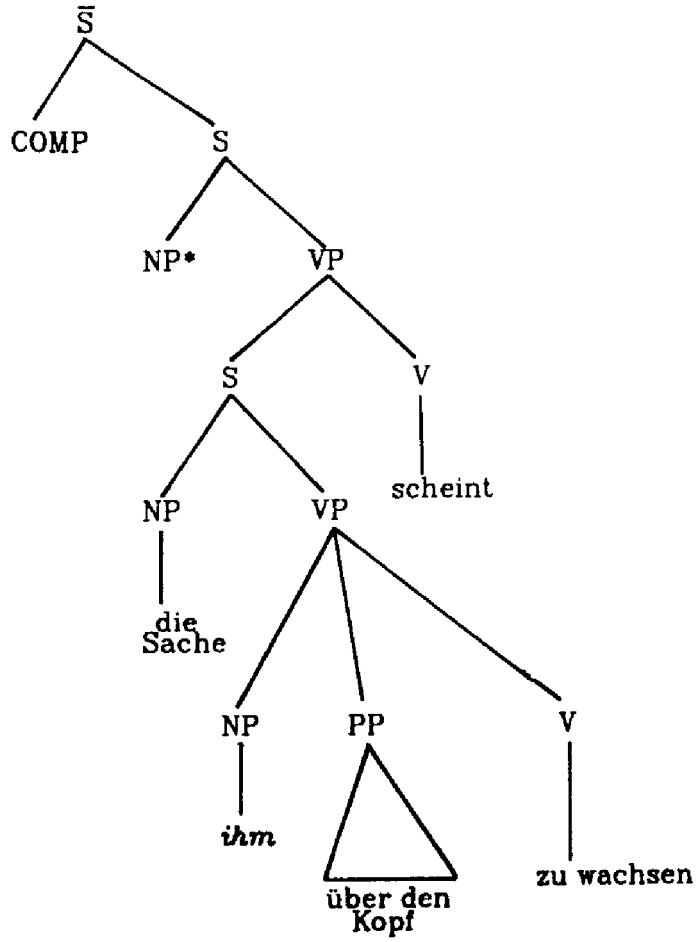
(b) Ihm scheint geholfen worden zu sein.
(To him appears helped to be)
He appears to have been helped.
(Ebert 1975 : 178)

but also active sentences where constituents other than the nominative NP appear in sentence initial position:

(22) (a) Die Sache scheint ihm über den Kopf zu wachsen.
(The matter seems to him above the head to grow)
(b) *Über den Kopf* scheint ihm die Sache zu wachsen.
(Above the head appears to him the matter to grow)
(c) *Ihm* scheint die Sache über den Kopf zu wachsen.
(To him appears the matter above the head to grow)
(Olsen 1981 : 135)

The argument in the case of the latter is that movement across the subject violates the SSC:

(23)



Note that the SSC is violated here only if it is assumed that the movement is something akin to NP-rather than WH-movement. The same is true of the following, which exemplifies the non-movement-of-subject option discussed in chapter 4:

(24) [$_S$ Den Wagen$_j$ scheint$_K$ [$_S$ *pro*^{i} mir [$_S$ der Karl^i t$_j$
gekauft zu haben] t$_K$]]
(That car appears to me Karl to have bought)
Karl seems to me to have bought that car.

If, as seems reasonable to assume, initial constituents in *scheinen* infinitivals are derived via Thiersch's R2 rule, the question arises as to the nature of this rule in the cases concerned and, in particular, of the trace left behind. Thus, under a non-movement analysis, as required by example (24), the SSC is indeed violated, or, in terms of the Binding theory, the trace remains unbound within the governing category created by the accessible SUBJECT, namely the embedded clause. The SSC and Binding Theory are only violated, however, if the un-Case-marked trace of NP movement is left behind. The acceptability of the sentences in (21) to (24), on the other hand, where accusative Case is inherited in (24), and a non-NP is moved in (21) (a) and (22) (b), is evidence that R2 in these cases is not NP movement but WH-movement. Note that the same analysis is required in the case of simple sentences, where R2 moves a non-nominative NP into sentence initial position. A possible analysis of the COMP area could thus be as suggested by den Besten (1980), where the COMP expansion [+WH] can be replaced by the left dislocation 'D' element-feature [+D]. Initial constituents are thus realized by the deletion of the 'D' element concerned:

(25) (a) Den Johann, den kenne ich nicht.
(The John, him I don't know)
(b) Den Johann ___ kenne ich nicht.
(The John I don't know)
I don't know John.

