

**VERB MOVEMENT AND THE LICENSING OF NP-POSITIONS
IN THE GERMANIC LANGUAGES**

by

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Faculté des lettres
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1. Introduction.

In this dissertation, I want to discuss a certain set of interrelated phenomena in Danish and other Germanic languages. What I am interested in is the position of the finite verb, the factors that determine this verb-position, and the consequences that the choice of position has for other phenomena. I shall be particularly concerned with NPs appearing in what you might call "unusual" NP-positions. By using the term "unusual", I want to exclude NP-positions such as the complement of a transitive verb, the complement of a preposition, and the standard subject position. I will be looking into which other positions NPs may occupy, and how they depend on certain verb movements either taking place in the same sentence, or at least being possible in the language in question.

The thesis is organised as follows:

In this chapter, chapter 1, I briefly introduce the theoretical background for my study, and discuss a number of definitions central to the following chapters.

In chapter 2, I discuss the two kinds of movement of the finite verb found in the Germanic languages: Verb Second (V2) and V° -to- I° movement, and their distribution across the Germanic languages. (French (and to some extent Italian) is sometimes included into the discussion, in order to complete the picture, as there is no Germanic language which has V° -to- I° movement but lacks V2).

In chapter 3, constructions with expletive subjects will be treated. The main part of the discussion is concerned with the possible position of the NP that "would have" occurred in the subject position, had this not been occupied by the expletive. I will however also discuss the difference between the two possible expletive subjects *it* and *there*, and finally a use of *there* particular to Danish, viz. in relative clauses.

In chapter 4, the topic is object shift and scrambling, two related constructions in which objects may move to the left under certain conditions. These conditions will also be shown to be dependent on the position of the finite verb.

The theoretical framework used is that of generative grammar, and to be more precise, it is one which is characterised by the following three key works: *Lectures on Government and Binding* and *Barriers*, both by Noam Chomsky (1981, 1986a), and *Relativized Minimality* by Luigi Rizzi (1990). In 1.3 below, a brief introduction to Rizzi (1990) will be given, in the form of two tables of the most central definitions and the restrictions on movement within the relativised minimality framework.

The theory of generative grammar is modular, i.e. it is built up of various independent but interactive parts, and in the following I will briefly discuss the most relevant ones.

1.1 Language acquisition and the theory of UG.

First though, I will have to set the stage: What is the aim of linguistics? According to generative grammar, the purpose of linguistics is to provide an account for the language faculty of human beings. This account in its present state makes crucial use of a set of principles and parameters called Universal Grammar (UG).

The theory of UG must be two things at once: **a)** it is a theory of grammar across all natural languages, and **b)** it is a theory of the innate linguistic endowment, i.e. the "thing" that humans but no other beings are born with that enables us to acquire linguistic skills. Only by trying to be both at the same time, does the theory of UG hold any interest: The immense variation between human languages is only interesting because they all are acquired with amazing speed and ease by small children, and the amazing speed and ease with which children acquire their mother tongue is only really amazing when the immense number of different possible mother tongues is kept in mind.

As it has to reconcile these two aspects, UG is placed under heavy constraints. As it is **a)**, UG should be highly comprehensive to provide accounts of all kinds of grammatical properties of the world's languages, but as it is **b)**, UG should be restrained to allow the child to construct a grammar from less than very extensive evidence, given the degeneracy of direct linguistic data to which the child is exposed. the data is is degenerate both with respect to quantity (there is a limit to how many sentences a child has time to hear before its grammar is fully developed) as well as quality (not all of these sentences are well-formed), and also because the child does not have access to negative evidence (cf. that it makes no difference whatsoever (at least for its linguistic abilities) whether or not a child is told off every time it uses a sentence which is not well-formed according to the adult grammar).

UG is therefore taken to be based on a limited set of basic **principles** (limiting the number of possible grammars) but containing a number of **variables** and **parameters** which are not fixed in the initial pre-linguistic state, but only become fixed through the linguistic experience of the child (leaving open the way for considerable variation between the grammars constructed).

The **principles** are the part of linguistic knowledge that the child is assumed to possess already at birth. If part of linguistic knowledge is innate, we have (the beginning of) an account both for why language acquisition can go so fast (the child already knows part of it, so it does not have to start from scratch, so to speak) and also for why language universals exist (i.e. why there are properties that are the same in all languages). This innate part of linguistic knowledge is obviously the same for all human

beings, as it is assumed that all human beings are alike with respect to their linguistic capabilities, something which is corroborated by the fact that all human beings are able to acquire language.

A **parameter** is a set of related properties, related in such a way that choosing one particular parametric setting entails determining a number of surface properties of the language. The idea is thus to derive a number of surface properties (or surface differences between languages) from a smaller number of underlying properties (or underlying differences between languages). This is desirable not only for the inherent theoretical elegance in being able to unite separate surface phenomena under one generalisation, but also because it may provide the other half of the account of first language acquisition. The fewer differences there are between languages, the less data the child will have to encounter in order to be able to choose between alternative possible grammars, and the fewer data that have to be encountered to acquire any given language, the better is our account for the speed of first language acquisition.

In order to test a theory as the one outlined here, linguists should therefore try to account for as many surface differences by positing as few underlying ones as possible. The work presented in this thesis is an attempt at doing this. By studying the relations between verb movements and NP-positions, and more precisely by showing how various NP-positions depend on certain choices within the verb movement system, it is also shown how the child may deduce which NP-positions are (or are not) possible in her or his language from primary evidence concerning only the position of the finite verb.

The area of finite verb movement in the Germanic languages would seem to be well suited as a testing ground for this kind of theory, because already at the surface the differences are not so many and relatively well understood (or at least described in great detail), which would lead us to expect that it should not be completely impossible to unearth the underlying differences.

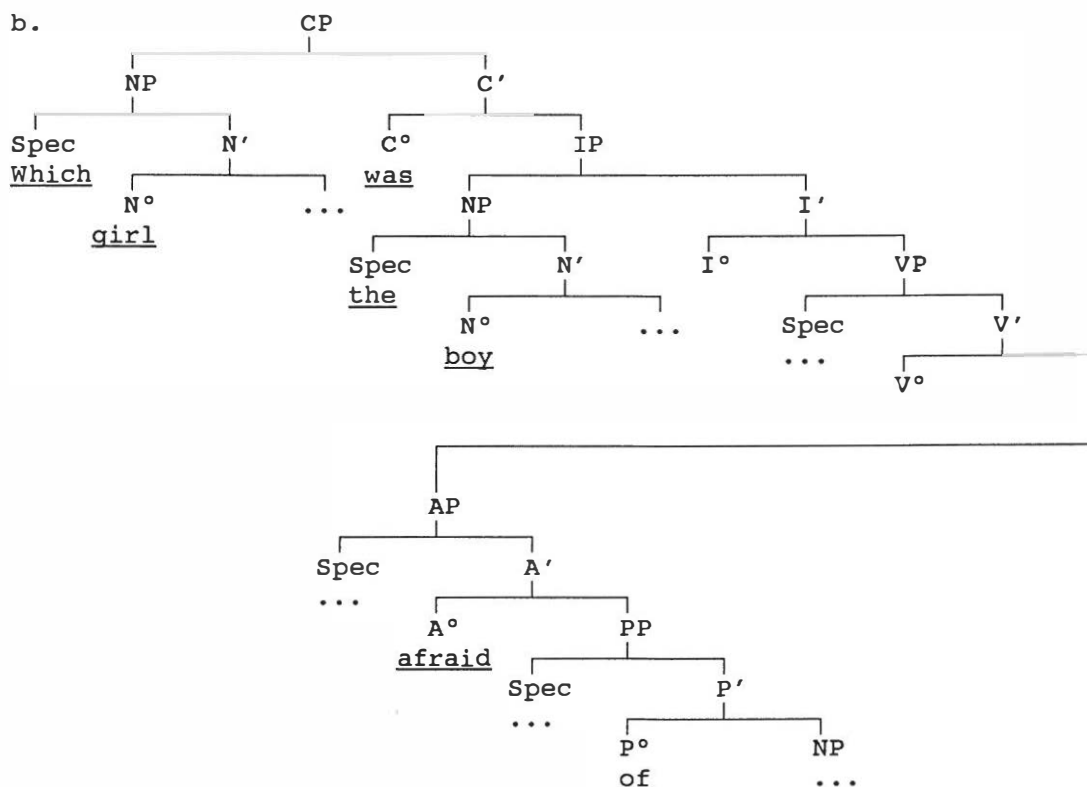
1.2 Some modules of a principles and parameters model.

1.2.1 X'-theory.

X'-theory is a set of assumptions about phrase structure. The idea is that phrase structure is made up of little cells, and that all these little cells have more or less the same structure. If a sentence is put under the microscope, we can see all the individ-

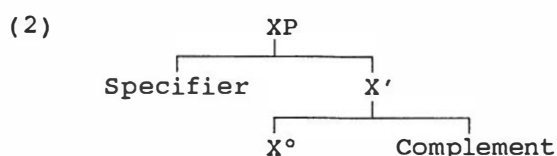
ual little cells that make up the whole:

(1) a. Which girl was the boy afraid of?



~~~~~  
In this tree there is an I°, the complement of which is VP. In Pollock (1989) and subsequent work, it is suggested that I° should be replaced by two independent X°s, T°(ense) and Agr°(eement). In most of this thesis, I will assume the existence of I° and IP, for pedagogical reasons, but at some points I will move freely in and out of the two analyses (cf. e.g. 2.3.9).  
~~~~~

By "cell", I mean a maximal projection, and in the tree above we saw NP, IP, CP VP, AP, PP, which all are maximal projections (of N°, I°, C°, V°, A°, and P°, respectively), and which all have roughly the same internal structure:



Crucial notions in this respect are **head** (=X°), **maximal projection** (XP), **specifier**, and **complement**, which can all be defined from the basic structure in (2). Notice also that agreement is supposed to obtain between the head and its specifier ("spec-X° Agreement"). Spec-X° agreement has at different points been suggested as the analysis for agreement between a noun and its article, between a past participle and a preposed

NP, and between the finite verb and the subject.

Another structural notion which is very used is the concept of c-command. I will be assuming a definition of c-command which does not include m-command, i.e. α c-commands β iff there is no node dominating α and not dominating β . M-command is almost the same, i.e. α m-commands β iff there is no maximal node dominating α and not dominating β . In (1) above, *which* c-commands *girl*, but not vice versa, whereas *was* c-commands *which girl*. C-command is (an essential) part of many other relationships, e.g. government, binding, and control.

1.2.2 Case and thematic roles.

The concepts of thematic role (θ -role) and of abstract case, have between them taken over what in older versions of generative grammar as well as in other theories is subsumed under "case". The theory of θ -roles thus deals with the semantic properties (sometimes called case roles or deep case) whereas the syntactic/morphological properties are dealt with under the theory of (abstract) case.

Thematic roles are assigned to NPs (except expletive NPs), and account for the interpretation of the NP in question in relation to the whole proposition, e.g. in John reads a book, John is the AGENT or the reader, and a book is the THEME. θ -roles are assigned by heads according to the lexical specification of the head. Their assignment is furthermore subject to the θ -criterion:

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

A distinction is often made between internal and external θ -roles: Internal θ -roles are assigned by heads to their complement, whereas external ones either are not assigned to complements or at least do not have to be assigned to a complement (depending on whose view we follow). This distinction, internal/external, is the one that is most frequently used in syntax. Obviously one could also refer to the θ -role itself, i.e. AGENT, THEME, GOAL, EXPERIENCER, etc., though it seems that such a specific reference is never necessary, and maybe even not useful (some verbs may have experiencer as an internal θ -role, e.g. *please*, whereas others have it as an external one, e.g. *like*). Different classes of verbs may be set up on the basis of their θ -properties: **transitive** verbs assign an external θ -role and an internal one (maybe more than one), **intransitive** verbs only assign an external θ -role, whereas **ergative** verbs only assign an internal one. The distinction between these three classes will be central to chapter 3.

Abstract case is called abstract, because although in some languages (e.g. Icelandic and German) it may be visible, it does not have to be visible. Even in languages with no morphological case marking (leaving aside genitive) outside the pronominal system, like Danish and English, it is assumed that every NP that is phonetically realised needs abstract case. Furthermore I assume that no NP may have more than one case (cf. Vikner (1987)). These two assumptions together make up a corollary to the first half of the θ -criterion:

(4) Every NP must be assigned one (and only one) case

Taken without the bracket, this is often referred to as "the case filter". Following an idea by Joseph Aoun, cited in Chomsky (1986b:94), it could be derived from the θ -criterion, if case assignment was somehow necessary for θ -role assignment. This idea is referred to as "visibility", case assignment makes the NP visible for the θ -role, and as it must have a θ -role, it must be visible, and so it must be assigned case.

The kind of case which is most interesting in the following chapters is the case normally assigned to subjects, i.e. nominative. I shall here follow Sportiche (1988a,b) in assuming that UG provides two mechanisms for nominative assignment. One is government, i.e. if IP-spec receives nominative from C° , it takes place under government. The other is spec- X° agreement, the example being nominative assignment from I° to IP-spec. Assignment of accusative case presumably always takes place under government, either by V° or by I° , and in section 3 I will claim that government also is a requirement on assignment of partitive case.

1.2.3 Government.

Government may be seen as a stricter version of the c-command relation. Where a constituent may be c-commanded by many different elements at the same time, it may only be governed by one, the closest c-commanding X° . So not only is government restricted by being exclusive (one governor per governee), it is also restricted because it can only be carried out by heads. There is even a restricted form of government, called proper (head) government, which may only be carried out by certain heads. The so-called empty category principle (ECP) stipulates that traces (which are what is left behind during movement) must be properly (head) governed, and this is a rather central restriction on movement, as we shall see below.

1.2.4 Subjacency.

Subjacency, or bounding, is another constraint on movement. It was formulated before much of the present framework was set up, and therefore it does not always seem to fit in that well with the rest of the theory. The content of subjacency is basically that movement is only able to cross a certain number of maximal categories. There is no particular agreement as to how many and which maximal categories a movement would have to cross to be completely ruled out by subjacency. One of the features of subjacency is that a violation does not necessarily make the sentence completely ungrammatical, subjacency violations often only give rise to mild unacceptability, cf. section 2.3.7 below.

1.2.5 Binding.

Binding is a relation between two XPs where one c-commands the other, and where they have the same index. It is found e.g. in constructions with reflexives, where the link between the binder and the bindee may also be said to form an extended chain, as both have a case and a thematic role of their own:

(5) En. John_i never criticises himself_i

John is AGENT and receives nominative, *himself* is the THEME and receives accusative. This is normally seen in contrast to movement, where binding also obtains between the moved element and its trace:

(6) En. John_i was criticised t_i

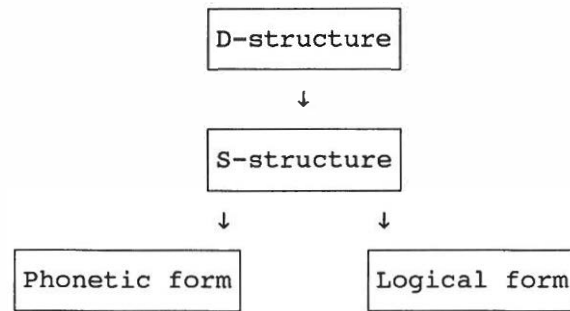
Here John only receives one θ -role, namely THEME, and only one case, namely nominative (cf. *he was criticised* vs. **him was criticised*), and so we could say that the two coindexed elements in (6), *John* and the trace, form a non-extended chain.

1.2.6 Levels of representation.

Grammar is taken to comprise several levels. One is D-structure, where elements have not moved yet, i.e. they appear in their θ -marked positions, as determined by lexical properties of the different X^os in the sentence. D-structure is the

basis from which the form of the sentence at other levels is derived.

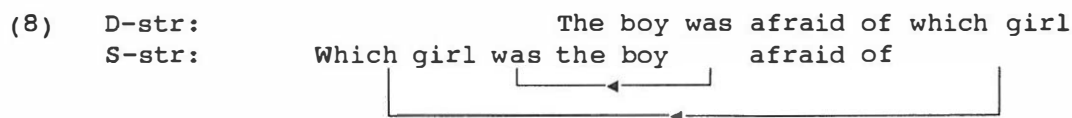
(7)



These base structures may or may not be rearranged on their way through the transformational component, after which they have obtained the status of S-structures.

S-structures are the input into two independent components. One is phonology, where they may undergo the effects of deletion rules, filters, etc. to come out as phonological forms (which again later may be turned into phonetic representations). Another is the logical form component, where among other things the rules of interpretation of anaphors and pronominals are found. The output here is a logical form (which again may be input to a semantic component, the output of which will be semantic representations).

The projection principle, which says that lexical specifications, such as θ -roles of complements must be satisfied both at D-structure, S-structure and at LF. This in turn forces us to assume the existence of traces, as otherwise the lexical requirements could not be satisfied after movement had applied. Consider e.g.



where the lexical requirement that *of* have a complement also is satisfied at S-structure, by the movement left behind by the moved NP.

A-movement:

extraction: not possible, as it is not properly head governed. This can be circumvented in at least three ways: {2:50-51, 3:24}

1. If something properly governs IP-spec, e.g. if IP is selected as in raising constructions, or if C° contains Agr. {2:36-51}
2. If there is no trace left because of a resumptive pronoun. {2:51-53}
3. If the subject is extracted from a different position (which is properly head governed, e.g. VP-adjoined), leaving a small pro in IP-spec position. {2:53-58, 3:24}

connection antecedent-trace: only through antecedent government, as the theta-role must be assigned to a chain which contains the argument, and chains must have antecedent government from link to link. {3:31-33}

X°-movement: not applicable.

(11) Moving an adjunct.

i.e. moving an XP which has no referential index (because it has no referential thematic role) and which is properly head governed.

A'-movement:

extraction: possible, as it is properly head governed.
 connection antecedent-trace: only through antecedent government, as it has no index, so binding cannot take place. {3:23-26, 29-30}

A-movement: not applicable.

X°-movement: not applicable.

(12) Moving a head.

i.e. moving an X° element which has no referential index and which is properly head governed.

A'-movement: not applicable.

A-movement: not applicable.

X°-movement:

extraction: possible, as it is properly head governed.
 connection antecedent-trace: only through antecedent government, as it has no indexes, so binding cannot take place. {3:23-26, 29-30}

1.3.2 Some central definitions.

- (13) binding: "X binds Y iff
 (i) X c-commands Y, and
 (ii) X and Y have the same referential index." {3:22, (29)}

- (14) referential indices: "A referential index must be licensed
 by a referential theta-role." {3:22. (28)}

- (15) referential versus non-referential thematic roles:
referential: participants in the event
(agent, theme, patient, experiencer, goal, etc.).
non-referential: (manner {3:8-9}, measure {3:9-10}, atmospheric role,
idiosyncratic role in idioms {3:10-13}, etc.). {3:21}
-
- (16) theta-criterion:
(i) Each Theta-position belongs to a chain containing
exactly one argument,
(ii) Each argument belongs to a chain containing
exactly one Theta-position, {3:32, (43)}
- (17) chain: "(a₁, ..., a_n) is a chain
only if, for 1 ≤ i < n, a_i antecedent governs a_{i+1}." {3:30, (39)}
-
- (18) ECP: "A non-pronominal empty category must be properly head governed".
{3:23, (30)}
- (19) proper government:
"X properly head governs Y iff
(i) X ∈ (A, N, P, V, Agr, T),
(ii) X c-commands Y (inside X', {2:7}),
(iii) no barrier intervenes,
(iv) relativized minimality is respected." {1:13}
-
- (20) antecedent government:
"X antecedent governs Y iff
(i) X and Y are non-distinct, (i.e. if they do not have
different indices)
(ii) X c-commands Y,
(iii) no barrier intervenes,
(iv) relativized minimality is respected." {3:30, (40)}
-
- (21) relativised minimality:
"X α-governs Y only if there is no Z such that
(i) Z is a typical potential α-governor for Y, and
(ii) Z c-commands Y and does not c-command X. {1:14, (15)}
- (22) typical potential α-governors:
Z is a typical potential head governor for Y
= Z is a head m-commanding Y. {1:15, (17)}
- Z is a typical potential antecedent governor for Y, Y in an A'-chain
= Z is an A'-specifier c-commanding Y.
Z is a typical potential antecedent governor for Y, Y in an A-chain
= Z is an A-specifier c-commanding Y.
Z is a typical potential antecedent governor for Y, Y in a X°-chain
= Z is a head c-commanding Y. {1:15, (16)}

2. Verb Movement.

In this chapter, two types of verb movements will be discussed, verb second and V°-to-I° movement.

Verb second (V2) is the movement of the finite verb to the second position of the clause, as seen e.g. in questions in all the Germanic languages and in most other main clauses in the Germanic languages except English. The finite verb follows the first constituent, whatever this constituent is:

- (1) a. En What has Peter read?
b. Da. Hvad har Peter læst?
c. Ge. Was hat Peter gelesen?
- (2) a. En. *This book has Peter read
b. Da. Denne bog har Peter læst
c. Ge. Dieses Buch hat Peter gelesen

V°-to-I° movement is the movement of the highest verb to the I° position, i.e. to the position where the verbal inflection is base-generated. Due to the effect of verb second (and of the SOV order of German, Dutch and Frisian), this can only be clearly observed in embedded clauses (in the SVO languages), where the finite verb either precedes or follows a sentential adverbial or negation (if the order is verb - adverbial, there is V°-to-I° movement, if it is adverbial - verb, there is not):

- (3) a. Ic. Ég fer ef hann kemur ekki
b. Da. *Jeg går hvis han kommer ikke
I go if he comes not
- (4) a. Ic. *Ég fer ef hann ekki kemur
b. Da. Jeg går hvis han ikke kommer
I go if he not comes

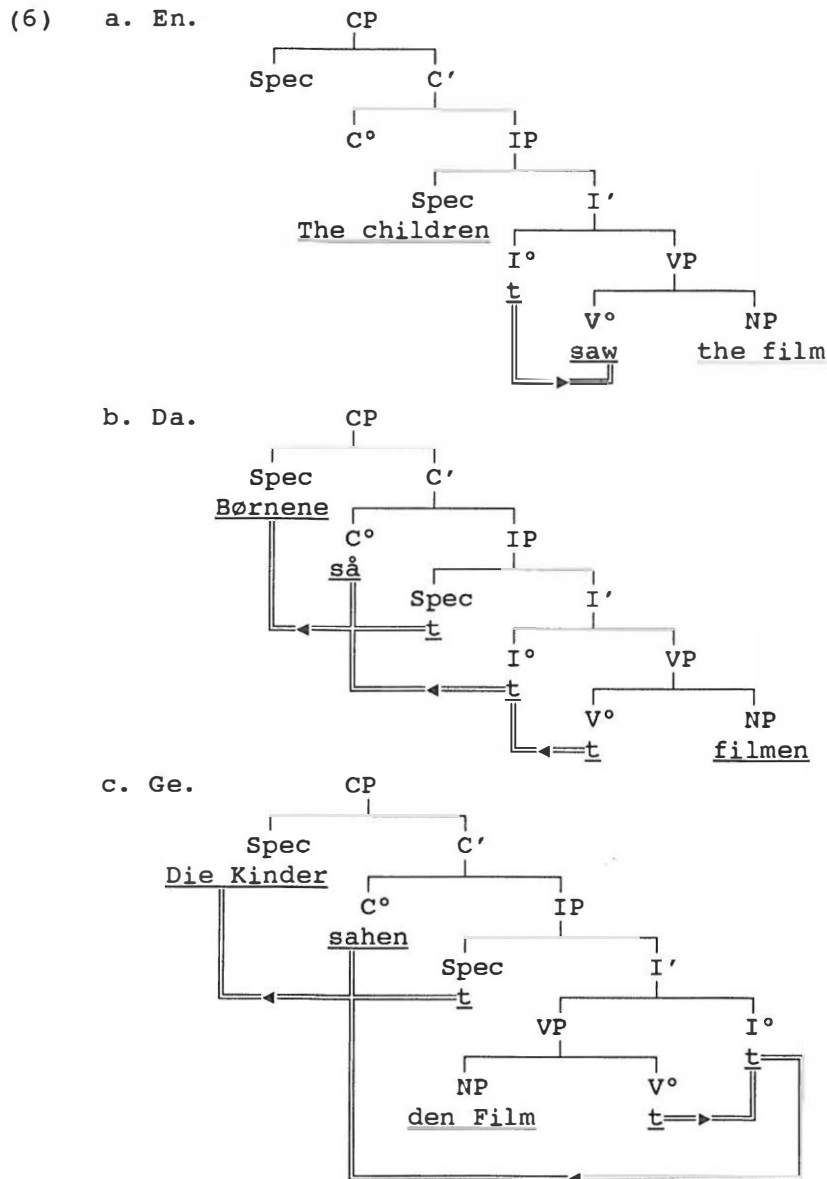
2.1 Verb Second.

2.1.1 Introduction.

Though the following examples may seem to have exactly the same structure, this is merely a phonetic illusion:

- (5) a. En. The children saw the film
 b. Da. Børnene så filmen
 c. Ge. Die Kinder sahen den Film

I shall argue that the three examples have three different analyses, as illustrated by the following structures:



The two basic differences are SVO vs. SOV and V2 vs. absence of V2.

En. and Da. are SVO, but Ge. is SOV (as discussed above). Consider the relative position of the object and the non-finite verb forms:

- (7) a. En. ... that the children have seen the film
 b. Da. ... at børnene har set filmen
 c. Ge. ... daß die Kinder den Film gesehen haben

Da. and Ge. have V2, as opposed to En., where topicalisation does not trigger V2:

- (8) a. En. This film the children have seen
 b. En. *This film have the children seen
 c. Da. Denne film har børnene set
 d. Ge. Diesen Film haben die Kinder gesehen
- (9) a. En. Yesterday the children saw the film
 b. En. *Yesterday saw the children the film
 c. Da. I går så børnene filmen
 d. Ge. Gestern sahen die Kinder den Film

This is not to say that English has no V2 at all. The difference is rather that all the other Germanic languages have "general V2", whereas English has what Rizzi (1989) calls "residual V2". Residual V2 is a restricted kind of V2 which only occurs in questions, and constructions with topicalised negative elements, as discussed in section 2.1.4 below.

2.1.2 Verb Second is movement of the finite verb into C°.

It has been assumed in most of the generative literature on V2 (starting with den Besten (1977) and Thiersch (1978) until e.g. Holmberg (1986), Platzack (1986a,b), Taraldsen (1986a), Tomaselli (1989)) that the finite verb (in sentences with no complementiser) occurs in the position in which the complementiser also occurs when present.

Together with Chomsky's (1986a) extension of the X-bar system to include the heads C° and I° and their maximal projections CP and IP, some properties of V2 are explained. These include there only being two positions in front of the subject, these two elements differing in projection level, and their order being the XP before the X° rather than the other way around. All this follows from the structure of CP, which again follows the X-bar schema (cf. section 1.2.1 above): [_{CP} Specifier [_C C° Complement]]. The very straightforward explanation that these properties receive thus turn into one kind of a supporting argument for this analysis of V2.

The basic assumption that V2 is movement of the finite verb into the position otherwise occupied by the complementiser is based on various kinds of evidence. One kind consists of examples which simply show that both the verb (in verb second position) and the complementiser (in (most) embedded clauses) occupy the position immediately left of the subject:

- (10) Ge. a. Er sagt, daß die Kinder diesen Film gesehen haben
 b. Diesen Film haben die Kinder gesehen
He says that the children this film seen have
This film have the children seen

- (11) Da. a. Han siger at børnene har set denne film
 b. Denne film har børnene set
He says that children-the have seen this film
This film have children-the seen

Another kind of supporting evidence (this time also valid for En.) comes from conditional clauses, where the two versions are in free variation, one with a complementiser, (12), and one with a verb in front of the subject, (13):

- (12) a. Ge. Wenn ich mehr Zeit gehabt hätte, ...
 b. Da. Hvis jeg havde haft mere tid, ...
 c. En. If I had had more time, ...

- (13) a. Ge. Hätte ich mehr Zeit gehabt, ...
 b. Da. Havde jeg haft mere tid, ...
 c. En. Had I had more time, ...

... hätte ich mehr Bücher gelesen
 ... ville jeg have læst flere bøger
 ... I would have read more books

Clauses of the *as if*-type also support this point. The complementiser has the same position, (14a) & (15a), as the finite verb does when the complementiser is absent, (14b) & (15b):

- (14) Ge. Sie schaute ihn an, ...
She looked him at ...
- a. ... als ob er ein großes Verbrechen begangen hätte
 b. ... als hätte er ein großes Verbrechen begangen
... as if he a big crime committed had
... as had he a big crime committed

- (15) Da. Hun så på ham, ...
She looked at him ...
- a. ... som om han havde begået en stor forbrydelse
 b. ... som havde han begået en stor forbrydelse
 ... as if he had committted a big crime
 ... as had he committted a big crime

More support has been claimed to exist w.r.t. certain phenomena, which concern the finite verb in main clauses and the complementiser in embedded clauses, e.g. the adjacency requirement between C° and pronominal subjects in Dutch (ex. from Platzack (1986a:200)) or in Swedish (ex. from Platzack (1986b:45). In V2 structures, (16) & (18), the subject may only be separated from the verb to its left if it is not a pronoun, and in embedded clauses, (17) & (19), the subject may also only be separated from the verb to its left if it is not a pronoun:

- (16) Du. a. Was ze gisteren ziek?
 b. *Was gisteren ze ziek?
Was (yesterday) she (yesterday) sick?
- c. Was Lise gisteren ziek?
 d. Was gisteren Lise ziek?
Was (yesterday) Lise (yesterday) sick?
- (17) Du. a. ... dat ze gisteren ziek was
 b. *... dat gisteren ze ziek was
... that (yesterday) she (yesterday) sick was
- c. ... dat Lise gisteren ziek was
 d. ... dat gisteren Lise ziek was
... that (yesterday) Lise (yesterday) sick was
- (18) Sw. a. Har han verkligen gjort det här?
 b. *Har verkligen han gjort det här?
Has (really) he (really) done this?
- c. Har Kalle verkligen gjort det här?
 d. Har verkligen Kalle gjort det här?
Has (really) Kalle (really) done this?

2.1.3 Position of medial adverbials and negation in Mainland Scandinavian.

Consider (20c) and (21c). How can we tell that *kanske/mon* are not adjoined to CP? From the position of medial adverbials and of negation. In Mainland Scandinavian (and in Faroese), where there is no V°-to-I° movement (cf. section 2.4), medial adverbials and negation occur after the subject (IP-spec), but before the verb (V°):

- (20') Sw. e. Kanske Lena inte köpte en ny bok igår
 f. *Kanske Lena köpte inte en ny bok igår
Maybe Lena (bought) not (bought) a new book yesterday

- (21') Da. e. Mon børnene ikke har set filmen?
 f. *Mon børnene har ikke set filmen?
I-wonder children-the (have) not (have) seen film-the?

In other words, in Da., Fa., No., and Sw., one can always tell whether verb second has taken place or not provided there is a medial adverbial or a negation. Compare normal embedded order, (22a) & (23a) to subject-initial V2, (22c) & (23c). The only difference is the presence of the complementiser and the relative position of the adverbial and the finite verb. In cases of embedded V2,

Embedded V2 will be discussed in more detail in section 2.4 below. Suffice it to say here that (with the exception of Icelandic and Yiddish) it only occurs with bridge verbs, e.g. *know, say, believe, think*.

the presence of the complementiser may not be any indication, and the relative position of the adverbial and the finite verb is then the only difference between V2 and non-V2, compare (22f) & (23f) to (22g) and (23g).

- | | <u>CPsp</u> | <u>C°</u> | <u>IPsp</u> | <u>Adv</u> | <u>V°</u> | <u>V°</u> | <u>NP</u> | | |
|-------------|--------------|---------------|-------------|-------------|-------------|-------------|-------------|----------------|-----------|
| (22) Da. a. | | at | Peter | <u>ofte</u> | <u>har</u> | drukket | kaffe | om morgenen | |
| b. | | <u>Har</u> | Peter | <u>ofte</u> | | drukket | kaffe | om morgenen? | |
| c. | Peter | <u>har</u> | | <u>ofte</u> | | drukket | kaffe | om morgenen | |
| d. | Kaffe | <u>har</u> | Peter | <u>ofte</u> | | drukket | | om morgenen | |
| e. | Om morgenen | <u>har</u> | Peter | <u>ofte</u> | | drukket | kaffe | | |
| -- | -- | | Peter | often | has | drunk | coffee | in morning-the | |
| | (<u>C°</u> | <u>CPsp</u>) | | <u>C°</u> | <u>IPsp</u> | <u>Adv</u> | <u>V°</u> | <u>V°</u> | <u>NP</u> |
| f. | Vi | ved | | at | Peter | <u>ofte</u> | <u>har</u> | drukket | kaffe ... |
| g. | Vi | ved | at | Peter | | <u>har</u> | <u>ofte</u> | drukket | kaffe ... |
| h. | Vi | ved | at | om morgenen | <u>har</u> | Peter | <u>ofte</u> | drukket | kaffe |
| | We know that | -- | -- | | has | Peter | often | drunk | coffee |

	<u>CPsp</u>	<u>C°</u>	<u>IPsp</u>	<u>Adv</u>	<u>V°</u>	<u>NP</u>		
(23) Da. a.		at	Peter	<u>ofte</u>	<u>drikker</u>	kaffe	om morgenen	
b.		<u>Drikker</u>	Peter	<u>ofte</u>		kaffe	om morgenen?	
c.	Peter	<u>drikker</u>		<u>ofte</u>		kaffe	om morgenen	
d.	Kaffe	<u>drikker</u>	Peter	<u>ofte</u>			om morgenen	
e.	Om morgenen	<u>drikker</u>	Peter	<u>ofte</u>		kaffe		
--	--	--	<i>Peter</i>	<i>often</i>	<i>drinks</i>	<i>coffee</i>	<i>in morning-the</i>	
	(<u>C°</u>	<u>CPsp</u>)		<u>C°</u>	<u>IPsp</u>	<u>Adv</u>	<u>V°</u>	<u>NP</u>
f.	Vi	ved		at	Peter	<u>ofte</u>	<u>drikker</u>	kaffe ...
g.	Vi	ved	at	Peter	<u>drikker</u>	<u>ofte</u>		kaffe ...
h.	Vi	ved	at	om morgenen	<u>drikker</u>	Peter	<u>ofte</u>	kaffe
	<i>We know that</i>	--	--		<i>drinks</i>	<i>Peter</i>	<i>often</i>	<i>coffee</i>

In cases of embedded V2, the position of the negation or adverbial may be used e.g. to establish the position of the PP which might appear to be a subject:

(24) Da. a.	*Vi	ved	at	<u>i den seng</u>	ikke	har	sovet	nogen	siden	1967
b.	Vi	ved	at	<u>i den seng</u>	har	ikke	sovet	nogen	siden	1967
	We know that	in that	bed	(has)	not	(has)	slept	anyone	since	1967

The PP cannot appear in IP-spec, (24a), but only in CP-spec, (24b), as it requires the verb to precede the negation, i.e. it requires the finite verb to move into C°.

Thus the subject position is empty in (24), and could be analysed as containing either a trace of the PP (as argued by Falk (1987)) or a non-referential *pro*.

In Icelandic (and in Yiddish), there is no such indication as to whether or not V2 has taken place. The negation and the medial adverbials always follow the finite verb (because of V°-to-I° movement, cf. section 2.4):

(25) Ic. a.	Helgi	<u>hefur</u>	<u>trúlega</u>	keypt	bókina
b.	*Helgi	<u>trúlega</u>	<u>hefur</u>	keypt	bókina
	Helgi (has)	probably	(has)	bought	book-the
c.	Jón segir að	Helgi	<u>hefur</u>	<u>trúlega</u>	keypt bókina
d.	*Jón segir að	Helgi	<u>trúlega</u>	<u>hefur</u>	keypt bókina
	Jón says that	Helgi (has)	probably	(has)	bought book-the

(based on Thráinsson (1986:171))

In German (and in Dutch and Frisian), there is abundant indication as to whether or not V2 has taken place. As I° and V° both are final, any content of VP make

it possible to tell. If V2 has taken place, the finite verb precedes any other VP-material, if there is no V2, the verb comes at the end:

- (26) Ge. a. Die Kinder haben diesen Film gesehen
 b. *Die Kinder diesen Film gesehen haben
The children (have) this film seen (have)
 c. *Er sagt, daß die Kinder haben diesen Film gesehen
 d. Er sagt, daß die Kinder diesen Film gesehen haben
He says that the children (have) this film seen (have)

2.1.4 Residual V2 in English.

As mentioned above, it is not the case that English has no V2 at all. Following Rizzi (1989, 1990), one can distinguish between "residual V2", as in English, and "general V2", as in the rest of the Germanic languages. As we saw above, (8) & (9), English does not have V2 in topicalisations in general, but V2 does exist in English in questions and in constructions with topicalised negative elements:

- (27) a. En. *What the children have seen?
 b. En. What have the children seen?
 c. Da. Hvad har børnene set?
 d. Ge. Was haben die Kinder gesehen?
- (28) a. En. *Why the children have seen the film?
 b. En. Why have the children seen the film?
 c. Da. Hvorfor har børnene set filmen?
 d. Ge. Warum haben die Kinder den Film gesehen?
- (29) a. En. *Never the children have seen such a bad film
 b. En. Never have the children seen such a bad film
 c. Da. Aldrig har børnene set sådan en dårlig film
 d. Ge. Nie haben die Kinder so einen schlechten Film
 gesehen
- (30) a. En. *Only in Switzerland such a thing could happen
 b. En. Only in Switzerland could such a thing happen
 c. Da. Kun i Svejts kunne sådan noget ske
 d. Ge. Nur in der Schweiz konnte so etwas geschehen

Rizzi (1989) suggests that the cases of V2 which occur in both residual V2 languages and general V2 languages (i.e. questions and topicalisation of negative

elements) are caused by a different requirement from that which causes all main (and some embedded) clauses to have V2 in general V2 languages. The trigger of residual V2 is Rizzi's (1989:3) adaptation of the *wh*-criterion of May (1985:17) in the following way:

- (i) Each [+wh] X° must be in a spec- X° agreement relation with a wh-phrase
- (ii) Each wh-phrase must be in a spec- X° agreement relation with a [+wh] X°

Given that there is an independent reason for the *wh*-phrase to move to CP-spec (Quantifier Raising, cf. e.g. May (1985)), (ii) accounts for V2 in questions, (27) & (28), as C° must acquire the feature [+wh], and this is achieved through V2, if V2 as discussed in section 2.1.2 above is the movement of the finite verb into C° .

As for the preposed negative elements, (29) & (30), Rizzi (class lectures, 1990) assumes a similar analysis, viz. that a negative element must be in a spec- X° agreement relation with a X° with a negative feature, [+neg]. The only way C° can acquire the feature [+neg] is through V2 (the finite verb moves through Neg° on its way to C° , thus acquiring [+neg] on the way).

Both in residual V2 languages and in general V2 languages *yes/no*-questions are V2 structures (in a manner of speaking, i.e. the finite verb precedes the subject):

- (31) a. En. Have you ever seen such a bad film?
- b. Da. Har du nogensinde set sådan en dårlig film?
- c. Ge. Hast du jemals so einen schlechten Film gesehen?

If these structures are taken to contain an empty initial element (the so-called "empty operator"), they will be accounted for in a way completely parallel to that of constituent questions like (27) & (28).

The [+wh] feature also plays an important part in explaining why there is no V2 (i.e. why C° cannot be lexical) in embedded questions:

- (32) a. Da. Jeg ved ikke hvilken film ^{C[°]} børnene har set
- b. Ge. Ich weiß nicht welchen Film die Kinder gesehen haben
- I know not which film the children have seen
- (33) a. Da. *Jeg ved ikke hvilken film har børnene set
- b. Ge. *Ich weiß nicht welchen Film haben die Kinder gesehen
- I know not which film have the children seen

In the system advocated in Rizzi (1989, 1990) and in Rizzi & Roberts (1990)), V2 is excluded, because the embedded CP (and thus also C°) is selected by the matrix verb,

The following is mainly based on Holmberg (1986), but also on Taraldsen (1986a), both of which make extensive use of suggestions made in Kayne (1982).

In Holmberg (1986:141), the following "functional principles" are assumed:

- (35) a. The Predicate Principle: A predicate must be [+V]
 b. The Argument Principle: An argument must be [-V]
 c. The Modifier Principle: A modifier must be [%V]
 ([%V] means neutral, neither [+V] nor [-V])

It is also assumed that the inherent [$\pm V$] specifications of lexical items have the following distributions (Holmberg (1986:70-71):

- (36) a. [+V]: verbs (transitive, intransitive, and auxiliary verbs)
 b. [-V]: determiners, proper nouns, and complementisers.
 c. [%V]: nouns, adjectives, adverbials, prepositions.

Holmberg (1986:60) assumes that it is (the lexical content of) X° which determines the features of XP, with the addition that if X° is specified [%F], the feature [+F] or [-F] may percolate up to XP from the complement of X° . The features of a CP thus depend on what is in C° (though Holmberg considers S-bar rather than CP). There are three possibilities:

I. CPs may be arguments, and then C° must be [-V]. Complementisers like *that* are [-V], and so are N° :

- (37) a. John remembered [that he had to leave]
 b. John remembered [his wife's birthday]

II. CPs may modify arguments or predicates. All the heads below are [%V]:

- (38) a. a book [which I have read]
 b. a [very interesting] book
- (39) a. It has not snowed [since you left]
 b. It has not snowed [since the 15th of December]

III. CPs are predicates, they resemble VPs in having a "predicate subject", and so an "aboutness relation" holds between this predicate subject and the CP. The heads below are verbs, i.e. [+V]:

know in (32) & (33). In other words, the embedded C° must contain the feature $[+wh]$, in order to satisfy the subcategorisation requirements of the matrix verb. The projection principle (cf. sections 1.2.6 and 3.1.2.4) then requires that this $[+wh]$ feature be present at all syntactic levels (i.e. D-structure, S-structure, and LF).

This thus excludes the situation in (33), where C° is empty at one level and filled at another one (V2 would take place after D-structure and before S-structure): At D-structure the subcategorisation requirement of the matrix verb would be satisfied by a $[+wh]$ feature of the empty C° , and at S-structure it would be satisfied by a $[+wh]$ feature of the finite verb in C° . In other words, the $[+wh]$ feature of the empty C° would have been deleted, something which is not allowed.

Notice that this account does not exclude the case where C° is filled at all levels in an embedded question, because in this case nothing is deleted. In (34), the subcategorisation requirement of the matrix verb, *know*, is satisfied by the $[+wh]$ feature of *om/ob* 'if' at all levels:

- (34) a. Da. Jeg ved ikke om børnene har set denne film
 I know not if children-the have seen this film
- b. Ge. Ich weiß nicht ob die Kinder diesen Film gesehen haben
 I know not if the children this film seen have

2.2 Verb Second Explanations.

In this section, I will discuss four different analyses of (general) V2, which are all based on assumptions about the nature of C° : C° must have the feature $[+V]$ (2.2.1), C° is the assigner of nominative case (2.2.2), C° has features of tense and agreement (2.2.3), and C° has the feature $[+I]$ (2.2.4). In 2.2.5 I will conclude that there would seem to be some feature of C° in the V2-languages, which causes V2.

As for arguments against the so-called "ECP-approach" of Travis (1984, 1986), the reader is referred to Schwartz & Vikner (1989) and references cited there.

2.2.1 C° must have the feature $[+V]$.

Main clause CPs do not have to be [+V] if CP-spec is empty, because then the CP (or rather the C-bar) has no 'predicate subject', i.e. nothing with which it may have an "aboutness relation". As examples, consider these exclamations:

- (44) a. Da. At du ikke kan holde din mund! [-V]
That you not can hold your mouth (=Why can't you keep quiet)
- b. Ge. Daß er immer so spät kommen muß! [-V]
That he always so late come must
- c. Ge. Ob er verschlafen hat? [-V]
If he overslept has (=I wonder if he overslept)

Taraldsen (1986a:20) further claims that in Northern Norwegian dialects, short *wh*-phrases are "bare operators" and thus do not count as predicate subjects. Therefore sentences with these *wh*-phrases in CP-spec do not need V°-to-C° because C-bar is not about anything, and therefore not a predicate. In fact, the C-bar must be an argument, and thus it does not allow a [+V] head. (Similar data attested in Falk & Torp (1900:289)).

- (45) NNo. a. Kor studentan ska bu?
Where student-the shall live
- b. *Kor ska studentan bu?
Where shall student-the live

Longer *wh*-phrases are not bare operators, so they do count as predicate subjects when they are in CP-spec, making C-bar a predicate, making it necessary for C° to contain a [+V] element: the finite verb.

- (46) NNo. a. *Kor i byen studentan ska bu?
Where in town-the student-the shall live
- b. Kor i byen ska studentan bu?
Where in town-the shall student-the live

Apart from the above mentioned problem with C-bar being a predicate though not a maximal projection, my main reason for not adopting this analysis of V2 is that it considers the specifications of complementisers in C° and of finite verbs in C° to be different. this is problematic for the cross-Germanic variation w.r.t. embedded V2.

- (40) Da. a. Kaffe [drikker Peter ikke]
 Coffee drinks Peter not
- b. ... at Peter ikke [drikker kaffe]
 ... that Peter not drinks coffee

However, the bracketed constituent in (40a) is not a CP, but a C-bar (this is precisely where the change from the S/S-bar system to the C°/C-bar/CP one of Chomsky (1986a) makes a difference). (40a) is thus not a convincing example, as what is supposed to be a predicate, C-bar, is not a maximal projection. The argument would hold w.r.t. left dislocations, i.e. that the VP in (40b) is about *Peter* in the same way that the CP in (41) is about *Supermarkedets billigste kaffe*:

- (41) Da. Supermarkedets billigste kaffe, [den drikker Peter ikke]
 Supermarket-the's cheapest coffee, that drinks Peter not

But this thus only motivates V2 in left dislocations and not in normal topicalisations, in so far as in constructions without dislocations, such as (40a), it is difficult to see what a CP may enter into an "aboutness relation" with.

Disregarding this last objection for the moment, it can now be stated that V2 (or V°-to-C°) takes place because main clause CPs are predicates, and predicates must be [+V], and therefore they need a [+V] element in their X°. This is exactly what the finite verb provides by moving to C°.

- (42) Ge. [CP Die Kinder sahen [IP t [VP den Film t] t]]
-
- The children saw the film

The CP is a predicate, and needs a [+V] head, therefore the verb must move to C°, and a complementiser (which does not have the feature [+V]) may not be inserted.