In any case, whatever analysis of COMP is chosen, the trace within S must behave for the purposes of Binding Theory as a variable.

As discussed in chapter 3, whatever definition of bounding is chosen, either (26) (i), (ii) and (iii) with cyclicity, or (26) (i) and (ii) with one-step movement:

(26) (i) $\bar{S}$ is a bounding node in the context _____[±WH]
(ii) S is a bounding node in the context [±WH]_____
(iii) S is a bounding node when governed
(Chomsky 1981 : 307)

WH-extraction from the embedded S does not violate subjacency in $\bar{S}$ deletion structures, either in German, English or Italian:

(27) (a) Who_i did John expect $[_S$ Bill to see $t_i]$
(Chomsky 1981 : 305)
(b) Who_i did John_j [t_j seem to like t_i]
(c) i libri che_K sai $[_{\bar{S}}$ a quanta gente_i $[_S$ Piero_j pareva t_i $[_{\bar{S}}$ COMP$[_S$ t_j aver prestato t_K]]]]
(the books that you know how many people Piero seemed to have lent)
(Chomsky 1981 : 307)

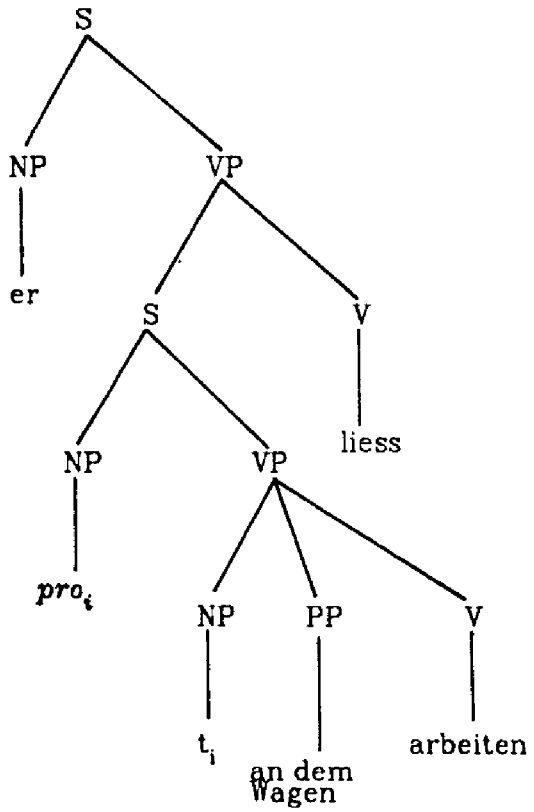
For sentences such as (22), therefore, the derivation is simply the result of Move α (Rule 2).

For sentences such as (24) and (28) where the embedded subject does not move

(28) Weil pro^i mir $[_S$ der Karl^i den Wagen gekauft zu haben] scheint ...

there is cosuperscripting with a non-argument *pro* in [NP, S] position. The apparent presence of the experiencer *mir* in sentence-initial position in (28) is thus simply due to the fact that the *pro* preceding it is not visible at surface-structure. The same is true of impersonal passives embedded under *lassen*, where once again the sentence-initial presence of constituents such as PP is only apparent, since the constituent is preceded by quasi-argument *pro* as suggested in chapter 4:

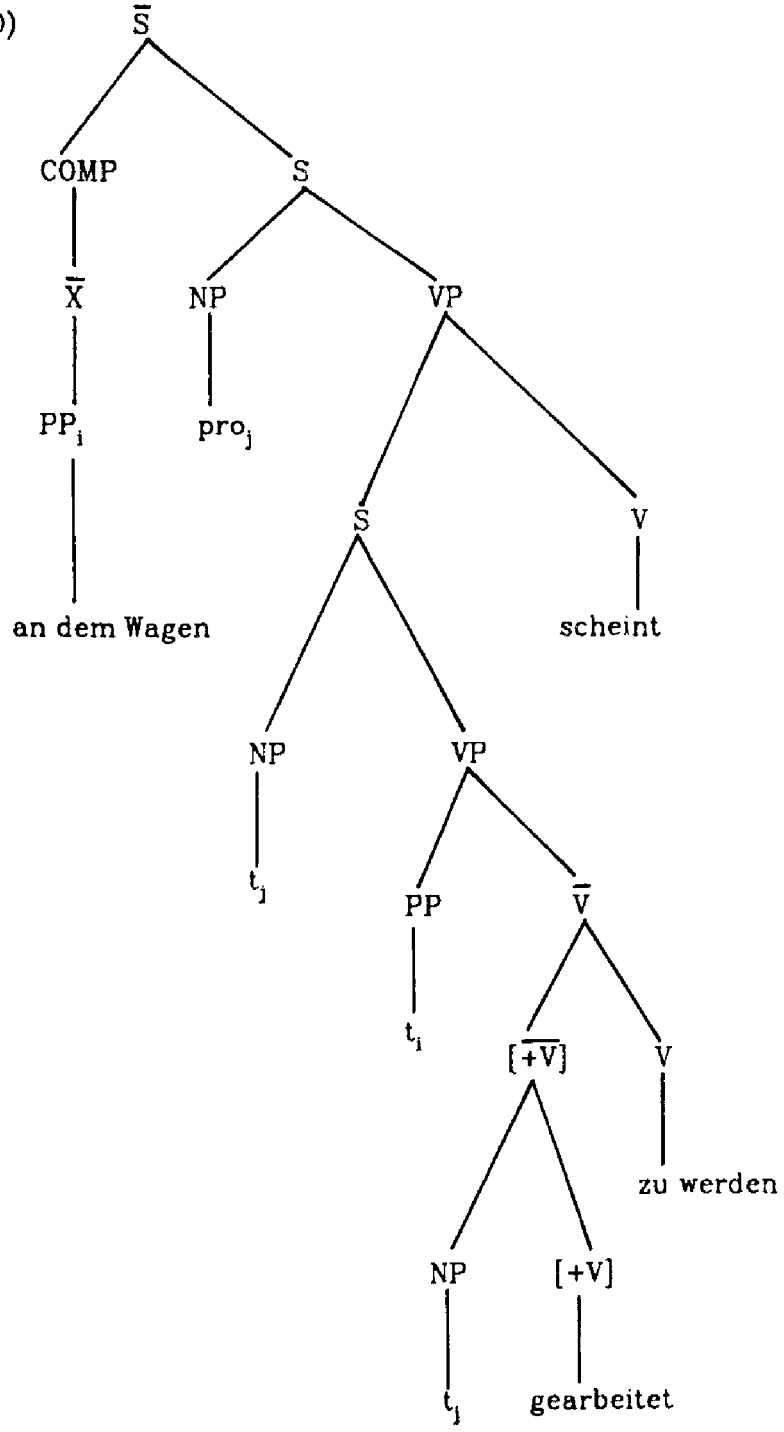
(29)



Note that in chapter 4 it was suggested that *pro* in the case of the impersonal passive was coindexed with a quasi-argument position in VP and was the result of Θ-role externalization, possibly required by passive morphology. Since under *lassen* there is no passive morphology the mechanism of Θ-role externalization, if it exists, must be determined by other factors indicative of the passive, such as the optional presence of agent phrases and in particular the fact that the VP of which the embedded verb is head does not assign a Θ-role to the embedded subject (note that in the case of transitive embeddings there is also Case absorption).

In embeddings under *scheinen* passive morphology shows up on the verb. The quasi-argument *pro* (bearing the externalized Θ-role) is raised to matrix [NP, S] position and the initial constituent derived via WH-movement, assuming one of the definitions of subjacency discussed in connection with (26) above (where (iii) is chosen the collapse of $[_S$ t $[_S$ to $[_S$ does not affect the derivation - cf. Chomsky 1981 : 308).

(30)



If this is the case, it is possible to account for the data in Reis (1973), Ebert (1975) and Olsen (1981) via an $\bar{S}$ deletion approach, assuming for *scheinen* that the derivation of initial constituents is just another instance of the generally motivated rule R2.