- (43) Ge. Ich weiß [CP daß [IP die Kinder [VP den Film t] [I° sahen]]]
-
- I know that the children the film saw

The embedded CP is an argument, and needs a [-V] head, hence the presence of the complementiser. The verb could not possibly have moved to C° anyway.

Embedded V2 clauses cannot have the complementiser *daß* in Ge., but they must have the complementiser *at* in Da. or *att* in Sw.:

(47) Ge. Sie sagte, ...
She said ...

- a. ... [CP daß [IP wir keinen Wein mitbringen sollten]]
... that we no wine along-take should
- b. ... [CP wir sollten [IP t keinen Wein mitbringen t t]]
... we should no wine along-take
- c. *... [CP daß [CP wir sollten [IP t keinen Wein mitbringen t t]]]
... that we should no wine along-take

(48) Da. Hun sagde ...
She said ...

- a. ... [CP at [IP vi ikke skulle tage vin med]]
... that we not should take wine along
- b. ??... [CP vi skulle [IP t t ikke t tage vin med]]]
... we should not take wine along
- c. ... [CP at [CP vi skulle [IP t t ikke t tage vin med]]]
... that we should not take wine along

The problem is the following: The CP-complement of Ge. *sagen*, 'say', is either [-V], when no embedded V2 as in (47a), $C^\circ = \text{daß}$, or [+V], when there is embedded V2 as in (47b,c), $C^\circ = \text{sollten}$. The CP-complement of Da. *sige*, 'say', on the other hand, is [-V] under any circumstances, both when there is no embedded V2, as in (48a), or when there is embedded V2 as in (48b,c), as in both cases C° is an overt complementiser, *at*, which is [-V]. (These data are discussed further in section 2.2.4 below).

This analysis thus in my view makes a C° filled by a complementiser too different in nature from a C° filled by a finite verb, given how many properties these two have in common, not only the above examples, but also e.g. the adjacency restriction on

C° and pronominal subjects exemplified in (16)-(19) above. The three following analyses do not have this problem, as they all give C° the same status with respect to the V2-triggering property, irrespective of whether it contains a complementiser or a finite verb.

2.2.2 Case assignment to IP-spec.

The basic ideas of this analysis were suggested independently by Platzack (1986a,b) and by Koopman (1984)). Both assume that nominative case is assigned from C°, and that C° must be lexical in order to assign this case. In embedded clauses nominative is assigned by the complementiser in C°. In main clauses, there is no complementiser, and therefore something else must move into C°: the finite verb (the only X° which can move into C° without violating the head movement constraint).

Pronominal subjects must be adjacent to C°, both in embedded and main clauses, as seen in (16)-(19) above. This could be caused by an adjacency condition on case assignment (originally suggested in Stowell (1981:110)), or by the pronominal subjects having to cliticise (and clitics cliticise to their case assigners (as assumed, though in a slightly different form, in e.g. Borer (1984:37, 252) and Holmberg (1989)).

C° sometimes shows person and number agreement, e.g. in Bavarian (cf. Bayer (1983, 1984)) and in West Flemish. This is a sign that in these languages, C° contains inflectional features, which normally are associated with the assignment of nominative case.

- (49) WF. a. ... da Pol zat is
 b. *... dan Pol zat is
 ... *that Pol drunk is*
 c. *... da Pol en Valère zat zijn
 d. ... dan Pol en Valère zat zijn
 ... *that Pol and Valère drunk are*

(based on Bennis & Haegeman (1983:39))

These data are even more straightforwardly accounted for in the two following analyses (section 2.2.3 and 2.2.4) which make more explicit assumptions about the character of this inflectional feature of C°. In section 2.2.3 it is a feature of tense and agreement, in 2.2.4 it is the feature [+I].

Tomaselli (1989:335) asks why C° should have to be lexical in order to assign nominative case, given that I° can assign nominative in En. without being lexical (cf. (5) above), and that V° can assign accusative in e.g. Da. and Ge. without being lexical (cf. (5b,c) above). However, in both these cases I°/V° contain a trace, whereas C° would not contain anything at all in main clauses if the verb did not move there.

This however leaves open the question of why C° does not have to be lexical in embedded questions, cf. (32) & (33) from section 2.1.4, which are repeated here:

- C°
- (50) a. Da. Jeg ved ikke hvilken film _____ børnene har set
 b. Ge. Ich weiß nicht welchen Film _____ die Kinder gesehen haben
 I know not which film _____ the children have seen
- (51) a. Da. *Jeg ved ikke hvilken film har børnene _____ set
 b. Ge. *Ich weiß nicht welchen Film haben die Kinder _____ gesehen _____
 I know not which film have the children _____ seen

As discussed in section 2.1.4 above, V2 is excluded, as the CP (and thus also C°) is selected (by *know*). This means that C° contains the feature [+wh], which cannot be deleted (in accordance with the projection principle), and movement of the verb into C° would amount to such a deletion. The question is whether the presence of this feature is enough to enable C° to assign nominative, and the answer would have to be yes. It is also not obvious how this could be extended to relative clauses, where the facts are completely parallel (C° must be empty).

Another problem is raised by the so-called "quirky case" subjects in Faroese and in Icelandic. Why should the finite verb have to move to C° in the cases where IP-spec does not contain a nominative NP?

- (52) Fa. Henni tókti bátin ringan
 Her(dat) thought boat-the(acc) bad
- (53) Ic. Hefur þér nokkurn tíma leiðst Haraldur
 Have you(dat) any time bored Harald(nom)
 (=Were you ever bored by Harald?)

(52) is from Barnes (1986:18) and (53) is from Sigurðsson (1989:205), who both (following Thráinsson (1979), Cole et al. (1980), and many others) have many different tests, which show the dative NP to be the subject (reflexivisation, control, cliticisation, impossibility of stylistic inversion, etc.). I will suggest that the answer must be that assignment of nominative case is not motivating V2, it is rather an effect of it. This is what is suggested by the two analyses in sections 2.2.3 and 2.2.4 below, as well as by the

In the version of this idea put forward by Tomaselli (1989), C° contains the features of tense and agreement. This forces the finite verb to move into C° , because of the subcategorisation features of C° (tense and agreement are supposed to subcategorise for a verbal element).

The adjacency restriction on C° and pronominal subjects (cf. (16)-(19) above), is explained by the pronominal subjects being clitics, as clitics supposedly must cliticise to highest agreement (cf. that Romance clitics cliticise to I°).

(54) a. Da. Dette tæppe ved jeg ikke om t har kostet mange penge
This carpet know I not if has cost much money

b. No. Desse konstruksjonar trur eg at t er meir naturlege uttryksmåtar
These constructions think I that are more natural expressions
 (from Engdahl (1984:12))

As I will discuss further below, in section 3.3, I agree that the trace in IP-spec is licensed by C° agreeing with IP-spec. I will however follow Rizzi (1990: section 2.5) in assuming that this process takes place both in V2 and in non-V2 languages.

Rizzi (1990: section 2.5) argues that in some languages this process requires a 'change' of complementiser, e.g. En. *that* → Ø, Fr. *que* → *qui*, WF. *da* → *die* (cf. Bennis & Haegeman (1983)), and that other languages possess complementisers that have this agreement ability, e.g. *that* in certain American English dialects (cf. Sobin (1987)), *she* in Hebrew (cf. Shlonsky (1988)), and also complementisers in Kinyande, and in Irish (cf. Chung & McCloskey (1987)).

Therefore this phenomenon cannot be related to the tense and agreement feature in C° under discussion, as this is supposed to be a property unique to V2 languages..

Tomaselli (1989:364) also suggests that C° in V2 languages may license null subjects, and that this ability is another effect of the tense and agreement features in C° (thus making an elegant parallelism between C° in V2 languages and I° in 'real' null subject languages like Italian). I find it questionable whether this licensing really takes place from C° . In Ic., Ge., and Yi., non-referential null subjects are possible in IP-spec, but not in CP-spec (for Yi. and Ic., cf. section 2.3.2.1 below):

- (55) Ge. a. *pro wurde ein Mann getötet (Word order OK as a question)
 There was a man killed
 b. Es wurde ein Mann getötet
 c. Gestern wurde pro ein Mann getötet
 Yesterday was there a man killed
 d. *Gestern wurde es ein Mann getötet
 e. Ich weiß, daß pro ein Mann getötet wurde
 I know that there a man killed was
 f. *Ich weiß, daß es ein Mann getötet wurde

In Tomaselli's account, the licensing of non-referential *pro* is connected with the assignment of the external θ -role in the following way: The external θ -role is assigned by I° , and this assignment requires that IP-spec is governed by I° , whereas licensing of *pro* takes place from C° , and it also requires government (by C°). Given that IP-spec cannot be governed both by I° and by C° , licensing of *pro* is incompatible with the assignment of an external θ -role, and we thus have an explanation why only non-referential (i.e. non θ -marked) *pro* is allowed in the V2 languages. This whole argumentation obviously requires *pro* to be licensed from C° , and in so far as it is successful and does not make any other controversial assumptions, it is an argument in favour of *pro* being licensed from C° .

In my opinion, however, these two conditions do not hold. The analysis is not successful (or rather it is 'too successful'), and it makes unwarranted assumptions.

As for its success, it predicts that the only null subjects which could ever exist in V2 languages are non-referential ones, a claim that clearly is too strong when considering Germanic and Romance V2: Languages that have both V2 and referential null subjects include at least Old French (cf. Adams (1987), Roberts (1990) and references cited there) and Old Norse (cf. Falk & Torp (1900:2) and Mikkelsen (1911:720)). It is then an open question what change occurred between Old Norse and Icelandic which

restricted null subjects to non-referential ones (a change with similar effect presumably has taken place somewhere between Old High German (or maybe Primitive Germanic) and Modern German and Modern Yiddish).

Whereas null subjects in Old French are limited to V2 constructions (cf. Adams (1987), Roberts (1990) and references cited there)), this is not the case in Old Norse:

(i) ON. Ok tók hverr slíkt, er ____ fekk
And took each so-much that (he) got-hold-of

(ii) ON. Engi er svá fróðr, at ____ telja kunni oll stórvirki hans
Noone is so learned that (he) count could all great-deeds his
 (from Mikkelsen (1911:720))

As for the unwarranted assumptions, I assume that assignment of the external θ -role does take place from I° and it does not require government. It is assigned to the base-generated position of the subject, i.e. VP-spec, under spec- X° agreement. Even if it were assigned directly to IP-spec by I° , this could not take place under government, as a head cannot govern its own specifier.

I will assume this restriction as suggested by Rizzi (1990:section 2.2/7). It also accounts for why accusative (and partitive, cf. chapter 3 below) cannot be assigned to VP-spec and why nominative in V2 languages cannot be assigned to CP-spec, as these cases must be assigned under government.

This restriction also avoids the arbitrariness inherent in Tomaselli's suggestion: Instead of IP-spec being governed by one X° in one case, and by another X° in another case; IP-spec is now always governed by C° .

Given these objections, it is an open question whether the non-referential null subject in Ic., Ge., and Yi. is licensed from C° (under government) or from I° (under spec- X° agreement, as in Italian). It seems to be a fact that non-referential *pro* is lost at the same time as V° -to- I° movement (cf. Platzack (1987b)), which might be taken as an indication that it is licensed by I° (which then loses its licensing properties at the same time as it loses its ability to attract the finite verb).

Luigi Rizzi (p.c.) objects that if null subjects are licensed by I° in languages like Ge. and Ic., then we have no hope of explaining why they only have non-referential *pro*, whereas languages like It. and Rumanian have referential null subjects as well, given that e.g. Ic. and Ru. have exactly the same richness of inflection.

However, it could be argued that if C° has agreement features, it is only to be expected that they are lost at exactly the same time as the agreement features in I° are lost.

nominative case; within the agreement/tense feature analysis of section 2.2.3, it is that C° contains a tense feature; and within the analysis to be discussed in this section, it is that C° has the feature $[+I]$. The $[+V]$ analysis discussed in section 2.2.1, takes a rather different approach in that V2 is here caused by C° having the feature $[+V]$, which C° does not have in non-V2 clauses (e.g. when filled by the complementiser).

In Rizzi (1989) the existence of the two following features is suggested: $[\pm C]$ and $[\pm I]$. An X° with the feature $[+C]$ is the head of a proposition, whereas an X° with $[+I]$ is the head of a predicate (or an event/eventuality (Rizzi (1989:7))). This gives the following four combinatorial possibilities, with the possible instantiations given:

- (56) $[-C, -I] = D^\circ/DP$
 $[+C, -I] = C^\circ/CP$ (in non-V2 languages), irrespective of content
 $[-C, +I] = I^\circ/IP$
 $[+C, +I] = C^\circ/CP$ (in V2 languages), irrespective of content
 (i.e. realised as verb or as complementiser or left empty)

In other words, the differences between V2 and non-V2 languages is that CP in the former is a predicate as well as a proposition, whereas in the latter, it is only a proposition.

Thus this analysis is open to a criticism like the one offered in section 2.2.1 above: If CP is a predicate, it is difficult to see what it is a predicate of, unless there is a left dislocated constituent. This is however, only the case in a small fraction of V2 structures.

This analysis thus offers accounts of overtly agreeing complementisers and of the adjacency restriction on C° and a pronominal subject, which are very reminiscent to the account offered by the agreement/tense feature analysis of section 2.2.3:

When C° shows person and number agreement (e.g. in Bavarian and in West Flemish, as discussed above in connection with (49)), this can be taken to be a direct manifestation of the feature $[+I^\circ]$ in C° .

The adjacency restriction on C° and pronominal subjects (cf. (16)-(19) above), is explained by the pronominal subjects being clitics, as clitics supposedly must cliticise to highest X° with the feature $[+I]$ (cf. that Romance clitics cliticise to I°).

As for the licensing of non-referential *pro*, this analysis is compatible both with licensing from C° and with licensing from I° : *pro* is licensed by the feature $[+I]$, irrespective of whether it is the $[+I]$ feature in C° which does it or the $[+I]$ feature in I° .

From what has been said so far, this analysis is compatible both with nominative assignment to IP-spec both from C° and from I° . In Rizzi & Roberts (1990:25, fn 3),

however, reasons are given to assume that nominative would be assigned under government from C° . It is argued that the reason why En. (and Ge. and Da.) allows V2 with an overt subject in IP-spec, whereas Fr. (and It.) does not, is because En. allows nominative to be assigned from C° under government, whereas in Fr. nominative is only assigned from I° under spec-X $^\circ$ agreement:

- (57) En. a. Which film has Paul seen?
 Da. b. Hvilken film har Poul set?
 Ge. c. Welchen Film hat Paul gesehen?
 Fr. d. *Quel film a Paul vu?
 It. e. *Quale film ha Paolo visto?

There may be a problem hidden here: The point is thus that when nominative is assigned via spec-X $^\circ$ agreement, movement of the case assigning X $^\circ$ will break the case assignment, and the NP will have to get case in some other way. In En., Fr., and It. nominative is normally assigned by spec-X $^\circ$ agreement (none of these are V2 languages), and in all three the NP will have to get case in another way. This happens in three different ways (in En. nominative may also be assigned under government from C° , cf. (57a), in Fr. complex inversion solves the problem: *Quel film Paul a-t-il vu?*, and in It. the answer is having the subject at the end: *Quale film ha visto Paolo?*).

The problem is that we are predicting that assignment of nominative case under spec-X $^\circ$ agreement requires the assigning X $^\circ$ to be present, and not to be a trace. A normal En. sentence would seem to be a counter example, as I° contains nothing but a trace of the inflectional material (cf. section 2.4.4 below):

- (i) Peter t_i often smoked_i this brand of cigars
 └───┐
 (nominative case)



Following this line of argumentation, all instances of nominative case in V2-structures must be assigned under government from C° . Given that the features of a C° containing the finite verb and a C° containing a complementiser are the same, viz. [+C, +I], we would expect either of them to be a nominative case assigner if the other one is.



In this connection it should be noted that Rizzi (1989:8) assumed that the C° containing the Ge. complementiser *daß* is [+C, -I]. The assumption that C° in the V2 languages is [+C, +I] irrespective of its content (Rizzi (p.c.)) is thus actually a revision.

This revision is supported by facts like the following (cf. section 2.2.1 above): In some cases there seems to be "free variation" between a verb and a complementiser in C° , e.g. in exclamations:

- (58) Da. a. At du da ikke kan holde din mund!
That you (emphasis) not can hold your mouth
- b. Kan du da ikke holde din mund?
Can you (emphasis) not hold your mouth
- c. Du kan da heller ikke holde din mund!
You can (emphasis) either not hold your mouth
 (a.-c. = *Why can't you keep quiet/I wish you hadn't said that*)

There are also the cases mentioned in section 2.2.1, (47) and (48), where C° in Ge. embedded V2 clauses, (59b,c), must contain *that*, and thus differ both from Ge. embedded non-V2 clauses, (59a), from Sw. embedded non-V2 clauses, (60a), and also from Sw. embedded V2 clauses, (60b,c):

- (59) Ge. Sie sagte, ...
She said ...
- a. ... [CP daß [IP wir keinen Wein mitbringen sollten]]
 ... that we no wine along-take should
- b. ... [CP wir sollten [IP t keinen Wein mitbringen t t]]

 ... we should no wine along-take
- c. *... [CP daß [CP wir sollten [IP t keinen Wein mitbringen t t]]]

 ... that we should no wine along-take

- (60) Da. Hun sagde ...
She said ...
- a. ... [CP at [IP vi ikke skulle tage vin med]]
 ... that we not should take wine along
- b. ??... [CP vi skulle [IP t t ikke t tage vin med]]]

 ... we should not take wine along
- c. ... [CP at [CP vi skulle [IP t t ikke t tage vin med]]]

 ... that we should not take wine along

(based on Holmberg (1986:111))

Rather than saying that the verb *say* in Ge. sometimes selects a C° which is [+I], (59c), and sometimes one which is [-I], (59a), and thus differs from *say* in Da. which always selects the same kind of C° , i.e. *at*, we can now say that in all cases in both languages, the matrix verb *say* selects a C° which is [+C, +I].

Summing up, the [+I] analysis has much in common with the tense/agreement feature analysis discussed in the previous section, though it avoids some of the drawbacks of the latter. There is however still the counter-intuitive idea of all main clauses in the V2 languages being predicates and propositions at the same time.

2.2.5 Conclusion.

Following the assumptions made by the analyses discussed in section 2.2.2 (the case assignment analysis) and in 2.2.4 (the [+I] analysis), I will assume that nominative case is assigned (under government) from C° . This is particularly supported by the argument from Rizzi & Roberts (1990) discussed in connection with (57).

If cliticisation is to a case assigner (as mentioned above, this is assumed in e.g. Borer (1984:37, 252) and Holmberg (1989)), and if pronominal subjects for some reasons must cliticise, then the adjacency condition on C° and a pronominal subject may be accounted for in this way.

The fact (if it is a fact) that nominative is assigned from C° is however not necessarily the reason for V2. It is perfectly possible that there is another reason and that these conditions on nominative assignment are only "side effects" of the "real" V2 reason. This is what is assumed in Rizzi & Roberts' (1990) analysis of (57), as the reason for the verb moving to C° here is the *wh*-criterion (as discussed in a footnote to section 2.1.1).

The real V2 reason could thus very well be that there is a particular feature in C° , which subcategorises for a finite verb (or for I° or T°). This feature could be agreement/tense or [+I]. Either of these would account for the agreeing overt complementisers in WF./Ba. as discussed in connection with (49).

As far as non-referential *pro* is concerned, the question unfortunately had to be left open, as discussed in section 2.2.3.

- (62) Da. a. Vi ved at [IP han ikke har læst denne bog]
 We know that he not has read this book
- b. Vi ved at [CP denne bog_i har_j [IP han ikke t_j læst t_i]]
 We know that this book has he not read

Below I will first discuss the general embedded V2 in Yiddish & Icelandic, in sections 2.3.2 through 2.3.7, to see whether it should lead to a revision of the above analysis of V2, as this has often been claimed in the literature. I will conclude in 2.3.8 that this is not the case.

In section 2.3.9, I will consider embedded V2 in Danish, which also has been claimed recently (by Reinholtz (1989)) to provide evidence that the above analysis of V2 should be revised.

2.3.2 Embedded clauses in Yiddish and Icelandic.

As will be discussed in section 2.4 below, Yi. and Ic. have V^o-to-I^o movement, so that embedded clauses never have an adverbial between the subject and the finite verb, (cf. (63a), (64a), & (65a) below). This means that we cannot use the Da./Fa./No./Sw. indication for V2 or non-V2, as the verb in any case will precede the adverbial (cf. section 2.1.3 above). As Yi. and Ic. both have the finite verb before VP, we cannot use the Ge./Du./Frisian way of telling V2 apart from non-V2 either, the rest of the VP will in any case be to the right of the finite verb.

Tony Kroch and Beatrice Santorini (p.c.) have recently suggested that the order inside VP in Yiddish may be NP-V° (with the NP being extraposed unless it is a pronoun) rather than V°-NP. Three things would seem to point in this direction: That particles always precede their verbs, that Yi. has scrambling rather than object shift, and that the participle of the main verb may precede the participle of the passive auxiliary: ... *gegesn gevorn* ('... eaten been').

Even if this hypothesis is correct, it seems beyond any doubt that the order inside IP in Yi. is I°-VP and not VP-I°. This suggestion would thus make Yiddish a cross between Scandinavian (which is I°-VP and V°-NP) and Continental West Germanic (which is VP-I° and NP-V°)

In other words, embedded clauses in Yi. and Ic. may always be interpreted as being V2: If they are subject initial, we cannot tell whether V2 has applied or not, (cf. (63b), (64b), & (65b) below), and if they are non-subject-initial, V2 has definitely applied, (cf. (63c), (64c), & (65c) below):

- (63) a. ... - that - subject - adverbial - verb...
 b. ... - that - subject - finite verb - adverbial ...
 c. ... - that - topic - finite verb - subject - adverbial ...

- (64) Yi. a. *... az dos yingl oyfn veg vet zen a kats
 ... *that the boy on-the way will see a cat*
 b. ... az dos yingl vet oyfn veg zen a kats
 ... *that the boy will on-the way see a cat*
 c. ... az morgn vet dos yingl oyfn veg zen a kats
 ... *that tomorrow will the boy on-the way see a cat*
 ((64b) from Santorini (1989:50))

- (65) Ic. a. *... að Helgi aldrei hefur hitt Maríu
 ... *that Helgi never has met Maria*
 b. ... að Helgi hefur aldrei hitt Maríu
 ... *that Helgi has never met Maria*
 c. ... að Maríu hefur Helgi aldrei hitt
 ... *that Maria has Helgi never met*

Except for the ones clearly taken from the literature, all Yi. examples are due to Ellen Prince and/or Beatrice Santorini. The same goes for the Ic. examples in chapter 2, except where clearly indicated, they are due to Höskuldur Thráinsson. The invaluable help of these three linguists is hereby gratefully acknowledged.

It has been suggested that V2 may arise in embedded clauses through movement of non-subjects to IP-spec rather than to CP-spec, by Diesing (1988, 1990) and Santorini (1988a,b, 1989) for Yi. and by Rögnvaldsson & Thráinsson (1988) for Ic. In other words, what we have been assuming to take place at the CP-level (in a V2 structure, CP-spec contains any XP, C° contains the finite verb) may take place at the IP-level in Yi. and Ic. (IP-spec contains any XP, I° contains the finite verb):

- (66) Yi./Ic. embedded clauses according to the analysis in 2.1 and 2.2 above
 and to Holmberg (1986:110).

- | | <u>C°</u> | <u>CPsp</u> | <u>C°</u> | <u>IPsp</u> |
|----|-----------|-----------------|---------------------------------|---------------|
| a. | ... | - <u>that</u> - | subject - finite verb - | adverbial ... |
| b. | ... | - <u>that</u> - | topic - finite verb - subject - | adverbial ... |

- (67) Yi./Ic. embedded clauses according to Diesing (1988, 1990), to Santorini (1988a,b, 1989), and to Rögnvaldsson & Thráinsson (1988).

	<u>C°</u>	<u>IPsp</u>	<u>I°</u>	<u>TPsp/VPsp</u>
a.	...	- <u>that</u> -	subject -	finite verb - adverbial ...
b.	...	- <u>that</u> -	topic -	finite verb - subject - adverbial ...

Whereas Santorini (1988a,b, 1989), and Rögnvaldsson & Thráinsson (1988) assume that IP-spec is always the topic position, i.e. it is always an A'-position, Diesing (1988, 1990) holds that IP-spec is an A-position when filled by the subject, but an A'-bar position when filled by a non-subject. Below I will very often treat these two approaches as one, as they both crucially differ from the approach I am defending in allowing IP-spec to be the landing site for topicalisation, and in taking I° to be the position of the finite verb in a V2 structure.

Before discussing the analysis in section 2.3.3, we shall first have a closer look at the data themselves, i.e. at three phenomena which show in a particularly clear fashion how embedded clauses in Yi. and Ic. differ from the ones in Ge. and Da. in having V2 in general: Expletive subjects (section 2.3.2.1), topicalisations under non-bridge verbs (2.3.2.2), and topicalisations in embedded questions (2.3.2.3).

2.3.2.1 Expletive subjects in embedded clauses.

The expletive subject, Yi. es/Ic. pað, behaves as does Ge. es (cf. also section 3.1 below): It cannot occur in the canonical subject position (IP-spec in Ge.), cf. (68a,b), (69a,b), & (70a,b), but must occur in the topic position (CP-spec in Ge.), cf. (68c-f), (69c-f), & (70c-f):

- (68) Ge. a. es ist ein Junge gekommen
 There is a boy come
 b. *pro ist ein Junge gekommen (OK as a question)
 c. *Gestern ist es ein Junge gekommen
 Yesterday is there a boy come
 d. Gestern ist pro ein Junge gekommen
 e. *Warum ist es ein Junge gekommen?
 Why is there a boy come?
 f. Warum ist pro ein Junge gekommen?

- (69) Yi. a. es iz gekumen a yingl
There is come a boy
 b. *pro iz gekumen a yingl (OK as a question or V1 declarative)
 c. *Nekhtn iz es gekumen a yingl
Yesterday is there come a boy
 d. Nekhtn iz pro gekumen a yingl
 e. *Far vos iz es gekumen a yingl?
Why is there come a boy?
 f. Far vos iz pro gekumen a yingl?
- (70) Ic. a. það hefur komið strákur
There has come (a) boy
 b. *pro hefur komið strákur (OK as a question or V1 declarative)
 c. *I gær hefur það komið strákur
Yesterday has there come (a) boy
 d. I gær hefur pro komið strákur
 e. *Af hverju hefur það komið strákur?
Why has there come (a) boy?
 f. Af hverju hefur pro komið strákur?

This might be taken to be completely parallel to Ge., (es/það is impossible in IP-spec, but possible in CP-spec), but Yi./Ic. differ from Ge. as soon as we look at embedded clauses. Here es/það are not only possible after the complementiser, they are obligatory:

- (71) Ge. a. *... daß es ein Junge gekommen ist
 ... *that it a boy come is*
 b. ... daß pro ein Junge gekommen ist
- (72) Yi. a. ... az es iz gekumen ein yingl
 ... *that it is come a boy*
 b. *... az pro iz gekumen ein yingl
- (73) Ic. a. ... að það hefur komið strákur
 ... *that there has come (a) boy*
 b. *... að pro hefur komið strákur

This is a clear indication that Yi./Ic. embedded clauses are of a different kind from Ge. ones.

(75) Verbs which allow sentential complements, but only without V2

Ge. bedauern, bestätigen, bereuen, beweisen, bezweifeln,
 Da. beklage, bekræfte, fortryde, bevis, tvivle på,
 be sorry, confirm, regret, prove, doubt,

darum bitten, daran denken, erklären, erlauben, geheim halten,
 bede om, tænke på, forklare, tillade, holde hemmeligt,
ask for, think of, explain, permit, keep secret,

gern haben, hassen, übersehen, überzeugen, vergeben,
 være glad for, hade, overse, overbevise om, tilgive,
be happy, hate, overlook, convince, forgive,

verlangen, verschweigen, zeigen, zugeben.
 forlange, fortie, vise, indrømme.
demand, conceal, show, admit.

The point of this subsection is that in Ic. and Yi., topicalisation takes place in clauses embedded under any verb which allows a sentential complement, including the verbs in (75) above. Consider as examples *doubt (on)* and *regret*, as given for Ic. by Rögnvaldsson & Thráinsson (1988:35):

- (76) a. Ic. Jón efast um að á morgun fari María snemma á fætur
 b. Da. *Johan tvivler på at i morgen står Maria tidligt op
 c. Yi. John tsveyfelt az morgen vet Miriam fri oyfshteyn
 d. Ge. *Johan bezweifelt, morgen wird Maria früh aufstehen
 John doubts (on)(that) tomorrow will Mary get up early
- (77) a. Ic. Jón harmar að þessa bók skuli ég hafa lesið
 b. Da. *Johan beklager at denne bog har jeg læst
 c. Yi. John bedoyert az zayn bukh hob ikh geleyent
 d. Ge. *Johan bedauert, dieses Buch habe ich gelesen
 John regrets (that) this book have I read

In other words, embedded V2 exists in Da. and Ge., as well as in Ic. and Yi. There are very great differences, however. In Da. and Ge. embedded V2 is selected by the main clause verb, as it only occurs with a certain number of different main clause verbs, i.e. only a subset of those taking sentential complements (Notice that the set is not the same in the two languages, but there is a certain amount of overlap, as shown in (74)). In Ic. and Yi. embedded V2 does not appear to be selected by the main clause verb, as it may occur with all verbs that take sentential complements.

2.3.2.2 Topicalisations embedded under "non-bridge verbs".

As will be discussed further below (in section 2.3.4), in Ge. and Da., embedded V2 only occurs when the embedded clause is the complement of a certain kind of verb, often somewhat confusingly referred to as bridge verbs in the literature.

Bridge verbs is actually the name for the class of verbs which allow extraction from their sentential complement. Thus *say* is a bridge verb, and *whisper* is not:

- (i) a. What did Sally say that she had secretly read
b. *What did Sally whisper that she had secretly read

(cf. van Riemsdijk & Williams (1986:294), from where (ib) is taken)

It should be noted that there are many bridge verbs that do not allow sentential complements with V2, so that the two sets do not coincide. In Da., No., and Sw. it is hard to find a verb which takes a sentential complement and which is not a bridge verb (as most verbs seem to allow extraction very liberally, cf. the papers in Engdahl & Ejerhed (1982)).

The following brief and non-exhaustive lists of Ge. and Da. verbs which do allow V2 in their sentential complements and verbs which do not are based on the much longer and more detailed lists for Swiss German in Penner & Bader (1990):

Similar lists may also be found in Haider (1986:53), in Helbig & Buscha (1986:646-647), and in Reinholtz (1989:104, fn 7). The claims of Reinholtz (1989) will be discussed in section 2.3.4.

(74) Verbs which allow sentential complements with and without V2

Ge.	andeuten,	angeben,	antworten,	behaupten,	berichten,	betonen,
Da.	antýde,	angive,	svare,	påstå,	berette,	betone,
	hint,	indicate,	answer,	claim,	report,	emphasise,

entscheiden,	erfahren,	sich erinnern,	feststellen,	finden,	glauben,
beslutte,	erfare,	huske,	slå fast,	synes,	tro,
decide,	learn,	remember,	ascertain	think,	think,

hoffen,	meinen,	sagen,	sehen,	spüren,	vermuten,	wissen.
håbe,	mene,	sige,	se,	føle,	formode,	vide.
hope,	mean,	say,	see,	feel,	assume,	know.

2.3.2.3 Topicalisations in embedded questions.

Yi. and Ic. also seem to differ from Ge., Da., and En. in that topicalisation with V2 may occur in embedded questions.

Consider first embedded questions with the subject immediately after the *wh*-element. These are possible in all the languages under consideration, but they are clearly not V2 constructions:

- | | | | <u>wh-</u> | | <u>subj</u> | | | | | | |
|------|----|-----|------------|-------|-------------|-----------|-------|-------|--------|-----|---------------------|
| (78) | a. | Yi. | Ikh | veys | nit | far | vos | di | ku | iz | geshtanen in tsimer |
| | b. | Ge. | Ich | weiß | nicht | warum | | die | Kuh | | im Zimmer |
| | | | | | | | | | | | gestanden hat |
| | c. | Ic. | Ég | veit | ekki | af hverju | kýrin | hefur | staðið | | í herberginu |
| | d. | Da. | Jeg | ved | ikke | hvorfor | koen | har | stået | | i rummet |
| | e. | En. | I | don't | know | why | | the | cow | has | stood in the room |

The non-V2 nature of (78) can only be shown for Ge., Da., and En. (i.e. those languages which either are not SVO or do not have V^o-to-I^o movement (cf. section 2.4 below):

In Ge., the non-V2 nature of (78b) is clear from the fact that the finite verb is in final position in the embedded question.

For Da., it can be shown that (78d) is not a V2 clause by adding a sentential adverbial. Such an adverbial can only occur in front of the finite verb, whereas in a V2 structure it would appear after the finite verb, cf. section 2.1.3 above:

- | | | | | | | | | | | | | |
|------|-----|----|----------|-------------|------------|------------|----------------|---------------|---------------|---------------|-----------|------------------|
| (79) | Da. | a. | Jeg | ved | ikke | hvorfor | koen | altid | står | inde | i | huset |
| | | | <i>I</i> | <i>know</i> | <i>not</i> | <i>why</i> | <i>cow-the</i> | <i>always</i> | <i>stands</i> | <i>inside</i> | <i>in</i> | <i>house-the</i> |
| | | b. | *Jeg | ved | ikke | hvorfor | koen | står | altid | inde | i | huset |
| | | | <i>I</i> | <i>know</i> | <i>not</i> | <i>why</i> | <i>cow-the</i> | <i>stands</i> | <i>always</i> | <i>inside</i> | <i>in</i> | <i>house-the</i> |

In En. it is clear from the fact that even in simple present or simple past, (78e) would not necessitate *do*-support, whereas V2 always does:

- | | | | | | | | | | | | | |
|------|-----|----|------|-------|------|-----|-----|------|-------|-----|-------|-------|
| (80) | En. | a. | I | don't | know | why | the | cow | lived | in | the | house |
| | | b. | *Why | lived | the | cow | | | in | the | hose? | |
| | | c. | Why | did | | the | cow | live | in | the | hose? | |

Whereas embedded subject initial questions thus are allowed in all five languages, embedded non-subject initial questions (i.e. with a topicalised element immediately after the *wh*-element), would seem to only be possible in Yi.:

		<u>wh-</u>	<u>topic</u>	<u>vb</u>	<u>subj</u>	
(81)	a. Yi.	Ikh veys nit	far vos	in tsimer	iz	di ku geshtanen
	b. Ge.	*Ich weiß nicht	warum	im Zimmer	ist	die Kuh gestanden
	c. Ic.	*Ég veit ekki	af hverju	í herberginu	hefur	kýrin staðið
	d. Da.	*Jeg ved ikke	hvorfor	i rummet	har	koen stået
	e. En.	*I don't know	why	in the room	has	the cow stood

On closer scrutiny, however, it would seem that this type of embedded question with topicalisation is only possible if the *wh*-element is *why*. Consider the following two examples with *when* and *where*, which are ungrammatical in all five languages:

		<u>wh-</u>	<u>topic</u>	<u>vb</u>	<u>subj</u>	
(82)	a. Yi.	*Ikh veys nit	ven	in tsimer	iz	di ku geshtanen
	b. Ge.	*Ich weiß nicht	wann	im Zimmer	ist	die Kuh gestanden
	c. Ic.	*Ég veit ekki	hvenær	í herberginu	hefur	kýrin staðið
	d. Da.	*Jeg ved ikke	hvornår	i rummet	har	koen stået
	e. En.	*I don't know	when	in the room	has	the cow stood

(83)	a. Yi.	*Ikh veys nit	vu	nekhtn	iz	di ku geshtanen
	b. Ge.	*Ich weiß nicht	wo	gestern	ist	die Kuh gestanden
	c. Ic.	*Ég veit ekki	hvar	í gær	hefur	kýrin staðið
	d. Da.	*Jeg ved ikke	hvor	i går	har	koen stået
	e. En.	*I don't know	where	yesterday	has	the cow stood

Notice that the subject in (81a), (82a), and (83a), *the cow*, is definite. If the subject had been *a cow*, then all three sentences would have been grammatical:

(i)	Yi.	a.	Ikh veys nit	ven	in tsimer	iz	geshtanen	a	ku
			<i>I</i>	<i>know not</i>	<i>when</i>	<i>in room</i>	<i>is stood</i>		<i>a cow</i>
		b.	Ikh veys nit	vu	nekhtn	iz	geshtanen	a	ku
			<i>I</i>	<i>know not</i>	<i>where</i>	<i>yesterday</i>	<i>is stood</i>		<i>a cow</i>

So perhaps the conclusion is that topicalisation is not possible in an embedded question (except for *why* in Yi.).

The fact that Yi. allows any topicalisation inside an embedded question at all might be considered problematic for the relativised minimality framework, as two

A'-movements would seem to be crossing each other, something which should be impossible (cf. section 1.3, as well as section 2.3.7 below). I will however argue that the only possible case, the Yi. one with *far vos*, 'why', is not a case of movement at all, and therefore it does not violate relativised minimality.

Rizzi (class lectures, 1990) has pointed out that in some languages, there are reasons to think that *why* may be base-generated in CP-spec rather than moved there. This is the case in Italian, where *perché*, 'why', but not *come*, 'how', may occur without the verb moving into C°:

- (84) It. a. *Perché Gianni ha dormito?*
 Why Gianni has slept
- b. **Come Gianni ha dormito?*
 How Gianni has slept

Given the *wh*-criterion (cf. section 2.1.4), we would expect that the movement of *perché/come* into CP-spec would necessitate the movement of the finite verb into C° (to make sure there is spec-X° agreement w.r.t. the feature [+*wh*] in CP). This is however not the case for *perché*, and this may be explained by saying that *perché* (as opposed to *come*) may be base-generated in CP-spec. Of course either may also be moved into CP-spec, in which case the verb is also moved to C° (and the subject for case reasons cannot occur in IP-spec, cf. section 2.2.4) :

- (85) It. a. *Perché ha dormito Gianni?*
 Why has slept Gianni
- b. *Come ha dormito Gianni?*
 How has slept Gianni

The assumption that *perché* may be base-generated in CP-spec is supported by the following data from long extractions:

- (86) It. a. *Perché credi che Paolo sia andato a Parigi?*
 Why think-you that Paolo is gone to Paris
- b. *Perché Gianni crede che Paolo sia andato a Parigi?*
 Why Gianni thinks that Paolo is gone to Paris

(86a) is ambiguous, *perché* may either be related to the reason for Paolo's going to Paris ("to see his friends"), which would be extraction from the embedded clause, or to the reason for someone's belief that Paolo has gone to Paris ("because I saw

- (91) Ge. *Ich frage mich was es jemand gekauft hat
I ask myself what there someone bought has

wh- topic vb

- (92) Ge. *Hans wußte nicht, wie es so viele Leute ins Ziel gekommen waren
 Hans knew not how there so many people in goal come were

wh- topic vb

- (93) Ge. *Er soll ihm erklären, wie es ein Krieg geführt wird
He shall to-him explain how there a war led is

As the *wh*-elements are not limited to *why*, we cannot claim that the *wh*-element does not move. If it does move, and if the expletive has undergone A'-movement from IP-spec to CP-spec, the movement of the *wh*-element must cross an A'-specifier. One way out would be to assume that the movement of the expletive is not A'-movement (the intuition would be that one cannot topicalise anything so non-topical as an expletive), but rather A-movement. In that case, the position of the expletive would not be an A'- but an A-position, and it would not interfere with the movement of the *wh*-element.

Maybe the possibility of moving from the subject position upwards by A-movement rather than by A'-movement could also be used in accounting for why it seems to be possible to extract a *wh*-subject across any kind of topic (not only an expletive). The idea is that below the movement of the subject to the initial position and the topicalisation to the position right after the topic do not interfere with each other, because the former is A-movement, the latter A'-movement:

- (94) Yi. a. Kent ir mir nit zogn ver do iz a guter dokter
Can you me not say who there is a good doctor

(from Santorini (1989:53))

- b. Zi iz gekumen zen ver frier vet kontshen
She is come see who earlier will finish

(from Diesing (1988:132))

- c. Yeder mentsh tut vos far im iz beser
Every human does what for him is better

Summing up, we have seen that Yi. as well as Ic. have the mechanisms necessary for having general topicalisations inside embedded questions, and the restrictions on the occurrence of these may be accounted for in terms of relativised minimality, as they are only possible where they are not ruled out by the restrictions on A'-movement in this framework (cf. also 2.3.7.1 below).

2.3.3 Three alternative analysis of general embedded V2.

Now that we have seen that V2 is possible in all embedded clauses in Yi. and Ic., the question is which analysis to give to these data. I will introduce a third possible analysis in addition to the two discussed in (66) and (67) above, namely one in which there is a projection level between CP and IP. The advantage of this approach, (96), would be to avoid recursion of CP and still keep IP-spec as an A-position.

(95) The CP-recursion analysis.

- | | <u>C°</u> | <u>CP-spec</u> | <u>C°</u> | <u>IP-spec</u> | |
|----|-----------|----------------|-----------|----------------|-------------------------|
| a. | ... | - that - | subject - | finite verb - | adverbial ... |
| b. | ... | - that - | topic - | finite verb - | subject - adverbial ... |
- (sections 2.1 and 2.2 above and Holmberg (1986:110).)

(96) The ZP analysis.

- | | <u>C°</u> | <u>ZP-spec</u> | <u>Z°</u> | <u>IP-spec</u> | |
|----|-----------|----------------|-----------|----------------|-------------------------|
| a. | ... | - that - | subject - | finite verb - | adverbial ... |
| b. | ... | - that - | topic - | finite verb - | subject - adverbial ... |
- (maybe Roberts (1990), Cardinaletti & Roberts (1990) if $Z° = Agr1°$)

(97) The topicalisation to IP-spec analysis.

- | | <u>C°</u> | <u>IP-spec</u> | <u>I°</u> | <u>TPsp/VPsp</u> | |
|----|-----------|----------------|-----------|------------------|-------------------------|
| a. | ... | - that - | subject - | finite verb - | adverbial ... |
| b. | ... | - that - | topic - | finite verb - | subject - adverbial ... |
- (Diesing (1988, 1990), Santorini (1988a,b, 1989), and Rögnvaldsson & Thráinsson (1988).)

One thing that might be said in favour of the topicalisation to IP-spec analysis is that it is more elegant to avoid recursion of $C°/CP$. This may be true, but I would like to point out that this elegance is achieved at the expense of another elegance: Surely it is more elegant to assume IP-spec to have one and the same status universally (i.e. A) than to assume it to vary between languages (i.e. Yi./Ic.: A', other V2 languages: A), as do Santorini (1988a,b, 1989), and Rögnvaldsson & Thráinsson (1988)) or even to vary within one language, as does Diesing (1988, 1990) for Yi.

At least in theory, all three analyses are compatible with a CP-analysis of V2 in main clauses, though the proponents of (97) all assume that main clause V2 in Yi. and Ic. have the same analysis as embedded V2, i.e. that in both main and embedded clauses topicalisation is a movement to IP-spec (Diesing (1988:127), Santorini (1988b:167), Rögnvaldsson & Thráinsson (1988:12)).

At this point one could either reject the topicalisation to CP-spec analysis for all the V2 languages (and keep the parallelism between all the languages intact) or say that there is a difference between main clauses in Ic./Yi. and in the other V2 languages similar to the one seen above for embedded clauses.

As for the former, it would not only mean rejecting all the argumentation in sections 2.1 and 2.2 above, but also losing the explanation for the main/embedded asymmetry in the V2 languages (apart from Ic./Yi.). Presumably for these reasons, none of the analyses cited above entertain this possibility.

If, on the other hand, main clause V2 is topicalisation to IP-spec in Ic./Yi. but to CP-spec in the other V2 languages, the question is whether such a difference is motivated, given that there would seem to be no structural differences between the two groups at all w.r.t. main clauses (as opposed to embedded clauses, cf. e.g. section 2.3.2 above). This is what Santorini (1989:99) claims, and it is presumably also the opinion of Rögnvaldsson & Thráinsson (1988:3, 12), though their formulations are very vague.

Rögnvaldsson & Thráinsson (1988:11) do assume the existence of CP-spec in main clauses in Icelandic, but claim that it is only filled by left dislocated elements. This however is but another difference in structure between Ic. and e.g. Da. which cannot be supported by empirical evidence (in Da. topicalisation is to CP-spec, so Left Dislocation would have to be to a position outside CP), as there (presumably) is no difference between Left Dislocation structures in the two languages.

In the three subsections below, I will first discuss another alleged argument in favour of topicalisation to IP-spec in 2.3.3.1, and then discuss the relative merits of the three alternative analyses for German in 2.3.3.2, and for English and Danish in 2.3.3.3.

In the sections after that, I will be reviewing various areas of the grammar of Ic. and Yi. which may or may not point to one of the three analysis: section 2.3.4 is on the relative positions of the subject and the sentential adverbial, 2.3.5 is on subject-verb agreement, 2.3.6 is on adjunction of adverbials to IP and CP, and 2.3.7 is on extraction from the embedded clause.

2.3.3.1 V1 Declaratives.

Santorini (1989:98) claims to have a reason to assume that topicalisation in main clauses is movement to IP-spec in Yi. (and presumably Ic.), but not in the other V2 languages. She observes that Yi., like Ic., and supposedly unlike the other V2 languages

allows so-called V1 declaratives (also called 'narrative V1' in the literature), i.e. main clauses which begin with the finite verb without being yes/no questions:

- (98) Yi. Hot men geheysn shisn. Hot der yidisher zelner oyfgehobn
 dem biks un hot geshosn in himl arayn.
Has one ordered to shoot. Has the Jewish soldier up-taken
the gun and has shot in heaven therein.
 (=So the order was given to shoot. So the Jewish soldier took
 his gun and shot up at the sky.)

(from Santorini (1989:61))

- (99) Ic. Hitti hann þá einhverja útlendinga
 Met he then some foreigners
 (=Then he met some foreigners.)

(from Sigurðsson (1985:2))

Santorini's (1989:98-99) analysis goes as follows: There is a requirement that the topic position be filled in the V2 languages. If the topic position is IP-spec in Yi. and Ic., then this requirement does not affect CP-spec, as opposed to the other V2 languages, where CP-spec is the topic position, and thus is forced to have lexical content by this requirement. CP-spec may thus remain empty in main clauses in just those languages where IP-spec is the topic position. V1 declaratives may then be analysed as V°-movement to C°, with CP-spec left empty, in Ic. and Yi.