3. Clitics

In chapter 2, Thiersch's (1978) explanation of the following sentence was discussed:

(31) (a) Weil ich es Cecilia auf Arabisch singen hörte, ...
(Since I it Cecilia in Arabic sing heard)
Since I heard Cecilia sing it in Arabic ...
(b) Weil ich das Lied eine sehr berühmte Sopranistin singen lehrte ...
(Since I the song a very famous soprano to sing taught)
Since I taught a very famous soprano to sing the song ...
(cf. Thiersch 1978 : 105ff)

where the argument was that in the AcI sentences, (31) (a), as well as in the control verb example, (31) (b), rather than leftward clitic movement, there has been rightward stylistic movement, capturing the optionality of this word order, which contrasts with the obligatory nature of the accusative-dative order under pronominalization:

(32) (a)*Weil ich ihm es gab, ...
(Since I him it gave ...)
(b) Weil ich es ihm gab, ...
(Since I it him gave ...)
Since I gave it to him ...

This account, however, does not cover the examples in (1) above, repeated here for convenience:

(33) (a) Ich liess es ihn sagen.
(I let it him say)
I let him say it.
(Harbert 1977 : 140)
(b) Der Chef hat es ihn versuchen lassen.
(The boss has it him try let/have)
The boss let/had him try it.
(Huber 1980 : 148)

The same kind of example can be formed with perception verbs:

(34) Weil Hans es ihn sagen hörte, ...
(Since Hans it him say heard)
Since Hans heard him say it ...

Clearly, Stl. cannot apply to move the subject, *ihn*, to the right of the object, *es*, since *ihn* is a pronoun and thus bears none of the features of weight and stress that condition movement in the case of full NPs. Note that the original cliticization rule in Thiersch (1978) is to sentence second position (a position which he suggests might be universal) since the order accusative-nominative is unacceptable in the case of pronouns:

(35) *Weil es er ihm gab, ...
(Since it he him gave)
Since he gave it to him ...

and presumably Stl. has moved the subject in the following:

(36) Weil es Hans ihm gab, ...
(Since it Hans him gave)
Since Hans gave it to him ...

The examples in (35) above, thus, share the features of *optionality* with the rule Stl. and that of [+pronoun] with the rule Cl. To extend the rule Stl. to accusative pronouns on the one hand, while facilitating the AcI derivations above, would nevertheless give unacceptable results, in undoing the obligatory effect of Cl. in the dative-accusative inversion cases:

(37)*Weil er ihm *es* gab
(Since he him it gave)

Another possibility, on the other hand, would be to reformulate the cliticization rule as a permutation rule, possibly in the Phonology:

(38) $\bar{X}, \bar{Y} \rightarrow \bar{Y}, \bar{X}$
1. X = -NOM
2. Optional if X = +ACC
3. Obligatory if X = +DAT

Note that condition 1. would not prohibit rightward movement of nominative

full NPs by Stl. This solution, however, is unsatisfactory for a number of reasons, some of which were discussed by Thiersch in connection with the postulation of a second, optional cliticization rule (leftward). The main objections are, on the one hand, a loss of generality in abandoning the (universal) claim of a 'Wackernagel' position, or redundancy if the initial leftward movement rule is assumed to coexist, and, on the other hand, the unwelcome step of allowing idiosyncratic conditions to enter the formulation of the rule.

The only possible alternatives then are to assume clause integration in the case of AcI constructions or some form of optional permutation at PF in the case of the sequence *ihn - es*. The first alternative can be rejected for various reasons discussed in section 1 of this chapter and in all the preceding chapters. The second approach seems more plausible in that it captures the optionality of the permutation, as well as the phonetic proximity of *es ihn* with the obligatory *es ihm* sequence. Note that in more colloquial language further leftward movement, even with reduction, seems possible in some dialects:

(39) Weil's Paul ihn {machen liess / sagen hörte}
(Since it Paul him {made let/had / say heard})
Since Paul {made him do it / heard him say it}

and that this is not confined to AcI constructions but can apply in object control constructions:

(40) Weil es Paul ihm zu lesen verbot, ...
(since it Paul to him to read forbade)
Since Paul forbade him to read it ...

Although my informant insists that *es* in the above is referential, it is possible that there is some analogy here with sentences such as the following, where *es* is a sentence anaphor:

(41) Weil er es ihm verbot, ...
(Since he it him forbade)
Since he forbade him (to do) it ...

4. Conclusion

The marginal topicalization examples as well as the *es ihn* clitic sequence discussed in this chapter do not seem to be evidence enough for a monosentential approach to the constructions under consideration. The $\bar{S}$ deletion approach has been shown to be able to account for the core data of extraposition, 'VP' pied piping, reflexivization, quantifier float, negation, and the initial constituent facts with *lassen* and *scheinen*. As far as topicalization is concerned, neither VR nor $\bar{V}R$ can explain either all the marginal, double topicalization facts nor other features such as the opacity/transparency facts. Under simple restructuring the same would be true, with additional problems for Case assignment and Case checking, unless a multiple representation is assumed, where Case is checked on one of the levels. It is not clear, however, how the latter should be constrained and it does not generally seem needed outside of these marginal cases. For the *es ihn* sequence, the problem arises of whether to abandon the generality of Thiersch's (1978) Cl. and Stl. rules or to assume some PF permutation on analogy with the *es ihm* sequence. An alternative would be to build conditions based on Case and optionality into a new clitic or permutation movement in either direction, leftward or rightward. In the absence of a better understanding of more marginal clitic movement in German it seems that there is little evidence at the moment for abandoning the unified analysis of the core cases that has been proposed.

8 Conclusion

The focus of this study has been the syntactic ambivalence demonstrated by infinitival constructions with *lassen*, *scheinen* and the verbs of perception, specificially in the areas of coherence and opacity. It has been argued that the ambivalence demonstrated cannot be taken as convincing evidence for a monoclausal approach, either derived or base-generated, and that such an approach is unwelcome for various theoretical reasons, for example violation of the Projection Principle, and the Extended Projection Principle. It has been the aim of this study to demonstrate that the specific clustering of properties under consideration is determined by the highly motivated, general principles of the theory of Government and Binding, in conjunction with a minimal amount of assumption and parametrization. In this connection it has almost been a secondary matter to confirm the premise that German can be accounted for by the same abstract principles as, say English, though this is ultimately of primary importance.

The account has made use of the following devices:

(1) $\bar{S}$ deletion, as assumed for Exceptional Case Marking and raising in other languages
(2) small *pro* as a phonetically non-realized syntactic subject
(3) a single instance of anaphoric "demotion" in the sense of Koster (1982)
(4) marginal co-superscripting across S in the case of *scheinen*
(5) adjacency for $\bar{S}$ deletion (NEG placement in the syntax)
(6) a pre-QR rule
(7) NP=SUBJECT (in German) iff it has a θ-role assigned in [NP, S] position
(8) Thiersch's (1978) R1, R2 and Stl.

These devices in conjunction with the theory of Government and Binding account for almost all of the problems raised at the beginning of this study.

$\bar{S}$ deletion accounts for those coherence factors first pointed out by

Bech (1957) and then by Ebert (1975). Thus the theory of Government and Binding excludes the following examples:

(9) **Extraposition**

(a) *Weil wir $\left\{\begin{matrix}\text{liessen}\\\text{sahen}\end{matrix}\right\}$, Peter uns begleiten ...
Since we made/saw Peter accompany us ...

(b) *Weil Peter scheint, uns zu begleiten, ...
Since Peter appeared to be accompanying us ...

(10) **Pied piping in relative clauses ($\bar{S}$ and not VP)**

(a) *Der Mann, den warten Hans $\left\{\begin{matrix}\text{liess}\\\text{sah}\end{matrix}\right\}$
(the man whom wait Hans had/saw)
The man Hans made/saw wait

(b) *Der Mann, auf den zu warten Hans scheint
(the man, for whom to wait Hans appeared)
The man Hans appeared to be waiting for

Since the embedded subject position is ungoverned in these examples they violate the Binding Theory in the case of trace, and the Case Filter (alternatively the Θ-Criterion) in the case of lexical NP. The same principle can be extended to other structures of complement dislocation, such as topicalization or clefts, where it was pointed out in chapter 3 that variations in judgement might be accounted for by a parametrization of reconstruction at LF.