Santorini (1989:98) claims to follow Sigurðsson's (1989:13) analysis that V1 declaratives involve the finite verb moving to C°. Notice, though, that for Sigurðsson (1989:11), this means that V1 declaratives have the **same** structure as V2 main clauses, whereas for Santorini, this means that the two are **different**, V2 main clauses have the finite verb in I°, V1 declaratives have the verb in C°. Because of this, Santorini's analysis predicts that V1 declaratives should occur in two variations (cf. (97)):

- (100) CP-spec C° IP-spec I° TPsp/VPsp
 a. (empty) - finite verb - subject - (empty) - (empty) ...
 b. (empty) - finite verb - topic - (empty) - subject ...

which is not a correct prediction. To my knowledge, V1 declaratives only ever show the word order where the subject immediately follows the finite verb, (100a)(cf. Sigurðsson (1985) and cf. also the fact that Santorini's (1989:60-62) own eleven examples all display the verb-subject order). The verb-subject order is of course not ruled out by Santorini's (1989:98) analysis, as it is an example of the option where the subject is the topic. It is,

however, rather striking that the option where the topic is a non-subject, (100a), never occurs.

In Sigurðsson's (1989:11) analysis, this fact is accounted for, as IP-spec to him is the position in which the subject is assigned case, and thus cannot be filled by anything but the subject. This also follows from the analysis advocated in sections 2.1. and 2.2.

This however means that we have no explanation why an empty CP-spec in some cases must be interpreted as containing a yes/no question operator, and in some cases does not have to. We also have no account for why V1 declaratives only occur in the languages that allow general embedded V2, i.e. Yi. and Ic. This may not be a problem however, as the account might have been too strong: V1 declaratives would seem also to be possible in e.g. spoken Du. (cf. den Besten (1977:62)) and in the Swedish dialect of Malmö (cf. Dahlbäck & Vamling (1983), cited in Platzack (1987a)), neither of which allow general embedded V2 in the fashion that Ic. and Yi. do.

It would thus seem that the possibility of V1 declaratives is determined by something else, and presumably by something which is fairly low-level, given that it is hard to see what Yi., Ic., spoken Du., and Malmö Sw. would have in common which is not found in Ge., Da, and standard Sw. This is compatible with the account in Diesing (1990:XXX, fn 14), where the determining factor is the existence of "an empty element with meaning of 'therefore'".

Platzack (1987a) tries to link the possibility of having V1 declaratives to whether the language in question has agreement in I° or not (i.e. whether a language has V°-to-I° movement, cf. section 2.4 below). The fact that Du. seems to have this phenomenon and Ge. seems not to, as well as the fact that it exists in a dialect of Swedish is a problem for this approach.

2.3.3.2 Embedded V2 in German.

As stated in section 2.3.1 above, there is no reason to assume that embedded V2 clauses in Ge. involve either CP-recursion or a ZP or the subject occurring anywhere but IP-spec, as embedded V2 is only grammatical if there is no daß:

- (101) Ge. a. Sie sagte [_{CP} daß [_{IP} wir keine Bücher kaufen sollten]]
 She said that we no books buy should
- b. *Sie sagte [_{CP} daß [_{CP} wir sollten [_{IP} t keine Bücher kaufen t t]]
 She said that we should no books buy
- c. Sie sagte [_{CP} wir sollten [_{IP} t keine Bücher kaufen t t]]
 She said we should no books buy

This is supported by the findings in section 2.3.2: Embedded V2 with a complementiser and an overt expletive is out, cf. (71) in 2.3.2.1. Embedded V2 is only possible (and only without a complementiser) with a subgroup of the verbs that take sentential complements, cf. (76) and (77) in 2.3.2.2. V2 is impossible in an embedded question, cf. (81), (92), and (93).

For some reason, embedded V2 seems not to be possible in Dutch at all, though it may be slightly less unacceptable if something is extracted from the lower clause (Jean Rutten (p.c.), Liliane Haegeman (p.c.)).

Frisian on the other hand has embedded V2, and in some cases even in the presence of a complementiser. DeHaan & Weerman (1986:83-87) argue that such constructions are cases of S'-recursion, which corresponds to CP-recursion in the framework used above. One of their arguments is that the clitic subject *er* 'he' is allowed after *dat* 'that' in a non-V2 embedded sentence, but not in a V2 one. Given that *er* is not possible as the first element in a V2 main clause, but (presumably?) possible after the finite verb in a main clause topicalisation, this points to a similarity between (the position of) the finite verb in main clauses, the finite verb in embedded V2 clauses and the complementiser in embedded non-V2 clauses. This is captured only if there is CP-recursion: All three are C°.

2.3.3.3 Embedded V2 in English and Danish.

In En. and Da., there is good reason to assume that embedded V2 clauses either involve CP-recursion, or a ZP, or topicalisation to IP-spec, as embedded V2 is only grammatical if *that/at* is present, (102a)/(103a) vs. (102b)/(103b). If there was neither CP-recursion, nor a ZP, nor topicalisation to IP-spec, *that/at* should not be possible with embedded V2 (much less obligatory), as C° would be filled by the finite verb, as in V2 main clauses or by *that/at* as in non-V2 embedded clauses, but not both. Notice also that *that/at* is optional if there is no V2 in the embedded sentence, (102c)/(103c) vs. (102d)/(103d):

En. embedded V2 only occurs with a negative element in CP-spec. That it is impossible with *wh*-elements, though these also trigger V2 in main clauses, was discussed in section 2.1.4 above.

(102) En. a. She has often said [Cp that
[Cp under no circumstances would [Tp she t t t vote for Quayle]]]



b. ??She has often said

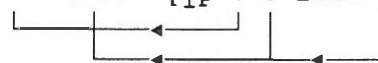
[_{CP} under no circumstances would [_{TP} she t t t vote for Quayle]]]



c. She has often said [_{CP} that [_{TP} she would always vote for Bush]]

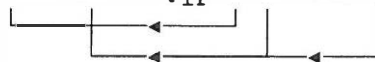
d. She has often said [_{CP} [_{TP} she would always vote for Bush]]

(103) Da. a. Hun sagde [_{CP} at [_{CP} vi skulle [_{TP} t t ikke t købe denne bog]]]



She said that we should not buy this book

b. ??Hun sagde [_{CP} vi skulle [_{TP} t t ikke t købe denne bog]]



She said we should not buy this book

c. Hun sagde [_{CP} at [_{TP} vi ikke skulle købe denne bog]]

She said that we not should buy this book

d. Hun sagde [_{CP} [_{TP} vi ikke skulle købe denne bog]]

She said we not should buy this book

Apart from the rather striking fact (cf. section 2.1.4 above) that English only has embedded V2 with preposed negative elements, there are two phenomena which clearly show that embedded V2 is less general than in Yi. and Ic.:

One is that embedded V2 is excluded in an embedded question, cf. (81) in section 2.3.2.3. The other is that embedded V2 is only possible with a subgroup of the verbs that take sentential complements, cf. (76) & (77) for Da., as well as (104) below for En.:

(104) En. a. *John doubts that under no circumstances will Mary get up early

b. *John regrets that under no circumstances will I read this book

In the analysis of Roberts (1990) and Cardinaletti & Roberts (1990), where my Z° corresponds to their Agr1° , this fact is somewhat hidden by the use of the terms Agr1 and Agr2 . I find this use confusing as it is crucial to their analysis that Agr1° and Agr2° are different (e.g. nominative may be assigned to $\text{Agr2}^\circ\text{-spec}$, but not to $\text{Agr1}^\circ\text{P-spec}$).

2.3.4 The relative positions of the subject and the sentential adverbial.

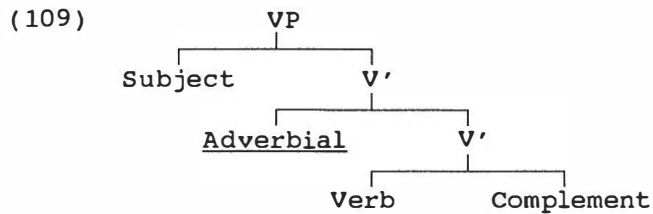
In embedded topicalisations in Ic., the subject always precedes the sentential adverbial:

- (107) Ic. a. Hann veit að Maríu hef ég aldrei hitt
 b. *Hann veit að Maríu hef aldrei ég hitt
 He knows that Maria have (I) never (I) met
- (108) Ic. a. Hann veit að kannski las Jón aldrei bókina
 b. *Hann veit að kannski las aldrei Jón bókina
 He knows that maybe read (Jon) never (Jon) book-the

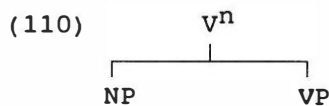
If the finite verb is in I° (and there is no IP-recursion), then the subject must be in VP-spec or in TP-spec. Below I shall present three arguments against either or both of these possibilities.

The first argument is an argument against either of these two possibilities in that the adverbial between the subject and the participle is the negative sentential adverbial (or negation) *never*, and like other sentential adverbials, it should only occur adjoined to (or in the specifier position of) an XP relatively high in the tree, for scope reasons. Presumably the lowest possible position would be in TP-spec itself (or alternatively adjoined to TP-spec, or in NegP-spec or adjoined to NegP), which would exclude both TP-spec and VP-spec as the position of the subjects in (107a) and (108a).

The second argument is an argument against the subject being in VP-spec (as assumed by Rögnvaldsson & Thráinsson (1988)): If the subject is in VP-spec in (107a) and (108a), then the adverbial would have to occur between VP-spec and the complement of V°, something which I take to be explicitly ruled out in the X'-system of Chomsky (1986a), as adjunction to an X-bar is impossible. (This point is also made for Danish in Reinholtz (1989:107)). The structure would have to be the following (this is in fact assumed by Rögnvaldsson & Thráinsson (1988:12)):



In Koopman & Sportiche (1988:1) and Sportiche (1988:425), a VP-structure is suggested which would allow an adverbial to occur between VP-spec and V^o without necessitating adjunction to V' :

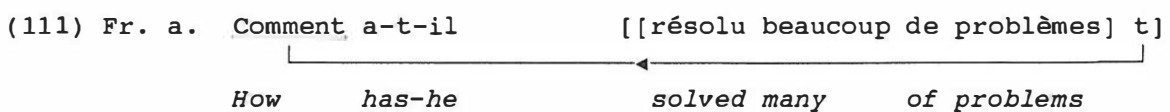


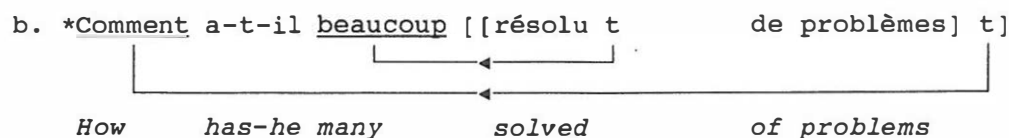
According to Koopman & Sportiche (1988:1), V^n , which is "a small clause whose predicate is VP", is "the maximal projection" of V^o , whereas VP is "the phrasal projection" of V^o . This gives two possibilities for the position of the adverbial, neither of which presupposes adjunction to V' : either the adverbial is in VP-spec (as opposed to V^n -spec which is occupied by the subject) or it is adjoined to VP. VP-adjunction is suggested by Sportiche (1988:432), but for a manner adverbial like Fr. *soigneusement* 'carefully'. Sportiche (1988:432) in fact assumes that a sentential adverbial would have to be "adjacent (adjoined) to I" and thus to the left of V^n .

~~~~~  
 I find it problematic to adjoin an adverbial, which presumably is an XP, to  $I^o$ , which is a head.  
 ~~~~~

At any rate, I find this whole approach to be too radical a departure from the X-bar schema, as discussed in section 1.2.1, with two V-projections which are maximal projections in two different ways.

The third argument is an argument against the subject being in TP-spec. This argument rests on the assumption, made by Roberts (1990), that TP-spec is an A'-position. This assumption is supported by a relativised minimality analysis of the so-called 'pseudo-opacity' phenomena, as in the following examples from Rizzi (1990:section 1.4/24), based on Obenauer (1976, 1984):





It should perhaps be emphasised that without the extraction of *comment*, both possibilities in (111) exist, *beaucoup* may be left inside the object NP, (i), or it may be extracted (ii):

- (i) Fr. Pierre a [résolu beaucoup de problèmes]
 Pierre has solved many of problems

- (ii) Fr. Pierre a beaucoup [résolu t de problèmes]
 Pierre has many solved of problems

In both cases *comment* is in CP-spec. From a relativised minimality point of view, *beaucoup* in (111b) must be an A'-specifier, and it must interfere with the antecedent government relationship between *comment* and its trace (i.e. *beaucoup* must c-command part of the chain but not all of it). As the trace of *comment* is adjoined to VP, *beaucoup* could not be in VP-spec, as it would not be an intervening governor (it would not c-command the trace), and (111b) should be grammatical. This leaves only TP-spec, but if it is the presence of *beaucoup* in TP-spec that rules out (111b), then TP-spec is necessarily an A'-position. If TP-spec is an A'-position, then it cannot contain the subject in (107a) and (108a), both because the subject is moved by A-movement and not by A'-movement, and because the topicalisation of *Maríu* in (107a), which definitely is an A'-movement, must have passed through TP-spec (according to relativised minimality).

An alternative position for *beaucoup* in (111b) is NegP-spec, but Ian Roberts (p.c.) points out that *beaucoup* cooccurs with elements which are commonly (e.g. Pollock (1989:414)) taken to occur in NegP-spec:

- (i) Fr. Pierre n'a pas beaucoup mangé
 Pierre has not much eaten
- (ii) Fr. Julie n'a jamais beaucoup lu de livres
 Julie has never much read of books

which would seem to rule out this alternative. Notice that it is not possible to say that *beaucoup* is in NegP-spec in (111b) and in VP-spec in (i) and (ii), because then we would not have a reason why it could be in VP-spec in (i) and (ii) but not in (111b).

In other words, if the subjects in (107a) and (108a) can neither occur in TP-spec nor in VP-spec, then there is no possible analysis of these well-formed examples with the finite verb in I°.

If however the finite verb is in C°, then a third possibility of the position of the subject in (107a) and (108a) may be taken into consideration: The subject could be in IP-spec. This analysis suffers from none of the defaults discussed above, but as the subject being in IP-spec excludes IP-spec as the landing site of topicalisation, I shall take this to be an argument against the topicalisation to IP-spec analysis.

In Yi., both orders are possible:

(112) Yi. a. ... az haynt heybn di kinder in emesn on zeyer heymarbet
... *that today start the children really on their homework*

b. ... az haynt heybn in emesn di kinder on zeyer heymarbet
... *that today start really the children on their homework*

(113) Yi. a. ... az morgn vet dos yingl in emesn zen a kats
... *that tomorrow will the boy really see a kat*

b. ... az morgn vet in emesn dos yingl zen a kats
... *that tomorrow will really the boy see a kat*

According to Beatrice Santorini (p.c.), (113a) is less marked than (113b).

The existence of the possibilities in (112a) and (113a) means that it is possible for the subject in embedded topicalisations to occur outside VP, following the line of argumentation developed in connection with (109) above. As the arguments against TP-spec as the position of the subject (discussed in connection (111) above) still hold, i.e. TP-spec is universally an A'-position, TP-spec can also be ruled out, leaving only IP-spec as the position of the subjects in (112a) and (113a). The argumentation developed above for Ic. is thus also valid for Yi., and seems to argue against the topicalisation to IP-spec analysis.

Yi. presents the interesting twist that it may be possible for the subject to occur in VP-spec as well, (112b) and (113b), but this does not detract from the value of the arguments above based on (112a) and (113a).

Notice that presumably it is not the case that the subjects in (112b) and (113b) are extraposed (with subsequent extraposition of the object in (112b) or the infinitival VP in (113b): In b), the subject clearly occurs before V°, as the particle on is adjacent to V°:

- (i) Yi. a. Di kinder heybn on t zeyer heymarbet
The children start on their homework
- b. Di kinder musn onheybn zeyer heymarbet
The children must on-start their homework

(from Travis (1986:19))

2.3.5 Subject-verb agreement.

In Yi. and Ic. the finite verb agrees in number and person with the subject. This is a realisation of spec- X^0 agreement inside IP (or inside AgrP, in the framework of Belletti (1988b) and Chomsky (1988)). If topicalisation was to IP-spec (or AgrP-spec), the finite verb should agree with the topic.

Below there are three paradigms showing that the finite verb in Ic. and Yi. always agrees with the subject, and never with the topicalised element.

The most common type of embedded sentence is the one in (114) and (115), where the first element after the complementiser is the subject. These will thus not allow us to distinguish between agreement with the subject and agreement with the topic:

- (114) Yi. a. ... az di kinder hobn geleyent dos bukh nekhtn
 ... *that the children have read the book yesterday*
 b. *... az di kinder hot geleyent dos bukh nekhtn
 ... *that the children has read the book yesterday*

 c. *... az dos yingl hobn geleyent dos bukh nekhtn
 ... *that the boy have read the book yesterday*
 d. ... az dos yingl hot geleyent dos bukh nekhtn
 ... *that the boy has read the book yesterday*
- (115) Ic. a. ... að börnin hafa lesið bókina í gær
 ... *that children-the have read book-the yesterday*
 b. *... að börnin hefur lesið bókina í gær
 ... *that children-the has read book-the yesterday*

 c. *... að strákurinn hafa lesið bókina í gær
 ... *that boy-the have read book-the yesterday*
 d. ... að strákurinn hefur lesið bókina í gær
 ... *that boy-the has read book-the yesterday*

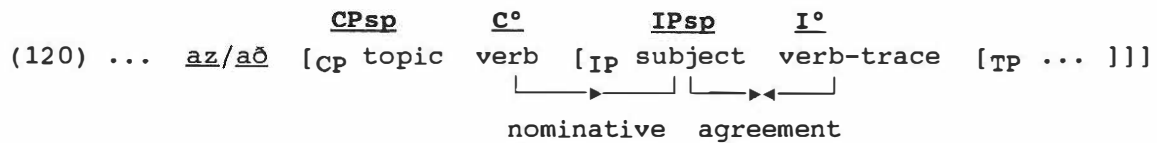
In (116) and (117) the topicalised element is the object, which is singular in all cases. It is clear from the grammaticality of (116a) and (117a) and the ungrammaticality of (116b) and (117b) that agreement is with the subject:

- (116) Yi. a. ... az dos bukh hobn di kinder geleyent nekhtn
 ... *that the book have the children read yesterday*
 b. *... az dos bukh hot di kinder geleyent nekhtn
 ... *that the book has the children read yesterday*
 c. *... az dos bukh hobn dos yingl geleyent nekhtn
 ... *that the book have the boy read yesterday*
 d. ... az dos bukh hot dos yingl geleyent nekhtn
 ... *that the book has the boy read yesterday*
- (117) Ic. a. ... að bókina hafa börnin lesið í gær
 ... *that book-the have children-the read yesterday*
 b. *... að bókina hefur börnin lesið í gær
 ... *that book-the has children-the read yesterday*
 c. *... að bókina hafa strákurinn lesið í gær
 ... *that book-the have boy-the read yesterday*
 d. ... að bókina hefur strákurinn lesið í gær
 ... *that book-the has boy-the read yesterday*

In (118) and (119) the topicalised element is the time adverbial *yesterday*. It is clear from the way the number of the verb must vary with the number of the subject that agreement is with the subject:

- (118) Yi. a. ... az nekhtn hobn di kinder geleyent dos bukh
 ... *that yesterday have the children read the book*
 b. *... az nekhtn hot di kinder geleyent dos bukh
 ... *that yesterday has the children read the book*
 c. *... az nekhtn hobn dos yingl geleyent dos bukh
 ... *that yesterday have the boy read the book*
 d. ... az nekhtn hot dos yingl geleyent dos bukh
 ... *that yesterday has the boy read the book*
- (119) Ic. a. ... að í gær hafa börnin lesið bókina
 ... *that yesterday have children-the read book-the*
 b. *... að í gær hefur börnin lesið bókina
 ... *that yesterday has children-the read book-the*
 c. *... að í gær hafa strákurinn lesið bókina

With the assumption that nominative case is assigned under government from C°, the analysis of agreement and nominative assignment in embedded clauses in Yi. and Ic. would be



2.3.6 Adverbials may adjoin to IP but not to CP.

In this section I will review the data concerning possible adjunction of adverbials to IP and CP, and show how they may constitute another argument against the topicalisation to IP-spec analysis.

As argued in Schwartz & Vikner (1989:45), nothing in general rules out an adverbial adjoining to IP. As discussed in sections 2.1.2 and 2.2.2 above, I follow Platzack (1986a, 1986b) in assuming that the obligatory adjacency between C° and a pronominal subject is a result of case assignment from C° to IP-spec.

As argued above, in connection with (109) in section 2.3.4, I take adjunction to C' to be explicitly ruled out in the X'-system of Chomsky (1986a), as adjunction to an X-bar is impossible.

I furthermore follow Chomsky's (1986a:6, 15) suggestion that adjunction to CP is excluded in general, because CP (like NP) is an argument.

I will discuss the data for each language in turn (Ge., Sw., Yi.), showing how the above assumptions can account for it provided the embedded V2 structures with complementisers in Sw. and Yi. are taken to be CP-recursions.

Consider first Ge.:

- (121) Ge. a. *Vielleicht sowas hat er getan
 b. * Sowas vielleicht hat er getan
 c. * Sowas hat vielleicht er getan
 (Maybe) such (maybe) has (maybe) he done
 d. *Vielleicht sowas hat der Junge getan
 e. * Sowas vielleicht hat der Junge getan
 f. Sowas hat vielleicht der Junge getan
 (Maybe) such (maybe) has (maybe) the boy done

(122) Ge. Sie hat gesagt ...
She has said ...

- a. *... vielleicht sowas hat er getan
- b. *... sowas vielleicht hat er getan
- c. *... sowas hat vielleicht er getan
 ... (maybe) such (maybe) has (maybe) he done
- d. *... vielleicht sowas hat der Junge getan
- e. *... sowas vielleicht hat der Junge getan
- f. ... sowas hat vielleicht der Junge getan
 ... (maybe) such (maybe) has (maybe) the boy done

(123) Ge. Sie hat gesagt ...
She has said ...

- a. *... vielleicht er hat sowas getan
- b. *... er vielleicht hat sowas getan
- c. ... er hat vielleicht sowas getan
 ... (maybe) he (maybe) has (maybe) such done
- d. *... vielleicht der Junge hat sowas getan
- e. *... der Junge vielleicht hat sowas getan
- f. ... der Junge hat vielleicht sowas getan
 ... (maybe) the boy (maybe) has (maybe) such done

(124) Ge. c. *Sie hat gesagt daß vielleicht er sowas getan hat
She has said that (maybe) he such done has

- f. Sie hat gesagt daß vielleicht der Junge sowas getan hat
She has said that (maybe) the boy such done has

These data may be summarised as follows (with * meaning that occurrence of an adverbial is impossible, \checkmark that it is possible, and $*/\checkmark$ that it is possible provided the subject is not a pronoun):

(125) Ge.		<u>CPsp</u>		<u>C°</u>		<u>IPsp</u>		
a.	*	obj	*	vb	$*/\checkmark$	subj	ppl	=(121)
b.	... <u>said</u>	*	obj	*	vb	$*/\checkmark$	subj	ppl
c.	... <u>said</u>	*	subj	*	vb	\checkmark	obj	ppl
d.	... <u>said</u>	*		<u>that</u>	$*/\checkmark$	subj	obj	ppl vb

Given that adjunction to IP is only restricted if the IP-spec is a pronominal, I take it that (121c,f) show that nominative is assigned from the finite verb in all main clauses, (122c,f) show that nominative is assigned from the finite verb in embedded V2

clauses, and (124c,f) show that nominative is assigned from *daß* in embedded non-V2 clauses. There is no question of CP-recursion here, in all three cases, nominative is assigned from the one and only C° in the clause.

The no adjunction to X'-restriction explains the ungrammaticality of (121b,e), (122b,e), and (123b,e).

Finally, whereas adjunction is possible to IP in main clauses, (121f), and to IP in embedded clauses, (122f), (123f), and (124f), adjunction to the embedded CP is not possible, irrespective of what fills its spec, (122a,d) and (123a,d). This is completely parallel to main clause CP, (121a,d).

Consider now Sw., where the facts are very similar:

- (126) Sw. a. *Tyvärr denna boken har han inte läst
 b. * Denna boken tyvärr har han inte läst
 c. * Denna boken har tyvärr han inte läst
 (Unfortunately) this book (unf.) has (unf.) he not read
 d. *Tyvärr denna boken har Johan inte läst
 e. * Denna boken tyvärr har Johan inte läst
 f. Denna boken har tyvärr Johan inte läst
 (Unfortunately) this book (unf.) has (unf.) Johan not read

- (127) Sw. *Hon sa att ...
 She said that ...

- a. *... tyvärr denna boken har han inte läst
 b. *... denna boken tyvärr har han inte läst
 c. *... denna boken har tyvärr han inte läst
 ... *(unf.) this book (unf.) has (unf.) he not read*
 d. *... tyvärr denna boken har Johan inte läst
 e. *... denna boken tyvärr har Johan inte läst
 f. ... denna boken har tyvärr Johan inte läst
 ... *(unf.) this book (unf.) has (unf.) Johan not read*

- (131) Yi. a. *Take dos hot er geton
 b. * Dos take hot er geton
 c. * Dos hot take er geton
 (Really) that (really) has (really) he done
 d. *Take dos hot dos yingl geton
 e. * Dos take hot dos yingl geton
 f. Dos hot take dos yingl geton
 (Really) that (really) has (really) the boy done

- (132) Yi. Zi hot gezogt ...
 She has said ...

- a. *... az take dos hot er geton
 b. *... az dos take hot er geton
 c. *... az dos hot take er geton
 ... that (really) that (really) has (really) he done
 d. *... az take dos hot dos yingl geton
 e. *... az dos take hot dos yingl geton
 f. ... az dos hot take dos yingl geton
 ... that (really) that (really) has (really) the boy done

- (133) Yi. Zi hot gezogt ...
 She has said ...

- a. *... az take er hot dos geton
 b. *... az er take hot dos geton
 c. ... az er hot take dos geton
 ... that (really) he (really) has (really) that done
 d. *... az take dos yingl hot dos geton
 e. *... az dos yingl take hot dos geton
 f. ... az dos yingl hot take dos geton
 ... that (really) the boy (really) has (really) that done

As above, I summarise the data:

- (134) Yi.
- | | | <u>CPsp</u> | <u>C°</u> | <u>IPsp</u> | | |
|----|-----------------|-------------|-----------|-------------|-------------|------------------|
| a. | * | obj | * vb | */√ | subj | pple =(131) |
| b. | ... <u>that</u> | * obj | * vb | */√ | subj | pple =(132) |
| c. | ... <u>that</u> | * subj | * vb | √ | obj | pple =(133) |
| d. | ... <u>that</u> | * | | | subj vb obj | pple also =(133) |

Parallel to the case for Ge, and Sw., I shall take (131c,f) and (132c,f) to show that nominative assignment is from the finite verb, in both main and embedded clauses.

Just like for Ge. and Sw., the no adjunction to X'-restriction accounts for (131b,e), (132b,e), and (133b,e).

Whereas adjunction is possible to IP in main clauses, (131f), and to IP in embedded clauses, (132f) and (133f), adjunction to the lower CP (between the higher CP and the IP is not possible, irrespective of what fills its spec, (132a,d) and (133a,d). This is best accounted for if what I have called a CP is indeed a CP, as we would have a complete parallel with (131a,d).

As discussed in section 2.2.3 and 2.2.4 above, Alessandra Tomaselli (p.c.) and Luigi Rizzi (p.c.) have suggested that the pronominal subject cliticises to the highest tense/highest X° with [+I], and given that nothing ever intervenes between a clitic and the X° it cliticises to, this explains the obligatory adjacency. It would, however, lead us to expect that the pronominal subject would cliticise to the complementiser in embedded V2 constructions, which is the highest C° in I°-VP languages (Yi. *az*/Sw. *att*). This prediction is not borne out, cf. (127c,f) and (132c,f), which show that the cliticisation is to the finite verb even when there is a higher C°.

Even if one could say that the C° with Yi. *az* always is [-I], this could not be maintained for Sw. *att*, cf. that cliticisation to *att* takes place in embedded non-V2 clauses as (129), just like in Ge. Nevertheless, in embedded V2 in Sw. where *att* is obligatorily present, the adjacency requirement is between the finite verb and the pronominal subject, (127c,f).

2.3.7 Extraction from the embedded clause.

Within the relativised minimality framework, there is a distinction between object extraction and adjunct extraction, even though both may be properly governed elements (cf. Rizzi (1990:section 3.5 & 3.6/20-34)):

When an **object** is extracted, the extraction is subject only to subjacency. This is because the extracted element may be linked to its trace through binding, as an object has a referential index.

Extraction of an **adjunct**, on the other hand, is subject to antecedent government (as well as to subjacency), as the extracted element may not be linked to its trace through binding, an adjunct having no referential index.

As examples of this difference Rizzi (1990:section 3.1/2) gives the following examples:

We would predict (137a), (137b) and (137c) to be ungrammatical, and (137d) to be grammatical. In (137a) and (137b) the lowest trace of *viazoy*, 'how', is not antecedent governed, as there is an intervening A'-position which is not part of the chain, the one filled by the PP in (137a) and by the subject in (137b). Notice that (137b) and (137d) are the same string, with two different analyses: (137b) is embedded V2 with the subject preceding the finite verb (i.e. it is in an A'-position), whereas (137d) is an embedded clause 'without V2' (i.e. without topicalisation) (i.e. it is in an A-position). In my analysis, the subject is in (the lower) CP-spec in (137b), and in IP-spec in (137d).

(137d) would be expected to be grammatical, as there is only one A'-position, and this is not filled, and may thus form part of the chain from *viazoy* to its lowest trace. The fact that the string of words underlying (137b,d) is not acceptable would be accounted for under Santorini's (1988a,b, 1989) approach, as (137b) is the only possible analysis of this string: To her, IP-spec is always an A'-position, and there are thus always two A'-specifiers present in an embedded sentence in Yi. Notice that this is not explained under Diesing's (1988, 1990) approach, as the analysis in (137d) is not impossible in her analysis (in fact (137b) is), because IP-spec is an A-position when it is occupied by the subject.

As for (137c), where there is no filled A'-position between *viazoy* and its lowest trace either, the problem is a different one: The trace between *az* and *hobn* violates the ECP, as it cannot be properly head governed by *az*, 'that', as opposed to the highest trace, which is properly head governed by the matrix verb *gezogt*, 'said'. This analysis (which was suggested for argument extractions by Diesing (1988:137)) is confirmed by the fact that the sentence is acceptable without the *az*:

(138) Yi. Viazoy hot zi gezogt t hobn di kinder gelernt geshikhte t?
 How has she said have the children learned history ?

Let us now turn to the Da. data:

- (139) Da. *Hvordan sagde hun ...*
 How said she ...
- a. *... t at i skolen havde børnene lært historie t t?
 ... *that in school-the had children-the learned history ?*
- b. *... t at børnene havde t desværre lært historie t?
 ... *that children-the had unfortunately learned history ?*
- c. *... t at t havde børnene desværre lært historie t?
 ... *that had children-the unfortunately learned history ?*
- d. ... t at børnene desværre havde lært historie t?
 ... *that children-the unfortunately had learned history ?*

The Da. facts are exactly as expected. (139a,b) are ruled out because the lowest trace of *hvordan*, 'how', cannot be antecedent governed, this is blocked by CP-spec not being part of the chain. This is because CP-spec is filled by a PP in (139a) and by the subject in (139b). In (139d) on the other hand, nothing prevents the antecedent government: *hvordan* governs the trace in CP-spec, the trace in CP-spec governs the lowest trace. (139c) is ruled out in the same fashion as the Yi. (137c): Although nothing prevents antecedent government, the trace between *at* and *havde* violates the ECP, as it cannot be properly head governed by *at*, 'that', as opposed to the highest trace, which is properly head governed by the matrix verb *sagde*, 'said'.

- (140) Ic. *Hvernig sagði hún ...*
 How said she ...
- a.?*... t að í skólanum hafðu börnin lært sögu t?
 ... *that in school-the had children-the learned history ?*
- b. *... t að börnin hafðu t lært sögu t? (≈d.)
 ... *that children-the had learned history ?*
- c. *... t að t hafðu börnin lært sögu t?
 ... *that had children-the learned history ?*
- d. ... t að börnin hafðu lært sögu t? (≈b.)
 ... *that children-the had learned history ?*

The prediction is that (140a,b &c) should be ungrammatical, and (140d) grammatical. In (140a,b) the lowest trace of *hvernig*, 'how', is not antecedent governed, as there is an intervening A'-position which is not part of the chain, the one filled by the

PP in (140a) and by the subject in (140b). Notice that, as in Yi., (140b) and (140d) are the same string, with two different analyses: (140b) is embedded V2 with the subject preceding the finite verb (i.e. it is in an A'-position), whereas (140d) is an embedded clause 'without V2' (i.e. without topicalisation) (i.e. it is in an A-position). In my analysis, the subject is in (the lower) CP-spec in (140b), and in IP-spec in (140d).

As opposed to Yi., (140d) is grammatical as expected: There is only one A'-position, and it is not filled, and it may thus form part of the chain from *hvernig* to its lowest trace. I take this to be a problem for Rögnvaldsson & Thráinsson (1988), in that I understand their use of the term "XP-slot" to imply (among other things) that the position in question (in this case IP-spec, Rögnvaldsson & Thráinsson (1988:11)) to be an A'-position. Their view is thus parallel to Santorini's (1988a,b, 1989) for Yi., i.e. (140b) should be the only possible analysis of the string underlying (140b,d), but as the data are the opposite of Yi., the predictions of this approach are not borne out for Ic. In this case, the approach of Diesing (1988, 1990), i.e. that IP-spec is an A-position when filled by the subject, but otherwise an A'-position, would actually give the predictions wanted.

As for (140c), where there is no filled A'-position between *hvernig* and its lowest trace either, the problem is a different one: The trace between *að* and *hafðu* violates the ECP, as it cannot be properly head governed by *að*, 'that', as opposed to the highest trace, which is properly head governed by the matrix verb *sagði*, 'said'.

Although the situation is completely different in En., due to the restricted nature of residual V2 (the b and c examples above cannot be replicated for En., cf. section 2.1.4 above), the facts are accounted for under any of the approaches:

(141) En. How did she say ...

a. *... t that under no circumstances would she ever vote?

d. ... t that she had voted?

Only in (141a) is there an A'-position which cannot be part of the chain.

Summing up, we have seen that the data concerning (136c), (137c), (139c), and (140c), i.e. extraction via the specifier of the head that contains the finite verb, may be reduced to the question of why embedded V2 requires a complementiser in I°-VP languages (though cf. (138), but cannot have one in VP-I° languages.

W.r.t. the three analysis of embedded V2 the conclusions are somewhat contradictory: The topicalisation to IP-spec analysis in the version proposed by Santorini

(1988a,b, 1989) and by Rognvaldsson & Thráinsson (1988) can account for the Yi. data, but not for the Ic. ones, whereas topicalisation to IP-spec analysis in the version proposed by Diesing (1988, 1990) as well as the CP-recursion and the ZP analysis can account for the Ic. data, but not for the Yi. ones.

2.3.7.2 Argument extraction.

In this section, I will just list the argument extraction data. As these are subject only to subjacency, and not to antecedent government they are not directly relevant for our discussion, because they will not tell us anything about the presence of A'-positions.

As in the previous section, the underlined constituents in (142)-(145) are in the higher CP-spec and in the lower CP-spec (or ZP-spec or the A'-position IP-spec), and the only traces shown are the ones of the underlined elements. The only subject-trace shown is the trace in IP-spec (or VP-spec, i.e. in the position where the subject is when it is assigned case)).

The a. examples are embedded V2 with a PP preceding the finite verb.

The b. examples are embedded V2 with the subject preceding the finite verb.

The c. examples are embedded V2 with a trace preceding the finite verb.

The d. examples are embedded clauses 'without V2' (i.e. without topicalisation).

(142) Ge. Welchen Film hat sie gesagt ...
Which film has she said

- a. *... in der Schule haben die Kinder t t gesehen?
 ... *in the school had the children seen ?*
- b. *... die Kinder haben t t gesehen?
 ... *the children have seen ?*
- c. ... t haben die Kinder t gesehen?
 ... *have the children seen ?*
- d. ... t daß die Kinder t gesehen haben?
 ... *that the children seen have ?*

(143) Yi. Vos hot er nit gevolt ...
What has he not wanted ...

- a. ... t az in shul zoln di kinder leyenen t t?
 ... that in school should the children read ?
- b. ... t az di kinder zoln t leyenen t? (≈d.)
 ... that the children should read ?
- c. *... t az t zoln di kinder leyenen t?
 ... that should the children read ?
- d. ... t az di kinder zoln leyenen t? (≈b.)
 ... that the children should read ?
 (from Santorini (1989:59))

(144) Da. Hvilken film sagde hun ...
Which film said she ...

- a. *... t at i skolen havde børnene desværre set t t?
 ... that in school-the had children-the unfortun'ly seen ?
- b. *... t at børnene havde t desværre set t?
 ... that children-the had unfortun'ly seen ?
- c. *... t at t havde børnene desværre set t?
 ... that had children-the unfortun'ly seen ?
- d. ... t at børnene desværre havde set t?
 ... that children-the unfortun'ly had seen ?

(145) Ic. Hvaða mynd sagði hún
Which film said she

- a.?*... t að í skólanum hefðu börnin thví miður séð t t?
 ... that in school-the had children-the unfortun'ly seen ?
- b. *... t að börnin hefðu t thví miður séð t ? (≈d.)
 ... that children-the had unfortun'ly seen ?
- c. *... t að t hefðu börnin thví miður séð t?
 ... that had children-the unfortun'ly seen ?
- d. ... t að börnin hefðu thví miður séð t ? (≈b.)
 ... that children-the had unfortun'ly seen ?

- (150) Ic. a. Ég veit að Maríu lofaði Olafur þessum hring
I know that Maria(dat) promised Olaf(nom) this ring(acc)
- b. *?þessum hring veit ég að Maríu lofaði Olafur
This ring(acc) know I that Maria(dat) promised Olaf(nom)
 (from Rögnvaldsson & Thráinsson (1988:51))

Extraction out of a stylistic fronting, on the other hand, is possible, both argument extraction:

- (151) Ic. þessi maður held ég að tekið hafi út peninga úr bankanum
This man think I that taken has out money from bank-the
- (152) Ic. þennan mann hélt ég að farið hefði verið með á sjúkrahús
This man thought I that gone had been with to hospital
 (from Rögnvaldsson & Thráinsson (1988:39,49))

and adjunct extraction:

- (153) Ic. a. Hún sagði að lært hafðu sögu í skólanum mörg börn
She said that learned had history in school-the many children
- b. Hvernig sagði hún t að lært hafðu sögu í skólanum t
How said she that learned had history in school-the
- mörg börn ?
many children?
- (154) Ic. a. Hún sagði að settar væru mys í baðkerið
She said that put were mice in bathtub-the
- b. Hvernig sagði hún t að settar væru mys í baðkerið t
Why said she that put were mice in bathtub-the

The two strings of words underlying (153b) and (154b) are ambiguous, i.e. they could also be interpreted as if the question was 'how did she say something' rather than 'how had the children learned history' and 'how had mice been put into the bathtub'.

Summing up: It is possible to extract both arguments and adjuncts from embedded V2 clauses in Ic., provided the V2 is achieved through stylistic fronting and not through topicalisation. Why this should be is an unanswered question, i.e. as discussed in the two previous subsections, relativised minimality provides a reason for the impossibility of extraction from embedded topicalisations, but no one (to my

knowledge) has yet provided a satisfactory analysis of the general properties of stylistic inversion (e.g. how come heads may be topicalised, or why does the subject have to be missing), much less of the possibility of extraction from an embedded stylistic inversion.

Another fact about stylistic fronting, viz. that it is optional when the subject has been extracted (cf. Maling (1980:182)), but obligatory if the subject is missing (in a passive), or if it is a 'postposed' indefinite subject (cf. Barnes (1987:13-14)), would seem to follow from the ECP, because *pro* cannot be licensed in the specifier of the head containing the finite verb (i.e. in the lower CP-spec in the CP-recursion analysis), nor can any other empty category, and therefore something has to move into this position. Hence either stylistic fronting or insertion of the expletive *það* has to occur.

2.3.8 Conclusions concerning embedded clauses in Yiddish and Icelandic.

I will here briefly sum up what the findings of the preceding subsections of section 2.3 were.

In section 2.3.2 it was shown how Yi. and Ic. differ from the other V2 languages in that they have general embedded V2, whereas the other V2 languages only have embedded V2 with a subset of the verbs that take sentential complements. This was illustrated with data concerning overt expletive subjects in embedded sentences (2.3.2.1), V2 sentences embedded under verbs that do not allow embedded V2 in the other languages (2.3.2.2), and topicalisations in embedded questions (2.3.2.3).

In sections 2.3.3-2.3.5 I tried to argue that embedded V2 is CP-recursion not only in Da. and En. but also in Ic. and Yi. This was based on three main facts: Even in embedded topicalisations where the subject follows the finite verb, the subject cannot be lower than IP-spec, due to facts concerning the position of sentential adverbials (2.3.4), the nature of TP-spec (also 2.3.4), and agreement between the subject and the finite verb (2.3.5). It follows that if the subject is in IP-spec, the topicalised element must be in a CP-spec (or maybe in ZP-spec), and not in IP-spec (unless of course there is IP-recursion, which nobody to my knowledge has suggested yet).

In section 2.3.6 I also reached the conclusion that the maximal projection of the position of the finite verb in embedded V2 is a CP, this time based on evidence to do with the impossibility to adjoin to this maximal projection.

In section 2.3.7 I discussed extractions, but here a stalemate was reached: One version of the topicalisation to IP-spec analysis was supported by the adjunct extrac-

This is already apparent from the data in sections 2.3.2.2 and 2.3.2.3., where it was shown that V2 only occurs with a subset of the verbs that take finite sentential complements (as opposed to Yi. and Ic.), and that V2 never occurs in embedded questions (as opposed to Yi.).

Consider thus the following examples, where the main clause verbs/expressions, which come from the list in (75), section 2.3.2.2, have no negative denotation whatsoever, and therefore do not fall under the small class of exception admitted by Reinholtz (1989:104, fn 7). (156) and (158a) are subject initial V2 (as seen from the post-verbal position of the negation/adverbial), and (157) and (158b) are non-subject initial V2:

- (156) Da. a. *Hun bekræftede ... *She confirmed* ...
 b. *Hun beviste ... *She proved* ...
 c. *Hun forklarede ... *She explained* ...
 d. *Hun var glad for ... *She was happy* ...
 e. *Hun overbeviste mig om ... *She convinced me* ...

... at han kunne ikke have begået forbrydelsen
 ... that he could not have committed crime-the

- (157) Da. a. *Hun bekræftede ... *She confirmed* ...
 b. *Hun beviste ... *She proved* ...
 c. *Hun forklarede ... *She explained* ...
 d. *Hun var glad for ... *She was happy* ...
 e. *Hun overbeviste mig om ... *She convinced me* ...

... at den forbrydelse kunne han ikke have begået
 ... that that crime could he not have committed

- (158) Da. a. *De tillod at han arbejdede af og til free-lance
They permitted that he worked now and then free-lance
 b. *De tillod at af og til arbejdede han free-lance
They permitted that now and then worked he free-lance

Consider also the fact that the verbs used by Reinholtz (1989:104-105) do not allow for embedded V2 with the subject as the topic. In other words, the order '*that* - subject - verb - adverbial' is clearly less acceptable than '*that* - subject - adverbial - verb'. Notice also that if the matrix verbs below are substituted by verbs like *say*, *believe*, *think*, i.e. verbs from (74) in section 2.3.2.2, both orders below become grammatical.

- (159) Da. a. Barnet må lære at man selvfølgelig må tage
hensyn til andre
Child-the must learn that one of course must show
consideration for others
b. ??... man må selvfølgelig tage ...
- (160) Da. a. Jeg vil vædde på at hun gerne vil med i biografen
I will bet on that she gladly will with in cinema-the
b. ??... hun vil gerne med ...
- (161) Da. a. Drengene aftalte at de desuden ville skiftes til at
vaske op
Boys-the agreed that they furthermore would take-turns to to
wash up
b. ??... de ville desuden skiftes ...
- (162) Da. a. Peter affandt sig med at Karen nok interessede
sig mere for fodbold end for ham
Peter reconciled himself with that Karen probably interested
herself more in football than in him
b. ??... at Karen interessede sig nok mere ...
- (163) Da. a. Kaptajnen forlangte at der hver morgen skulle afholdes
gudstjeneste på agterdækket
Captain-the demanded that there every morning should be-held
mass on quarter-deck-the
b. ??... der skulle hver morgen afholdes...
- (164) Da. a. Peter indså at Karen helt enkelt interessede sig mere
for fodbold end for ham
Peter realised that Karen quite simply interested herself more
in football than in him
b. ??... Karen interessede sig helt enkelt mere ...
- (165) Da. a. Jeg frygter at skattenedsættelsen kun vil føre til en
stigning i leveomkostningerne
I fear that tax-reduction-the only will lead to a
rise in costs-of-living-the
b. ??... skattenedsættelsen vil kun føre ...
- (166) Da. a. Det var en overraskelse at de slet ikke var uenige
It was a surprise that they at all not were disagreed
b. ??... de var slet ikke uenige ...

2.3.9.2 Subject-verb agreement.

In this section I will use the same argument as that in 2.3.5 above, viz. that AgrP-spec (corresponding to IP-spec above) is the position with which the finite verb agrees, and that the subject therefore must either occur in or have moved through this position.