The postulation of *pro* in subject position in some constructions captures the structural parallelism with English and French presentationals (and existentials) and Italian subject-inversion. One of its effects is to account for the derivation of initial constituents when impersonal passives are embedded under the verb concerned:

(11) (a) Emma liess [$_S$ *pro*$_i$ mir t_i von Paul helfen]
(Emma had to me by Paul helped)
Emma got Paul to help me.

(b) Emma liess [$_S$ *pro*$_i$ meiner t_i von Paul gedenken]
(Emma had of me by Paul remembered)
Emma made Paul think of me.

(c) Emma lässt [$_S$ *pro*$_i$ an mir von niemand t_i herumnörgeln]
(Emma has at me by nobody got)
Emma doesn't allow anybody to get at me.

(12) (a) Ihm_j $scheint_K$ [$_S$ *pro*$_i$ [$_S$ t_i [$_{VP}$ t_j t_i geholfen worden zu sein]]t_K]
(to him appears helped to have been)
He appears to have been helped.

(b) $Seiner_j$ $scheint_K$ [$_S$ *pro* $_i$ [$_S$ t_i [$_{VP}$ t_j t_i nicht mehr gedacht zu werden]] t_K]
(of him appears no longer remembered to be)
He no longer appears to be remembered.

(c) $An\ dem\ Wagen_j$ $scheint_K$ [$_S$ *pro* $_i$ [$_S$ t_i [$_{VP}$ t_j t_i noch gearbeitet zu werden]] t_K]
(on the car appears still worked to be)
The car still appears to be being worked on.

Thus the embedded subject position is held by *pro* (which is raised to matrix subject position in (12)) and the initial constituent derived via R2. R2 is, of course, WH-movement since the trace it leaves is not always of NP and is not bound in its governing category. This is also illustrated in the case of active sentences such as the following:

(13) $Uber\ den\ Kopf_j$ $scheint_K$ [$_S$ *pro* ^{i} [$_S$ die Sache^i ihm t_j zu wachsen] t_K]
(above the head appears to him the thing to grow)
He appears to be no longer able to cope.

where in contrast to English and Italian co-superscripting takes place across S. This is also the case in those marked options where 'nothing moves':

(14) Weil *pro* ^{i} mir [$_S$ der Karl^i den Wagen gekauft zu haben] schien
(since to me Karl the car bought to have appears)
Since Karl appears to me to have bought the car.

Thus *pro* allows for the option of non NP-movement both for raising and passive.

Extending the notion in Grewendorf (1982), it seems that neither derived subjects nor *pro* in German qualify as SUBJECT for opacity purposes. The following German examples thus contrast with the English examples below:

(15) **FLIP**

Hans$_i$ lässt [$_S$ sich$_i$/*ihm$_i$ die Suppe$_j$ schmecken]

(Hans$_i$ has to himself$_i$/him$_i$ the soup taste)

Hans ate the soup with relish.

(16) **Passive**

Hans$_i$ lässt [$_S$ sich$_i$/*ihm$_i$ (von Leuten) Schnaps besorgen]

(Hans$_i$ has to himself$_i$/$_1$ (by the people) Schnaps buy)

Hans has them get him some Schnaps.

(17) (a) He $_j$ believed [$_S$ there^1 to have been bought for ?himself$_j$/him$_j$ some books^1 he had always wanted.]

(b) He$_j$ believed [$_S$ there^1 to be some people^1 waiting for *himself$_j$/him$_j$.]

Otherwise subjects create opaque domains:

(18) **Opacity**

Hans$_i$ lässt [$_S$ Fritz$_j$ *sich/ihn$_i$ nicht ausnutzen]

(Hans$_i$ lets Fritz$_j$ himself$_i$/him$_i$ not use)

Hans doesn't let Fritz exploit him.

except where demotion in the sense of Koster (1982) takes place:

(19) **PPs**

Er$_i$ hörte [$_S$ die Leute$_j$ über sich$_i$/ihn$_i$ reden]

(he$_i$ heard the people about himself$_i$/him$_i$ talk)

He heard the people talking about himself.

Note that in contrast to Dutch (and English) demotion is never required in German in these cases (hence the free variation) since there is no *zich/zichself* contrast. Also there are never ungrammatical sentences with *sich* bound in the embedded S if the PP is a strict f-domain since there is no phonetic effect (the property of obligatory demotion can only be derived from the context). In contrast to the viewpoints put forward by Koster (1982), Huber (1980) and Grewendorf (1982), however, the nature of prepositional contexts for demotion is not entirely clear.