Although modern Da. has no subject-verb agreement at all (as will be discussed in section 2.4 below), earlier stages of Danish had: Old Norse had 4 (or 5) different endings for the 6 number and person combinations, i.e. like modern Ic., and Middle Danish distinguished between singular and plural (Karker (1974:25)). I will therefore analyse the subjects in the following examples from Old Norse and Middle Danish to be in AgrP-spec, given that both had subject-verb agreement:

(167) ON. Oláfr spurði [hvern styrk at hann mátti fá honum]
Olaf asked(3sg) which strength that he could(3sg) get him
 (from Falk & Torp (1900:232))

(168) MDa. I vide aldri [naar at fremmede fiender offuerfalde oss]
You know(pl) never when that foreign enemies attack(pl) us
 (Peder Palladius, b. 1503, d. 1560, cited in Mikkelsen (1911:504))

(169) MDa. Wi læse [huorledis at quinderne ginge vd mod Daud]
We read(pl) how that women-the walked(pl) out towards David
 (Anders Sørensen Vedel's translation of Saxo Grammaticus, printed 1585, cited in Falk & Torp (1900:232))

This is relevant when discussing the analysis of Reinholtz (1989), because in the examples above we also find the *at*, 'that', (which cooccurs with *wh*-elements), which Reinholtz (1989:111) takes to occur in Agr^o. To her, the occurrence of *at* in modern Danish sentences similar to the examples above is evidence that the subject is not in AgrP-spec, because *at* must be lower than C^o (given that it also cooccurs with other complementisers (Reinholtz (1989:109)). As I take the subjects above to occur in AgrP-spec, this *at* cannot be in Agr^o. As I also agree with Reinholtz that *at* is not in C^o here, the conclusion I draw from this is that *at* must be in some other head higher than Agr^o but lower than the highest C^o. For further discussion of X^o-positions available above Agr^o, see section 3.3 below.

2.3.9.3 Adjunction to AgrP and CP.

Reinholtz (1989:103) claims that, as opposed to Du. and Ge., there is no indication in Danish that V2 is movement of the verb to C°. I consider the adjunction facts of Swedish discussed in (18) and (19), section 2.1.2, (consider also (126) - (130) in section 2.3.6) to be exactly such an indication: There are two kinds of elements which a pronominal subject may not be separated from: a complementiser and a preceding finite verb. If the complementiser is in C°, but a verb preceding a subject is in Agr° and the subject itself is in TP-spec, then we have no parallelism between the two situations. If on the other hand both the complementiser and the finite verb are in C° and the subject is in AgrP-spec, then we have a clear parallelism between the two situations.

Another relevant argument can be found in section 2.3.6: The complete impossibility in Sw. of having an adverbial intervene between *att*, 'that', and the topic would be accounted for if the topic were in a CP-spec, as then the adverbial would adjoin to CP, which is impossible.

Although the two above facts hold for Sw. only, and not for Da. (where adverbials never occur to the left of the subject except in the topic-position), they should also be relevant for our discussion, given the closeness between Da. and Sw.

Furthermore, it would seem that the possibility of having an adverbial between the complementiser and the subject existed in Da. until very recently. Mikkelsen (1911:625) gives the following examples:

- (170) Da. a. Jeg er i tvivl om han overhovedet kommer
 I am in doubt whether he at all comes
 b. *Jeg er i tvivl om overhovedet han kommer
 I am in doubt whether at all he comes
- (171) Da. a. Jeg er i tvivl om han selv overhovedet kommer
 I am in doubt whether he himself at all comes
 b. Jeg er i tvivl om overhovedet han selv kommer
 I am in doubt whether at all he himself comes

and further says that "the preposing cannot take place if the subject is a weak pronoun" (Mikkelsen (1911:625)), thus describing the difference between (170b), which has a pronominal subject, and (171b), which has a non-pronominal subject.

As noted by Holmberg (1986:209) w.r.t. object shift, expanded pronouns (like *he himself*) behave like full NPs and not like pronouns. Holmberg's examples are *you two*, *her with the handbag*, and *you and me*.

Diderichsen (1962:189) also has examples of this construction, and he adds "the construction is less frequent with a light pronominal subject".

2.3.9.4 Conclusions concerning embedded clauses in Danish.

In this section I have tried to argue that though Reinholtz (1989) is correct that the possibilities of embedded V2 clauses are greater than what has been assumed so far, they are far from as great as in Yi. and Ic. There are still many cases where embedded clauses are only possible if they are not V2. I furthermore tried to show that some of her arguments that V2 is movement of the finite verb to Agr^o and topicalisation to AgrP-spec do not hold: There are reasons (in older Da.) to believe that the pre-subject but post-*wh at* is not in Agr^o but higher (2.3.9.2), and indications exist (in Sw.) that the position of the complementiser and the position of the finite verb are of the same nature and that the maximal projection of the finite verb in an embedded V2 is a CP.

I should like to end the sections on V2 (sections 2.1 - 2.3) by concluding that although many problems are left unexplained, the closest we can get to a satisfactory analysis of V2 seems to be that the finite verb moves to C^o, and some XP moves into CP-spec.

2.4 V°-to-I° movement.

2.4.1 Introduction.

Kosmeijer (1986), Holmberg & Platzack (1988:31), and Platzack (1988) observe for the Scandinavian languages that V°-to-I° movement seems to occur iff the language in question has a strong inflection, i.e. if the finite verb is inflected for person and number. They propose to analyse V°-to-I° movement as motivated by the presence of inflectional morphology in I°. In this section I will argue that this view yields predictions which are essentially correct, even if certain problems concerning Faroese will have to be left unsolved.

As an indication of whether a language has inflectional morphology base-generated under I°, one may consider standard verb paradigms like the following:

(172) throw, present indicative:

	Icelandic	Faroese	Danish
Sg.			
1 th	ég kasta	eg kasti	jeg kaster
2 th	þú kastar	tú kastar	du kaster
3 th	hann kastar	hann kastar	han kaster
Pl.			
1 th	við köstum	vit kasta	vi kaster
2 th	þið kastið	tit kasta	I kaster
3 th	þeir kasta	tey kasta	de kaster
Total	4	3	1

	German	Yiddish	English	French
Sg.				
1 th	ich werfe	ikh varf	I throw	je jette
2 th	du wirfst	du varfst	you throw	tu jettes
3 th	er wirft	er varft	he throws	il jette
Pl.				
1 th	wir werfen	mir varfn	we throw	nous jetons
2 th	ihr werft	ir varft	you throw	vous jetez
3 th	sie werfen	zey varfn	they throw	ils jettent
Total	5	4	2	3 (1sg=2sg=3sg=3pl)

Although it may seem from (172) that Ge. has more inflection than Ic., this is not the case. The two languages are exactly parallel: They have four different endings in the present tense of a weak verb and five different endings in the present tense of a strong verb. It is just that *throw* is a strong verb in Ge. and a weak one in Ic. Consider the following example of a verb which is weak in Ge., and strong in Ic.:

(i) weep, present indicative:

	German	Icelandic	Yiddish	Faroese
Sg.				
1 th	ich weine	ég græt	ikh veyn	eg gráti
2 th	du weinst	þú grætur	du veynst	tú grætur
3 th	er weint	hann grætur	er veynt	hann grætur
Pl.				
1 th	wir weinen	við grátum	mir veynen	vit gráta
2 th	ihr weint	þið grátið	ir veynt	tit gráta
3 th	sie weinen	þeir gráta	zey veynen	tey gráta
Total	4	5	4	3

If the Fa. verb ends in *-ra* in the infinitive, some dialects have four different endings in the present tense, instead of three:

(ii) go, present indicative:

	German	Icelandic	Faroese
Sg.			
1 th	ich fahre	ég fer	eg fari
2 th	du fährst	þú ferð	tú fert
3 th	er fährt	hann fer	hann fer
Pl.			
1 th	wir fahren	við förum	vit fara
2 th	ihr fahrt	þið farið	tit fara
3 th	sie fahren	þeir fara	tey fara
Total	5	5	4

One might expect I° to have content iff the language distinguishes between various persons and numbers. This however should predict that the only language not to have V°-to-I° movement should be Da. (and No. and Sw.), a view which is too strict, as we shall see below that V°-to-I° movement is also absent in En. and in Fa.

This raises a problem, as we would expect V°-to-I° movement to take place as soon as I° has any content at all, and we would expect I° to have content as soon as there is any distinction made between different combinations of person and number.

One way out would be to say that a substantial number of distinctions are needed to cause V°-to-I° movement to take place. This raises two questions. One is how the finite verbs in En. and Fa. are united with their inflectional endings (*-s* in En 3sg, *-i*

in Fa. 1sg, *-r* in Fa. 2sg & 3sg). I will assume that these inflectional elements are actually base-generated in I^0 , but subsequently moved downwards to join up with the verb in the base-generated position of the latter. This idea can be found in Emonds (1976, 1978) Pollock (1989) and many others, and it is ultimately derived from the affix hopping analysis of Chomsky (1957).

The other question raised by saying that a "substantial number of distinctions" is needed to motivate V^0 -to- I^0 movement is the question how high the number has to be to be substantial. It may not be possible to set an exact number, cf. that Fa. and Fr. both seem to have three different endings, and Fr. has V^0 -to- I^0 movement, whereas Fa. does not.

An alternative to the idea of "substantial number of distinctions" is given by Platzack & Holmberg (1989), who suggest that V^0 -to- I^0 movement is triggered by the existence of distinctions between different persons. This is done in order to account for the difference between two Scandinavian dialects: In the Sw. dialect Älvdalsmålet (spoken in Dalecarlia, eastern central Sweden) "both present tense plural and past tense plural have different forms for the persons" (Platzack (1988:233)), whereas in the No. dialect of Hallingdalen (central southern Norway) the verb is "only inflected for number, not for person" (Platzack & Holmberg (1989:70)). Only the former of the two dialects has V^0 -to- I^0 movement (cf. the discussion in 2.4.3 and 2.4.4 below):

				<u>I^0</u>	<u>Neg</u>		
(173) Älv.	Ba	fo	dye	at	uir	uildum	int fy om
	<i>Just</i>	<i>because</i>	<i>that</i>	<i>we</i>	<i>would(pl)</i>	<i>not</i>	<i>follow him</i>
	(from Levander (1909), cited in Platzack & Holmberg (1989:70))						

					<u>Neg</u>	<u>V^0</u>	
(174) Hal.	Noko	gamlæ	mænna	som	ikji	haddæ	vore mæ ve kyrkja
	<i>Some</i>	<i>old</i>	<i>men</i>	<i>that</i>	<i>not</i>	<i>had(pl)</i>	<i>been along at church</i>
	(from Trosterud (1989), cited in Platzack & Holmberg (1989:70))						

This account still predicts that Faroese and French should both have V^0 -to- I^0 movement, which is not correct for Fa. A refinement of Platzack & Holmberg's suggestion is made by Roberts (1990), who suggests that V^0 -to- I^0 movement is triggered by the existence of distinctions in the plural, cf. that all three persons in the plural are the same in Fa., whereas all three persons in the singular are the same in Fr. This correctly predicts that En., Da., and Fa. (as well as Hallingdalen) do not have V^0 -to- I^0 movement, and that Ge., Ic., Yi., and Fr. (as well as Älvdalsmålet) on the other hand all have V^0 -to- I^0 movement.

seems to be no independent support for this claim, but a number of reasons not to adopt it.

The only thing we can say for sure about V°-to-I° movement in Ge., Du., and Fris. is that there is no reason to assume that it does not take place.

2.4.3 SVO languages with V°-to-I° movement.

In SVO languages, the data provide direct evidence whether or not V°-to-I° movement has taken place: It has taken place if the finite verb precedes a medial adverbial or a negation (i.e. an element which occurs left of VP), and it has not taken place if the finite verb occurs right of such an element. In many cases it may be difficult to decide whether such an element is left or right of the VP, but some elements (e.g. negations) only occur left of VP, and in other cases the fact that the element precedes the object (as in (176a,c)) or the participle (as in (176e)) clearly shows that it occurs left of VP.

The SVO languages with V°-to-I° movement include French, Icelandic, and Yiddish (and also the Sw. dialect Älvdalsmålet, as discussed in the footnote in section 2.4.1). These languages all have a substantial amount of distinctions w.r.t. the inflection of the finite verb, Fr. 3, Ic. 4, and Yi. 4. They also all have distinctions between the different persons in the plural.

Consider first the data from Fr. Here we see V°-to-I° movement both in the main clause, (176a,b), in the embedded complement clause, (176c,d), and in the relative clause, (176e,f).

		<u>I°</u>	<u>Adv</u>	<u>V°</u>				
(176)	Fr. a.	Jean	fume	souvent		ces	cigares	
	b.	*Jean		souvent	fume	ces	cigares	
		<i>Jean (smokes) often (smokes) these cigars</i>						
				<u>I°</u>	<u>Adv</u>	<u>V°</u>		
	c.	Pierre	dit	que	Jean	fume	souvent	ces cigars
	d.	*Pierre	dit	que	Jean		souvent	fume ces cigars
		<i>Pierre says that Jean (smokes) often (smokes) these cigars</i>						
				<u>I°</u>	<u>Adv</u>	<u>V°</u>		
	e.	Ce	sont	ces	cigares	que	Jean	a souvent fumés
	f.	*Ce	sont	ces	cigares	que	Jean	souvent a fumés
		<i>It is these cigars which Jean (has) often (has) smoked</i>						

(178) Yi.

	<u>C°</u>	<u>Adv</u>	<u>V°</u>	
a.	Dos yingl vet	oyfn veg		zen a kats
b.	*Dos yingl	oyfn veg vet		zen a kats
	<i>The boy (will) on-the way (will) see a cat</i>			

	<u>I°</u>	<u>Adv</u>	<u>V°</u>	
c.	Zi hot gezogt az dos yingl vet	oyfn veg		zen a kats
d.	*Zi hot gezogt az dos yingl	oyfn veg vet		zen a kats
	<i>She has said that the boy (will) on-the way (will) see a cat</i>			

(based on Santorini (1989:50))

	<u>I°</u>	<u>Adv</u>	<u>V°</u>	
e.	Der yid vos Khayim hot nekhtn		getrofn iz an amorets	
f.	*Der yid vos Khayim	nekhtn hot	getrofn iz an amorets	
	<i>The man whom Chaim (has) yesterday (has) met is an ignoramus</i>			

(based on Santorini (1989:57))

Consider first the data from En. Here we see the lack of V^o-to-I^o movement both in the main clause, (179a,b), in the embedded complement clause, (179c,d), and in the relative clause, (179e,f).

- (179) En. a. I° Adv V°
 *John smokes often these cigars
 b. John often smokes these cigars
- c. I° Adv V°
 *Peter says that John smokes often these cigars
 d. Peter says that John often smokes these cigars
- e. I° Adv V°
 *These are the cigars that John smokes often
 f. These are the cigars that John often smokes

Consider now Da. Here it might seem that V° -to- I° movement takes place in the main clause, (180a,b), but not in the embedded complement clause, (180c,d), or in the relative clause, (180e,f):

- (180) Da. a. C° Adv V°
 Helge har sandsynligvis købt bogen
 b. *Helge sandsynligvis har købt bogen
Helge (has) probably (has) bought book-the
- c. I° Adv V°
 Johan siger at Helge har sandsynligvis købt bogen
 d. Johan siger at Helge sandsynligvis har købt bogen
Johan says that Helge (has) probably (has) bought book-the
- e. I° Neg V°
 *Der var mange folk, jeg kendte ikke
 f. Der var mange folk, jeg ikke kendte
There were many people I (knew) not (knew)

However, as for Ic. above, what we see in a,b) is not V° -to- I° movement but V2 movement (cf. sections 2.1-2.3).

2.4.5 Faroese.

Faroese probably represents a case similar to the No. dialect from Hallingdalen (as discussed in the footnote in section 2.4.1), i.e. it has some amount of inflection (3 distinctions, sometimes 4, cf. section 2.4.1), more than Da. and En., and yet it does not seem to have (obligatory) V° -to- I° movement:

- (181) Fa. a. Tey skuldu skrivliga svara spurninginum
b. *Tey skrivliga skuldu svara spurninginum
They (should) in-writing (should) answer question-the
- Vit gjørdur av, ...
We decided ...
- c. ... at tey skuldu skrivliga svara spurninginum
d. ... at tey skrivliga skuldu svara spurninginum
... that they (should) in-writing (should) answer question-the
(based on Barnes (1987:16))
- (182) Fa. a. *Har vóru nógv fólk, eg kendi ikki
b. Har vóru nógv fólk, eg ikki kendi
Here were many people I (knew) not (knew)
(based on Lockwood (1955:§ 156), quoted in Barnes (1987:15))

Consider the following quotes. Barnes (1987:16): "Immediate post-verbal position [of the adverbial] is commonest in *at*-clauses (as it is in the mainland Scandinavian languages), while in relative and temporal clauses it is very rare". Barnes (1989:13): "My impression is that the overwhelming majority of Faroese speakers most naturally use the Mainland Scandinavian word order [i.e. no V^o-to-I^o movement (SV)], and that embedded V2 is found either in *at*-clauses (as often in Mainland Scandinavian) or in archaising style". On the basis of these quotes, it might seem that the verb only precedes the adverbial in embedded V2 clauses, which only occur in the same contexts as in Da. (cf. section 2.3.2.2), but this may be too strong. Suffice it to say that at least in some types of embedded clauses V^o-to-I^o movement seems never to occur, and it never seems to be obligatory.

There is an exception even to this, however, but it would seem to be dialectal: The writer Heðin Brú (who only died recently), who claimed to be speaking the Skálavík (Sando) dialect (cf. Sandquist (1981), cited in Barnes (1987:16, 1989:13)), spoke a language which was exactly like Ic. w.r.t. V^o-to-I^o movement (this could thus be the Älvdalsmål of the Faeroes, so to speak).

So maybe Fa. is in the process of losing V^o-to-I^o movement. This would fit with the hypothesis of Barnes (1987:17) that Faroese is at the moment going through changes similar to those that Da. (and No. and Sw.) underwent 300-400 years ago.

Consider the following additional facts from Fa.:

Fa. seems to have lost general embedded V2:

(183) Fa. a. Tróndur sigur,
 at eftir Ólavsøku fara teir at rógva út aftur
 Tróndur says
 that after Ólavsøku begin they to row out again

b. *Tróndur verður nøgdur,
 um eftir Ólavsøku fara teir at rógva út aftur
 Tróndur will-be satisfied
 if after Ólavsøku begin they to row out again

(from Barnes (1987:27-28))

Non-referential *pro* may also be in the process of being lost, cf. that sentences 'with no subject' are possible (especially in older stages of Fa., acc. to Henriksen (1983:6-7)), but so are sentences with *tað* ("it"/"there") in IP-spec (Barnes (1986:43)):

(184) Fa. a. Ofta verður _____ spurt
 Often becomes (there) asked

b. Eina ferð var tað ein prinsur og ein prinsessa
 One time was there a prince and a princess

The somewhat surprising conclusion from all this (cf. also Barnes (1989:17)) might be that V^o-to-I^o movement ('including' general embedded topicalisation and the

the more it is likely to have V^o -to- I^o movement. We saw that Roberts' (1990) generalisation may be a more precise way to state this fact: V^o -to- I^o movement occurs in the languages which have different endings in the plural.

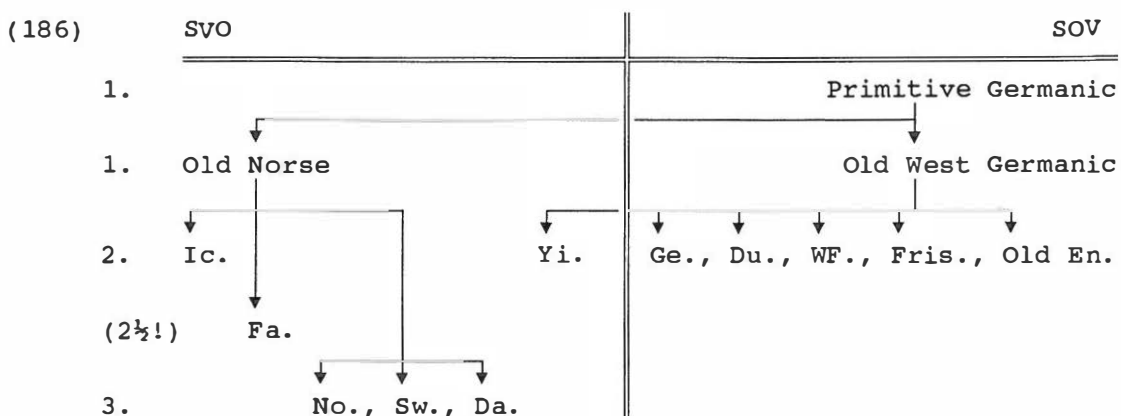
2.5.2 Speculations on the historical development.

Before discussing Yi., Ic., and the link between being SVO with V^o -to- I^o movement and having general embedded V2, I would like to present a bird's eye view of development of the Germanic V2 languages w.r.t. verb movements and related phenomena.

If we start with the status of the null subjects, we have the following three stages:

- (185)
1. referential null subject,
 V^o -to- I^o movement,
 general embedded topicalisation if SVO.
 (ex.: SVO: Old Norse, SOV: Primitive Gmc, Old West Gmc)
 2. only non-referential null subject,
 V^o -to- I^o movement,
 general embedded topicalisation if SVO.
 (ex.: SVO: Ic., Yi., SOV: Ge., Du., WF., Fris., Old En.)
 3. no null subjects at all,
 no V^o -to- I^o movement,
 no general embedded topicalisation.
 (ex.: SVO: No., Sw., Da. and maybe also Fa.)

and the following diagram of historical development can thus be drawn:



Three questions immediately come to mind: How does a language get from 1 to 2, how does a languages get from 2 to 3, and how does a language get from SOV to SVO?

I have no answer to the first one, and I have not been concerned with the second one at all (but it is discussed very thoroughly in Santorini (1989)). On the basis of the discussion in this chapter, it might however be possible to sketch out an answer to the third question, and this is what I will do below.

What has not been touched on so far is the relation between embedded V2 and V°-to-I° movement, even though there clearly is one. It cannot be a coincidence that the only two languages which are SVO (or at least I° - VP) and have V°-to-I° movement both have general embedded V2.

It also seems clear that this is not a case of one of the two languages "borrowing" general embedded V2 from the other, as they have been in virtually no contact with each other. Yi. has had some contact with Da., and Da. presumably was like Ic. in an earlier stage, but there still seems absolutely no reason to assume any kind of borrowing. Firstly, according to Santorini (1989:23) Yi. "resisted the influence" of Da. in other areas (e.g. vocabulary), secondly the contact only arose around the time when Da. lost V°-to-I° movement (in the 17th century), and thirdly it is only the original East Yi. dialect (which was spoken in areas in which the non-Jewish inhabitants spoke a Slavic language, in other words rather far from Denmark) which developed general embedded V2. The original West Yi. dialect, spoken in otherwise Germanophone areas, has all but died out after falling into disuse at the time of "enlightenment" (the late 18th century).

So the fact that both Ic. and Yi. have general embedded V2 should be derived from some other properties that they have in common, and, as suggested above, this could be that both are I°-VP (as opposed to e.g. Ge.) and that both have V°-to-I° movement (as opposed to e.g. Da.).

One way of finding out why Yi. and Ic. have general embedded V2 is to ask what they would look like if they did not.

The answer is that they would have two orders in main clauses

(187) (... that -) subject - finite verb - sentential adverb - ...

(188) (... that -) topic - finite verb - subject - sent. adverb - ...

and the same two orders in selected embedded clauses, but they would only have one order in other embedded clauses. This order, however, thanks to their two crucial properties, i.e. I°-VP order and V°-to-I° movement, would be completely identical to the subject-initial main clause one, (187):

(189) ... that - subject - finite verb - sentential adverb - ...

To keep this state of affairs, the child has to posit two different ways of deriving the same order, i.e. V2 for subject-initial main clauses, and V°-to-I° movement for embedded clauses.

but the embedded order is not string-identical, as there is no V^o -to- I^o movement:

(191) ... that - subject - sentential adverb - finite verb - ...

so no generalising is possible. In Ge. the same thing obtains for different reasons. The main clause word order is similar to Da., as it also displays V2:

(192) (... -) subject - finite verb - VP

and the embedded clause is radically different, due to the VP -I° order:

(193) ... - that - subject - VP - finite verb

so that here no generalising is possible either.

The question is then how it is possible for a language to lose part of the results of this generalisation (general embedded V2) without losing all of it (main clause V2). This question is relevant for the development of Da., No., and Sw. (and for what is going on in Fa. at the moment), cf. that Old Norse seems to have had general embedded V2 (Mikkelsen (1911:588), Falk & Torp (1900:291)), and the modern languages have V2 only in main clauses, but not in (non-selected) embedded clauses.

Imagine that something made children assume that V°-to-I° movement did not take place, and that that something is a conspiracy between a weak verbal inflection paradigm and stylistic fronting as it applies to negation/sentential adverbial (cf. the discussion of stylistic fronting in Ic. in 2.3.7.3 above). This could work in the following way. Stylistic fronting may occur if the subject is absent (e.g. extracted, postposed, or absent in a passive phrase (Maling (1980)) and also if the subject is a pronoun (Platzack (1988:227))

This would support the idea in section 2.2. that the obligatory adjacency between C° and a subject pronoun is caused by cliticisation of the pronoun to C° .

It thus produces the following types of sentences in a languages which otherwise has V^o-to-I^o movement, cf. the following example from Middle Danish:

(194) MDa. Nw vel iek syæ af en annen vey ofuer land,
Now will I seek of an other way over land

ter som mand engælund ma koma paa hafuet
if one not may come on sea-the

(from a translation of Mandevilles reise
from the 15th century, cited in Mikkelsen (1911:636))

This is generated by cliticisation of the subject to C° , stylistic fronting of the negative element, and so there is no reason to assume that V° -to- I° movement has not applied. This type of structure is then at some point reinterpreted as absence of V° -to- I° movement, with no reason to assume that stylistic fronting has applied. What may cause a change from one derivation of this structure to another is the strength of the verbal inflection. Presumably if it is very strong (if there are many distinctions made) the interpretation compatible with V° -to- I° movement is preferred, whereas when it is weaker, nothing prevents the other derivation from prevailing (this may presuppose that there is little or no independent evidence for stylistic fronting, i.e. stylistic fronting of elements which are not VP-adjoined or TP-adjoined, such as particles, participles, etc.).

Thus the child will arrive at the modern Danish situation described in (190) and (191) above, under which general embedded V2 is no longer possible.

This conspiracy will thus allow that V° -to- I° movement is lost before the distinctions in the verbal inflections are lost completely, which is compatible with the evidence we have seen in section 2.4.5 for Faroese. It will also allow that general embedded V2 is lost before V° -to- I° movement is completely lost, as all that is needed to lose general embedded V2 is that the child sees that there is not a complete parallelism between main and embedded clauses.

Something else which could be accounted for under this approach is the status of null and non-null expletives. Assume that *there* may cliticise to C° like any other subject pronoun and thus stylistic fronting may occur, giving the following structure even though the language still has V° -to- I° movement:

(195) (... that ~) there - sentential adverb - finite verb - ...

This is may then, at some point where the verbal inflection is sufficiently weak, be reinterpreted as absence of V° -to- I° movement (and absence of stylistic fronting as well), parallel to the reinterpretation of (194) above. This reinterpretation will however entail that *there* is taken to be in IP-spec.

Summing up what I have suggested about the transition from an Ic. system (stage 2 in (185) above: non-referential null subject, V° -to- I° movement, and general embedded topicalisation) to a Da. one (stage 3 in (185) above: no null subjects, no V° -to- I° movement, and no general embedded topicalisation): Thanks to stylistic fronting and to a weak verbal inflection, the child may infer that V° -to- I° movement is no longer necessary. This will have as consequences that no embedded topicalisations will

occur, and *there* may occur in IP-spec. Notice it is possible that verbal inflection does not disappear completely immediately, as it may be generated in I° and lowered onto the verb in V° , and that non-referential null subjects may still occur (if they depend on the presence of features in I° , as argued in 2.2.3 above). However, the fact that V° -to- I° movement is no longer obligatory may further weaken the verbal inflection, which again may fully eliminate null subjects. Faroese could thus be at this in-between stage, V° -to- I° movement does not have to occur, hence there may occur in IP-spec and general embedded V2 does not exist anymore. Still existing are some amount of verbal inflection and a non-referential null subject, although it is to be expected that they will be lost at some subsequent point.

3. Expletive subjects.

In this chapter I will discuss expletive subjects. By expletive subject, I understand what has also been called pleonastic subject or anticipatory subject, cf. the following quote: "Another term ... is 'expletive' *it*, the term indicating the view that this *it* merely fills a syntactic gap (that of subject) and is otherwise meaningless" (Quirk et al. (1985:749)).

I will assume that in languages like English and Danish there is only one expletive subject, viz. *there/der*. As I will argue in more detail below (following Bennis (1986)), *it/det* is not really expletive, but an argument (cf. also that these elements, at least in some occurrences, are often referred to as quasi-arguments, e.g. Chomsky (1981:325)).

It thus follows that *it/det* must be assigned a θ -role, and that it does not have to be coindexed with any other overt NP, even though this is not excluded (e.g. if it is an antecedent for a reflexive, cf. section 3.2.2.1 below). *There/der* on the other hand may not be assigned a θ -role, and following the 'expletive replacement' suggestion in Chomsky (1988:section 6.3), based on the principle of full interpretation (Chomsky (1986b)), *there/der* will have to be coindexed with an argument at S-structure.

3.1 Expletive constructions in Germanic.

3.1.1 Introduction.

I first want to consider the distribution of expletive subjects across the Germanic (and Romance) languages in five different constructions: ergatives, active and passive transitives, and active and passive intransitives. I will furthermore consider three versions of each of the first four constructions: one with the argument NP inside the complement of V^o (i.e. c-commanded by the verb), and two with the argument NP in VP-spec (i.e. c-commanding the verb).

The following languages will be discussed: German, Icelandic, Danish, English, and French. It is assumed that Dutch and Frisian behave like German w.r.t. the table in (1), that Faroese and Yiddish behave like Icelandic, that Norwegian and Swedish behave like Danish, and that the Romance languages in general behave like French.

The distributional facts w.r.t. the five constructions are set out in the following table, along with what are assumed to be the two crucial features of the languages in question: whether or not they are V2 languages (cf. sections 2.1 - 2.3), and whether or not they have obligatory verb movement to I^0 in tensed clauses (cf. section 2.4):

(1)	Ge.	Ic.	Da.	En.	Fr.	
Ergatives (NP in V°-compl)	+	+	+	-!	+	section
Ergatives (NP in VP-spec)	-	-	-	-	-	3.1.2.1
Ergatives (NP gov'd by I°)	+	+	-	-	-	
Transitives (NP in V°-compl)	-	-	-	-	-	section
Transitives (NP in VP-spec)	-	-	-	-	-	3.1.2.2
Transitives (NP gov'd by I°)	+	+	-	-	-	
Passive of trans. (NP in V°-compl)	+	+	+	-!	+	section
Passive of trans. (NP in VP-spec)	-	-	+	+	-	3.1.2.3
Passive of trans. (NP gov'd by I°)	+	+	-	-	-	
Intransitives (NP in V°-compl)	+	+	+	-	-	section
Intransitives (NP in VP-spec)	-	-	-	-	-	3.1.2.4
Intransitives (NP gov'd by I°)	+	+	-	-	-	
Passive of intransitives	+	+	+	-	-	section 3.1.2.5
V2	+	+	+	-	-	cf. 2.1
V°-to-I° movement	+	+	-	-/+	+	cf. 2.4

The links between the symbols in the German column are supposed to illustrate that the possibilities linked cannot be distinguished from each other in this language, because of the SOV word order.

The exclamation marks may be taken as a warning that the facts in question will not receive a completely satisfactory explanation in what follows.

One of the two basic ideas (to be discussed in 3.1.1.1) of this analysis rests on the assumption that the expletive must be linked to an argument, and on whether this link is a chain or an extended chain. The other basic idea (to be discussed in 3.1.1.2) is based on partitive case assignment (and licensing), on the mutual exclusivity of case assignment (and licensing) under head government and case assignment under spec- X^0 agreement and on whether the languages have V2 and V^0 -to- I^0 movement.

As mentioned above, the obligatory linking between *there* and an argument is assumed under the 'expletive replacement' suggestion in Chomsky (1988:section 6.3) which is based on the principle of full interpretation of Chomsky (1986b).

As *there* cannot be assumed to have a referential index (cf. Rizzi (1990:section 3.5/20-29)), I assume that the link between it and the argument is subject to antecedent government (the alternative way of linking, binding, is only available to elements with referential indices, cf. section 1.3). This means that every A-position specifier (i.e. every VP-spec) between *there* and the argument NP must be coindexed with *there* and the argument NP (in other words: must be part of the chain). This explains why participle agreement is obligatory in the following constructions:

- (2) It. a. pro_i sono [vp t_i arrivati tre ragazzi_i]]
 There are arrived(masc/pl) three boys
- b. *pro_i sono [vp arrivato tre ragazzi_i]]
 There are arrived(masc/sg) three boys
- (3) No. a. ... at der_i er [vp t_i komne nokre gjester_i]
 ... *that there are come(pl) some guests*
- b. *... at der_i er [vp kome nokre gjester_i]
 ... *that there are come(sg) some guests*
- (from Christensen & Taraldsen (1989:59))

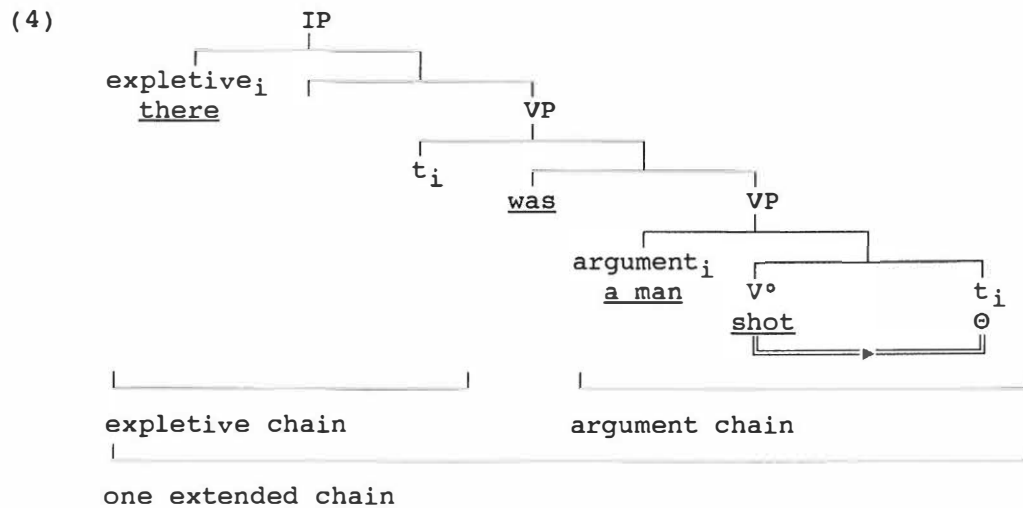
As in Vikner & Sprouse (1988), I follow Kayne (1985) in assuming that the participle shows agreement with what is in its specifier (this is a reflex of spec- X° agreement). The contrasts in (2) and (3) show that VP-spec must be coindexed with the chain between *there* and the argument NP. This is accounted for by the chain being subject to antecedent government, i.e. every A-specifier between *there* and the argument NP must be part of the chain.

3.1.1.1 \ominus -role assignment and chains vs. extended chains.

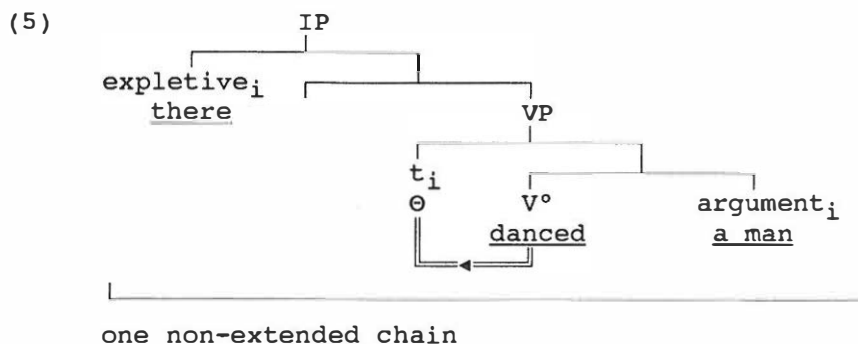
The expletive may not receive a Θ -role (i.e. without sharing it with some argument), but on the other hand it must form a chain with an argument NP (and this argument NP must, of course, in accordance with the Θ -criterion, have a Θ -role). As discussed above, this is what distinguishes an expletive from an argument or a quasi-argument.

The chain involving the expletive and the argument NP may or may not be an extended chain (cf. section 1.2.5). There are two possibilities. One is that the θ -role is assigned to a link of the chain which is c-commanded by the (indefinite) argument, in

which case we have an argument chain forming an extended chain with an expletive chain:

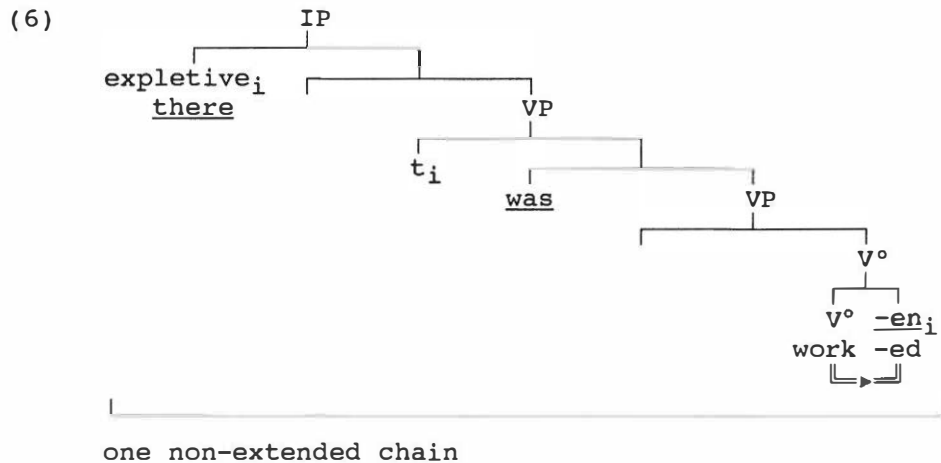


The other possibility is that the θ -role is assigned to a chain-link not c-commanded by the (indefinite) argument, but only c-commanded by the expletive (in other words: the argument NP is somehow lowered at S-structure). In this case the expletive, the argument NP and all traces count as one non-extended chain, as otherwise the argument NP would form a chain on its own, which would not be assigned a θ -role:



This is exemplified by expletive intransitives, cf. section 3.1.2.4 below.

There is also the possibility that the expletive links up with the passive morphology. The result of this is also a non-extended chain, as there is only one NP involved (the expletive), and an extended chain must consist of two chains, each of which is headed by an NP:



3.1.1.2 Case assignment and partitive case.

As for case, it is assumed that the expletive, as all other elements that may occur in IP-spec, is assigned nominative case. Nominative is assigned in one of two ways (cf. Sportiche (1988a) and section 1.2.2 above), either under government from C° (in the V2 languages, cf. chapter 2), or from I° under spec- X° agreement (in non-V2 languages, like En. and Fr.).

The argument NP to which the expletive is linked must also be assigned case. If no standard structural case is available (the nominative is assigned to the expletive, and accusative is normally not available for various reasons), the argument NP linked to the expletive must be identified in some other way. I will assume, following Belletti (1988a), that this identification may resemble a type of case assignment that is only compatible with indefinite NPs. This is what Belletti calls partitive case, and this is what accounts for the so-called "definiteness effect", the restriction that the argument NP must be indefinite in the constructions discussed here.

Belletti (1988a:15) assumes partitive to be assignable only to positions which are "VP-internal and thematically associated with the verb", i.e. complement of the main V° , specifier of the main VP, and positions adjoined to the main VP. The idea is that partitive is an **inherent** case, as opposed to **structural** cases like accusative and nominative. This distinction accounts for two facts according to Belletti (1988a):

1. that partitive assignment is not affected by passivisation of the verb assigning partitive (1988:6)(as opposed to other cases: *The film was seen* vs. **There was seen the film*), and
2. that sentences of the following kind are excluded (1988:27-31):

According to Belletti (1988a:14, n33) the obligatory indefiniteness of *einhverjum*, 'someone', shows that it occurs in a position adjoined to VP, as otherwise it could not be assigned partitive, and then there would be no account for the obligatory indefiniteness of the NP.

However, if another auxiliary verb is added to this construction, we see that predictions made by this analysis are not borne out. The predictions would be that, given an infinitival auxiliary between the finite auxiliary and the main verb, the indefinite NP must be to the right of such an infinitive; if it was to the left of the infinitive, it could no longer be considered to be inside (or even adjoined to) the VP of the main verb. However, the indefinite NP, *einhverjum*, is better when it is separated from the main VP by the infinitive of the temporal auxiliary *hafa*, "have", as in (9), than when it occurs in the specifier of the VP of the main verb (or adjoined to this VP), as in (10):

- (9) Ic. ... að það mun t einhverjum hafa þótt Ólafur leiðinlegur
 ... that there will someone(dat) have thought Olaf(nom) boring(nom)
- (10) Ic. *... að það mun t hafa einhverjum þótt Ólafur leiðinlegur
 ... that there will have someone(dat) thought Olaf(nom) boring(nom)

Thus it must be possible for a partitive NP to occur outside the main VP. (For further analysis and more argumentation along these lines, see the discussion in section 3.1.2 below).

I will assume that assignment of partitive case takes place under the conditions suggested by Belletti (1988a), in other words: partitive is assigned under the same conditions as the θ -role is assigned. However, I will furthermore assume that **assignment** of partitive does not suffice, partitive case has to be **licensed** as well.

This licensing takes place under different conditions from assignment: where assignment of partitive takes place more or less under the same conditions as assignment of θ -roles, licensing of partitive takes place under conditions similar to assignment of structural case. I thus assume that in order to have its partitive case licensed, the NP must be head governed by a case assigner (stricter than the predictions of Belletti (1988a): it does not suffice for the NP just to be in VP-spec of the main verb). I furthermore assume that the class of licensors include I's that contain inflection as well as main (i.e. non-auxiliary) verbs (less strict than the predictions of Belletti (1988a): partitive NPs may occur outside the VP of the main verb).

Licensing of partitive case is thus possible in the following circumstances:

(11) Partitive case

assignment: from Θ -assigner, under same conditions as Θ -role.

licensing: a. from V^0 : if filled by any main verb

b. from I^0 : only if I^0 contains inflectional material
(excluding languages without V^0 -to- I^0 movement)
and
case is not assigned from I^0 under spec- X^0
agreement (excluding languages without V2)

I take it that if I^0 may assign (/license) case in one way, the other way is excluded and vice versa. This accounts for why partitive is never licensed outside the complement of V^0 except in the V2 languages, not even when a verb has undergone V^0 -to- I^0 movement, e.g. in French or in constructions with an auxiliary verb in English (in both these languages, IP-spec is assigned nominative from I^0 through spec- X^0 agreement).

As it stands, this is incompatible with the idea that in En. (but not in Fr.) the finite verb may assign nominative to IP-spec under government when I^0 -to- C^0 movement (i.e. V2) has applied, as suggested in section 2.2.4 above. If nominative is assigned under government in En. questions, the above rules would lead us to expect that e.g. impersonal passives were possible in En. questions, which clearly is not true:

- (i) En. a. *Was there danced?
b. *Has there slept anybody here?

Ian Roberts (p.c.) points out that one could allow for these constructions, and then rule them out on the grounds that partitive case is exceptionally limited in English anyway, even in the cases that are predicted to be grammatical, cf. the examples below in sections 3.1.2.1 and 3.1.2.3.

This will also be relevant in chapter 4 on object shift, in order to explain why object shift is not found in English. WILL IT REALLY? In other words, constructions where the indefinite argument NP occurs in VP-spec (or higher) are only possible in languages with both V2 and V^0 -to- I^0 : Ge. and Ic.

This is a distinction between the licensing of partitive case and the licensing of object shifted NPs (cf. chapter 4): partitive is licensed by I^0 , object shifted NPs are licensed by the verb (or verb trace) in I^0 . Thus object shift may apply in Da., but partitive cannot be licensed from I^0 , as there is no V^0 -to- I^0 movement, i.e. I^0 has no content.

Notice another parallelism between assignment of structural case and licensing of partitive case: both must take place in the highest A-position of the chain:

- (12) It. a. *Sembra un uomo essere arrivato
 Seems a man (to) be arrived
- b. *Paolo ha questo film visto
 Paolo has this film seen

(Partitive cannot be assigned by *arrivato* and licensed by *sembrare*, presumably because none of them are auxiliaries, cf. (7b)).

Both NPs which have been assigned structural case and NPs which have had partitive case assigned and licensed may undergo A'-extraction:

- (13) Da. a. Hvor mange firmaer er der gået t fallit?
 How many firms are there gone bankrupt?
- b. Hvilken film har du ikke set t?
 Which film have you not seen?

I will also crucially assume that if a non-extended chain is assigned more than one case (as it happens in expletive intransitives), the two cases must be assigned/licensed in parallel fashions, i.e. either both must be assigned/licensed under head government or both under spec-X^o agreement. As the partitive case of the indefinite argument NP is always licensed under head government, non-extended chains will only be permitted in V2 languages, where the expletive also is assigned case under head government. Hence constructions with a non-extended expletive chain (the ones in which the θ -role is assigned to a position higher in the tree than the position in which the argument NP occurs) are only possible in languages with V2: Ge., Ic., and Da. These constructions are expletive active intransitives (3.1.2.4) and expletive passive intransitives (also called impersonal passives)(3.1.2.5).

It is not crucial to this account whether what is called "partitive case assignment/licensing" actually is a kind of case assignment, i.e. whether it has a morphological realisation in languages which have morphological case on indefinite NPs (e.g. German or Icelandic). What is crucial is that partitive NPs must undergo a kind of licensing very much akin to the assignment of structural case (cf. also the approach of Falk (1989a:8, 1989b:49), discussed in 3.1.3.5 below, where (structural) case-assignment is juxtaposed with a different kind of identification: NPs must be made visible by being either "directly Case-marked or lexically governed in the canonical direction"). Notice that in spite of the classification of partitive case assignment as inherent case assignment/licensing, it is not parallel to assignment of oblique case, as it will be necessary to assume that even

NPs with oblique case must receive partitive case, in order to account for the obligatory indefiniteness of the NP both in (8)-(10) and in the following Ic. example (from Sigurðsson (1989:305), cf. also Platzack & Holmberg (1989:61, fn. 10). This was also noted by Maling (1987:17)).

- (14) Ic. a. *Hafði pro hvolft bátunum?
 Had capsized boats-the(dat)
- b. Hafði pro hvolft einhverjum bátum?
 Had capsized some boats(dat)

All expletives are assigned nominative case, including expletive topics, Ge. *es* and Ic. *það*. The assumption here is that in cases with the expletive topic in CP-spec, IP-spec must contain a trace of it (or maybe a *pro* coindexed with it), in order for the expletive to receive case. This excludes the (indefinite) argument NP from occurring in IP-spec, thus explaining the obligatory indefiniteness of this argument: It must receive partitive case from the verb, which has moved to I° (ex. from Koch Christensen (1989)):

- (15) Ic. a. *það hefur t maðurinn étið hákarlinn
 It has man-the eaten shark-the
- b. það hefur t maður étið hákarlinn
 It has (a) man eaten shark-the

In examples without the expletive topic, the trace/*pro* is not necessarily present (though, of course, it may be), and therefore these structures are possible even with a definite argument, which then may be taken to occur in IP-spec:

- (16) Ic. a. I dag hefur maðurinn étið hákarlinn
 Today has man-the eaten shark-the
- b. I dag hefur maður étið hákarlinn
 Today has (a) man eaten shark-the

The German facts are less clear. We would expect a parallel distribution, i.e. obligatory indefiniteness of the argument NP if *es* occurs in CP-spec, but not otherwise. This is also the situation, according to Belletti (1988a):

- (17) Ge. a. ?*Es liegt der Brief auf dem Tisch
 It lies the letter on the table
- b. Es liegt ein Brief auf dem Tisch
 It lies a letter on the table

- (18) Ge. a. Heute liegt der Brief auf dem Tisch
Today lies the letter on the table
- b. Heute liegt ein Brief auf dem Tisch
Today lies a letter on the table

whereas, according to Reuland (1983), sentences of the same type as (17a) may be well-formed:

- (19) Ge. a. Es spielt das Londoner Symphonieorchester
It plays the London Symphony Orchestra
- b. Es hat doch eben Peter angeklopft
It has but just Peter knocked (= But Peter just knocked)
 (from Pütz (1975), cited in Reuland (1983:34))

These may be somewhat marginal, as they decrease in acceptability if altered even slightly. Consider (19a) in the perfect tense and (19b) without the focus markers *doch* and *eben*

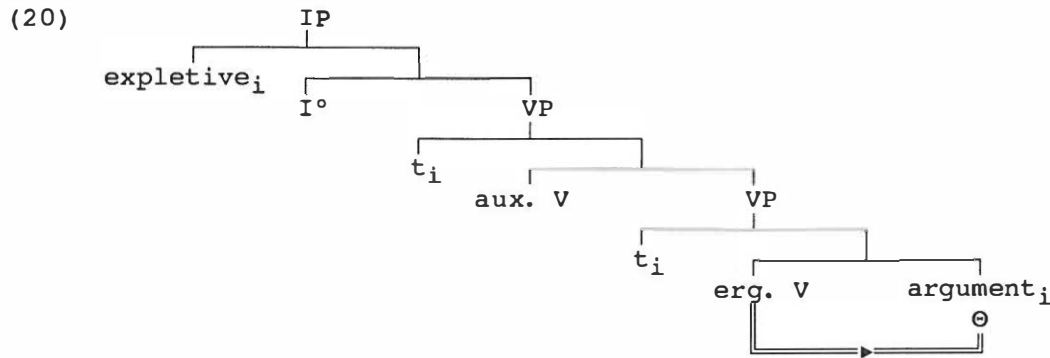
- (i) Ge. a. ??Es hat das Londoner Symphonieorchester spielt
It has the London Symphony Orchestra played
- b. ??Es hat Peter angeklopft
It has Peter knocked

Cf. also that they are completely unacceptable even in another V2 language:

- (ii) Da. a. *Der spiller Londons Symphonieorkester
There plays London's Symphony Orchestra
- b. *Der har jo lige ringet Peter
There has indeed just called Peter

3.1.2 The individual constructions.

I will now illustrate how the assumptions set out in the previous sections make the desired predictions for the individual constructions: Ergatives in 3.1.2.1, transitives in 3.1.2.2 and 3.1.2.3, and intransitives in 3.1.2.4 and 3.1.2.5. The more confusing situation w.r.t. verbs which are not main verbs is discussed in section 3.1.2.6.



Here we have two chains with the same index, the argument chain consists only of the argument, and the expletive chain consists of the expletive and its traces in the two VP-specs. The expletive receives nominative case, and the argument NP is licensed through partitive case assignment/licensing.

There are no special requirements as to the way in which case is assigned/licensed, as the chain which receives case twice is an extended chain, and each non-extended chain receives one and only one case. This requirement therefore does not rule out (20) in any of the languages.

The indefinite argument NP is in the complement of the main verb, and in all the languages under consideration partitive case may be licensed in the complement of V° by V° itself. This requirement therefore does not rule out (20) in any of the languages either.

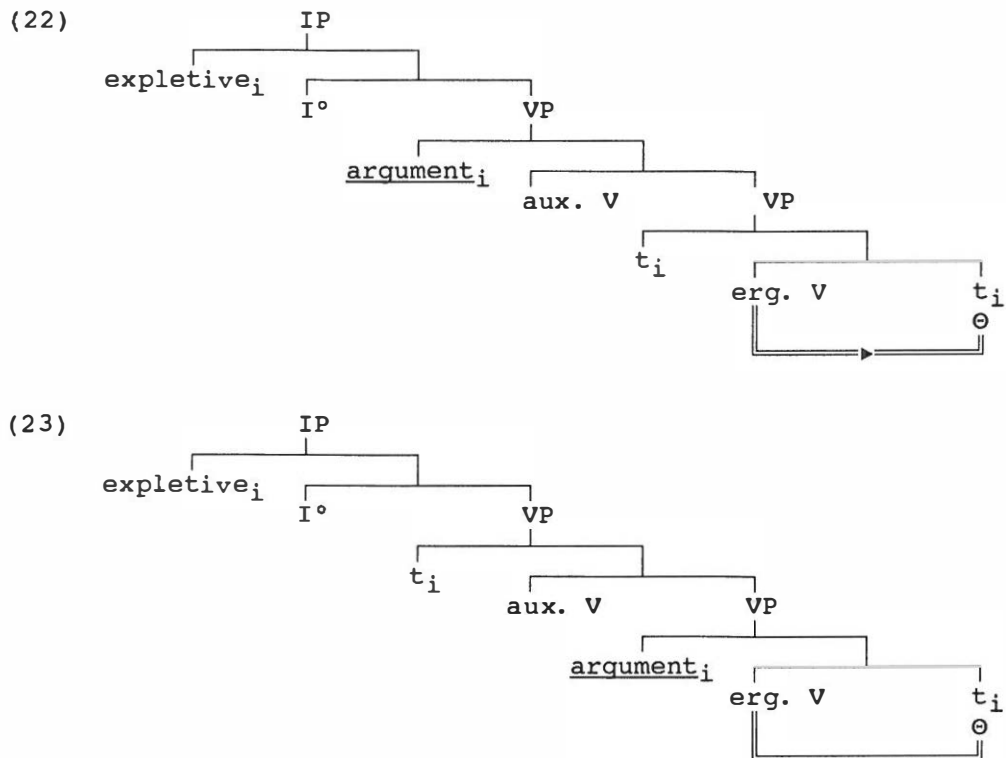
We thus should expect all the languages to allow this construction, but this is not completely borne out, as, for some unknown reason, it is not possible in En.:

Or at least much less frequent than in the other languages, cf. Milsark (1974) and the examples in section 3.1.2.6 below.

- (21)
- a. Ge. ... daß pro ein Junge gekommen ist
 - b. Yi. ... az es iz t gekumen a yingl
 - c. Ic. ... að það hefur t komið strákur
 - d. Da. ... at der er kommet en dreng
 - e. En. *There has come a boy
 - f. Fr. Il est venu un garçon

All Yi. and Ic. examples are embedded V2 structures, as discussed in section 2.3 above. This means that *es/það* occur in the topic-position (i.e. CP-spec), leaving a trace in the subject-position (i.e. IP-spec).

Another possibility with respect to the position of the argument NP is that it occurs in a position outside the complement of V° , but c-commanding a trace inside the complement of V° (otherwise it would not receive a θ -role). Two positions are possible here, the two VP-specs. It should be noted that because the only node that occurs between the two VP-specs is the auxiliary V° , which in languages with V° -to- I° movement only contains a trace of the auxiliary verb which has moved to I° , an example of (22) may only be distinguished from an example of (23) in languages without V° -to- I° movement.



In both cases there are two chains: the argument chain consists of the argument NP in a VP-spec, its trace in the complement of V , and, in (22), a trace in the lower VP-spec; and the expletive chain consists of the expletive and, in (23), a trace in the higher VP-spec. The expletive receives nominative case, and the argument NP is licensed through partitive case assignment/licensing.

As in (20), there are no special requirements as to the way in which case is assigned/licensed, as the chain which receives case twice is an extended chain, and each non-extended chain receives one and only one case. This requirement therefore does not rule out (22)/(23) in any of the languages.

The indefinite argument NP is in VP-spec, and, as discussed in section 3.1.1.2, partitive case may be licensed in VP-spec only if the language has V°-to-I° movement, and is a V2 language (This follows from partitive case only being licensed by an I° containing inflectional material (or by a main verb) and only under head government: if no V°-to-I° movement, no inflectional material in I°, hence no partitive from I°; and in non-V2 languages, case may not be assigned from I° under head government, as case from I° in these languages is assigned under spec-X° agreement). (22) is thus only possible in the languages which are both V2 and V°-to-I°: Ge. and Ic., and therefore ruled out in Da., En. and Fr.:

- (24) a. Ge. ... daß pro ein Junge gekommen ist
 b. Yi. ... az es iz t a yingl gekumen
 c. Ic. ?... að það hefur t strákur komið
 d. Da. *... at der en dreng er kommet
 e. En. *There has a boy come
 f. Fr. *Il est un garçon venu

(23) is ruled out in all languages, as the argument NP is not head governed by an I° or by a main V°, and therefore its partitive case cannot be licensed. However, as mentioned above, examples of (23) cannot be distinguished from examples of (22), except in languages without V°-to-I° movement, where they are ruled out anyway. Thus (25a,b,c,e,f) are identical to (24a,b,c,e,f), and therefore (25a,b,c) which are predicted to be ungrammatical but are acceptable (to a high extent if not completely), can be taken to be examples of (22) rather than of (23):

- (25) a. Ge. ... daß pro ein Junge gekommen ist
 b. Yi. ... az es iz t a yingl gekumen
 c. Ic. ?... að það hefur t strákur komið
 d. Da. *... at der er en dreng kommet
 e. En. *There has a boy come
 f. Fr. *Il est un garçon venu

Data like (24)/(25) (and the parallel cases of indefinite NP in VP-spec in the sections below) are also discussed in Platzack & Holmberg (1989:59-60), where the difference Sw. vs. Ic./Yi. (/Old Sw./Mid. En.) is derived from I° having agreement or not. Only if it does (i.e. in languages with V°-to-I° movement, i.e. not in Sw.), can it L-mark VP, which is necessary, otherwise VP is a barrier, and the NP in VP-spec may not be antecedent governed by an NP which has been assigned nominative case (i.e. *there*), as is required for its licensing.

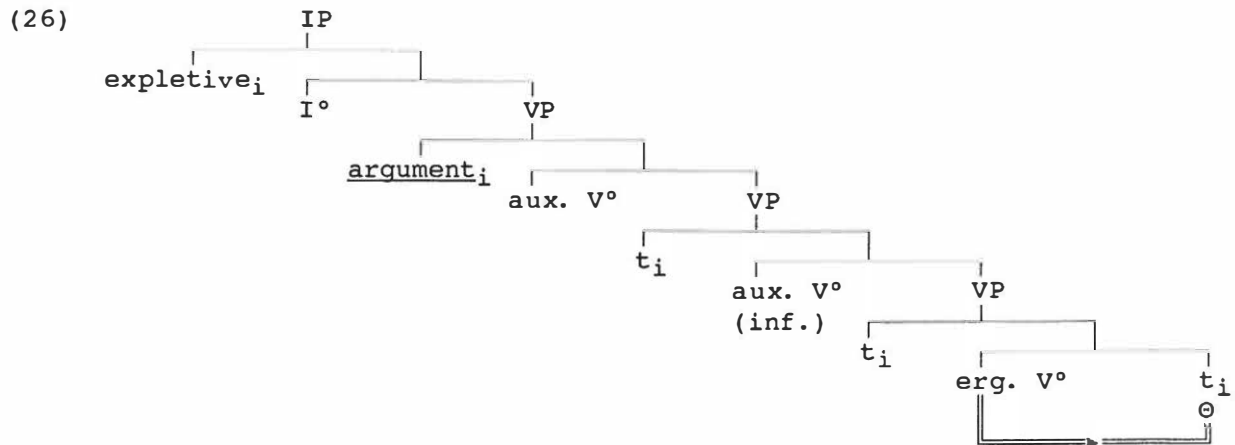
The problem with their approach is that one would expect cases with the indefinite in the complement of V° to be ruled out in a similar fashion: the NP in the complement of V° should also be antecedent governed by an NP with nominative case, and as VP is a barrier in the languages with weak inflection, one would expect this to be ruled out in Sw. and Da. This is not the case, cf. (21) above. Platzack & Holmberg (1989:60) account for this by saying that the NP in the complement of V° may also be licensed by

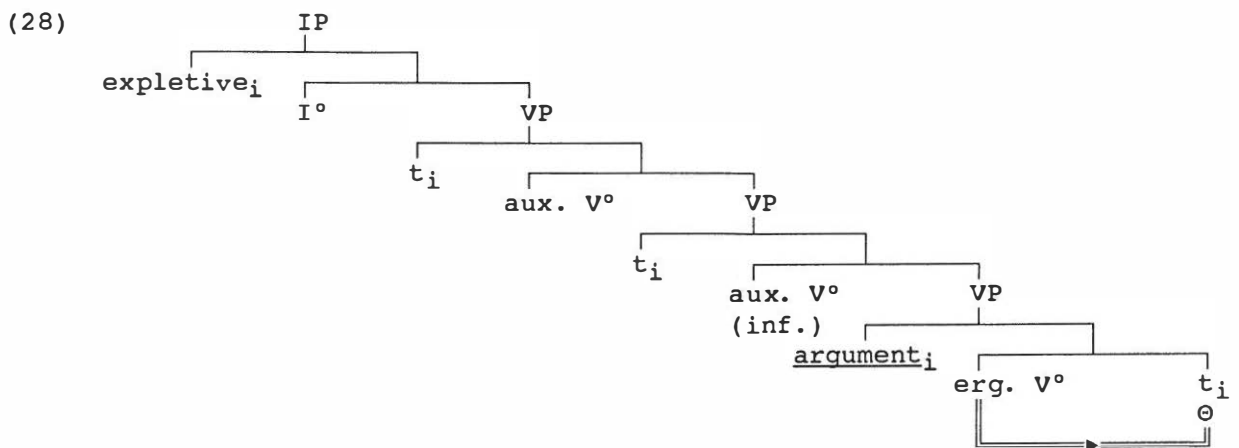
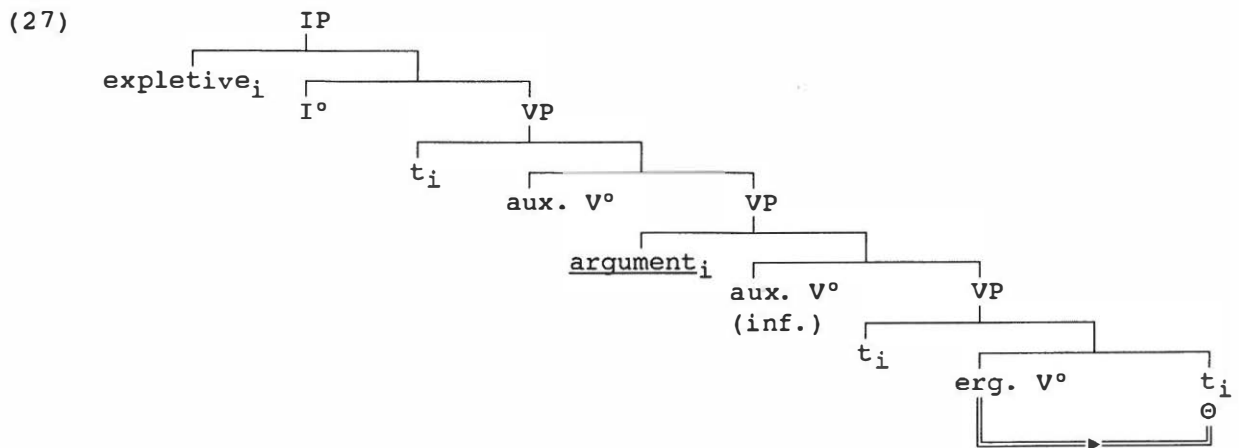
being antecedent governed, not by the nominative NP itself, however, but by VP-spec, which is in a chain with the nominative NP. This chain, between the empty VP-spec and the nominative NP is **not** subject to antecedent government, even though the chain between an indefinite NP in VP-spec and the nominative NP is subject to antecedent government. This difference (allowed for by their (10c), Platzack & Holmberg (1989:57)) appears rather unmotivated.

Because both the two VP-specs and the complement of V^0 precede the lower V^0 in Ge., it cannot be determined whether a given NP occurs in one of the VP-specs or inside the complement of the lower V^0 , cf. that (21a), (24a) and (25a) are identical. The only evidence that an argument NP may be possible in a VP-spec is thus furnished by Ic.

As already mentioned, it cannot be empirically determined for languages with V^0 -to- I^0 movement which VP-spec the argument NP occurs in in (24)/(25), the higher one (as in (22)) or the lower one (as in (23)), because no lexical material may intervene between the two. There are nevertheless reasons to believe that the argument NP in (24a,b,c)/(25a,b,c) is only possible in the VP-spec head governed by I^0 , and not in the other one.

If we consider a structure with one more VP, i.e. a structure with two auxiliary verbs, we see that it is not possible for the argument NP to occur in the lowest VP-spec. The three possibilities are the following, with the argument NP in each of the three VP-specs:





As above, it is impossible to distinguish between examples of (26) and of (27), except in languages without V° -to- I° movement (where the construction is ungrammatical anyway, cf. (24)/(25)), because the only node that occurs in between the two higher VP-specs is the trace of the auxiliary verb which has moved to I° . It is however possible to distinguish between examples of (26)/(27) on one hand and examples of (28) on the other, because in (26)/(27) the argument NP will precede both the auxiliary infinitive and the participle of the main verb, whereas in (28), it will follow the auxiliary infinitive but precede the participle of the main verb.

As the account above (cf. (22) and (24)) for the impossibility of the argument NP occurring in any VP-spec in Da., En., and Fr., crucially depends on the presence of inflectional material in I° (which also causes V° -to- I° movement) and on partitive being licensed under head government from I° , we would expect that the argument NP may occur in the VP-spec closest to I° (here partitive from I° may reach the argument, as the position is head governed by I° , cf. (26)), and that it may not appear in the VP-spec of the other two VPs (here partitive from I° cannot reach the argument, as the position is

head governed by a V^o , cf. (27) and (28)).

These predictions seem to be borne out:

- (29) Yi. a. ... az es volt a yingl gevolt kumen
 b. *... az es volt gevolt a yingl kumen
 ... *that there will (a boy) would (a boy) come*
 (= *that a boy would want to come*)
- (30) Ic. a. ?... að það mun t strákur hafa komið ...
 b. *... að það mun t hafa strákur komið ...
 ... *that there will ((a) boy) have ((a) boy) come...*

Da., En. and Fr. are irrelevant here, as they did not allow the construction in the first place (cf. (24)), and Ge. would not tell us anything, as it would be impossible to tell which VP-spec contained the argument NP in sentences of the types (29) and (30), again due to the head being final in Ge. VPs.

The crucial cases are therefore Yi. and Ic., which show a clear preference for (29a) and (30a), which are examples of (26) or of (27) over (29b) and (30b), which are examples of (28). It is thus clear, from (29b) and (30b), that the argument NP may not appear in at least one VP-spec where it is not head governed by I^o , and as the other examples, (29a) and (30a), is ambiguous as to which structure it has, the most coherent analysis would seem to be the one that rules out one kind of VP-spec (the ones not head governed by I^o) and allows the other (the one head governed by I^o).

There is thus good reason to assume that the argument receives partitive case from I^o when it precedes the main verb, as it is only possible in sentences where it may be taken to be head governed by I^o , i.e. in (24), (25) and (29a)/(30a), but not in (29b) and (30b).

This section has illustrated and tried to account for the following: If the argument NP follows the main verb, the expletive ergative construction is possible in all languages under consideration (with the notable and unexplained exception of English), whereas if the argument NP precedes the main verb, the construction is only possible in Ge. and Ic., and here only if the argument may be taken to be head governed by I^o .

3.1.2.2 Expletive transitives.

Transitive verbs assign both an external and an internal θ -role. If an expletive occurs in IP-spec, it will receive the nominative case, and the external

- (33) a. Ge. ... daß pro jemand einen Apfel gegessen hat
b. Yi. *... az es hot t gegesn imitser an epl
c. Ic. *... aǝ paǝ hefur t borǝaǝ einhver epli
d. Da. *... at der har spist nogen et æble
e. En. *There has eaten someone an apple
f. Fr. *Il a mangé quelqu'un une pomme

Due to the SOV structure of Ge., (33a) happens to be an example of a well-formed structure, (42), as shown by (43a) below. There are furthermore two reasons why (33a) should not be taken to be an example of (31).

The first reason has to do with the impossibility of the so-called *was-für*-split (*wat-voor* in Dutch). In den Besten (1984:34-39) it is shown that *was-für*-split only applies to NPs in the complement of V°. Consistent with the analysis suggested here, where the only indefinite NP that cannot appear inside the complement of V° is the external argument of expletive active transitives, this NP is also the only one that cannot undergo *was-für*-split, (34c,d). *Was-für*-split may successfully apply to the other cases of indefinite NPs: the internal argument of expletive ergatives, (34a,b), cf. sec. 3.1.2.1; the internal argument of expletive passive transitives, (34e,f), cf. sec. 3.1.2.3; and the external argument of expletive active intransitives, (34g,h), cf. sec. 3.1.2.4:

- (34) Ge. a. Was ist für ein Junge gekommen?
 Du. b. Wat is er voor een jongen gekomen?
What is (there) for a boy come
- Ge. c.??Was hat für ein Junge einen Apfel gegessen?
 Du. d. *Wat heeft er voor een jongen een appel gegeten?
What has (there) for a boy an apple eaten
- Ge. e. Was ist für ein Apfel gebraucht worden?
 Du. f. Wat is er voor een appel gebruikt
What is (there) for an apple used (become)
- Ge. g. Was hat für ein Junge im Garten getanzt?
 Du. h. ?Wat heeft er voor een jongen in de tuin gedanst?
What has (there) for a boy in the garden danced

The second reason why (33a) should not be taken to be an example of (31) comes from VP-preposing.

Thanks to Anna Cardinaletti for bringing these facts to my attention.

In Ge. (and Du.) VPs may be moved to CP-spec if V° contains a participle (or an infinitive). We would expect the resulting sentences to be much less acceptable when the specifier of the moved VP contains an indefinite argument, as partitive case cannot be licensed in the moved position. If, on the other hand, the partitive NP occurs in the complement of V°, the moving does not change the case licensing environment, as the entire VP moves. In other words, if (33a) were an example of (31), (35b) below should be just as good as the rest of (35). If, on the other hand, (33a) is an example of the indefinite NP being in VP-spec, as argued above, we would expect VP-preposing to be significantly less acceptable in active transitives, (35b) than in any of the other cases (expletive ergatives, (35a), cf. sec. 3.1.2.1; expletive passive transitives, (35c), cf. sec. 3.1.2.3; and expletive active intransitives, (35d), cf. sec. 3.1.2.4):

- (35) Ge. a. [Ein Kind aus dem Fenster gefallen] ist hier noch nie
 A child of the window fallen is here so-far never
- Ge. b. *[Ein Junge so viele Äpfel gegessen] hat hier noch nie
 A boy so many apples eaten has here so-far never
- Ge. c. [So viele deutsche Zeitungen verkauft] wurden hier noch nie
 So many German newspapers sold were here so-far never
- Ge. d. ?[Ein Junge im Garten getanzt] hat hier noch nie
 A boy in the garden danced has here so-far never

Notice that the data in (34) and (35) directly support the claim to be made below, in section 3.1.2.4, that in intransitives the (external) argument may occur inside the complement of V°, but this is not possible in transitives: (34g,h) and (35d) are grammatical, as opposed to (34c,d) and (35b).

Let us now look at the other logical possibility for having the external argument occurring inside the complement of V°, namely (32). The examples of (32) are:

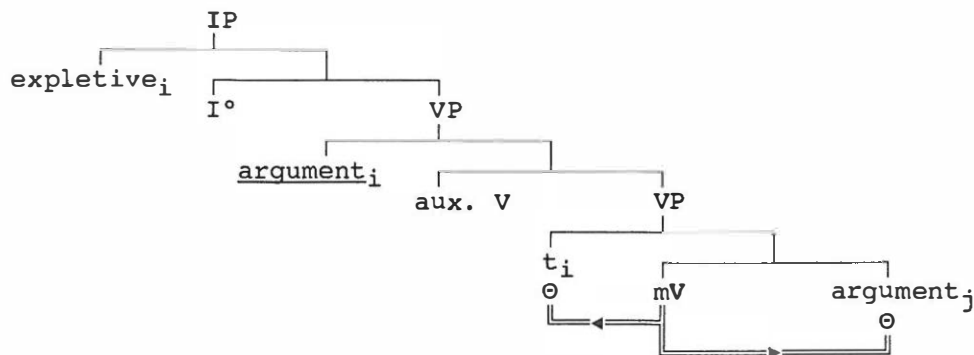
- (36) a. Ge. *... daß pro einen Apfel jemand gegessen hat
 b. Yi. ... az es hot t gegesn an epl imitser
 b. Ic. *... aõ paõ hefur pro borõaõ epli einhver
 c. Da. *... at der har spist et æble nogen
 d. En. *There has eaten an apple someone
 e. Fr. *Il a mangé une pomme quelqu'un

- (40) Da. *... at der har spist dette æble en dreng fra Danmark
 ... that there has eaten this apple a boy from Denmark

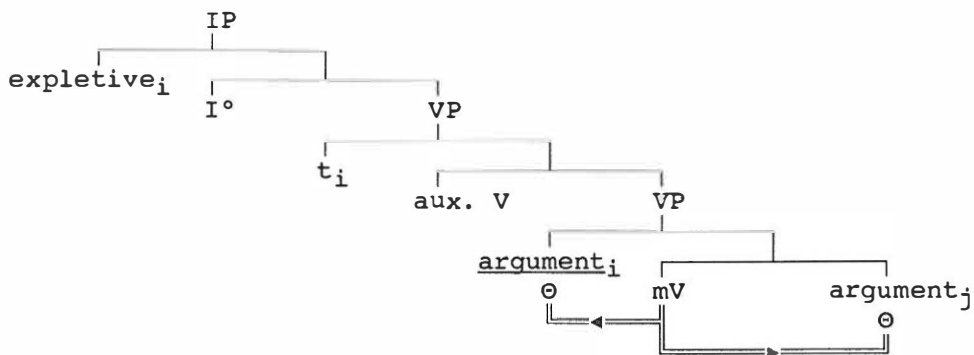
The reason is that heavy NP shift is an A'-movement, and as such moves only case-marked NPs. The subject in) (and (69c)) cannot have its partitive licensed, and is therefore ruled out by the case-filter. This is thus an account for one of the differences between Ic. and Da./No./Sw. noted (but not explained) by Holmberg & Platzack (1988:26, 40), and it will also account for why heavy subject postpositional is not possible in Faroese (Barnes (1989:11)).

Let us now turn to the second type of construction, the one with the argument outside the complement of the main verb. Here the argument will have to c-command a trace in the lowest VP-spec, in order to receive a θ -role. As in the section on ergatives, two positions are possible here, the two VP-specs (leaving aside adjoined position as in (36b), (37), and (38)/(39)). Again these two positions cannot be told apart in languages with V^o -to- I^o movement, as the auxiliary V^o which occurs between them only contains a trace of the verb in I^o .

(41)



(42)



In both structures there are two chains: the argument chain consists of the argument NP in a VP-spec, and, in (41), a trace in the lower VP-spec; and the expletive chain consists of the expletive and, in (42), a trace in the higher VP-spec. The expletive receives

nominative case, and the argument NP is licensed through partitive case assignment/licensing.

There are no special requirements as to the way in which case is assigned/licensed, as the chain which receives case twice is an extended chain, and each non-extended chain receives one and only one case. This requirement therefore does not rule out (41)/(42) in any of the languages.

The indefinite external argument NP is in a VP-spec, and, as discussed in sections 3.1.1.2 and 3.1.2.1, partitive case may be licensed in a VP-spec only by I°, and only if the language has V°-to-I° movement, and is a V2 language. (41) is thus possible in the languages which are both V2 and V°-to-I°: Ge. and Ic., and ruled out in Da., En. and Fr.:

- (43) a. Ge. ... daß pro jemand einen Apfel gegessen hat
 b. Yi. ... az es hot t imitser gegesn an epl
 c. Ic. ... að það hefur t einhver borðað epli
 d. Da. *... at der nogen har spist et æble
 e. En. *There has someone eaten an apple
 f. Fr. *Il a quelqu'un mangé une pomme

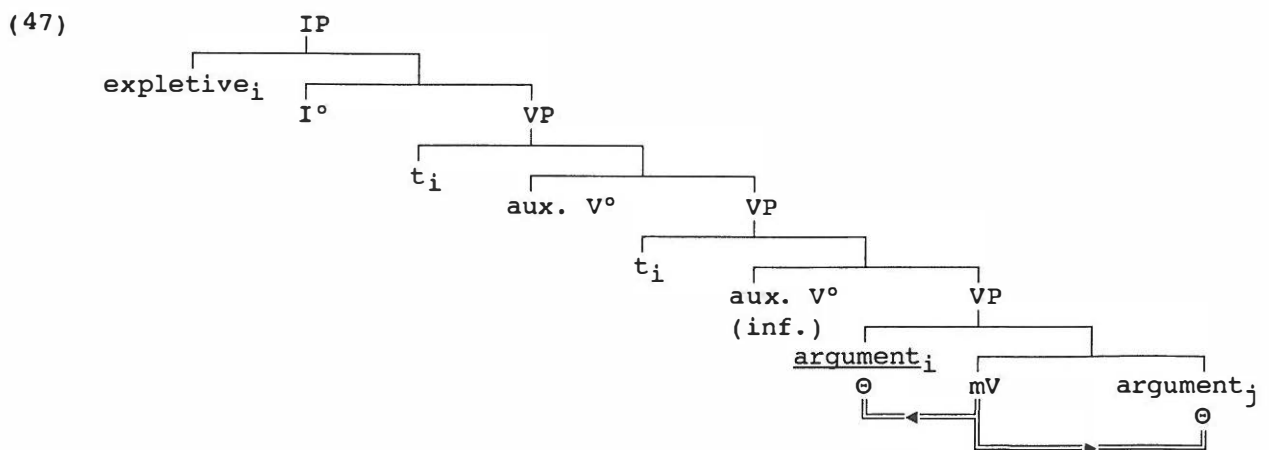
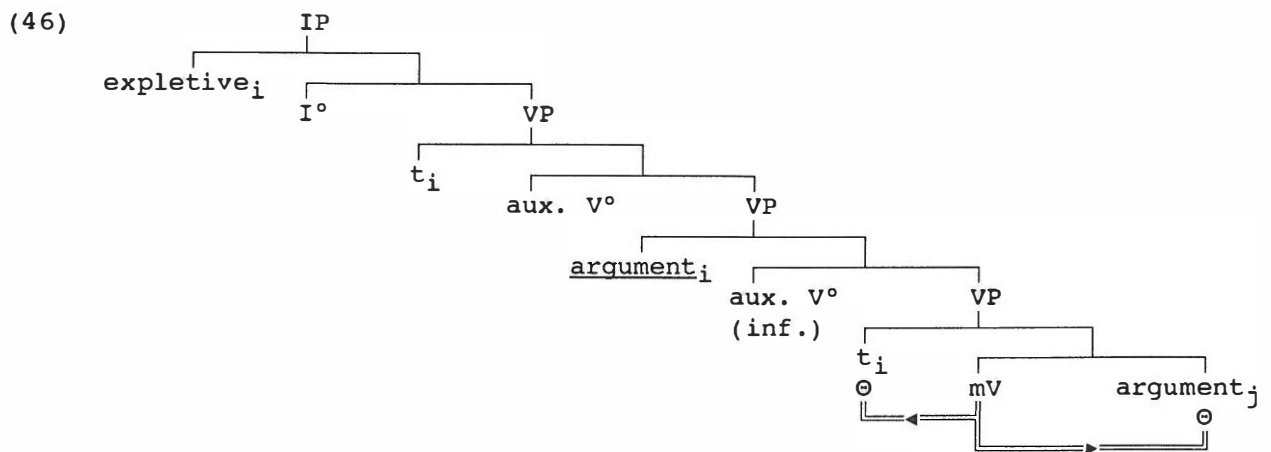
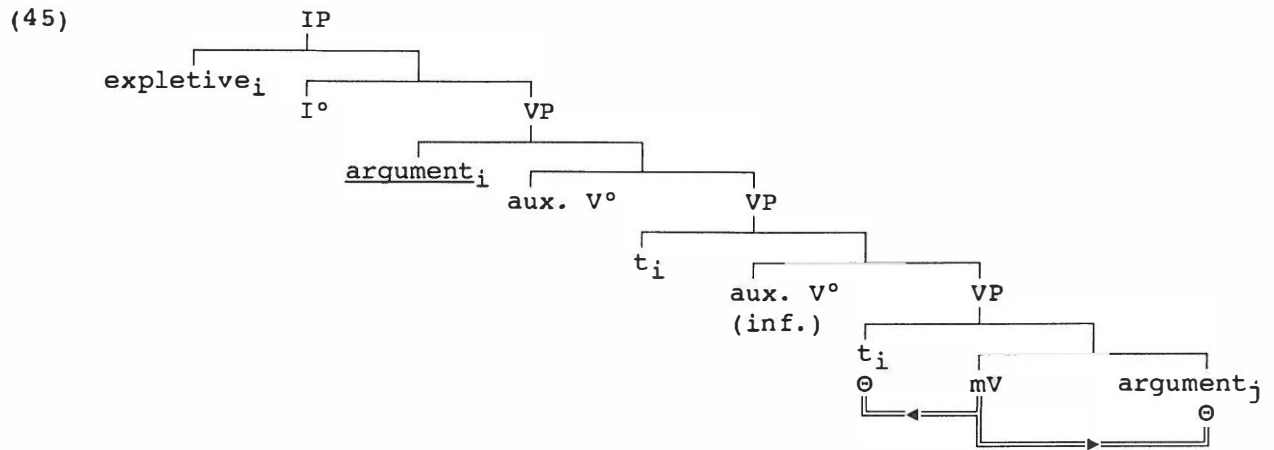
(42) is ruled out in all languages, as the argument NP is not head governed by an I° or by a main V°. However, as mentioned above, examples of (42) cannot be distinguished from examples of (41), except in a language without V°-to-I° movement, where they are ruled out anyway. Thus (44a,b,c,e,f) are identical to (43a,b,c,e,f), and therefore (44a,b,c), which are predicted to be ungrammatical but are grammatical, may be interpreted as examples of (41) rather than of (42) (i.e. the argument is in the higher VP-spec, not in the lower):

- (44) a. Ge. ... daß pro jemand einen Apfel gegessen hat
 b. Yi. ... az es hot t imitser gegesn an epl
 c. Ic. ... að það hefur t einhver borðað epli
 d. Da. Da. *... at der har nogen spist et æble
 e. En. *There has someone eaten an apple
 f. Fr. *Il a quelqu'un mangé une pomme

As already mentioned several times above, it cannot be empirically determined for languages with V°-to-I° movement in which VP-spec the argument NP occurs in constructions with one auxiliary, the higher one or the lower one, because no lexical material may intervene between the two. The same type of reasons as in the section on ergatives nevertheless leads us to believe that the argument NP in

(43a,b,c)/(44a,b,c) is only possible in the VP-spec head governed by I° , and not in the other one.

If we consider a structure with one more VP, i.e. a structure with two auxiliary verbs, the argument NP cannot occur in the lowest VP-spec. The three possibilities are the following, with the argument NP in each of the three VP-specs:



As above, it is impossible to distinguish between examples of (45) and of (46), except in a language without V^0 -to- I^0 movement (where the construction is ungrammatical anyway, cf. (43)/(44)), because the only node that occurs in between the two higher VP-specs is the trace of the auxiliary verb which has moved to I^0 . It is however possible to distinguish between examples of (45)/(46) on the one hand and examples of (47) on the other, because in (45)/(46) the argument NP will precede both the auxiliary infinitive and the participle of the main verb, whereas in (47), it will follow the auxiliary infinitive but precede the participle of the main verb.

As discussed in more detail in the previous section, we would expect that the argument NP may occur in the VP-spec closest to I^0 (here partitive from I^0 may reach the argument, as the position is head governed by I^0 , cf. (45)), and that it may not appear in the VP-spec of the other two VPs (here partitive from I^0 cannot reach the argument, as the position is head governed by a V^0 , cf. (46) and (47)).

These predictions hold, even more clearly than in the previous section:

- (48) Yi. a. ... az es volt t imitser gevolt esn der epl
 b. *... az es volt t gevolt imitser esn der epl
... that there will (someone) would (someone) eat the apple
 (= that someone would want to eat this apple)
- (49) Ic. a. ... að það mun t einhver hafa borðað þetta epli
 b. *... að það mun t hafa einhver borðað þetta epli
... that there will (someone) have (someone) eaten this apple

Again the only relevant examples come from Yi. and Ic. As in the previous section, Da., En. and Fr. are irrelevant, as they did not allow the construction in the first place (cf. (43)/(44)), and Ge. cannot tell us anything, as it is impossible to tell which VP-spec contains the argument NP in sentences of the types (48) and (49), as above due to the head being final in Ge. VPs.

Also here the view has received some support that the argument receives partitive case from I^0 when it occurs outside the complement of the main verb, as it is only possible in sentences where it may be taken to be head governed by I^0 , i.e. in (43) and (48), whereas (49), the only example in which the argument NP could not possibly be taken to be head governed by I^0 is ungrammatical.

In this section on the expletive active transitive construction, we have seen that if the external argument NP (which is the one that is deprived of its structural case

by the expletive) is c-commanded by the main verb, the construction is impossible in all languages under consideration, whereas if the external argument NP c-commands the main verb, the construction is possible in Ge. and Ic., but only in sentences where the argument may be taken to be head governed by I'.

3.1.2.3 Expletive passives of transitives.

Though transitive verbs assign both an external and an internal θ -role, the external role disappears in the passive, and the result is more similar to the ergative construction than to the active transitive one: only one θ -role is assigned, and this role is internal.

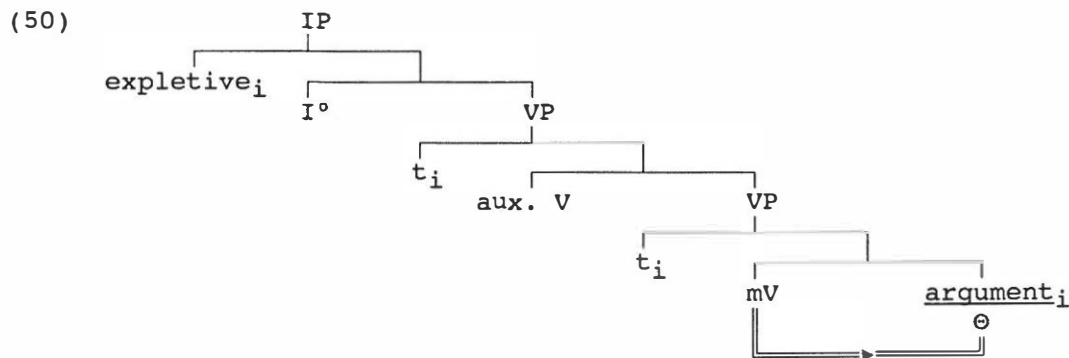
I will follow Jaeggli (1987), Roberts (1987), and Baker et al. (1989) in assuming that the external θ -role is assigned to the participial morphology, *-en*. Others, e.g. Grimshaw (1990) and Grimshaw & Vikner (1990), suggest that the θ -role is absorbed rather than actually assigned. Maybe the two alternatives could be reconciled, as the θ -role is assigned, but to a head, not to an XP. What is important is that *-en* plays an active part in the θ -assignment without being the assigner of the θ -role. It therefore has to be assigned case, in order to be visible for the θ -structure. If it furthermore is assigned accusative case in passive transitives, we have a reason why accusative is not available in passive constructions.

Alternatively, one might say that passives of transitive verbs do not assign structural case to their complement, but the structural case is absorbed because of the absorption of the external θ -role (cf. Burzio's generalisation mentioned above). The problem is then that partitive case will have to be assigned twice, both to *-en* and to the internal argument.

Whatever the reason is, the internal argument NP will not be assigned accusative, and therefore it will have to appear in a position in which it may receive partitive case (as IP-spec, where nominative is available, is occupied by the expletive). The internal argument NP may thus appear in any XP-position except IP-spec. As in the previous sections, we will start by discussing the possibilities inside the complement of the main verb.

The argument NP may occur in its base-generated position, i.e. in the position to which the θ -role is assigned, inside the complement of V. The argument NP is inside the complement of V', the expletive in IP-spec, and coindexed traces of the

expletive in both VP-specs (one VP contains the main verb, the other the auxiliary verb or its trace if the auxiliary verb has moved to I°):



As in earlier examples of this type, there are two chains here, the argument chain consists only of the argument, and the expletive chain consists of the expletive and its traces in the two VP-specs. The expletive receives nominative case, and the argument NP is licensed through partitive case assignment/licensing.

There are no special requirements as to the way in which case is assigned, as the chain which receives case twice is an extended chain, and each non-extended chain receives one and only one case. This requirement therefore does not rule out (50) in any of the languages.

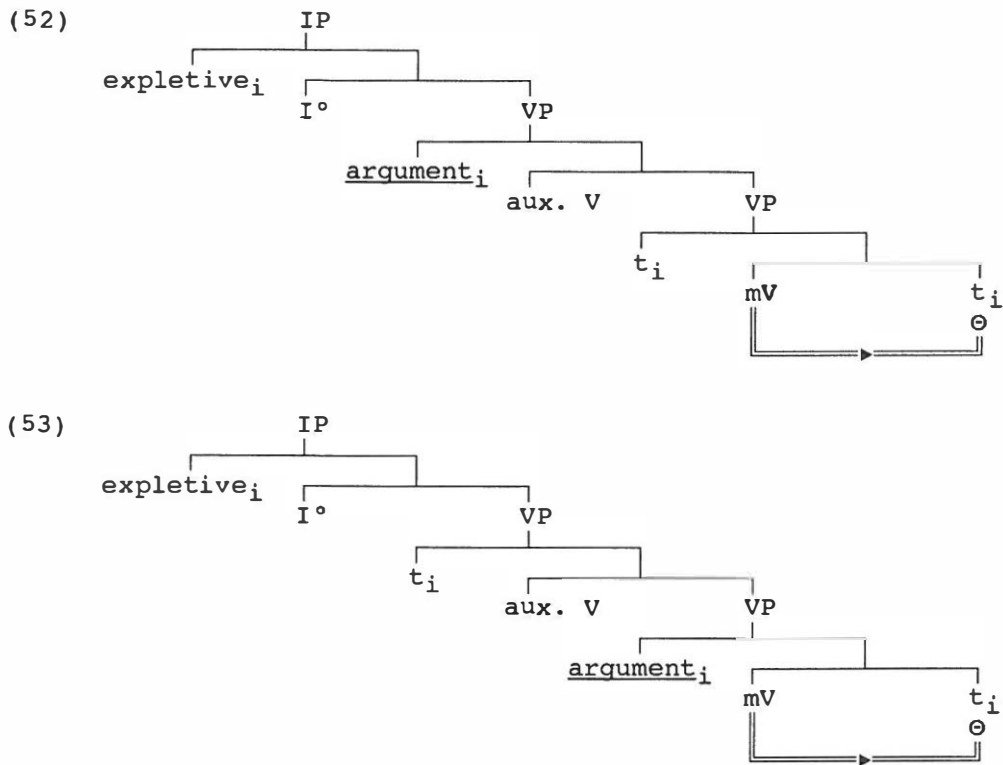
The indefinite argument NP is in the complement of the main verb, and in all the languages under consideration partitive case may be licensed in the complement of V° by V° itself. This requirement therefore also does not rule out (50) in any of the languages.

We thus should expect all the languages to allow this construction, but this is not completely borne out, as, for some unknown reason and parallel to the ergative construction, it is not completely grammatical in En.:

- (51)
- a. Ge. ... daß pro ein Apfel gegessen wurde
 - b. Yi. ... az es vet t gegesn an epl
 - c. Ic. ... aō paō var t borōaō epli
 - d. Da. ... at der blev spist et æble
 - e. En. *There was eaten an apple
 - f. Fr. Il était mangé une pomme

The other possible positions of the argument NP are in the two VP-specs. As before, an example of (52) may only be distinguished from an example of (53) in languages without V°-to-I° movement, i.e. in Da. (the only node that occurs between the

two VP-specs is the auxiliary V° , which in languages with V° -to- I° movement only contains a trace of the auxiliary verb which has moved to I°).



In both cases there are two chains: the argument chain consists of the argument NP in a VP-spec, its trace in the complement of V, and, in (52), a trace in the lower VP-spec; and the expletive chain consists only of the expletive and, in (53), a trace in the higher VP-spec. The expletive receives nominative case, and the argument NP is licensed through partitive case assignment/licensing.

There are no special requirements as to the way in which case is assigned, as the chain which receives case twice is an extended chain, and each non-extended chain receives one and only one case. This requirement therefore does not rule out (52)/(53) in any of the languages.