The same transparency effects under the definition of SUBJECT that has been assumed can be noted in the case of quantifiers. Thus under an anaphoric analysis of *beide*, as suggested by Kayne (1981) and Jaeggli (1982) for *R-Tous*, the domains of derived subjects are transparent for

binding:

(20) **Quantifier Binding**

Die Jungs$_i$ liessen diesmal [$_S$ das Fest$_j$ sich$_i$ ***beide***$_i$***/beiden***$_i$ nicht mehr vermiesen]

(a) This time both the boys didn't let the party be spoiled for them again.

(b) This time the boys didn't let the party be spoiled for both of them again.

In the (a) interpretation the nominative ***beide*** is bound by the matrix subject.

Under an analysis where quantifier placement takes place in the syntax scope interpretation can only be reconciled with the anaphoric analysis of ***beide*** above if there is some kind of reconstruction at LF, similar, perhaps, to that proposed by Belletti and Rizzi (1981) for ***ne*** /WH-movement constructions in Italian. Thus, prior to QR the quantifier has to rejoin the NP it quantifies, resulting after QR in structures of the following kind:

(21) **Quantifier scope**

[$_S$ [die Jungs beide]$_i$ [$_S$ x$_i$ [$_S$ das Fest sich t$_i$ nicht mehr vermiesen] liessen]

A c-command requirement ensures that matrix scope (from embedded positions) is only possible in coherent constructions (the same applies to control structures). The 'anaphoric' binding relation is recoverable via reconstruction.

The c-command requirement applies also in the case of negative scope interpretation exactly in the same way as in quantifier scope interpretation. Here placement is again assumed to take place in the syntax with an adjacency requirement for $\overline{S}$ deletion, in order to account for the following contrast:

(22) **Negative placement**

(a) *weil er sie das Buch lesen nicht liess

(b) weil er sie das Buch nicht lesen liess
since he didn't let her read the book

Note, however, that there are competing hypotheses, such as proposed recently by Henk van Riemsdijk, where NEG Placement takes place at PF.

Nevertheless, this leads to unknown consequences in terms of the precise interaction of PF and the Syntax in these cases, and since the facts fall into place under a syntactic account this should be preferred in the absence of a better understanding of PF conditions.

Certain problems remain and new ones have been raised in this account of *scheinen* and AcI constructions. Thus while Thiersch's (1978) account of clitic phenomena has been assumed, whereby Stl. moves full NPs to the right, this does not work for the single case of the clitic-pronoun sequence in AcI constructions. Similarly, marginal data from Huber (1980) where more than one constituent has been topicalized do not seem to be derivable from any particularly clear principles at the moment. Also the source of Case for quantifiers in control structures remains unclear as does the precise nature of the prepositional contexts of promotion or demotion of anaphors in Koster's (1982) sense. Note that this notion does not seem inappropriate since the elements concerned do not behave as anaphors in these cases in the sense of the Binding Theory. Another problem is that of reconstruction at LF, which undoes the Binding Theory in all cases - the Belletti-Rizzi (1981) analysis of *ne* and WH-movement, the marginal $\bar{S}$ deletion complement dislocation data discussed in chapter 3, the reconstruction from QR necessary to recover the anaphoric binding relation that results from Jaeggli's (1982) *R-Tous* analysis. Note that the dilemma of anaphoric binding or variable binding illustrated in the latter, as well as in the *ne* cases discussed by Belletti and Rizzi and the pseudo-cleft examples they give:

(23) E di *se stesso*$_i$ che Mario dice che Gianni$_i$ parla sempre t_i
It is about himself$_i$ that Mario says that Gianni$_i$ is always talking.

appears also in English topicalization cases such as the following:

(24) [$_S$ herself$_i$ [$_S$ WH$_i$ [$_S$ she$_i$ despised t_i most of all]]]

In spite of these residual problems, however, the present study seems to account for a wide range of data by making transparent determination of these data by the principles of the Binding theory. Just as these principles have evolved by refining previous systems of rules and conditions, so should the devices employed here eventually be dispensed with and their properties derived from more general (even if language-specific) principles.

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