The indefinite argument NP is in a VP-spec, and, as discussed in sections 3.1.1.2 and 3.1.2.1, partitive case may be licensed in VP-spec only by I° , and only if the language has V° -to- I° movement, and is a V2 language. We would thus only expect (52) to be possible in the languages which are both V2 and V° -to- I° , Ge., Yi., and Ic., and to be ruled out in Da., En. and Fr.:

- (54) a. Ge. ... daß pro ein Apfel gegessen wurde
 b. Yi. ... az es vet t an epl gegesn
 c. Ic. ?... að það var t epli borðað
 d. Da. *... at der et æble blev spist
 e. En. There was an apple eaten
 f. Fr. *Il était une pomme mangé

We would furthermore expect (53) to be ruled out in all languages, as the argument NP is not head governed by an I° or by a main V°:

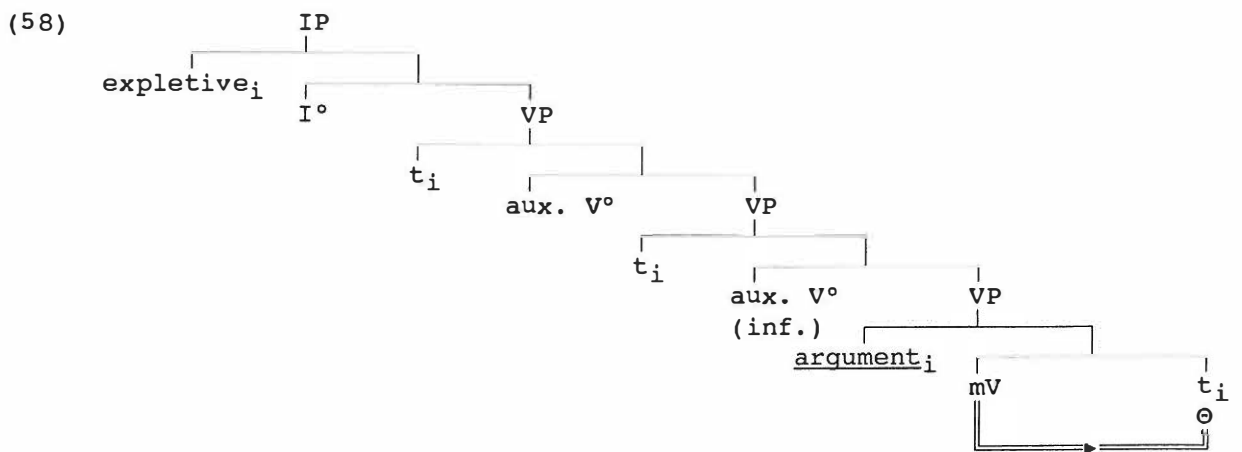
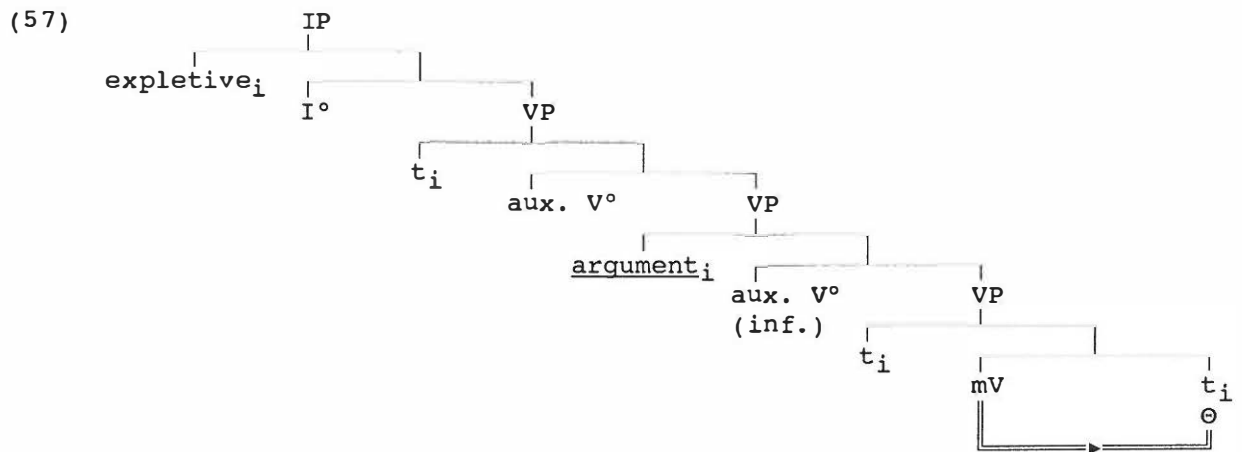
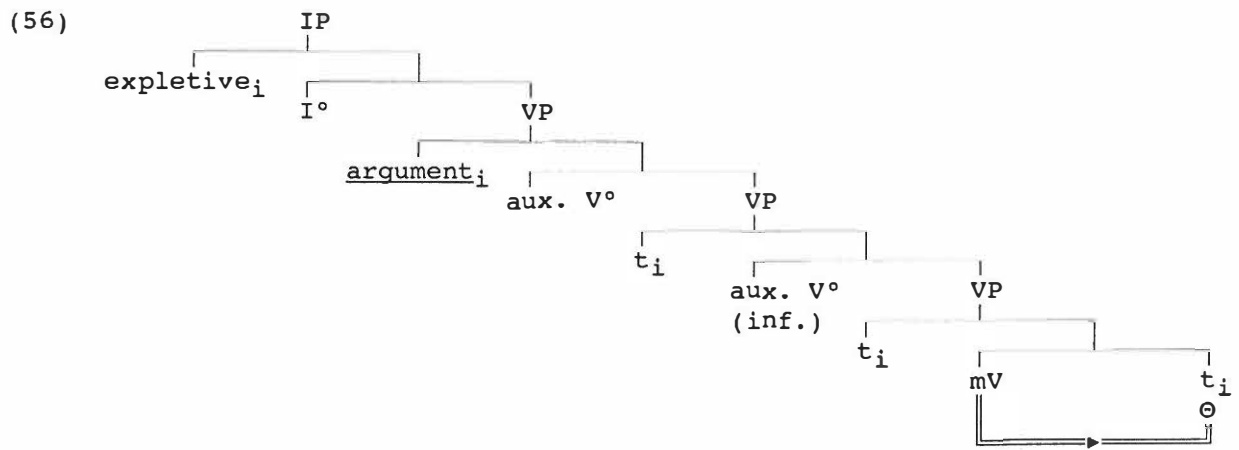
- (55) a. Ge. ... daß pro ein Apfel gegessen wurde
 b. Yi. ... az es vet t an epl gegesn
 c. Ic. ?... að það var t epli borðað
 d. Da. ?... at der blev et æble spist
 e. En. There was an apple eaten
 f. Fr. *Il était une pomme mangé

However, not only is (54e) much better than expected, it turns out that the only example in (55) which is really ungrammatical is (55f), in spite of the prediction that all five examples in (55) should be ungrammatical. The five problematic cases may be split into two groups: (55a,b,c) and (55d,e). The latter group also comprises (54e).

As for (55a,b,c) we have already seen several times above that in Ge., Yi., and Ic. (and in Fr.) examples of (53) cannot be distinguished from examples of (52). Thus (55a,b,c,e) are identical to (54a,b,c,e), and therefore (55a,b,c) which are predicted to be ungrammatical but are grammatical (to a high extent if not completely), can be taken to be examples of (52) rather than of (53).

With respect to (54e) and (55d,e), the problem is that they are not as ungrammatical as should be expected, in fact, in some contexts these constructions may even be perfectly acceptable. The position of the argument NP here is the lowest VP-spec, even in constructions with three VPs, as we shall see below. I have no explanation to offer for why these sentences are not completely ungrammatical, but it may be relevant that this (marginal) availability of the lowest VP-spec is only possible in languages without V°-to-I° movement.

Further support for the division of the problematic (54e)/(55a,b,c,d,e) into the two groups (55a,b,c) and (54e)/(55d,e) appears when we consider a structure with three VPs, i.e. a structure with two auxiliary verbs. The three possibilities are the following, with the argument NP in each of the three VP-specs:



As discussed several times above, it is impossible to distinguish between examples of (56) and of (57), except in languages without V° -to- I° movement because the only thing that occurs in between the two higher VP-specs is the trace of the auxiliary verb which has moved to I° . It is however possible to distinguish between examples of (56)/(57) on one hand and examples of (58) on the other, because in (56)/(57) the argument NP will

I° , (54)/(55) & (59)/(60), in Da. and En. the argument is in the specifier position of the lowest VP, (55) & (61).

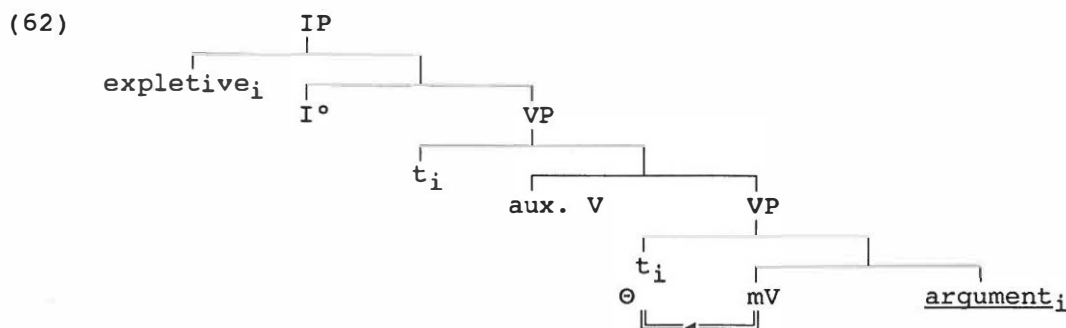
It has thus been shown that the possibility of having the indefinite argument NP outside the complement of the main verb in Da. and En. is of a rather different nature from the same possibility in Ic., as the positions in the two cases are different. This fits in well with the fact that this (relative) grammaticality in Da. and En. is particular to the passive transitive construction, whereas in Ic. the indefinite argument may occur outside the complement of the main verb in all the constructions that have an indefinite argument.

This section has thus illustrated and attempted to account for the following: If the argument NP follows the main verb, the expletive passive transitive construction is possible in all languages under consideration (with the notable and unexplained exception of English), whereas if the argument NP precedes the main verb, the construction is possible in Ge. and Ic., if the argument is head governed by I° , and in Da. and En. if the argument occurs in the spec of the main verb VP (maybe because this position receives partitive case from the passive auxiliary, cf. section 3.1.2.6 below).

3.1.2.4 Expletive intransitives.

Intransitive verbs only assign an external θ -role. If an expletive occurs in IP-spec, it will receive the nominative case, and the external argument will not only have to appear somewhere else, it will also have to receive partitive case.

Let us consider what would happen if the external argument should occur inside the complement of the main V:



Here the expletive, the argument NP and all intermediate traces would have to count as one non-extended chain, as otherwise the argument NP would form a chain on its own,

(64) *... [_{V'} ... V° NP_i [_{XP} ... t_i ...]] ...

some NP is moved into the object position of a verb, but during this movement it is also moved out of a constituent (e.g. VP, IP, or CP) which is selected by the same verb. As the verb in question thus selects an XP, this verb does have lexical specifications on its complement, and under the present interpretation of the projection principle, movement into an object position of a verb is only possible if the verb does not have any lexical specifications at all on its complement. Thus raising to object is excluded on a par with expletive active transitives with the external argument inside the complement of V°, cf. the ungrammaticality of the latter, (33) and (36) of section 3.1.2.2.

The variation in sentences with intransitive verbs and a PP may be explained along the same lines. In the ungrammatical cases the PP would be selected by the verb, which thus has lexical specifications, which excludes any interfering with the complement of V°, and in the grammatical cases the PP would not be selected by the V°, and therefore not occurring inside the complement either. The data are not that clear however, it seems more of a continuum:

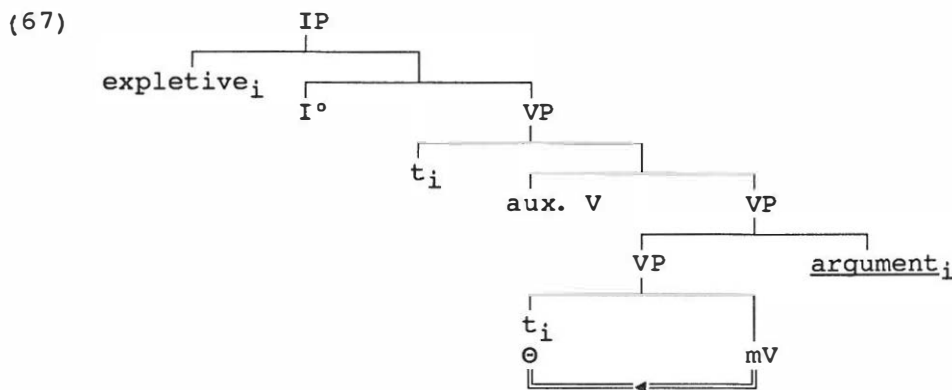
- (65) Da. a. Der dansede mange mennesker til festen
There danced many people at party-the
- b. Der bor mange folk i byen
There live many people in town-the
- c. Der ringede to ansøgere i sidste uge
There called two applicants in last week
- d. ?Der underviser mange professorer på universitetet
There teach many professors at university-the
- e. ?Der går mange mennesker i cowboybukser nutildags
There go many people in jeans nowadays
- f. ?Der kører mange mennesker med tog hver dag
There go many people with train each day
- g. *Der lytter mange unge til Mozart nutildags
There go many young people to Mozart nowadays
- h. *Der snakker mange politikere med journalister hver dag
There talk many politicians with journalists each day

Hans Bennis (p.c.) points out that similar phenomena may be found in Du. Given the analysis, discussed in connection with (34) in section 3.1.2.2 above, that *wat-voor* split is an indication that the argument from which the split occurs must be inside the complement of V^o , *wat-voor* split should only be possible if the V^o does not select anything. Consider the following difference:

- (66) Du. a. Wat hebben daar voor mensen naar geluisterd?
What have there for people to listened?
- b. *Wat hebben daar voor mensen op gerekend?
What have there for people on counted?

This contrast could be explained if the PP *naar t/op t* is selected by the verb in (66b) but not in (66a).

An alternative analysis of this whole set of data, which would not run into any problems with the projection principle, might be to consider the indefinite external argument NP in (63) to be right adjoined to the VP:



There are several reasons to reject this analysis. One is that we already have independent evidence from Du. and Ge. that the external argument may occur in the complement of a V^o in intransitives, but not in transitives. Cf. (34) and (35) in section 3.1.2.2 above.

Another reason for rejecting adjunction is that we would predict that this was possible in transitive cases in Ic. and Da. (and Yi.) as well. The complement of V^o is not involved at all, and there should be no distinction between external arguments of intransitive verbs and external arguments of transitive verbs. However, this postverbal

occurrence of the external argument is only possible in Ic. and Da. with intransitive verbs, (63b,c,d), not with transitive ones, (33b,c,d)/(36b,c,d). Under my analysis this difference follows from the external argument occurring in the complement of V^o , which makes it impossible in transitive constructions, cf. the above discussion of the projection principle.

- (68) a. Yi. ... az es hot t getantst in gortn imitser
b. Ic. *... að það hefur t dansað í garðinum einhver
c. Da. *... at der har danset i haven nogen
... *that there has danced in garden-the someone*
- (69) a. Yi. ... az es hot t getantst in gortn
vil sprakhvissenshaftler fun Island
b. Ic. ... að það hafa t dansað í garðinum
margir málvisindamenn frá Islandi
c. Da. *... at der har danset i haven
mange lingvister fra Island
... *that there have danced in garden-the*
many linguists from Iceland

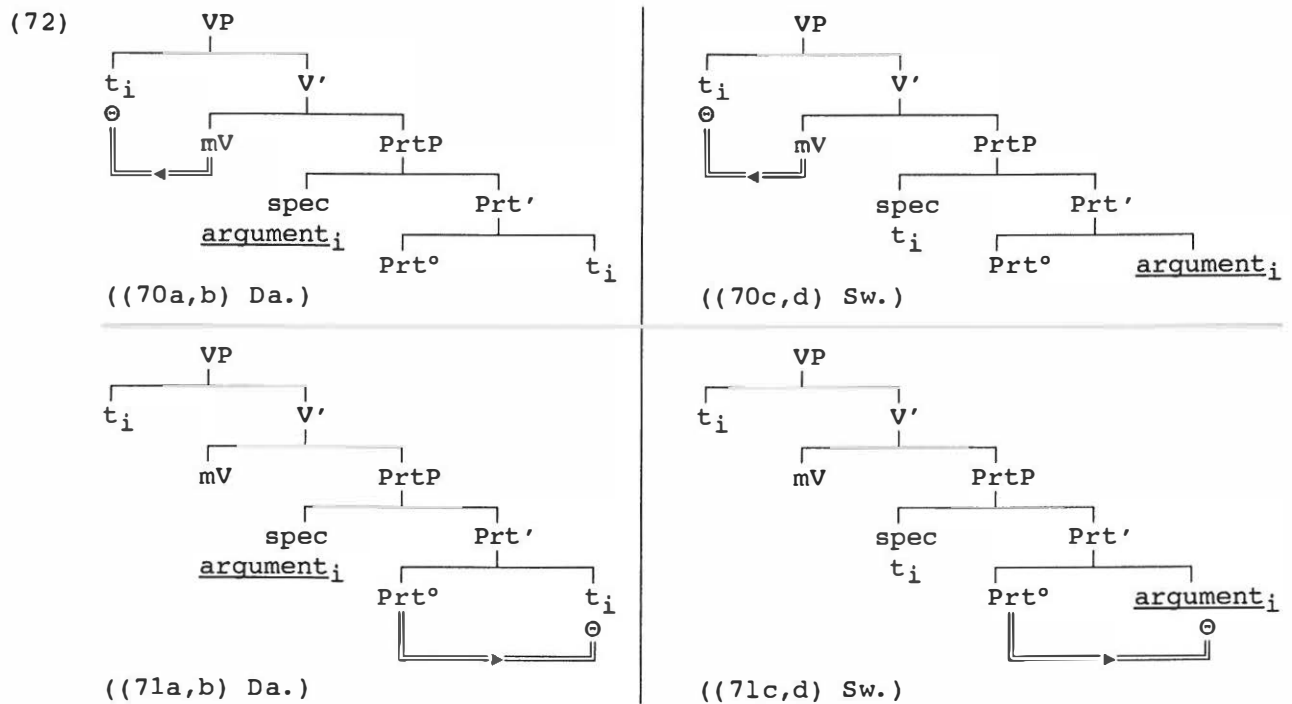
Another argument in favour of assuming that the external argument NP is not right-adjoined to the VP but occurs inside the complement of V° comes from (expletive active) intransitive particle constructions. Here the external argument NP occurs between the V° and the subcategorised particle in Danish, (70a,b), whereas it occurs to the right of the particle in Swedish, (70c,d), exactly parallel to the ergative

particle construction in the two languages, (71):

- (70) a. Da. ... at der har sagt fire ansatte op
 b. Da. *... at der har sagt op fire ansatte
... that there have said (up) four employees (up)
(= four employees have given in their notice)
 c. Sw. *... att det hadde blinket en lampa till
 d. Sw. ... att det hadde blinket till en lampa
... that there had flashed (to) a lamp (to)
(= a light had flashed intensively)
- (71) a. Da. ... at der er kommet en mand ind
 b. Da. *... at der er kommet ind en mand
... that there is come (in) a man (in)
 c. Sw. *... att det har kommit en man in
 d. Sw. ... att det har kommit in en man
... that there has come (in) a man (in)

If (67) was the correct analysis, i.e. the external argument NP is adjoined to the VP, then we would predict (70b) to be grammatical (and (70a)) to be ungrammatical), exactly contrary to fact. If the external argument NP is inside the complement of V° in (70) (as suggested by my analysis above, and as is undoubtedly the case with the ergative verbs in (71)), then these facts should follow from an analysis of (71), e.g. Vikner (1987:263-267). The particle and verb are reanalysed, along the lines suggested in Baker (1988:259), i.e. in some sense they are one word even though they remain heads of two different projections at S-structure (the idea is that the particle incorporates into the verb at LF). This means that the particle counts as part of the verb for θ -purposes, so that the NP which is base-generated in VP-spec can move down into the PrtP (not into the complement of V° , as this is the position of PrtP). If the Prt° assigns case, then the NP may occur in the complement of Prt° (this is what happens in Sw.). If the Prt° does not assign case, the NP will have to occur in PrtP -spec, where it may get case from V° (this is what happens in Da.).

In other words, the difference between Da. and Sw. is that accusative is assigned (or partitive licensed) by V° in Da. and by Prt° in Sw. The difference between the intransitive-particle construction and the ergative-particle construction is that θ -assignment is from V° to VP-spec in the former and from Prt° to the complement of Prt° .



Let us now turn to evidence from extraction. In Platzack (1983:92-94), it is explicitly assumed that any postverbal argument in an expletive construction is inside the complement of V°. One of the arguments offered by Platzack comes from extraction. He shows, (1983:93), that it is possible to extract a postverbal argument in an expletive construction, but not a subject:

- (73) Sw. a. Vad sa du att det fanns t på bordet?
What said you that there existed on table-the
- b. *Vem sa du att t hade köpt boken?
Who said you that had bought book-the

These examples not only show that the postverbal argument is not in subject position, but also that it is not in VP-spec, as it must be properly head governed in order for (73a) to be possible (in a relativised minimality analysis). This we have already assumed above, on the basis of the position of the argument to the right of the verb, cf. e.g. (63). (73) does not allow us to decide between the two remaining possibilities (i.e. the two we have been discussing above): that the argument is in the complement of V° (as assumed by Platzack and as supported by various arguments above) or that it is adjoined to VP. It is not possible to show the difference in an extraction like (73), as both complements of V° and VP-adjuncts are extractable, as we shall see below. From a relativised minimality

- (76) Da. a. *Hvor ved du ikke om der bor en lingvist t?
Where know you not if there lives a linguist?
- b. *Hvornår ved du ikke om der har ringet en studerende t?
When know you not if there has called a student?

Thus we would predict that extraction of the postverbal argument in an expletive construction would be grammatical if the argument is inside the complement of V^o . The examples are not completely acceptable, though the argument extractions are better than the adjunct extractions above:

- (77) Da. a. ??Hvilken symfoni ved du ikke om der er blevet spillet t
i radioen i dag på grund af Karajans død?
Which symphony know you not if there is become played
in radio-the today on reason of Karajan's death?
- b. ??Hvilken lingvist ved du ikke om der bor t her i byen
Which linguist know you not if there lives here in town-the?
- c. ??Hvilken studerende ved du ikke om der har ringet t i dag?
Which student know you not if there has called today?

It is important to note here that the results of extracting the external argument of an intransitive, (77b-c), has the same status (i.e. ??), as the result of extracting the internal argument of an transitive, (77a), (which undoubtedly is base-generated in the complement of V^o), and a different status from the result of extracting an element adjoined to VP, (75b-d), (76), i.e. "*". Thus we seem to have more support that in an expletive active intransitive, the external argument occurs in the complement of V^o .

The reason why the extractions in (77) are less than perfect may be that expressions like *which symphony* are definite in some sense, and as they are extracted from a partitive case position, their definiteness conflicts with the indefiniteness requirement of partitive case assignment/licensing. It is then important that they are not completely ungrammatical, maybe precisely because this is an extraction, and the extracted element occurs very far from its case-assigner/licenser.

We may note that in simple clauses, extraction is better if the *wh*-phrase has a more indefinite flavour, though the definite one is not completely unacceptable:

- (i) Da. a. ?Hvilke firmaer er der gået fallit?
Which firms are there gone bankrupt?
- b. Hvor mange firmaer er der gået fallit?
How many firms are there gone bankrupt?

For an unknown reason, however, *wh*-phrases of the *how many* type cannot be extracted out of complex sentences at all (unless antecedent government is possible, cf. (74)), irrespective of whether it is an expletive construction or not (and also irrespective of whether there is a negation in the matrix clause):

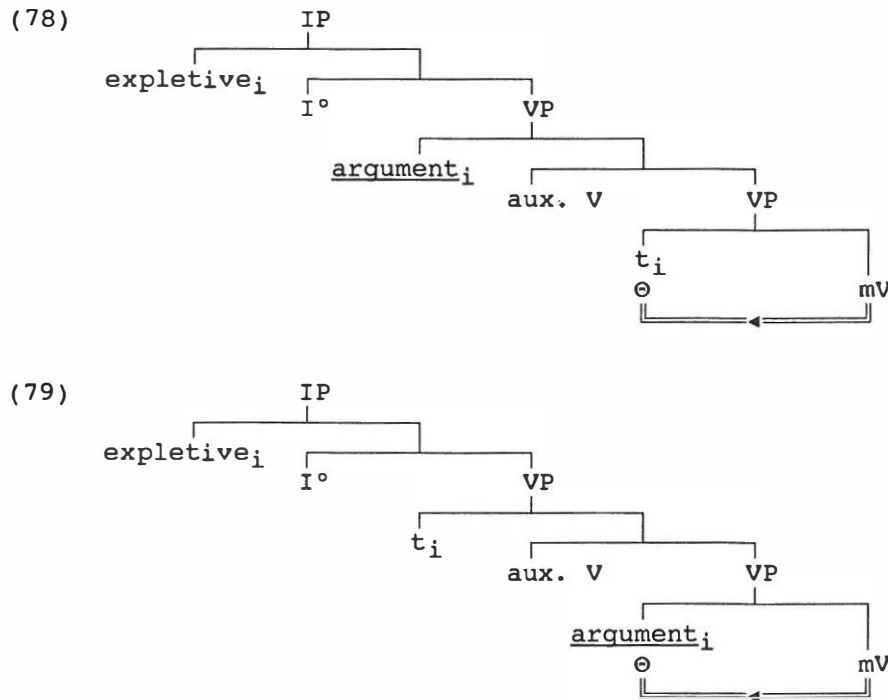
- (ii) Da. a. *Hvor mange lingvister ved du ikke om der bor t her i byen
 How many linguists know you not if there lives here in town-the
- b. *Hvor mange lingvister ved du ikke om han kender t her i byen?
 How many linguists know you not if he knows here in town-the?

Under an adjunction account, we would not be able to account for why it is not also possible in En. and Fr. Under my analysis this difference follows from the different way of assigning nominative in these two languages (from I° by spec- X° agreement), cf. the lack of V2 effects in En. and Fr.

Notice that if the NP in question were adjoined, we would also lose the parallelism with the passive morphology, *-en*, in impersonal passives, cf. section 3.1.2.5. This parallelism, which now consists in both elements in question forming a non-extended chain with *there*, would disappear, if the argument in expletive active intransitives were adjoined to VP, as it would form an extended chain with *there*.

The conclusion of the discussion of the first half of this subsection is that in V2 languages it is possible for the external argument of an intransitive verb to appear inside the complement of the verb, whereas this is not possible in non-V2 languages. This is so because the chain which is necessary for the argument to receive its θ -role is only well-formed in V2 languages. As for transitive verbs, their external argument cannot occur inside the complement of V° in any languages, due to the projection principle.

Let us now turn to the possible occurrences of the external argument (of an intransitive verb) outside the complement of the verb. Here the argument will have either to occur in or to c-command a trace in the lowest VP-spec, in order to receive its θ -role. As in all the previous sections, two positions are possible here, the two VP-specs, and as usual these two positions cannot be told apart in languages with V° -to- I° movement, as the auxiliary V° which occurs between them only contains a trace of the verb in I° :



In both structures there are two chains: the argument chain consists of the argument NP in a VP-spec, and, in (78), a trace in the lower VP-spec; and the expletive chain consists of the expletive and, in (79), a trace in the higher VP-spec. The expletive receives nominative case, and the argument NP is licensed through partitive case assignment/licensing.

There are no special requirements as to the way in which case is assigned, as the chain which receives case twice is an extended chain, and each non-extended chain receives one and only one case. This requirement therefore does not rule out (78)/(79) in any of the languages.

The indefinite external argument NP is in a VP-spec, and, as discussed several times above, partitive case may be licensed in VP-spec only by I° , and only if the language has V° -to- I° movement, and is a V2 language. (78) is thus possible in the languages which are both V2 and V° -to- I° : Ge. and Ic., and ruled out in Da., En. and Fr.:

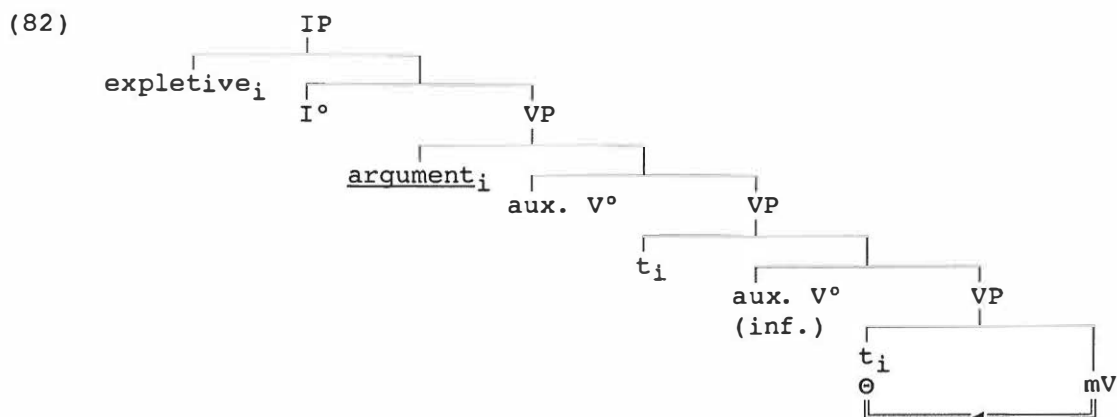
- (80)
- a. Ge. ... daß pro jemand im Garten getanzt hat
 - b. Yi. ... az es hot t imitser getantst in gortn
 - c. Ic. ... að það hefur t einhver dansað í garðinum
 - d. Da. *... at der nogen har danset i haven
 - e. En. *There has someone danced in the garden
 - f. Fr. *Il a quelqu'un dansé dans le jardin

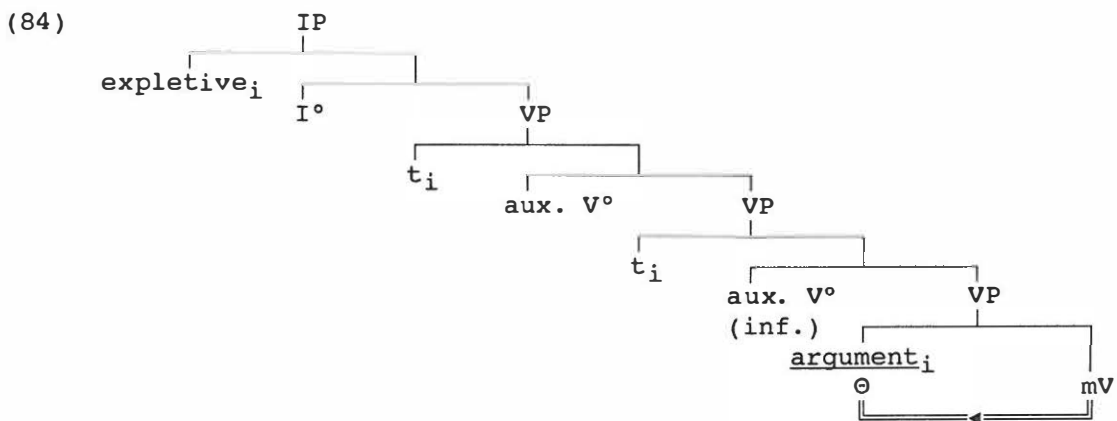
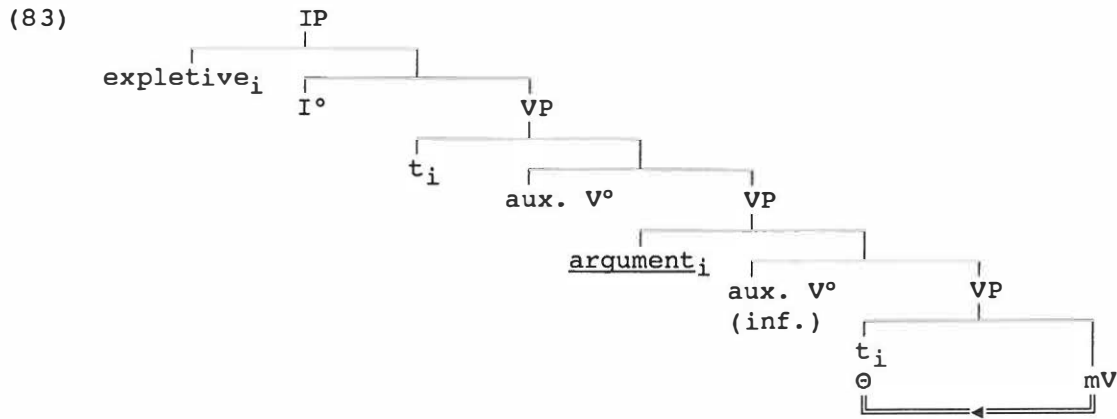
(79) is ruled out in all languages, as the argument NP is not head governed by an I° or by a main V° . However, as mentioned several times above, examples of (79) cannot be distinguished from examples of (78), except in a language without V° -to- I° movement, where they are ruled out anyway (cf. (81d) vs. (80d)). Thus (81a,b,c,e,f) are identical to (80a,b,d,e,f), and therefore (81a,b,c) which are predicted to be ungrammatical but are grammatical, may be interpreted as examples of (78) rather than of (79) (i.e. the argument is in the higher VP-spec, not in the lower):

- (81) a. Ge. ... daß pro jemand im Garten getanzt hat
 b. Yi. ... az es hot t imitser getantst in gortn
 c. Ic. ... að það hefur t einhver dansað í garðinum
 d. Da. *... at der har nogen danset i haven
 e. En. *There has someone danced in the garden
 f. Fr. *Il a quelqu'un dansé dans le jardin

It thus cannot be empirically determined for languages with V° -to- I° movement which VP-spec the argument NP occurs in in constructions with one auxiliary, the higher one or the lower one, because no lexical material may intervene between the two. The same type of reasoning as in the previous sections nevertheless leads us to believe that the argument NP in (80a,b,c)/(81a,b,c) is only possible in the VP-spec head governed by I° , and not in the other one.

If we consider a structure with one more VP, i.e. a structure with two auxiliary verbs, the argument NP cannot occur in the lowest VP-spec. The three possibilities are the following, with the argument NP in each of the three VP-specs:





As above, it is impossible to distinguish between examples of (82) and of (83), except in languages without V° -to- I° movement (where the construction is ungrammatical anyway, cf. (81d) vs. (80d)), because the only node that occurs in between the two higher VP-specs is the trace of the auxiliary verb which has moved to I° . It is however possible to distinguish between examples of (82)/(83), on the one hand, and examples of (84) on the other, because in (82)/(83) the argument NP will precede both the auxiliary infinitive and the participle of the main verb, whereas in (84), it will follow the auxiliary infinitive but precede the participle of the main verb.

As discussed in more detail in the previous sections, we would expect that the argument NP may occur in the VP-spec closest to I° (here partitive from I° may reach the argument, as the position is head governed by I° , cf. (82)), and that it may not appear in the VP-spec of the other two VPs (here partitive from I° cannot reach the argument, as the position is head governed by a V° , cf. (83) and (84)).

These predictions hold:

- (85) Yi. a. ... az es volt t imitser gevolt getantst in gortn
 b. *... az es volt t gevolt imitser getantst in gortn
 ... *that there will (someone) would (s.one) danced in garden*
- (86) Ic. a. ... að það mun t einhver hafa dansað í garðinum
 b. *... að það mun t hafa einhver dansað í garðinum
 ... *that there will (someone) have (s.one) danced in garden-the*

As usual, the only relevant examples come from Yi. and Ic. Da., En. and Fr. are irrelevant, as they did not allow the construction in the first place (cf. (81)/(80)), and Ge. cannot tell us anything, as it is impossible to tell which VP-spec contains the argument NP, again due to the head being final in Ge. VPs.

Once again the view has received some support that the argument receives partitive case from I° when it occurs outside the complement of the main verb, as it is only possible in sentences where it may be taken to be head governed by I° , i.e. in (80) and (85a)/(86a), whereas (85b)/(86b), the only examples in which the argument NP could not possibly be taken to be head governed by I° , are ungrammatical.

In this section on the expletive active intransitive construction, we have seen that if the external argument NP (which is the one that is deprived of its structural case by the expletive) is c-commanded by the main verb, the construction is possible in all V2 languages, whereas if the external argument NP c-commands the main verb, the construction is only possible in Ge., Yi., and Ic., and only in sentences where the argument may be taken to be head governed by I° .

There is thus a kind of conspiracy here, as the expletive active intransitive construction with the argument **inside** the complement of V° is possible in Ge., Yi., and Ic. and impossible in En. and Fr. for one reason (restriction on how case may be licensed/assigned to a non-extended chain which receives two cases), whereas the expletive active intransitive construction with the argument **outside** the complement of V° is possible in Ge., Yi., and Ic. and impossible in En. and Fr. for a completely different reason (restriction on which kinds of I° may license partitive case). That this dissociation between the two types is well-founded can be seen from the fact that some languages (in this case, Da.) allow one type and not the other.

3.1.2.5 Expletive passives of intransitives (impersonal passives).

In passives involving intransitive verbs, also called impersonal passives, there is no NP that the expletive may be linked to. The expletive, however, has to link up to something with a θ -role, and there is only one candidate available: *-en*, the passive morpheme, which is adjoined to the verb (cf. also section 2.XXX on participle agreement). *-en* is a X^0 element which is assigned (or absorbs) the external θ -role, and which is assigned case (cf. the discussion in section 3.1.2.3).

Therefore, when *-en* links up with the expletive, the result will not be an extended chain (there are not two NPs involved, only one: the expletive itself), but just one non-extended chain. If a non-extended chain is assigned more than one case (as in this construction: both the expletive and *-en* are assigned case), the two instances of case assignment/licensing must take place in the same fashion. *-en* receives case by being governed by V^0 (and not under spec- X^0 agreement), and therefore the expletive must also receive case in this fashion, otherwise the chain would not be well-formed. Only in the V2 languages are expletives assigned case under head government, and therefore passives of intransitives are only possible in these languages: Ge., Ic. and Da.

- (87) a. Ge. ... daß pro getanzt worden ist
 b. Ic. ... að það hefur pro verið dansað
 c. Da. ... at der er blevet danset
 d. En. *There has been danced
 e. Fr. *Il a été dansé

The fact that the French example (87e) is improved if a post-verbal PP is added may be related to the fact that the expletive now does not have to be linked to *-en*, but may be linked to the post-verbal PP (*sur le bateau*) in (88e) (originally due to Jean-Yves Pollock, discussed in Safir (1985:99) and in Reuland (1985:345)). Here we have an extended chain, consisting of two chains, each with an NP as head, and with the θ -role assigned to the non-expletive chain. As there is more than one chain, there is no requirement that the expletive and the argument NP to which it is linked receive case in the same fashion. Note, though, that the English example does not improve in a parallel fashion:

- (88) a. Ge. ... daß pro auf das Boot geschossen worden ist
 b. Ic. ... að það hefur pro verið skotið á bátinn
 c. Da. ... at der er blevet skudt på båden
 d. En. *There has been shot at the boat
 e. Fr. Il a été tiré sur le bateau

Given that Yi. supposedly does not have impersonal passives, it is rather unexpected that (88) is actually grammatical:

(i) Yi. ... az es iz t gevorn getantst
... *that there is become danced*

(ii) Yi. ... az es iz t gevorn geshosn oyfn boot
... *that there is become shot on-the boat*

As for the case assigned to *-en*, Anna Cardinaletti (p.c.) points out that there may be reason to believe that the case assigned is partitive, on the basis of Roberts (1987:293, n10), where the following data are reported:

(89)	Ge.	a.	Es wurde von allen getanzt	<i>It became by all danced</i>
		b.	Es wurde von drei Männern getanzt	<i>It became by three men danced</i>
		c.	Es wurde von der Jugend getanzt	<i>It became by the youth danced</i>
		d.	? Es wurde vom Mann getanzt	<i>It became by-the Man danced</i>
		e.	??Es wurde von ihm getanzt	<i>It became by him danced</i>
		f.	* Es wurde von Johann getanzt	<i>It became by Johann danced</i>

In other words, *by*-phrases are only acceptable in passive intransitives if they are indefinite, and this might follow if they are coindexed with *-en* and *-en* has partitive case.

I think that there are some reasons to reject this. First note that both *all* and *the youth* do otherwise qualify as indefinite, these two expressions are normally not compatible with partitive case. Furthermore the above examples are all perfectly acceptable in Du., and all rather unacceptable in Da.

(90)	Du.	a.	Er werd door iedereen gedansd	<i>It became by all danced</i>
		b.	Er werd door drie mannen gedansd	<i>It became by three men danced</i>
		c.	Er werd door de jeugd gedansd	<i>It became by the youth danced</i>
		d.	Er werd door de man gedansd	<i>It became by-the Man danced</i>
		e.	Er werd door hem gedansd	<i>It became by him danced</i>
		f.	Er werd door Johan gedansd	<i>It became by Johann danced</i>

(91)	Da.	a.	??Der blev danset af alle	<i>There became danced by all</i>
		b.	??Der blev danset af tre mænd	<i>There became danced by three men</i>
		c.	*Der blev danset af ungdommen	<i>There became danced by youth-the</i>
		d.	*Der blev danset af manden	<i>There became danced by man-the</i>
		e.	*Der blev danset af ham	<i>There became danced by him</i>
		f.	*Der blev danset af Johan	<i>There became danced by Johan</i>

3.1.2.6 Constructions with "be" and other copulas and auxiliaries.

Whereas the data discussed so far has been fairly well-ordered, i.e. it has been fairly easy to get an overview of facts, this state of things gives way to a much more confusing one when it comes to the question of partitive case assigned/licensed by verbs which are not considered as main verbs.

As discussed in section 3.1.2.3 on passive transitives, it would seem that *be* and other copula verbs may also assign/license partitive case (at least under certain circumstances):

- (92) En. a. There is a good film on TV tonight
b. *There is the good film on TV tonight

The facts concerning *be* are thus problematic for Belletti (1988a), who would predict that partitive assignment/licensing from *be* would not be possible, as *be* does not assign any θ -roles. This is the reasoning used to exclude

- (93) It. * Sembra / Sembrano molti studenti intelligenti
 (It) seems / (There) seem many students intelligent

Sembrare does not assign/license the case of *molti studenti*, as it does not assign a θ -role to it: "partitive cannot be assigned to NPs that are not θ -marked by the Case-marking verb" (Belletti (1988a:28)), cf. the discussion of (7) in section 3.1.1.2. This assumption, however, would also exclude (92a), as presumably *a film* does not receive a θ -role from *be*.

Other similar constructions are less problematic for Belletti (1988a):

- (94) En. a. There arose a terrible storm
b. There sprang up a wild gale that night
c. There developed a serious problem

in so far as they may be assumed to assign a θ -role to the indefinite NP (in which case they fall under the analysis of ergatives in section 3.1.2.1.).

However, even if the verbs (94a-c) do assign a θ -role to the indefinite NPs (an assumption which may be questioned), we still do not have an explanation why these sentences (which are the class of constructions termed IV (inside verbals) by Milsark (1974)) are much more acceptable than other expletive ergative constructions in En., cf. (21d) in 3.1.2.1.

This leaves us with only those copula verbs which cannot possibly be considered to assign any θ -roles. In languages which have expletive constructions with *be*, partitive may be assigned/licensed by main verb *be*, (95), but not by its auxiliary, irrespective of whether the latter is *have* or *be*, (96):

- (95)
- a. Ge. ... daß ein guter Film im Fernsehen gewesen sein muß
 - b. Yi. ... az es hot t gemuzt zayn a guter film in televizye
 - c. Ic. ... að það mun t hafa verið góð mynd i sjónvarpinu
 - d. Da. ... at der må have været en god film i TV
 - e. En. There must have been a good film on TV
 - f. Fr. Il doit y avoir eu un bon film à la télévision
 - g. It. Dev' esserci stato un film interessante alla TV

Italian has been included here to control for the effects of the French *il y a...* construction which although it corresponds to *there is...* uses *have* rather than *be*.

Alessandra Tomaselli (p.c.) points out that also Italian has a definiteness requirement in this case (cf. Belletti (1988a:9-10):

- (i)
- *Dev' esserci stato il film interessante alla TV
 - Must be-there been the film interesting on TV*

- (96)
- a. Ge. ... daß ein guter Film im Fernsehen gewesen sein muß
 - b. Yi. *... az es hot t gemuzt a guter film zayn in televizye
 - c. Ic. *... að það mun t hafa góð mynd verið i sjónvarpinu
 - d. Da. *... at der må have en god film været i TV
 - e. En. *There must have a good film been on TV
 - f. Fr. *Il doit y avoir un bon film eu à la télévision
 - g. It. *Dev' esserci un film interessante stato alla TV

In the same constructions, partitive may be assigned/licensed by I° only if I° has morphological content, cf. section 3.1.1.2 (in this example the argument is in the spec of the VP of the highest auxiliary):

- (97)
- a. Ge. ... daß ein guter Film im Fernsehen gewesen sein muß
 - b. Yi. ... az es hot t a guter film gemuzt zayn in televizye
 - c. Ic. ?... að það mun t góð mynd hafa verið i sjónvarpinu
 - d. Da. *... at der I° en god film må have været i TV
 - e. En. *There must a good film have been on TV
 - f. Fr. *Il doit un bon film y avoir eu à la télévision
 - g. It. *Deve un film interessante esserci stato alla TV

An example almost similar to (97) (here the argument is in the spec of the VP of the lower auxiliary) shows that partitive may not be licensed by the highest auxiliary, *must*. This examples only differs from (97) w.r.t. Da., which is the only language in which the auxiliary does not move to I°, and which is thus the only language in which you can tell whether the NP is in the spec of *must*, (97d), or of *have*, (98d).

- (98) d. Da. *... at der må en god film have været i TV
 ... that there must a good film have been in TV

Let us now turn to passives. Here partitive may be assigned/licensed by the main verb, in all the languages (except En.) as discussed in section 3.1.2.3. Partitive may furthermore be licensed by the primary auxiliary in En. (*be*) and in Da. (*blive*), but not in Yi., Ic. or Fr., as shown in (61) above, repeated here:

- (99) a. Ge. ... daß pro ein Apfel gegessen worden ist
 b. Yi. *... az es iz t gevorn an epl gegesn
 c. Ic. *... að það hefur t verið epli borðað
 d. Da. ?... at der er blevet et æble spist
 e. En. There has been an apple eaten
 f. Fr. *Il a été une pomme mangé

Even though *blive* may be analysed to assign a Θ -role, cf. Vikner (1988:12-14) and Vikner & Sprouse (1988:28), this does not explain how come it may assign/license partitive case (i.e. *blive* cannot be put into the group of ergative verbs), as the ("additional") Θ -role assigned by *blive* is assigned to its specifier, not to the indefinite NP in (99). This NP being neither a complement nor a specifier of *blive*, could not possibly be assigned a Θ -role by *blive*.

In the same kind of constructions, partitive may not be assigned/licensed by the auxiliary of the primary auxiliary:

- (100) a. Ge. ... daß pro ein Apfel gegessen worden sein muß
 b. Yi. *... az es mus zeyn gevorn an epl gegesn ?????
 c. Ic. *... að það hlýtur t að hafa epli verið borðað
 d. Da. *... at der må være et æble blevet spist
 e. En. *There must have an apple been eaten
 f. Fr. *Il doit avoir une pomme été mangé

(100a) is grammatical, as the partitive case of the argument may be take to be licensed by I°. Partitive may be licensed by I°, but only in V2 languages and only if I° has morphological content, cf. section 3.1.1.2 and the discussion in section 3.1.2.3 of (59), repeated here:

- e. En. *There will have someone danced in the garden
- f. Fr. *Il doit avoir quelqu'un dansé dans le jardin

Summing up this section, we have seen that partitive may be assigned/licensed by *be* when it is a main verb (in all languages), or when it is the auxiliary in the passive construction in En. (Partitive may also be licensed by the auxiliary *blive* in Da. passives). Apart from this, no auxiliary seems to assign/license partitive case.

3.1.3 Alternative Analyses.

In this subsection I will discuss alternative analyses and compare them to the analysis suggested in sections 3.1.1 and 3.1.2. By alternative analyses I mean analyses which do not assume anything like partitive case, but have a different account for the indefiniteness requirement and for the contrasts within the Germanic languages discussed above.

3.1.3.1 Safir (1985).

Safir (1985), which is a published version of Safir (1982), suggests an analysis along the following lines: In an expletive construction with an argument in the complement of the main V^o , this argument will not be assigned case. It has to be linked to the expletive, in order to receive the case assigned to the expletive. This chain, in which the expletive c-commands and is coindexed with the argument, is a potential violation of principle C of the binding theory (Chomsky (1981)), as referential NPs may never be bound (as opposed to a.o. pronouns and reflexives).

However, there is a rule that rescues indefinite NPs from this violation: Quantifier raising. Any indefinite NP is taken to be a kind of quantified expression:

- (105) a. A boy left
 b. $\lambda x, x: \text{a boy}, x \text{ left}$

If it is assumed that binding (at least of indefinites) is checked at LF, i.e. after QR, then we get the following result:

- (106) a. Der er kommet et brev
There is come a letter
 LF: [et brev_i {der_i er kommet t_i}]
- b. *Der er kommet brevet
There is come letter-the
 LF: [der_i er kommet brevet_i]

The indefinite argument is not bound at LF, whereas the definite argument is.

Grange (1987:25) and Haegeman (forthcoming, section 4.1.1.1) both argue against Safir that as binding theory (in the version of Chomsky (1986b)) is a theory of referential dependency, and as there is no such dependency in the case of binding of an argument by a non-argument, there can be no interaction between binding theory and the distribution of non-referential expletives.

In Safir (1987), the expletive-argument chain is still required to transfer case to the argument, but it does not interact with binding theory anymore. This revision entails that the criticism against applying binding theory to non-referential binding no longer applies. In the revised version the expletive-argument chain is subject to the predicate principle: (Safir (1987:87))

- (107) A potential referring expression is a predicate or else free

As the argument in an expletive-argument chain is bound by the expletive, it must be a predicate. But what is it a predicate of? It cannot be predicated of the expletive, or indeed of anything else in the sentence, so it must be predicated of an event (this is what Safir calls a "bare predicate" (1987:92-93)). The definiteness effect then "should follow ... given the event interpretation assigned to bare predicates" (1987:93).

Safir (1985:101, 107) accounts for the fact that Ge. allows impersonal passives and Fr. does not by suggesting a "stripped predicate parameter", which has the effect that predicates must have an overt argument in Fr. but not in Ge. As opposed to the analysis suggested in the previous sections, this does not in any way link impersonal passives to expletive active intransitives, even though the two constructions are either both possible or both impossible in any of the Germanic languages.

Safir also analyses En. and Ge. as both containing ergative impersonals (i.e. expletive ergatives), without discussing that Ge. also has intransitive impersonals (i.e. expletive intransitives).

Belletti (1988a:7, fn. 18) dismisses Safir (1985) because he assumes that no indefiniteness requirement exists in null subject languages like Italian. Belletti (1988a:7-10) demonstrates that such a requirement does in fact exist.

Furthermore, as Falk (1989:7) points out, Safir's analysis, under which the argument in (108a) receives nominative, cannot account for why this nominative cannot rescue the NP in (108b):

- (108) Da. a. ... at der er kommet en dreng
 b. *... at der er en dreng kommet
 ... *that there is (a boy) come (a boy)*

Under Safir's analysis, there is no reason why the chain which transmits nominative to the NP in (108a) cannot transmit nominative to the NP in (108b). Under an analysis in which the NP in (108a) is casemarked/identified directly, e.g. by partitive case, as in my analysis, or in some other way, as in Falk's analysis, the difference in (108) is not problematic

As the indefinite argument necessarily has the case that is assigned to the expletive, i.e. nominative, both versions of Safir's theory are also subject to a criticism put forth by e.g. Reuland (1985:330-333): The indefiniteness effect is also found in cases where the indefinite NP clearly has a different case from the one which may be assigned to the expletive, which is completely unexpected under Safir's analysis, as also mentioned in Safir (1985:128). One such example is the Ge. *es gibt* construction:

- (109) Ge. a. Es gibt einen neuen Film von Wim Wenders
 b. *Es gibt den neuen Film von Wim Wenders
 There is a/the new film(acc) by Wim Wenders

where the indefinite NP has accusative case. Safir (1987:96, footnote 12) argues that a "general account should not treat a predicate like *es gibt* as though it were the general case".

3.1.3.2 Platzack (1983).

Platzack assumes both the case transfer mechanism and the motivation for the indefiniteness requirement of Safir (1985).

He furthermore assumes explicitly that any postverbal argument in an expletive construction is inside the complement of V^0 (1983:92-94), an assumption I follow, as discussed e.g. in section 3.1.2.4 above.

Platzack (1983:89) assumes that if there is an expletive in IP-spec, the external θ -role may be assigned to the complement of the verb. As discussed in connection with (111) below, this leaves us without a θ -difference between ergatives and intransitives, and thus will not explain why only the latter may passivise (in V2 languages) and why only the former may select *be* as an auxiliary (though admittedly not in Sw.).

Platzack furthermore assumes that in Ic. the expletive occurs in CP-spec, and that this leaves IP-spec empty, so that the external argument of an expletive active transitive may occur there. As Sw. expletives occur in IP-spec, Sw. cannot have expletive active transitives. As stated in the discussion of (15) and (16) in section 3.1.1.2 above, I follow Koch Christensen (1989) in assuming that the external argument in an expletive active transitive does not occur in IP-spec: This would leave us without an account of why it would have to be indefinite, or at least it is incompatible with the approach to the indefiniteness requirement taken here as well as the ones suggested by Safir (1985) (which Platzack (1983) is following) and by Reuland (1985). Platzack (1983:96) notes this fact about Ic. and leaves it unaccounted for, whereas under my analysis it is expected. The status of the Ge. facts in (19), where there would seem to be no indefiniteness requirement on the external argument of expletive active transitives is just the opposite, it is expected under Platzack's analysis, whereas it is unaccounted for under mine. Notice though that there is evidence that the indefiniteness requirement holds to a certain extent even in Ge., cf. (17a).

3.1.3.3 Reuland (1983, 1985).

According to Reuland (1983, 1985), *there* cannot get case (as opposed to *it*), and nominative therefore must be assigned somewhere else before *there* can occur in IP-spec, as otherwise IP-spec would be a case-assigned position. The indefinite NP may be assigned nominative from I° , but this is possible only a) if the NP is in VP-spec or b) if the NP is in the complement of V° , the VP must either be headless (1985:336) or I° must be realised on V° (1985:337). Following Chomsky (1981), Reuland (1985:332, 337) assumes that there is a rule lowering inflection onto the V° which may apply in the syntax in Dutch but not in English. However, Pollock (1989) and Chomsky (1988) show that in En. inflection is lowered on to the V° , which means that En. should have just as many expletive active intransitives with the argument inside the V° -complement as Du., which clearly is not correct (cf. section 3.1.2.4).

- (111) Du. a. Ik zag dat er iemand gedanst had
 I saw that there someone danced had
- b. Ik zag dat er iemand gekomen was
 I saw that there someone come was

Also left unexplained by such an approach is the fact that only intransitives and not ergatives may be passivised.

It seems to me the fact that the argument can be *wat-voor*-split in both cases shows that the argument is VP-internal in both cases, and the fact that the auxiliary varies shows that the θ -role is assigned in different places (cf. chapter 2 above).

It is also a drawback for Reuland (1985) that two generalisations are necessary to express how Du. differs from En. in this construction: a) Nominative is available inside VP (derived from the lowering of I° onto V° at S-structure in Du., as discussed above), and b) the agent θ -role may be an internal θ -role (1985:343)(which does not correlate with any other difference between Du. and En.). In my analysis, case is available inside the complement of V° in both languages, and agent is an external θ -role in both languages. The difference between the languages follows from two instances of case assignment/licensing to one (non-extended) chain having to be parallel, and it is thus covariant with the absence/presence of V2.

With respect to expletive passive intransitives (impersonal passives), Reuland suggests that the reason for En. not having this construction is that En. requires not only that an external θ -role is suppressed (passive has this effect in all languages, in my view because *-en* is assigned/absorbs the external θ -role), but also that there is an externalisable internal role (Reuland (1985:344)). Another difference is thus introduced, which again has no correlate with any other difference between En. and Du. In my analysis, this is also due to the parallel case assignment/licensing requirement for non-extended chains. The existence of expletive active intransitives and of expletive passive intransitives in Du. and their absence in En. is thus explained on parallel grounds, where Reuland accounts for them as two unrelated phenomena.

According to Reuland, the passive morphology, *-en*, suppresses the agent θ -role, which turns the θ -subject into a quasi-argument (1985:343). It is difficult to see why this does not entail the complete disappearance of the θ -subject instead. This empty quasi-argumental θ -subject is furthermore what saves impersonal passives from the effect of the extended projection principle: The position of *there* must be linked to a

θ -role at LF, otherwise the structure will not count as having a visible subject at LF, and it will be ruled out by the projection principle. The reason why impersonal passives are not ruled out is that *there* is linked to the empty quasi-argumental θ -subject. But how can linking up to something whose θ -role has been suppressed give *there* a θ -status?

3.1.3.4 Maling (1987).

Maling (1987:1) discusses the following difference between Swedish and Icelandic: only Ic. allows expletive active transitives (cf. section 3.1.2.2).

- (112) a. Sw. *Det åt en man en pudding
 b. Ic. það borðaði maður búding
 There ate (a) man (a) pudding

The transitive external argument cannot occur in IP-spec in Sw., because this is where the expletive occurs. In Ic. the expletive does not occur in IP-spec, and thus does not block the external argument from occurring there (according to Maling). As the θ -role of agent has to be assigned outside VP in both languages, it follows that only in Ic. is it possible to have expletive active transitives.

I have two objections to this analysis. One is that, as argued by Koch Christensen (1989) and as stated in section 3.1.3.2, I believe that the external argument in an expletive active transitive does not occur in IP-spec: This would leave us without an account of why it would have to be indefinite (cf. the discussion of (15) and (16) in section 3.1.1.2 above), or at least it is incompatible with the approach to the indefiniteness requirement taken here as well as the ones suggested by Safir (1985) and by Reuland (1985).

Maling (1987) therefore has to suggest a different account for the obligatory indefiniteness of the external argument in Ic. expletive active transitives. She suggests that in Sw. the indefiniteness requirement is linked to a θ -hierarchy (1987:18), and that "grammatical rules must be able to refer ... to the particular theta role that a given argument bears" (1987:18). As seen from section 3.1.1 and 3.1.2, there is no reason in my analysis to make such a radical claim.

My other objection is that the exclusion of agents from occurring inside the VP does not account for the impossibility in Da. (and in Sw.) of all constructions with both internal and external arguments. Maling (1987:3), quoting Platzack (1983:92), has

two Sw. examples of experiencer-theme constructions which are grammatical with an expletive. These are taken as support that it is only the agent which is banned from occurring inside the complement of V°. Her examples are also grammatical in Da.:

(113) Da. Der hændte ham noget underligt i går
There happened (to) him something strange yesterday

(114) Da. Der ventede mig en stor overraskelse da jeg kom hjem
There awaited me a big surprise when I came home

However, not all experiencer-theme constructions are possible with an expletive:

(115) Da. a. *Der afskyr en af mine venner penge
 b. *Der afskyr penge en af mine venner
There loathes (money) one of my friends (money)

(116) Da. a. *Der behager penge en af mine venner
 b. *Der behager en af mine venner penge
There pleases (money) one of my friends (money)

Under my analysis, (115)/(116) would be ruled out in exactly the same fashion that (112) is ruled out: An argument which does not bear an internal θ -role and which occurs in the complement of V° violates the projection principle if and only if there are already θ -roles assigned to the complement of V° (section 3.1.2.2).

Thus the difference between the grammatical (113)/(114) and the ungrammatical expletive active transitives with an agent, (112), is not that (113)/(114) do not have an agent and (112) does. This would predict (115)/(116) to be grammatical: Like (113)/(114), (115)/(116) do not have an agent. The crucial difference is that (113)/(114) do not have an external argument and (112) does, which then predicts (115)/(116) to be ungrammatical, as they have an external argument, even if it is not an agent (in (115) it is the experiencer, in (116) the theme).

In a revised version of this paper, Maling (1988) has a two-level analysis: She distinguishes between the question of which arguments may count as external in which constructions (a question that I have not addressed at all above), and the question of which types of arguments may not occur in Sw. expletive constructions (Maling's answer: external ones). She goes on to notice that this is not true for 'real' intransitive verbs like Sw. *dansa*, 'dance', and that this points to a problem in the "Unaccusative Hypothesis" (i.e. Perlmutter (1978), Burzio (1986), and others). She states the problem in the following way: *Dansa* may occur in an active expletive construction, which shows that it

is ergative, but it may also occur in a passive expletive construction, which shows that it is 'real' intransitive, and thus not ergative:

(117) Sw. a. Det dansade fortfarande flera par vid midnatt
There danced still several couples at midnight

b. Det dansades hela natten
There danced-was all night

(from Maling (1988:178))

Maling holds it against the "unaccusative hypothesis" that "it forces us ... to say that there are two verbs *dance*, one unergative and one unaccusative" (Maling (1988:178)). I do not agree, I think that the "unaccusative hypothesis", which I have been assuming above may be upheld, and that (117a) is not evidence that *dansa* is ergative (=unaccusative) (i.e. I take *flera par* in (117a) to be an external argument, cf. section 3.1.2.4 above). Another indication that *dansa* is always a real transitive and never ergative is that in Da. *danse* always forms compound tenses with *have* and never with *be*, as opposed to ergative verbs like *komme*, which always select *be*.

As for the difference between Sw. and Ic., Maling (1988:177, 179) notices the difference that external arguments may occur in expletive constructions in Ic., and not in Sw., but she does not explain this difference. In the analysis above, the difference follows from I° being able to license partitive case in Ic. (where I° has morphological content, cf. section 2.4.1 above), but not in Sw. (where it is completely empty).

3.1.3.5 Falk (1989a,b).

Extending a suggestion by Jaeggli (1986), Falk (1989a:3-7, 1989b:49) suggests that the external θ -role is not necessarily external, but merely structurally unspecified, whereas the internal θ -role must be assigned to the complement of V°. This means that even the agent role may be assigned inside the complement of V°, and according to Falk, this is what happens in an expletive active intransitive with the argument appearing in the complement of V°. It seems to me that this possibility loses an account of the difference between the ungrammatical (115)/(116) above and the grammatical (113)/(114), where to me only the latter had an external argument, as this external argument may now be assigned internally thus obliterating any difference. Also what rules out expletive active transitives with an agent, e.g. (112)?

Like Platzack (1983:93-94) and Maling (1987:5-6, 1988), Falk (1989a:3-5) discusses evidence that seems to indicate that in some sense agents are only really agents if they occur in IP-spec. Only when they occur in IP-spec may agents be modified by adverbials referring to intention:

- (118) Da. a. Der sad nogen oppe på balkonen (*for at kunne se bedre)
There sat somebody up on balcony-the (for to could see better)
- b. Nogen sad oppe på balkonen (for at kunne se bedre)
Somebody sat up on balcony-the (for to could see better)
- (119) Ic. a. ??það hefur stigið gamall maður varlega inn í strætisvagninn
There has stepped (an) old man cautiously into bus-the
- b. ??það hefur gamall maður stigið varlega inn í strætisvagninn
There has (an) old man stepped cautiously into bus-the
- c. Gamall maður steig varlega inn í strætisvagninn
(An) old man stepped cautiously into bus-the
 (from Falk (1989a:4))

Falk's conclusion is that the agent θ -role is assigned by I'. This raises problems with respect to expletive intransitives, where either an agent NP or the passive morphology *-en* seem to be able to receive the agent role though they are inside the complement of V° and nowhere near I'. Falk suggests that the agent θ -role percolates down the tree from I' to VP to V' to V°, from where it is assigned to the complement of V°. This analysis then first has the θ -information percolate up the tree, so that I' can assign exactly the right properties (which consist of information from a.o. V°), and then these properties percolate back down the tree so that V° can assign the agent role. It is however very difficult to find any alternative, given the data in (118)/(119) and given that agents do occur inside VP in expletive intransitives.

Falk (1989a:8, 1989b:49) suggests that an NP must be either casemarked or "lexically governed in the canonical direction". As this lexical government may take place from e.g. V° in all languages, but from I° only in languages like Ic. where I° hosts the nominal feature of agreement, this gives an account of the difference between Ic. and Sw./Da. very close to the one suggested above in sections 3.1.1 and 3.1.2. Falk however assumes that in SOV languages like German and West Flemish, the NP may occur in VP-spec, as this position may be governed by V°. I assume that in so far as an NP may occur in a VP-spec it is because it will then have partitive case assigned/licensed by I°.

There is a difference in the predictions made by the two analyses, but this can only be shown in an SOV language where I° does not contain the feature of agreement, i.e. where there is very little inflection of the finite verb. As there is no testable difference in predictions, the only difference is that my analysis analyses Ic. and Ge./Du./WF. in the same way: VP-spec is identified (having its partitive case licensed) from I° , whereas Falk treats them in different ways: In Ic. VP-spec is identified (lexically governed) by I° , in Ge./Du./WF. by V° . Furthermore, it may be argued, following Rizzi (forthcoming: sections 2.2, 2.3.2, 2.3.5) that reference to a canonical direction of government is not needed anywhere else in the grammar.

In order to exclude an indefinite argument inside the complement of V° in any expletive construction in English, Falk (1989a:12, 1989b:55) suggests that the ungrammaticality is caused by the non-identification of the empty VP-spec. Empty expletives must be made visible by case assignment but this case assignment must take place in a particular way (Falk (1989a:13, 1989b:56)): if the overt expletive is assigned case through spec- X° agreement, the empty expletive must be in a spec- X° agreement relation with the case assigner, and if the overt expletive is assigned case through government, the empty expletive in VP-spec must be c-commanded by the case assigner.

The prediction is that expletive ergatives and expletive transitive passives are only possible in V2 languages: In non-V2 languages, the overt expletive receives case through spec- X° agreement, and as the empty expletive in VP-spec is not in a spec- X° agreement relation with the case assigner, the construction is ruled out. While it is true that these constructions do occur in V2 languages, and they do not occur in En., it is not the case that they never occur in other non-V2 languages. Falk herself (1989a:15) notes the grammaticality of expletive passive transitives in Fr. (cf. section 3.1.2.2 above), but ascribes it to a special feature of Fr. *être*, as in Fr. only expletive passive transitives and expletive ergatives (cf. section 3.1.2.1 above) are possible, both of which use *être*. The ungrammaticality of expletive passive intransitives is explained by the empty expletive in the complement of V° not receiving any case, cf. that in some cases the filling of this position makes the construction grammatical (see (88e) above).

This seems to me to be counterintuitive: En. is taken to follow the rules, whereas Fr. is seen as an exception, where the lexical choice of *être* saves the construction which really should be ruled out. En. is the language, if any, where the lexical choice determines whether or not an expletive ergative construction is grammatical. Compare the ungrammatical examples in section 3.2.1.2 with the grammatical (94) above. Fr. on the other hand can be shown not to depend on lexical choice, cf. that the expletive ergative and the *en/ne*-cliticisation is possible with ergative verbs that do not take *être*

(cf. Burzio (1986:139-143)):

- (120) Fr. a. Il a disparu un livre de Molière
There has disappeared a book by Molière
- b. Il n'en a disparu que deux cette année
There thereof has disappeared but two this year

Cf. also that En. is different in the aspects under discussion from any other language (non-V2 and relatively few expletive ergative and expletive passive transitive constructions with post-verbal argument), whereas Fr. is like any other non-V2 Romance language, as expletive ergative and expletive passive transitive constructions with post-verbal argument are generally possible.

3.1.4 Conclusion.

In this section (i.e. section 3.1 and its subsections), I have tried to link the variation in expletive constructions in the Germanic (and some Romance) languages to whether the languages have verb second (V2) and V°-to-I° movement: German and Icelandic have both, Danish has V2 but not V°-to-I°, and English and French do not have V2.

This was done by assuming two crucial restrictions: a. partitive may be licensed only under head government, but either by V°, or by I° (provided it has a morphological content and does not assign/license case in any other way); b. if a non-extended chain has more than one case, the two cases must be assigned/licensed in the same fashion.

All the languages have expletive ergatives and expletive passive transitives. *there* must link up with an argument (the internal one), which here either occurs in or c-commands the position to which its θ -role is assigned (complement of V°). The argument thus heads its own chain, and only forms an extended chain with *there*. The argument receives partitive case (hence the obligatory indefiniteness), and partitive must be licensed under head government, either by V°, or by I°, provided the latter contains inflectional morphology (excluding Danish and English) and does not assign case under spec-X° agreement (excluding English and French).

Only V2 languages may have expletive passive intransitives ('impersonal passives'), as well as expletive active intransitives with the external argument inside the complement of V° . Here *there* links up with an argument (the external one/*-en*) which is c-commanded by the position to which its θ -role is assigned. The argument cannot be in an extended chain with *there* (it would not get a θ -role), but it must be in the same chain, which then receives two cases (partitive to the argument and nominative to the expletive). *-en* cannot be in an extended chain with *there* (it is not an NP), but it must be in the same chain, which then also receives two cases (partitive/nominative). These two cases must be assigned/licensed in the same fashion, and as partitive must be licensed under government, so must nominative. Only in V2-languages is nominative assigned under government.

Only V2 languages with V° -to- I° movement may have expletive active transitives, as well as expletive active intransitives with the external argument outside the complement of V° . The argument here occurs outside the complement of V° , and therefore it needs to have its partitive case licensed by I° . Only I° s which have a morphological content (i.e. I° s in V° -to- I° languages) may license/assign case, and only I° s which do not assign case by spec- X° agreement (i.e. I° s in V2 languages, where nominative is assigned under government from C°) may license/assign case under government.

3.2 'Real' Expletives vs. quasi-arguments.

3.2.1 Different realisations of the distinction "there" vs. "it".

Chomsky (1981:325) makes a distinction between a quasi-argument and a non-argument. Taking non-argument to be synonymous with expletive, I assume the difference to be that a quasi-argument is an argument which must be assigned a θ -role, whereas an expletive may never be assigned a θ -role. Within the languages that we have been discussing this difference may either not play a role at all (the expletive and the quasi-argument look the same), it may only play a role in some positions (i.e. only in IP-spec, whereas in CP-spec the difference cannot be told), or it may play a role throughout (different elements are always used for the two). I shall be discussing only the latter group in the sections below, but I will first illustrate the three possibilities outlined here.

One possibility is no difference at all between the two types, as seen in NO., Sw. Fr. and It. The same element is used in the a- and b-examples (quasi-argument) and the c-ones (expletive) (see a-c) for English translations):

(121) No.	a. Det regner	It
	b. Det er godt at du kom	It
	c. Det er kommet en gutt	It
(122) Sw.	a. Det regnar	It
	b. Det är bra att du kom	It
	c. Det har kommit en pojke	It
(123) Fr.	a. Il pleut	It
	b. Il est bien que tu sois venu	It
	c. Il est venu un garçon	It
(124) It.	a. <u>pro</u> piove	It
	b. <u>pro</u> è bene che <u>pro</u> sei venuto	It
	c. <u>pro</u> è venuto un ragazzo	It

Another possibility is that the difference is realised throughout, i.e. the quasi-argument is always *it*, (a- and b-examples) the expletive always *there* (c-examples):

(125) Da.	a. *Der regner	*There
	Det regner	It
	b. *Der er godt at du kom	*There
	Det er godt at du kom	It
	c. Der er kommet en dreng	There
	*Det er kommet en dreng	*It
(126) Du.	a. *Er regent	*There
	Het regent	It
	b. *Er is goed at jij gekomen bent	*There
	Het is goed at jij gekomen bent	It
	c. Er is een jongen gekomen	There
	*Het is een jongen gekomen	*It
(127) En.	a. *There rains	*There
	It rains	It
	b. *There is good that you came	*There
	It is good that you came	It
	c. *There has arrived a boy	*There
	*It has arrived a boy	*It
	d. There is a boy outside the door	There
	*It is a boy outside the door	*It

The final possibility is that the language does distinguish between the quasi-argument (*it*) and the expletive (*there*), but that this distinction only shows up under certain circumstances. This is the case in Ge., Yi. and Ic., where there is no contrast in CP-spec, (128), (130), (132), whereas in IP-spec is the contrast is *it* vs. an empty category (*pro*), (129), (131), (133):

(128) Ge.	a.	Es regnet	It
		* <u>pro</u> regnet	*There
	b.	Es is gut daß du gekommen bist	It
		* <u>pro</u> is gut daß du gekommen bist	*There
	c.	Es ist ein Junge gekommen	It
		* <u>pro</u> ist ein Junge gekommen	*There
(129) Ge.	a.	Gestern regnete es	It
		*Gestern regnete <u>pro</u>	*There
	b.	Natürlich ist es gut, daß du gekommen bist	It
		*Natürlich ist <u>pro</u> gut, daß du gekommen bist	*There
	c.	*Gestern ist es ein Junge gekommen	*It
		Gestern ist <u>pro</u> ein Junge gekommen	There
(130) Yi.	a.	Es	It
???		* <u>pro</u>	*There
???	b.	Es iz	It
???		* <u>pro</u> iz	*There
	c.	Es iz gekumen a yingl	It
		* <u>pro</u> iz gekumen a yingl	*There
(131) Yi.	a.	Nekhthn hot es -----	It
???		Nekhthn hot <u>pro</u> -----	There
???	b.	----- iz es -----	It
???		----- iz <u>pro</u> -----	There
	c.	Nekhthn iz es gekumen a yingl	*It
	c.	Nekhthn iz <u>pro</u> gekumen a yingl	There
(132) Ic.	a.	það rignir	It
		* <u>pro</u> rignir	*There
	b.	það er gott að þú ert kominn	It
		* <u>pro</u> er gott að þú ert kominn	*There
	c.	það hefur komið strákur	It
		* <u>pro</u> hefur komið strákur	*There

(133) Ic.	a.	*I gær rigndi það	*It
		I gær rigndi <u>pro</u>	There
???	b.	Sjálfsgagt er það gott að þú ert kominn	It
???		Sjálfsgagt er <u>pro</u> gott að þú ert kominn	There
	c.	*I gær hafði það komið strákur	*It
	c.	I gær hafði <u>pro</u> komið strákur	There

Below we will discuss the distinction between quasi-arguments and expletives in the languages where this distinction may be realised in all positions, i.e. in Da., Du., and En. I will be making extensive use of the suggestions in Bennis (1986), reproducing and criticising his argumentation in 3.2.2, and showing how it has interesting interaction with assumptions about case assignment in 3.2.3.

3.2.2 "It" is an argument, "there" is not.

3.2.2.1 Reflexivisation and control.

Bennis (1986) argues (for Dutch) that the distinction between the two 'dummy' subjects *it* and *there* is that *it* always is an argument and *there* never is.

Two of his arguments in favour of the argument status of Du. *het*, "it", also hold for Danish. The first one (Bennis (1986:98-99)) is that *het* may be the antecedent of a reflexive. Arguments may be antecedents of reflexives, and so may Da. *det*, "it", but not Da. *der*, "there". This would be accounted for if *det* but not *der* was an argument.

The examples of *det* being an antecedent are

- (134) Da. a. Det taler for sig selv at hun kom for sent
It speaks for REFL self that she arrived too late
- b. Det tager sig ikke godt ud at hun altid kommer for sent
It takes REFL not good out that she always arrives too late
 (= *It does not look good that she always arrives late*)
- c. Det lader sig ikke undskylde at hun kom for sent
It lets REFL not excuse that she arrived too late
 (= *It is inexcusable that she arrived late*)

These kind of examples are not found with *der*. There are however a certain type of reflexive expressions, *i og for sig* "in and for REFL", *på sin vis* "in REFL's way", and *i sin tid* "in REFL's time", which are found with both *det* and *der*:

- (135) Da. a. Det er på sin vis underligt at jorden er rund
It is in REFL's way strange that earth-the is round
 (= *It is strange in a way that the earth is round*)
- b. Der kan i og for sig ikke indvendes noget
 imod selve ideen
There can in and for REFL not objected-be anything
 against self idea-the
 (= *There actually cannot be any objections against the idea itself*)
- c. Det/Der blev i sin tid ofte hævdet
 at jorden var flad
It/There was in REFL's time often claimed
 that earth-the was flat
 (= *At one time the earth was often claimed to be flat*)

But as noted by Mikkelsen (1911:260), these expressions may be used without any antecedents at all. This can be seen in the following, where the subject *jeg*, 'I', cannot be the antecedent, as it is the wrong person (the reflexive forms *sig* and *sin* being 3rd person):

- (136) Da. a. Jeg kan på sin vis godt forstå hvorfor hun rejste
I can in REFL's way well understand why she left
 (= *In a way I understand why she left*)
- b. Jeg har i og for sig ikke noget at indvende
 mod selve ideen
I have in and for REFL not anything to object
 against self idea-the
 (= *I do not actually have any objections against the idea itself*)

and so (135) are not really counterexamples to the assumptions made by Bennis.

The second argument in Bennis (1986:99-101) for the argument status of *Du*. *het* is that *het* may be controller of a PRO. Looking at Danish, we again have a property that *det*, (137a), and not *der*, (137b), has in common with arguments, and again this would be accounted for if *det* but not *der* was an argument.

- (138) Du. a. Het wordt gezegd dat Jan ziek is
 b. Er wordt gezegd dat Jan ziek is
It/There is said that Jan ill is

In an example like (138a), Bennis assumes that *het* is base generated in the object position, and then moved into the subject position (presumably for reasons of case, as the sentence is passive). The embedded CP, *dat Jan ziek is*, is assumed to be in an adjoined position.

In (138b), the assumption is that the embedded CP is in the object position (the argument position), and *er* is base generated in the subject position. Only the non-argument *er* (and not the argument *het*) could possibly be base-generated in the subject position of a passive, which is a position that does not receive a θ -role.

Bennis' analysis is thus the following (omitting all traces but the ones of *het*, and *er*):

- (139) Du. a. [_{CP} Het_i wordt [_{IP} t_i [_{VP} t_i gezegd [_{CP} dat Jan ziek is]]]]
 b. [_{CP} Er_i wordt [_{IP} t_i [_{VP} gezegd [_{CP} dat Jan ziek is]]]]

Bennis (1986:105) claims that in both (139a) and (139b) the CP is inside the VP of the matrix verb, and that in (139a) its position is not an argument position (as the trace of *het* is in the argument position), whereas the CP does occupy an argument position in (139b).

This would mean that the argument position of a verb like *zeggen*, "say" varies: It is to the left of the verb if the complement is an NP, (140a), including *het* with an extraposed clause, (140b), but it is to the right of the verb if the complement is a clause, (140c), (the *er* case):

- (140) Du. a. ... [_{VP} iets zeggen] ...
something say
 b. ... [_{VP} het zeggen] ... [_{CP} dat Jan ziek is] ...
it say ... that Jan ill is
 c. ... [_{VP} zeggen [_{CP} dat Jan ziek is]] ...
say that Jan ill is

I find this rather dubious (and also unnecessary), given that one could say that in *er* cases like (140c), there is a trace of the embedded clause in the complement position left of the verb:

(141) Du. ... [_V t_i zeggen] ... [_{CP} dat Jan ziek is]_i ...
 say ... that Jan ill is

Given that if (141) was correct, the verb would always assign its θ -role to the same position, whereas (140c) presupposes an exceptional flexibility w.r.t something as i n f l e x i b l e a s a s s i g n m e n t of θ -roles, (141) must be the null hypothesis. I thus find that fairly strong arguments are needed for (140c) to be preferred over (141), and in my opinion Bennis (1986) does not present such arguments.

Hans Bennis (p.c.) objects that the null hypothesis must be that Θ -role assignment is non-directional. I do not agree with this, it seems to me that if there is anywhere that the different choices of the ordering parameter are realised, e.g. I^0 - VP vs. VP - I^0 , or V^0 - NP vs. NP - V^0 , it is precisely in the selection of complements.

The actual position of the embedded clause is very difficult to determine. If the matrix clause was an embedded clause itself (i.e. if the finite verb appeared under I^0), the embedded CP would have to follow the finite verb. This could be interpreted as evidence that the embedded clause is adjoined to IP (if not higher):

(142) Du. a. ... dat [_{IP} [_{IP} het_i [_{VP} t_i gezegd] wordt] CP_i]
... that it said is CP

b. ... dat [_{IP} [_{IP} er [_{VP} t_i gezegd] wordt] CP_i]
... that there said is CP

If we look at VP-topicalisation, i.e. movement of the (matrix) VP to (the matrix) CP-spec, this is corroborated, as far as the *het* cases are concerned. The embedded CP cannot move as part of the matrix VP:

(143) Du. a. ??[_{VP} Gezegd [_{CP} dat Jan ziek is]] wordt het niet
 Said that Jan ill is is it not
 b. [_{VP} Gezegd] wordt het niet [_{CP} dat Jan ziek is]
 Said is it not that Jan ill is

On the other hand, w.r.t. the *er* cases, we now have contradictory evidence. (142b) above suggests that the embedded CP is adjoined to the matrix IP or higher, whereas VP-topicalisation suggests that it is adjoined to matrix VP or lower, as it moves along with the VP:

(144) Du. a. [vp Gezegd [cp dat Jan ziek is]] wordt er niet
 Said that Jan ill is is there not

b. ?[vp Gezegd] wordt er niet [cp dat Jan ziek is]
 Said is there not that Jan ill is

It is perhaps dangerous to base anything on the judgments of (143) and (144), as every speaker seems to have slightly different preferences.

I will therefore assume that in the *er* case, the embedded CP may adjoin to VP (or lower), and that something else forces it to adjoin higher if I° is filled (as in (142b) above). In the *het* case, on the other hand, the embedded CP must adjoin higher up (e.g. to IP), irrespective of whether I° is empty or not.

Summing up this far: We have seen how Bennis analyses the *het* case differently from the *er* case: In the former, the argument is *het*, and the embedded CP is a kind of apposition, whereas in the latter, the argument is the embedded CP, and *er* is an expletive. We have also seen both which positions Bennis assumes the embedded CPs to occupy within the main clause (both inside the matrix V'), and some reasons to doubt this.

We can now address the issue of extraction. It is crucial to Bennis that the CP in the *er* case is in an argument position, and that this is not so in the *het* case. According to Bennis (1986:104-105), this accounts for the difference w.r.t. extraction:

(145) Du. a. *Wat wordt het gezegd dat Jan t gelezen heeft?
 b. Wat wordt er gezegd dat Jan t gelezen heeft?
 What is it/there regretted that Jan read has

Bennis (1986:104) assumes that extraction out of an embedded CP only is possible if the CP is in an argument position, and that this is what rules out

(146) a. Du. *Wat heb jij iets gezegd nadat jij gehoord hebt?
 b. Da. *Hvad sagde du noget efter at du hørte?
 c. En. *What did you say something after (that) you heard?

Compare the well-formed extraction:

(147) a. Du. Wat heb jij gezegd nadat jij het gehoord hebt?
 b. Da. Hvad sagde du efter at du hørte det?

c. En. What did you say after (that) you heard it?

Compared to Bennis (1986), I have changed the verb from *betreuren* 'regret' to *zeggen* 'say' in all examples. The Du. judgments are not affected by this, however. Cf. e.g. Bennis' (1986:104) version of (146):

- (i) a. Du. *Wat heb jij de beslissing betreurd nadat jij gehoord hebt?
 b. Da. *Hvad har du fortrudt beslutningen efter at du har hørt?
 c. En. *What have you regretted the decision after (that) you have heard?

Leaving aside for the moment the question of what rules out (146) in all three languages, I want to concentrate here on the problems with the parallelism between (145a) and (146a). The Da. and En. versions of (145a) are possible, (148a,b), whereas the Da. and En. versions of (146a) are not, (146b,c):

- (148) a. Da. Hvad blev det sagt at Peter havde stjålet t?
 b. En. What was it said that Peter had stolen t?

I therefore conclude that something more needs to be said about the parallelism between (145a) and (146a-c).

For the sake of completeness, let me mention that the *there* cases are possible in Danish, but not in English:

- (149) a. Da. Hvadblev der sagt at Peter havde stjålet?
 b. En. *What was there said that Peter had stolen?

We thus have the following overall picture: Extraction in the *it* cases is possible in Da. and En., but not in Du., whereas extraction in the *there* cases is possible in Da. and Du., but not in En. The impossibility of extraction in the En. *there* case obviously derives from the general ungrammaticality of this type of construction:

- (150) En. *There was said that Peter had stolen the book

This will be addressed in 3.2.3.2 below. The remainder of this section will be devoted to the ungrammaticality of extraction in the Du. *it* case.

As stated above, one problem with Bennis' analysis of this ungrammaticality is that the parallelism with (146) does not seem to hold. It cannot be maintained that it is the argument status of *het* that rules out this extraction, as the Da. and En. versions are grammatical, and as it is desirable to maintain that Da. *det*, Du. *het*, and En. *it* all have the same status: it is an argument. This will be argued in more detail in the

following subsection. We thus know that the mere fact that a CP does not occur in an argument position does not suffice to prevent extraction of its object.

Another problem with Bennis' analysis is the following: As the embedded CP is not assumed to be in its base-generated position in the *er* case (cf. my preference for (141) over (140c) in the absence of convincing arguments to the contrary), it is difficult to see how the embedded CP can possibly be said to be in an argument position in *er* cases like (138b) and (145b).

I will therefore suggest that extraction is possible from a CP in certain positions (e.g. adjoined to V' and/or to VP), even though these may not be argument positions, whereas it is impossible from a CP in certain other positions (e.g. adjoined to IP).

Although I cannot explain why adjunction to VP allows for extraction whereas adjunction to IP does not, an analysis along these (tentative) lines seems to me to be the only one compatible with the following three sets of facts.

First: it would seem that for some reason, CPs embedded under Du. *het* are forced to adjoin higher up than CPs embedded under Du. *er*, cf. the VP-topicalisation facts, (143) vs. (144). If this is so, then whatever prevents CPs under Du. *het* from adjoining to VP thereby also prevents extraction from within such a CP.

Secondly: It could be argued that the embedded CPs in (146), which were ungrammatical in all three languages, could not possibly be adjoined to VP. The embedded CP has a temporal meaning, and maybe this forces it to have scope over tense in the matrix clause, which entails that its position has to be higher in the tree than adjoined to VP.

Thirdly: In the case where extraction is grammatical, there are alternative versions where the embedded CP necessarily is adjoined higher in the tree than to VP. These constructions are grammatical only if no extraction takes place. In other words, it is possible to find ungrammatical versions of the possible extractions, and these cases all have the embedded CPs adjoined higher than the grammatical ones.

Consider first cases with Du. *er*. Without extraction, the examples are possible both with and without the adverbial *na het feest*, "after the party", intervening between the main verb (i.e. the matrix VP) and the embedded CP:

- (151) Du. a. *Er wordt gezegd dat Jan ziek is*
 b. *Er wordt gezegd na het feest dat Jan ziek is*
 There is said (after the party) that Jan ill is

In this section I will discuss a range of data which can all be accounted for using Bennis' (1986) hypothesis.

In all the structures discussed, the embedded CP corresponds to a certain θ -role. In the *there* cases the embedded CP is assigned this θ -role (most often via a trace), and in the *it* cases the CP is an apposition to the argument, *it*, which is assigned the θ -role.

I will assume that the embedded CP, like all other elements, must obey the visibility condition, cf. section 1.2.2. According to this condition, an element which is assigned a θ -role must also be assigned a case. Therefore the CP will either have to receive both a θ -role and case or neither. Visibility (or some version of the case filter) rules out any element (except PRO) which receives a θ -role but not case. Only expletive elements (i.e. *there*) may receive case but no θ -role.

The three following subsections will treat the constructions from the point of view of the kind of case assigned/licensed in the θ -position. There are three possibilities. The position to which the θ -role is assigned may receive no case at all (as discussed in 3.2.3.1), it may have partitive assigned and licensed (as discussed in 3.2.3.2), or it may receive accusative (cf. 3.2.3.3).

Each time a construction is examined in the following subsections, six different versions will be discussed: Two with the CP at the end (1.: with *there*, and 2.: with *it*), and four with the CP at the front (3.: with neither *it* nor *there*, 4.: with *there*, 5.: with *it*, and finally 6.: in a left dislocation construction).

3.2.3.1 The CP may receive no case at all.

There are two different configurations in which the θ -position does not receive any case: Either the θ -role assigned is an external one (in which case it is assigned to a non case-assigned position: VP-spec) or the θ -role is assigned by an adjective, which do not assign/license case.

Let us first consider the cases where the embedded CP corresponds to an external argument. Such a case is the constructions with the verb *annoy*. It is not possible to use *there* in such a construction:

- (157) Da. a. *... at der_j t_i irriterer mig [at du kom]_i
 Du. b. *... dat er_j t_i mij t_v irriteert_v [dat jij gekomen bent]_i
 En. c. *There_j t_i annoys me [that you came]_i

- (155) Da. a. Det blev sagt ...
 b. Det blev sagt i radioen i går ...
 c. Der blev sagt ...
 d. Der blev sagt i radioen i går ...
 It/There was said (in radio-the yesterday) ...

... at Peter havde stjålet bogen
 ... *that Peter had stolen book-the*

In (155a,c) the embedded CP may be adjoined to VP, whereas in (155b,d) it must be adjoined higher up in the tree. Extraction is only possible in the first two cases:

- (156) Da. a. Hvad blev det sagt ...
 b. ??Hvad blev det sagt i radioen i går ...
 c. Hvad blev der sagt ...
 d. ??Hvad blev der sagt i radioen i går ...
 What was it/there said (in radio-the yesterday) ...

... at Peter havde stjålet t?
 ... *that Peter had stolen?*

Again both the idea that adjunction to VP or lower is required for extraction to be possible, and the idea that the *it/there* distinction is irrelevant in this connection, receive some support.

In this subsection I have tried to show that although there is a difference between the grammaticality of extraction from CPs embedded under Du. *het* and the grammaticality of extraction from CPs embedded under Du. *er*, this has nothing to do with the difference in argument status of *het* and *er*. This can be seen from the fact that the former difference does not exist in Da. (and En., modulo section 3.2.3.2 below) though the latter does.

Although no precise suggestion has been put forward as to what determines this difference in grammaticality, it was shown that there may be a connection between how low in the tree the embedded clause is adjoined and how acceptable the extraction is.

3.2.3 "It", "there", and case assignment.

- (160) Da. a. *[At du kom]_i irriterer_v der_j t_v t_i t_v mig
 Du. b. *[Dat jij gekomen bent]_i irriteert_v er_j t_v t_i mij t_v
 En. c. *[That you came]_i annoys_v there_j t_v t_i t_v me/
 *[That you came]_i there_j t_i annoys me

Here the CP receives a θ -role via a trace in VP-spec, but it does not receive any case, and thus visibility is violated. The only case in the structure, nominative, is assigned to *there* in IP-spec.

If IP-spec contains *it*, the structure is not possible either:

- (161) Da. a. *[At du kom] irriterer_v det_i t_v t_i t_v mig
 Du. b. *[Dat jij gekomen bent] irriteert_v het_i t_v t_i mij t_v
 En. c. *[That you came] annoys_v it_i t_v t_i t_v me/
 *[That you came] it_i t_i annoys me

In order to occur in CP-spec of the main clause, the embedded CP has to undergo A'-movement. This is only possible for maximal projections which are assigned both a θ -role and a case. If the CP is assigned θ -role and case here, then the argument *it* receives neither, so the structure is impossible. If the CP is assigned neither θ -role nor case (i.e. it is an apposition), then it cannot move into CP-spec, and the structure is impossible.

This last construction should be distinguished from a left dislocation, cf. e.g. van Haaften et al. (1983) and references cited there. Left dislocated elements receive neither θ -role nor case:

- (162) Da. a. [At du kom], det irriterer_v t_i t_v t_i t_v mig
 Du. b. [Dat jij gekomen bent], dat_i irriteert_v t_i t_v t_i mij t_v
 En. c. [That you came], that_i t_i annoys me

where the comma signals the intonational break, which is necessary for the dislocated interpretation. Left dislocation constructions are thus really cases where the demonstrative pronoun replaces the CP itself in CP-spec of the main clause (and the embedded CP exists in some sort of vacuum/suspended animation to the left of the CP). The judgments are therefore completely parallel to the examples with the CP in CP-spec of the main clause, in (159)-(161) above. The only well-formed example there was (159), which is why (162) contains a trace in IP-spec, and not *there* or *it*.

Let us now turn to the other case where the position to which the θ -role is assigned is not a case-assigned position. This is what happens in constructions with

adjectives. The judgments are exactly the same as in (157)-(162). Thus it is not possible to use *there* in such a construction:

- (163) Da. a. *... at der_j t_j er t_i godt [at du kom]_i
 Du. b. *... dat er_j t_j t_i goed t_v is_v [dat jij gekomen bent]_i
 En. c. *There_j is t_j t_v t_i good [that you came]_i

There receives nominative case in IP-spec, but no θ -role. This is not a problem, as *there* is an expletive. The embedded CP receives a θ -role via a trace somewhere inside the AdjP (in the examples I have assumed that it is base-generated in AdjP-spec, but I have no particular reason for preferring AdjP-spec to the complement of Adj^o, except that it will result in a trace less in each representation), but no case. This is a violation of visibility: If something receives a θ -role, it must also receive case.

~~~~~  
 Hans Bennis (p.c.) points out that some ergative adjectives (cf. also Cinque (1990)) allow both *it* and *there* in Du.:

- (i) Du. a. ... dat het mij niet bekend is of Jan komt  
 b. ... dat er mij niet bekend is of Jan komt  
 ... that it/there me not known is whether Jan comes

~~~~~  
 If on the other hand, we use *it*, the situation changes:

- (164) Da. a. ... at det_i t_i er t_i godt [at du kom]
 Du. b. ... dat het_i t_i t_i goed t_v is_v [dat jij gekomen bent]
 En. c. It_i is_v t_i t_v t_i good [that you came]

It receives nominative case in IP-spec, and θ -role via a trace inside the AdjP. The embedded CP, which is an apposition to the argument *it*, receives neither case nor θ -role, and therefore does not violate visibility.

Consider now the cases where the CP is moved to CP-spec of the main clause. Here there are three possibilities: Either it moves there through IP-spec (which then contains a trace), or it moves there directly, leaving IP-spec free to contain either *there* or *it*.

If the CP moves through IP-spec, the structure is possible (still assuming that the embedded CP has only moved to IP-spec in the En. example):

- (165) Da. a. [At du kom]_i er_v t_i t_v t_i t_v t_i godt
 Du. b. [Dat jij gekomen bent]_i is_v t_i t_i t_i goed t_v t_v
 En. c. [That you came]_i t_i is_v t_i t_v t_i good

Here the CP receives the θ -role via a trace somewhere inside the AdjP, and case (via a trace) in IP-spec.

If IP-spec contains *there*, the structure is impossible:

- (166) Da. a. *[At du kom]_i er_v der_j t_v t_i t_v t_i godt
 Du. b. *[Dat jij gekomen bent]_i is_v er_j t_i t_i goed t_v t_v
 En. c. *[That you came]_i is_v there_j t_v t_i t_v t_i good/
 *[That you came]_i there_j is_v t_i t_v t_i good

Here the CP receives a θ -role via a trace somewhere inside the AdjP, but it does not receive any case, so that visibility is violated. The only case in the structure, nominative, is assigned to *there* in IP-spec.

If IP-spec contains *it*, the structure is not possible either:

- (167) Da. a. *[At du kom] er_v det_i t_v t_i t_v t_i godt
 Du. b. *[Dat jij gekomen bent] is_v het_i t_i t_i goed t_v t_v
 En. c. *[That you came] is_v it_i t_v t_i t_v t_i good/
 *[That you came] it_i is_v t_i t_v t_i good

In order to occur in CP-spec of the main clause, the embedded CP has to undergo A'-movement. This is only possible for maximal projections which are assigned both a θ -role and a case. If the CP is assigned neither θ -role nor case (i.e. it is an apposition), then it cannot move into CP-spec, and the structure is impossible. Alternatively, if the CP is assigned θ -role and case here, then the argument *it* receives neither, so the structure is impossible.

As above, this last construction should be distinguished from a left dislocation. Left dislocated elements receive neither θ -role nor case:

- (168) Da. a. [At du kom], det_i er_v t_i t_v t_i t_v t_i godt
 Du. b. [Dat jij gekomen bent], dat_i is_v t_i t_v t_i t_v t_i goed
 En. c. [That you came], that_i is_v t_i t_v t_i good

where the comma signals the intonational break, which is necessary for the dislocated interpretation. As above, this is parallel to the construction with the embedded CP in CP-spec of the main clause, (165).

In this section, it was shown which the possibilities were for *it/there* and embedded CPs in constructions where no case is assigned to the CP: There may be an *it*,

in which case the CP must be in a position where it needs neither case nor θ -role: apposition (or left dislocation). The CP may also receive both case and θ -role, but then there is room for neither *it* nor *there*.

3.2.3.2 The CP may receive partitive case.

One construction in which the θ -position receives partitive case is one involving a passive verb. The θ -role is assigned to the complement of V^o , and this position may also both have partitive case assigned, and have this partitive case licensed (cf. section 3.1.2.3 above).

Before the examination of the individual versions of this constructions, a remark on *there* and partitive case in English. We saw above (in 3.2.2.2) that in constructions with passives of verbs that take CPs as complements, both *it* and *there* were possible in Da. and Du., whereas only *it* was possible in En. I will argue that this is linked to another difference between En. on one hand and Da. and Du. (and many more languages, incl. all other Germanic ones) on the other: In En. passive (and ergative) verbs do not assign/license partitive case, cf. the following paradigm from section 3.1.2.3:

- (169) a. Ge. ... daß ein Apfel gegessen wurde
 b. Ic. ... að það var borðað epli
 c. Da. ... at der blev spist et æble
 d. En. ??There was eaten an apple
 e. Fr. Il a été mangé une pomme

In the analysis where the embedded CP in a *there* construction must receive case (as opposed to an embedded CP in an *it* construction), the general ungrammaticality of constructions with *there* and an embedded CP thus will have the same explanation as the ungrammaticality of the example above.

There is thus acceptable in such a construction, except in En.:

- (170) Da. a. ... at der_j t_j blev t_j sagt t_i [at du kom]_i
 Du. b. ... dat er_j t_j t_j t_i gezegd t_v wordt_v [dat j_ij komen zult]_i
 En. c. *There_j was_v t_j t_v t_j said t_i [that you would come]_i

There receives nominative case but no θ -role in IP-spec. This is not a problem, as *there* is an expletive. The embedded CP receives a θ -role (via a trace in the complement of

If IP-spec contains *there*, the structure is equally possible (even if not perfect in Du.):

- (174) Da. a. [At du kom]_i blev_v der_j t_v t_i t_v t_i sagt t_i
 Du. b. ?[Dat jij komen zult]_i wordt_v er_j t_i t_i t_i gezegd t_v t_v
 En. c. *[That you would come]_i was_v there_j t_v t_i t_v t_i said t_i/
 *[That you would come]_i there_j was_v t_i t_v t_i said t_i

The CP still receives its Θ -role via a trace in the complement of V° , but it does not receive nominative case (which is assigned to *there*). The CP is not caseless, however, as it receives partitive case via its trace in the complement of V° , so visibility is not violated (except in En., where there is no assignment/licensing of partitive).

If IP-spec contains *it*, the structure is not possible:

- (175) Da. a. *[At du kom] blev_v det_i t_v t_i t_v t_i sagt t_i
 Du. b. *[Dat jij komen zult] wordt_v het_i t_i t_i t_i gezegd t_v t_v
 En. c. *[That you would come] was_v it_i t_v t_i t_v t_i said t_i/
 *[That you would come] it_i was_v t_i t_v t_i said t_i

In order to occur in CP-spec of the main clause, the embedded CP has to undergo A'-movement. This is only possible for maximal projections which are assigned both a θ -role and a case. If the CP is assigned neither θ -role nor case (i.e. it is an apposition), then it cannot move into CP-spec, and the structure is impossible (this is the reading which is illustrated by the indices above).

Cf. that appositions which are NPs cannot undergo A'-movement either:

- (i) Da. a. I dag mødte jeg Peter, min gamle ven
Today met I Peter, my old friend
b. *Min gamle ven mødte jeg Peter i dag
My old friend met I Peter today
- (ii) Ge. a. Heute habe ich Peter, meinen alten Freund, getroffen
Today have I Peter my old friend met
b. *Meinen alten Freund habe ich Peter heute getroffen
My old friend have I Peter today met
- (iii) En. a. Today I met Peter, my old friend
b. *My old friend, I met Peter today
(in the reading where *my old friend* re

(in the reading where *my old friend* refers to *Peter*)

Alternatively, if the CP is assigned θ -role and case here, then the argument *it* would receive neither, so the structure is impossible.

As was the case in the previous subsection, this last construction should be distinguished from a left dislocation. Left dislocated elements receive neither θ -role nor case:

- (176) Da. a. [At du kom], $\text{det}_i \text{blev}_v t_i t_v t_i t_v t_i \text{sagt } t_i$
 Du. b. [Dat jij komen zult], $\text{dat}_i \text{wordt}_v t_i t_i t_i t_i \text{gezegd } t_v t_v$
 En. c. [That you would come], $\text{that}_i \text{was}_v t_i t_v t_i \text{said } t_i$

where the comma signals the intonational break, which is necessary for the dislocated interpretation. Left dislocations are subject to exactly the same restrictions as the cases with the embedded CP in the main CP-spec. As would thus be expected, *der* may occur in IP-spec in Da., cf. that both (173a) and (174a) were grammatical. Also expected is the fact that in En., *there* may not occur, neither between *that* and *was*, nor between *was* and *said*, cf. that (173c) is grammatical, but (174c) is not. Less expected is the decline in well-formedness in the Du. example if *er* occurs in IP-spec. The result (i.e. (176) with *er* inserted:

??*Dat jij komen zult, dat wordt er gezegd*, 'That you come would, that was there said') is a sentence which is '??', as opposed to the non-dislocated (174b), which is (more or less) grammatical.

In this section, we discussed what the possibilities were for *it/there* and embedded CPs in constructions where partitive case is assigned/licensed to the CP. Provided partitive case assignment/licensing is optional, we can account for the facts: If there is no partitive case assigned/licensed, there may be an *it* (provided the CP is in a position where it needs neither case nor θ -role: apposition (or left dislocation)), or the CP itself may occur in CP-spec. Partitive may also be assigned/licensed, in which case the CP may even occur when *there* is assigned nominative case: at the end of the main clause, or in CP-spec. The embedded CP is still ruled out in CP-spec if *it* is in IP-spec, as *it* then occupies both cases in the structure: nominative in IP-spec, and partitive via its trace in the complement of V° .

3.2.3.3 The CP may receive accusative.

Above we have discussed cases where the θ -position either was assigned no case at all, or where it (optionally) had partitive case assigned/licensed. In this section, I

want to examine constructions where the accusative case is assigned to the position which receives the θ -role of the embedded CP. The construction involves a preposition as in *count on CP/agree on CP*.

I will first discuss this construction in Da., which is the only language, where case is definitely assigned, cf. that pseudo-passives impossible in Da. (cf. Herslund (1984:70, n7):

- (177) a. Da. *... at Peter_i blev grinet af t_i
 b. No. ... at Petter_i ble ledd av t_i
 c. Sw. ... att Peter_i skrattades åt t_i
 d. En. ... that Peter_i was laughed at t_i

Herslund (1984:61) observes that in languages which allow preposition-stranding after *wh*-movement (i.e. English and the Scandinavian languages), there is a correlation between the possibility of pseudo-passive and the possibility of the order verb-particle-object: Da. and Ic. allow neither, En., No., and Sw. allow both (Fa. also seems to allow both, cf. Barnes (1989:11) and Henriksen (1983:31)). Following the analysis in Vikner (1987) and the remarks in 3.2.1.4 above, the difference between the two groups could be that En., Fa., No., and Sw. have reanalysis of the verb and the preposition (or of the verb and the particle) into one element, a complex verb, whereas Da. and Ic. do not. In other words, the particle in the particle construction and the preposition in the pseudo-passive is "abstractly" incorporated into the verb (i.e. incorporated at LF, cf. Baker (1988:259)). This reanalysis has the effect that the case-assignment properties of the particle and the preposition depend on the verb: This is seen in that the particle may assign either accusative or partitive, depending on the verb (cf. Vikner (1978:278, n3)), and that the preposition may lose its case assigning properties, depending on whether or not the verb is passivised.

This will be taken as support for the assumption that the preposition assigns its case in all of the Da. examples below. After the discussion of Da., I will turn to En. and also to No. and Sw., where the pseudo-passive mechanism seems to be at work, i.e. where the preposition does not assign case.

As Du. allows neither preposition stranding, nor CPs as complement of P^os, the Du. version of the *count on CP*-construction has rather different characteristics from Da. and En., and this will be discussed at the end of the subsection.

In Da., the construction is *regne med CP*, literally "count with CP", and it is possible with *there*:

- (178) Da. ... at der_j t_j blev t_j regnet t_j med t_i [at du ville komme]_i
 ... that there was counted on [that you would come]

There receives nominative case in IP-spec, but no θ -role. The embedded CP receives both a θ -role and accusative case (either directly or via a trace) in the complement of

P°. Visibility is thus observed.

With *it*, the picture is the following:

- (179) Da. *... at det_i t_i blev t_i regnet med t_i [at du ville komme]
 ... that it was counted on [that you would come]

The embedded CP, which is an apposition to the argument *it*, receives neither case nor θ -role, and therefore does not violate visibility. *It* receives both a θ -role and accusative case via a trace in the complement of P°. As it also receives nominative case in IP-spec, the sentence is ruled out, no element can receive more than one case.

Let us now consider the cases where the CP is moved to CP-spec of the main clause. Here the following three possibilities exist: It may move there through IP-spec, but it may also move there directly, leaving IP-spec free to contain either *there* or *it*.

If the CP moves through IP-spec, the structure is not possible. Once again an element receives both nominative (via a trace in IP-spec) and accusative case (via a trace in the complement of P°):

- (180) Da. *[At du ville komme]_i blev_v t_i t_v t_i t_v t_i regnet t_i med t_i
 That you would come was counted on

As would be expected under this analysis, (180) is possible in No., which has pseudo-passives (cf. also the discussion of En. and of No. and Sw. below). My analysis would be that the accusative case assigned by the preposition is dependent on the verb, and therefore cannot be assigned when the verb is passivised. This means that the trace inside PP would receive no case, so that the embedded CP only receives one case.

For an alternative analysis, see Åfarli (1989:171), who discusses the following contrast:

- (i) a. No. Ola_i vart snakka med t_i to gonger
 b. En. Ollie_i was talked with t_i twice
- (ii) a. No. Ola_i vart snakka to gonger med t_i
 b. En. *Ollie_i was talked twice with t_i

Åfarli suggests that *with* can only assign case to its complement if it is adjacent to the verb, i.e. in (i). Consequently, the passive morphology does not receive case in (ii), as the preposition does not assign case. (ii) therefore illustrates, according to Åfarli, that the passive morphology needs case in En. but not in No.

I would assume that the passive morphology always is assigned case by the verb itself (cf. also section 3.2.1.5 above). A mechanism which allows (part of) a head to be assigned case from the head of its complement seems rather implausible. This means that adjacency may be seen as a condition on the reanalysis of the verb and the preposition (i.e. abstract incorporation of P° into V°), a condition which would apply in En., but not in No. Thus *with* in (iib) cannot be incorporated into the verb, as the conditions for reanalysis are not fulfilled (V° and P° are not adjacent), and the case assignment properties of *with* are

therefore not dependent on the verb, and remain intact when the verb is passivised. *Ollie* thus receives case twice in (iib), and the sentence is ruled out, under an analysis parallel to that of (180). In No. there is no adjacency condition on reanalysis, and the case assignment properties of the P° thus depend on the verb under any circumstances, i.e. P° loses its case assignment properties when the verb is passivised, irrespective of adjacency, hence (ia) and (iia).

Thus I do not take (i) and (ii) to support Åfarli's assumptions that case is assigned to the passive morphology, *-en*, in En. by the preposition, that adjacency is required for such assignment, and that No. passive morphology needs no case.

These three assumptions would also incorrectly predict one of the two following:

1. if Da. passive morphology needs no case: that (180) could be made grammatical by interrupting the linear adjacency between the verb and the preposition, which is not the case:

(iii) Da. *[At du ville komme]_i
blev_v t_i t_v t_i t_v t_i regnet t_i stærkt med t_i
That you would come
was counted strongly on

2. if Da. passive morphology needs case: that (181) below could be made ungrammatical by interrupting the linear adjacency between the verb and the preposition, which is not the case either:

(iv) Da. [At du ville komme]_i
blev_v der_j t_v t_i t_v t_i regnet t_i stærkt med t_i
That you would come
was there counted strongly on

If IP-spec contains *there*, the structure is possible:

(181) Da. [At du ville komme]_i blev_v der_j t_v t_i t_v t_i regnet t_i med t_i
That you would come was there counted on

The CP still receives its θ -role and its accusative case via a trace in the complement of P° , but it does not receive nominative case (which is assigned to *there*).

If IP-spec contains *it*, the structure is not possible:

(182) Da. *[At du ville komme] blev_V det_i t_V t_i t_V t_i regnet t_i med t_i
That you would come was it counted on

In order to occur in CP-spec of the main clause, the embedded CP has to undergo A'-movement. This is only possible for maximal projections which are assigned both a θ -role and a case. If the CP is assigned neither θ -role nor case (i.e. it is an apposition), then it cannot move into CP-spec, and the structure is impossible. Also, in this structure, *it* would receive two cases, nominative in IP-spec, and accusative via a trace in the com-

plement of P°. If, on the other hand, the CP is assigned θ -role and case here, then the argument *it* would receive neither, so the structure is impossible.

As discussed several times above, this last construction differs from a left dislocation construction. Left dislocated elements receive neither θ -role nor case:

- (183) Da. [At du ville komme], det_i blev_v der_j t_v t_i t_v t_i regnet t_i med t_i
That you would come, that was there counted on

Left dislocations are subject to exactly the same restrictions as the cases with CP in CP-spec, so in a sense this is merely a variation of (181).

Turning now to En., we shall see that this construction is not an example of accusative case being assigned to the θ -marked position. The relevant examples are the following: (184) are the cases with the embedded CP at the end, (185) and (186) the ones with the embedded CP in the CP-spec of the main clause, and (187) is the left dislocation.

- (184) En. a. *There_j was_v t_j t_v t_j agreed t_j on t_i [that we would leave at 6]_i
 b. ?It_i was_v t_i t_v t_i agreed t_i on t_i [that we would leave at 6]

The ungrammaticality of (184a) would be explained if the preposition does not assign a case: Though *there* gets nominative, which is all it requires, the embedded CP receives a θ -role and no case, a violation of visibility. If the preposition had assigned a case, the sentence should have been good.

(184b) could only be grammatical (which it almost is) if the preposition assigns no case, as otherwise *it* would receive two cases.

- (185) En. [That we would leave at 6]_i t_i was_v t_i t_v t_i agreed t_i on t_i

The grammaticality of (185) also presupposes that the preposition does not assign a case, as otherwise the CP would get both accusative via the trace inside the PP and nominative via the trace in IP-spec.

- (186) En. a. *[That we would leave at 6]_i was_v there_j t_v t_i agreed t_i on t_i /
 *[That we would leave at 6]_i there_j was_v t_i agreed t_i on t_i
 b. *[That we would leave at 6] was_v it_i t_v t_i t_v t_i agreed t_i on t_i /
 *[That we would leave at 6] it_i was_v t_i t_v t_i agreed t_i on t_i

The ungrammaticality of (186a) also points to the preposition not assigning any case, as otherwise the sentence would not be ruled out, both *there* and the CP would

have a case. The ungrammaticality of (186b) on the other hand is accounted for irrespective of whether the preposition assigns case, as the embedded CP in any case will receive neither case nor a θ -role (both will go to a trace of *it*), and it therefore cannot move into CP-spec.

(187) En. [That we would leave at 6], $that_i$ was_v t_i t_v t_i agreed t_i on t_i

The left dislocation is really a version of (185), and therefore also presupposes that the preposition do not assign case, as otherwise *that* would have two cases, nominative and accusative.

The cases of No. and Sw., where there also are reasons to believe that the preposition may not assign case (cf. the discussion of (177) above), are much more complex, as it would seem that the preposition may optionally assign case here. Recall that these two languages make no distinction between *it* and *there*, but use *det*, 'it', for both. This means that some of the data are compatible both with the preposition assigning a case, and with the preposition not assigning a case:

(188) No. ... at det_i t_i ble t_i regnet med t_i [at du ville komme]
 (189) Sw. ... att det_i t_i räknades_v t_i t_v med t_i [att du skulle komma]
 ... that it was counted on that you would come

This may be interpreted either with *det* corresponding to *it* and the preposition not assigning a case to the trace of *it* (this is the indexing shown), or with *det* corresponding to *there* and the preposition assigning a case to the CP.

Now for two cases where the preposition cannot assign a case:

(190) No. ?[At du ville komme]_i ble_v t_i t_v t_i t_v t_i regnet t_i med t_i
 (191) Sw. ?[Att du skulle komma]_i räknades_v t_i t_v t_i t_v t_i t_v t_i med t_i
 That you would come was counted on

Here the preposition cannot possibly assign a case, as then the CP would get both accusative via the trace inside the PP and nominative via the trace in IP-spec.

(192) No. ?[At du ville komme], det_i ble_v t_i t_v t_i t_v t_i regnet t_i med t_i
 (193) Sw. ?[Att du skulle komma], det_i ble_v t_i t_v t_i t_v t_i räknat t_i med t_i
 That you would come, that was counted on

This left dislocation (cf. the *det*-verb word order) cannot possibly involve more than one case either, as otherwise *it* would get more than one case.

Consider now two cases pointing to the preposition assigning case:

- (194) No. [At du ville komme]_i ble_v det_j t_v t_i t_v t_i regnet t_i med t_i
 (195) Sw. [Att du skulle komma]_i räknades_v det_j t_v t_i t_v t_i t_v t_i med t_i
That you would come was it counted on

Here the CP is in CP-spec, so it must have been moved there. If *det* corresponded to *it* here, this would be ruled out because it would be movement of a CP which has no θ -role. But if the CP has a θ -role, it must have a case too, and hence the preposition must assign case, as *det* in IP-spec is receiving the nominative.

- (196) No. [At du ville komme], det_i ble_v det_j t_v t_i t_v t_i regnet t_i med t_i
 (197) Sw. [Att du skulle komma], det_i blev_v det_j t_v t_i t_v t_i räknat t_i med t_i
That you would come, that was it counted on

Here both *dets* must receive case, and so there must be two case assigners.

Summing up No. and Sw., it seems that reanalysis is optional, i.e. the preposition can be interpreted as assigning case when that gives a grammatical reading, and as not assigning case when that gives a grammatical reading. Notice that this is not the case for the En. cases, as the ungrammaticality of (184a) and (186a) would not be explained if the preposition might not have been reanalysed as then there should have been a reading where the CP receives case.

Let us now turn to the last of the three languages that have the *it/there* distinction, Dutch. As noted above, the Du. version of the *count on* CP-construction has rather different characteristics from Da., No., Sw., and En. ones. One difference is that prepositions do not take CPs as complements in Du. With an NP as the complement, the languages are completely parallel (with the usual difference that the V^o follows its complement in Du., but precedes it in the other languages):

- (198) a. Da. ... regne [med noget] count [with something] ...
 b. No. ... regne [med noe] count [with something] ...
 c. Sw. ... räkna [med något] count [with something] ...
 d. En. ... count [on something] ...
 e. Du. ... [op iets] rekenen [on something] count ...

but with a CP as complement, the languages differ:

- (199) a. Da. ... regne [med [at du ville komme]] ...

... count with that you would come ...

b. No. ... regne [med [at du ville komme]]
... count with that you would come ...

c. Sw. ... räkna [med [att du skulle komma]]
... count with that you would come ...

d. En. ?... agree [on [that we would leave at six]] ...

e. Du. *... [op [dat jij komen zult]] rekenen ...
... on that you come would count ...

Notice that (199d) is not perfectly well-formed either, though this would appear to have had no consequences for (184)-(187). Maybe this is because En., unlike Du. (but like Da.), allows preposition stranding:

- (200) a. Da. Hvad regnede han med t
b. Du. *Wat heeft hij op t gerekend
c. En. What did he count on t

At any rate, Du. differs from both Da. and En. in that Du. (like Ge.) replaces the illegal [P° CP] structure by [*there* [P° t]] (with the CP in apposition):

(201) Du. ... [vp [pp *er*_i [p, op *t*_i] rekenen] ... [Cp dat *jij* komen zult]]
 ... *there on count* ... *that you come would*

I thus follow the analysis of Van Riemsdijk (1978), as discussed in Bennis (1986:20) and Van Riemsdijk & Williams (1986:297). *There* occurs in PP-spec, and plays the part of an *it*: it has a trace in the complement of P° , through which it receives the θ -role and case.

The same mechanism was operative in older forms of En., cf. Bennis (1986:276-281), and still works to some extent in Da., though with a very archaic flavour:

- (i) Da. Question: Har du lyttet til hendes råd?
Have you listened to her advice?

Answer: ??Ja, jeg har lyttet dertil
Yes, I have listened thereto

Given this analysis, the Du. facts may be accounted for as follows. First the cases with the embedded CP at the end:

- (204) Du. *[Dat jij komen zult], dat wordt_v erop_i t_i t_i t_i gerekend t_v t_v
That you come would that was thereon counted

On the other hand, *erop* has a demonstrative version, *daarop*. Here there are four possibilities, *daar* may move on its own, (205a,b), or move together with the preposition, (205c,d); and another *er* may or may not occur in IP-spec, (205a,c) vs. (205b,d), :

- (205) Du. [Dat jij komen zult], ...
That you would come ...
- a. ... daar_i wordt_v t_i t_i t_i op t_i gerekend t_v t_v
 b. ... daar_i wordt_v er_j t_i t_i t_i op t_i gerekend t_v t_v
 ... *there was (there) on counted*
- c. ... daarop_i wordt_v t_i t_i t_i gerekend t_v t_v
 d. ... daarop_i wordt_v er_j t_i t_i t_i gerekend t_v t_v
 ... *thereon was (there) counted*

As noted above, *er/daar* having more than one function does not give rise to an ungrammaticality when it receives more than one case, as in (205a): *daar* receives nominative as it is the expletive subject (*there*), and it receives accusative, as it is the argument of the preposition.

In this section, we examined the possibilities for *it/there* and embedded CPs in constructions where accusative case is assigned to the CP. As accusative assignment is not optional (as opposed to partitive case assignment/licensing) we can account for the facts: Accusative is assigned, and therefore the CP may only occur when *there* is assigned nominative case: at the end of the main clause, or in CP-spec. It is ruled out both in the structure without *it* or *there*, as it would be assigned both cases in the structure: nominative in IP-spec, and accusative via its trace in the complement of P^o, and it is ruled out in any structure with *it*, as *it* would be assigned both accusative and nominative.

We also saw two reasons why languages may not have examples of this kind. They may either neutralise the case assignment from the P^o, as in En. and other languages with the pseudo-passive constructions, or they may neutralise it with the pro-PP [*there-P^o*], as in Du. and Ge.

3.2.4 Conclusion.

Summing up: I have argued that the basic intuition of Bennis (1986) is correct, the difference between *it/det/het* and *there/der/er* is a difference between arguments and non-arguments (3.2.1, 3.2.2.1). I also argued that it did not account for the extraction facts (3.2.2.2), but that it does provide an account for a whole range of other phenomena. Especially in connection with certain assumptions about case assignment and the optionality of partitive case, it yields very interesting predictions (3.2.3).

I have to admit, though, that the class of verbs called raising verbs are a problem for this approach, as these verbs do not seem to behave consistently w.r.t. any combination of properties (number of θ -roles assigned, nature of case assigned). Consider as an example the Da. raising expression *lade til*, literally 'let to', which roughly means the same as *seem*. Judging from (206), it assigns only one θ -role, to the CP, and *til* assigns accusative to the CP.

(206) Da. Peter_i lod til [t_i at have stjålet bogen]
 Peter seemed to to have stolen book-the

Then how could (207) be explained, as there would seem to be no less than three elements needing case (*det*, *det* and the CP), and the same three elements would also need a θ -role?

(207) Da. [At du ville komme], det lod det til
 That you would come that seemed it to
 (= That you would come, that is what it looked like)

3.3 Appendix: "Der" in relative clauses in Danish.

3.3.1 Introduction.

Apart from being an expletive subject, *der* also appears in relative clauses:

(208) Da. Vi kender mange lingvister, der vil læse denne bog
 We know many linguists there(=who) will read this book

Da. *der* also is a place adverbial, exactly like its En. and Du. counterparts *there/er*.

As I am aware of no other expletive in Danish or in any other language that seems to occur both in expletive constructions and in (non-expletive) relative constructions, we might want to ask whether this is one and the same *der*, or two different elements. I will try to settle this question by examining the structural position of *der* in the two uses, as is general custom in the literature on this subject.

In spite of the high number of discussions of this matter, there is little agreement on the status of *der* in relative clause. This is very different from *der* in expletive constructions, which everybody agrees is in subject position.

Diderichsen (1962:190, 209) and Erteschik-Shir (1985) assume *der* in relative constructions also to be in subject position, in contrast to e.g. Jacobsen & Jensen (1982) and Taraldsen (1986b), who take this *der* to be in C°. Below I will argue for the latter conclusion, i.e. that *der* is an XP in expletive constructions, and an X° in (non-expletive) relative ones.

Erteshik-Shir (1985:131) lists five different types of constructions that allow *der* in Da. (and she is not including the possibility of *der* as a place adverbial): "existentials", "situatives", "relatives", "clefts", and "embedded questions". I consider the first two to be subcases of *der* as an expletive subject, and the three others to be subcases of what is under discussion here: relative *der*.

3.3.2 Relative "der": IP-spec or C°?

Before going into the analysis of *der* and *som* in section 3.3.3, I will review the arguments for assuming *der* to be in IP-spec or in C° in relative clauses. I shall begin with Erteschik-Shir's (1985) central argument against having relative *der* in C°.

3.3.2.1 Genitive relative clauses.

Erteschik-Shir (1985:139) argues, with reference to Engdahl (1984:5), that *der* cannot occur in C°. Her argumentation is based on the difference in grammaticality between *der* and *som* ("which"/"who") in genitive relative clauses like (209) and indirect questions like (210). *Hvis hund* ("whose dog") is taken to occur in C°, as CP-spec supposedly does not exist in embedded clauses (cf. Engdahl (1984)). If C° is filled, only the subject position is available for any other preverbal material. This subject position may be filled with a trace, (209a)/(210a), or with *der*, (209b)/(210b), but not with *som*,

(209c)/(210c). As *som* is possible in relative clauses with an overt subject NP, (211c), as opposed to *der*, (211b), *som* is taken to occur in C°. This in turn explains why *som* and *der* are different in (209) and (210): *som* is in C°, *der* in subject position.

- (209) Da. a. Jeg kender en pige hvis hund t spiser æbler
 b. *Jeg kender en pige hvis hund at t spiser æbler
 c. ??Jeg kender en pige hvis hund der t spiser æbler
 d. *Jeg kender en pige hvis hund som t spiser æbler
I know a girl whose dog ---- eats apples

- (210) Da. a. Jeg ved hvis hund t spiser æbler
 b. Jeg ved hvis hund at t spiser æbler
 c. ?Jeg ved hvis hund der t spiser æbler
 d. *Jeg ved hvis hund som t spiser æbler
I know whose dog --- eats apples

- (211) Da. a. Jeg kender en bog denne lingvist har skrevet t
 b. *Jeg kender en bog at denne lingvist har skrevet t
 c. *Jeg kender en bog der denne lingvist har skrevet t
 d. Jeg kender en bog som denne lingvist har skrevet t
I know a book --- this linguist has written

I will not gloss *at*, *der* and *som* below, mainly for reasons of space, but also because a gloss presupposes the kind of decision I am trying to reach in this section. Suffice it to say that I think that *at* corresponds to its English counterpart *that*, that *som* seems to be a particular relative C°, and that *der* is a relative C° only possible in subject extractions.

I agree with the basic judgment, viz. that *der* is significantly better than *som* in (209) and (210), though the judgments seem to me to be rather relative: *Der* may be better than *som*, but it is not as good as nothing at all, (209a)/(210a).

The only striking difference of judgments concerns (209c), which Erteschik-Shir (1985:139, (42c)) takes to be perfectly acceptable.

Though I agree with the judgments, I disagree with the proposed analysis of them. It does not seem feasible that *hvis hund* ("whose dog") is in C°, as only heads (X°-elements) may occur in C°, (cf. Chomsky (1986:4-5, 68-69)), and *hvis hund* clearly is an NP (an XP-element). Therefore *hvis hund* must be in CP-spec, and the whole set of examples only show that *der* may occur anywhere between CP-spec and I°, i.e. either in C° or in the subject position (IP-spec).

Erteshik-Shir's argumentation also rests on the assumption that there is only one X° -position available above IP-spec in an embedded clause. However, this seems to be too restrictive a view, as shown by the *som at der* cases in (212) (see further section 3.3.3.5 below).

(212) Da. ?Vi kender mange lingvister som at der vil læse denne bog
 We know many linguists --- -- --- will read this book

Under any analysis both *som* and *at* would have to be X° s, and in my analysis the same goes for *der*.

~~~~~  
 In fact, because they take relative *der* to be in  $C^{\circ}$ , Jacobsen & Jensen (1982:8) have made a rather unattractive assumption, viz. that *at der* is "a two-word complementizer with no internal structure", i.e. that *at der* is a  $X^{\circ}$ -element.

~~~~~  
 I take *at* to be a head, as it is the standard complementiser in embedded clauses. Notice that it is more restricted in relative clauses than its En. counterpart *that*.

I take *som* to be a X° , as it does not participate in pied piping.

~~~~~  
 The kind of pied piping discussed here is the case where the PP containing it has moved to the beginning of the sentence. The image is one of the children of Hameln in Lower Saxony, who followed the pied piper out of town (cf. the German term "die Rattenfängerkonstruktion"). The relative pronoun is the piper, and the preposition follows, just like the children.

~~~~~  
 In relative clauses without pied piping, (213), *som* is much better than *hvem*, 'who', which at best is very formal. Still, in pied piping structures like (214), there is no doubt that *hvem* is better than *som*.

(213) Da. a. Manden som jeg gav bogen til t
 b. ?Manden hvem jeg gav bogen til t
 Man-the (who) (---) I gave book-the to

(214) Da. a. *Manden til som jeg gav bogen t
 b. ?Manden til hvem jeg gav bogen t
 Man-the to (who) (---) I gave book-the

If we take *hvem* to be an XP and *som* to be an X° , this will be accounted for, as only XPs may be complements of prepositions, i.e. in (214b) CP-spec contains the PP [*to who*].

~~~~~  
 There are also other uses of *som*, where it clearly is a  $X^{\circ}$ , e.g. the 'comparative conjunction' in (i). This is not a valid argument, however, as the same argumentation would force me to say that *der* is an XP, given that it is an XP in other uses (i.e. as an expletive subject (cf. 3.1 and 3.2, and as a place adverbial).

- (i) Da. Han æder som en tærsker  
He eats like a thresher

(from Diderichsen (1962:72))

We therefore have to find other explanations for the contrasts in (209)-(211), cf. section 3.3.3 below.

#### 3.3.2.2 Relative "der" as a resumptive pronoun.

One of the main points of the *der* in IP-spec account is that the ungrammaticality of (215c) (repeated from (211) above) receives a straightforward account:

- (215) Da. a. Jeg kender en bog            denne lingvist har skrevet t  
           b. \*Jeg kender en bog at denne lingvist har skrevet t  
           c. \*Jeg kender en bog der denne lingvist har skrevet t  
           d. Jeg kender en bog som denne lingvist har skrevet t  
               *I know a book --- this linguist has written*

This is ruled out because there is not room in IP-spec for both *der* and *denne lingvist*. Consider, however, (216):

- (216) Da. \*Hvilken tyv<sub>i</sub> ved du hvad<sub>j</sub> der t<sub>i</sub> har stjålet t<sub>j</sub>?  
Which thief know you what --- has stolen
- (217) Da. ?Hvilken bog<sub>j</sub> ved du hvem<sub>i</sub> der t<sub>i</sub> har stjålet t<sub>j</sub>?  
Which book know you who --- has stolen

This contrast is not accounted for under the *der* in IP-spec account: This is not a case of two overt NPs which both have to occur in IP-spec, so nothing stops *der* from occurring in IP-spec, and the existence of (217) means that (216) cannot be ruled by a ban on multiple questions.

In fact, there is even a particular reason why we might expect examples like (216) to be grammatical under the *der* in IP-spec account: As noted by Jacobsen & Jensen (1982:17), this account basically amounts to saying that *der* is a resumptive (subject) pronoun, and resumptive pronouns may (maybe marginally) be possible in (216):

- (218) Sw. ?Vilken tjuv<sub>i</sub> är det du inte vet vad<sub>j</sub> han<sub>i</sub> har stulit t<sub>j</sub>?  
Which thief is it you not know what he has stolen

(Elisabet Engdahl (p.c.))

but given the ungrammaticality of (216), it does not seem that relative *der* cannot be a resumptive pronoun.

To my ear, Da. pronouns are less acceptable as resumptive pronouns, cf. the ungrammatical Da. version of (218):

(219) Da. \*Hvilken tyv<sub>i</sub> er det du ikke ved hvad<sub>j</sub> han<sub>i</sub> har stjålet t<sub>j</sub>?  
*Which thief is it you not know what he has stolen*

but the following two examples are given in Hansen (1974b:397), which make it even more clear that *der* is not a resumptive pronoun, as it again is impossible in a context where a resumptive pronoun is acceptable:

(220) Da. a. Vi traf en socialdemokrat  
                   som vi ikke forstod       hvorfor han var inviteret  
           *We met a social-democrat*  
                   *who we not understood why       he was invited*

          b. \*Vi traf en socialdemokrat  
                   som vi ikke forstod       hvorfor der var inviteret  
           *We met a social-democrat*  
                   *who we not understood why       --- was invited*

These judgments are Hansen's (1974b:397). I would give (220a) at least "??", though I agree that it is better than (220b).

### 3.3.2.3 Is case assigned to relative "der"?

Relative *der* differs from expletive *der* w.r.t. transitive constructions. Relative *der* is grammatical in such a construction, (208), repeated below as (221a), whereas expletive *der* is impossible, (222):

(221) Da. a. Vi kender mange lingvister       der vil læse denne bog  
           b. Vi kender mange lingvister som der vil læse denne bog  
               *We know many linguists --- --- will read this book*

          c. Vi ved ikke hvor mange lingvister der vil læse denne bog



*We know not now many linguists there will read this book*

(222) Da. \*... at der vil mange lingvister læse denne bog  
 ... *that there will many linguists read this book*

It was argued in section 3.1.2.2 (on expletive active transitives) that the ungrammaticality of (222) arises because the NP *mange lingvister* is not assigned a case (which in turn is due to the lack of inflectional morphology in I° in Da., cf. that (222) would be possible in Ic.). This explanation presupposes that expletive *der* in IP-spec is assigned nominative case.

What are the case properties of relative *der*? If relative *der* is the same *der* as expletive *der*, both should be assigned nominative (cf. that both occur in IP-spec under this analysis). If *der* in (221) is assigned nominative case, however, it would have to 'share' this case with the element in CP-spec ((221a,b): Ø, (221b): *hvor mange lingvister*), and if it was possible for *der* to share its case with another NP, then we would have no reason for (222) to be ungrammatical.

If relative *der* is in C°, it is an X°-element, and then it needs no case. This is compatible with the nominative case being assigned to a trace in IP-spec, which shares it with its antecedent (as traces always do), the constituent in CP-spec ((221a,b): Ø, (221b): *hvor mange lingvister*).

The difference between the two analyses is even clearer if we compare indirect questions (with relative *der*, cf. (208b)) to direct questions (with expletive *der*):

(223) Da. ?Jeg ved hvis hund der har spist æblet  
*I know whose dog --- has eaten apple-the*

(224) Da. \*Hvis hund har der spist æblet?  
*Whose dog has there eaten apple-the*

If *der* in (223) is in subject position, there should be no difference between (223) and (224): In both *der* would be assigned a nominative case and share it with *hvis hund* in CP-spec. This process might either be possible, then both should be grammatical, or impossible (as argued above), and then both should be ungrammatical. Clearly, however, one is grammatical, and the other is not.

If *der* on the other hand is in C° in (223), nominative case is assigned to the trace of *hvis hund* in IP-spec. In (224) *der* cannot be in IP-spec, as *hvis hund* would get no case, and it cannot be in C°, which is already occupied by *har* (the finite verb). We would thus expect (223) to be grammatical, and (224) to be ungrammatical, exactly the right predictions.

In order to support the above argumentation, let me argue in more detail for the position of *hvis hund* ("whose dog"). As in the previous section, I take it to be in CP-spec, and not in C°, as it clearly is an XP and not an X°-element.

*Hvis hund* cannot be outside the embedded CP either, as shown by the examples below. The two matrix verbs differ in that *vide* ("know" in the sense of Fr. *savoir*/Ge. *wissen*) takes a CP as a complement, (225)/(226), but not an NP, whereas *kende* ("know" in the sense of Fr. *connaître*/Ge. *kennen*) takes an NP as a complement, (227)/(228), but not a CP. The construction with *hvis hund* as in (223) is only possible with the CP-selecting verb, and thus it must be inside the CP:

(225) Da. a. ?Jeg ved [CP hvis hund der har spist æblet]  
 b. \*Jeg kender [CP hvis hund der har spist æblet]  
 I know whose dog --- has eaten apple-the

(226) Da. a. Jeg ved [CP at hunden har spist æblet]  
 b. \*Jeg kender [CP at hunden har spist æblet]  
 I know that dog-the has eaten apple-the

(227) Da. a. \*Jeg ved [NP ham [CP der har spist æblet]]  
 b. Jeg kender [NP ham [CP der har spist æblet]]  
 I know him --- has eaten apple-the

(228) Da. a. \*Jeg ved [NP mange lingvister]  
 b. Jeg kender [NP mange lingvister]  
 I know many linguists

To sum up the first part of this subsection, *der* is possible in relative clauses irrespective of whether they are transitive or not, as long as IP-spec is empty. *Der* in IP-spec, on the other hand, is not possible in transitive direct questions.

It is not impossible to have a *der* in subject position in a direct question, but the direct question then has the characteristics of other expletive constructions in Da. (cf. section 3.1): It cannot be transitive, and the argument NP which otherwise would have received nominative, will now have partitive case assigned/licensed. The partitive case can be seen from the fact that in (229) the indefinite *hvor mange firmaer* ("how many firms") is much better than the definite *hvilke firmaer* ("which firms") is possible. (Argument adopted from Taraldsen (1986b:180)).

(229) Da. a. Hvor mange firmaer er der gået t fallit?  
 How many firms are there gone bankrupt?



which was used for future tense (cf. Ic. *munu*, "shall, will"). *Mon* is simply a relic of the verb itself, whereas *monstro* derives from Old Norse ... *mun svá trúa* ..., '... shall (I) so believe ...' (Mikkelsen (1911:19)). This is also why questions with *mon* had the main verb in the infinitive in earlier stages of Da.:

- (234) MDa. Monne han icke vere Christus?  
 Shall he not be(infinitive) Christ? (=Might he not be Christ?)  
 (Christiern Pedersen's transl. of the New Testament,  
 printed 1529, cited in Falk & Torp (1900:290))

Mikkelsen (1911:582) suggests that constructions with *mon/monstro* really are constructions with embedded clauses, so that (232a,b) should be interpreted as

- (235) Da. a. Hvem mon (det være) der lige har spist kagen?  
 Who might it be --- just has eaten cake-the?  
 b. Hvem mon (jeg) s(å) tro der lige har spist kagen?  
 Who might I thus believe --- just has eaten cake-the?

This analysis would account for both the difference from (231), and also the ungrammaticality of (233), as it is ruled out like any other occurrence of *som* which is not in the highest clause of the extraction, cf. section 3.3.3.2 below:

- (236) Da. a. Jeg ved ikke hvem du tror har gjort det  
 b. ?Jeg ved ikke hvem du tror at har gjort det  
 c. Jeg ved ikke hvem du tror der har gjort det  
 d. \*Jeg ved ikke hvem du tror som har gjort det  
 I know not who you believe --- has done it

### 3.3.2.5 Conclusion: Relative "der" is in C°.

In 3.3.2, it was argued that the *der* that occurs in relative clauses occurs in C°. This was partly done by showing that alternative analyses could be given for two phenomena that seemed to argue against *der* being in C°, viz. genitive relative clauses in 3.3.2.1, and questions with *mon* in 3.3.2.4. The other arguments against relative *der* being in IP-spec had to do with arguments against *der* being a resumptive pronoun (3.3.2.2), and with case assignment (*der* and the extracted subject would have to share case, section 3.3.2.3).

In this section, I have also made a number of promises, which I hope to be able to keep in the next section. These include providing answers to the following questions: Why is *der* only possible when the extraction is from IP-spec, cf. (211b)? Why is *der* better in indirect questions, cf. (210), than in genitive relative clauses, cf. (209)? Why is *som* not possible in genitive relative clauses, cf. (209), nor in indirect questions, cf. (210)? Why is *som* not possible in a clause embedded inside a relative clause, but only in the relative clause itself, cf. (236)? Why is *at* possible at all in a relative clause? and finally, why is the only possible order *som at der* when all three occur in the same relative clause? Why is no relative at all possible in all genitive relative clauses, cf. (209), in all indirect questions, cf. (210), but in normal relative clauses only if the extracted element is not the subject?

### 3.3.3 C° elements in Danish relative clauses.

#### 3.3.3.1 The hypotheses.

I will argue that the following restrictions, which all are related to the concept of proper government, govern the distribution of *som* and *der* in relative clauses:

- (237) A. *som* requires an empty operator in its spec.
- B. *som* and *der* may properly govern the spec of their complement iff this spec is coindexed with their own spec.
- C. *at* and an empty C° may not properly govern the spec of their complement if their spec contains an empty operator.
- D. *der* only occurs when this kind of agreement obtains, whereas *som* does not have such a restriction.

In Rizzi (1990:section 2.7/62) a set of features are suggested which characterise the four possible feature specifications of a C° (and its CP-spec, with which it must agree) in embedded clauses. The two features are [ $\pm wh$ ] and [ $\pm pred(ication)$ ]. [ $\pm wh$ ] is determined as discussed in section 2.1.4 above. [ $\pm pred(ication)$ ] is the "distinctive property of relatives", i.e. relatives are [ $+pred$ ] other embedded clauses [ $-pred$ ]. The four resulting combinations are given as:



| (238) | [±wh] | [±pred] |           | CPsp  | C°   |            |
|-------|-------|---------|-----------|-------|------|------------|
| a.    | +     | -       | I wonder  | what  | Ø    | you saw t  |
| b.    | +     | +       | The thing | which | Ø    | you saw t  |
| c.    | -     | +       | The thing | OP    | that | you saw t  |
| d.    | -     | +       | I know    | Ø     | that | you saw it |

(238a) is typically an indirect question, (238b) a relative clause with a *wh*-element, (238c) a relative clause without a *wh*-element, and (238d) a normal embedded declarative clause.

The use of these features allows an account for some of those phenomena that are often referred to as the "Doubly filled Comp effect", a name deriving from the analysis in Chomsky & Lasnik (1977) where the ungrammaticality was explained by *that* and the *wh*-element competing for the same positions, viz. C°:

- (239) En. a. What that Peter saw t yesterday?  
 b. The man who that Peter saw t yesterday ...

This can now be explained as a feature incompatibility, *what/who* has the feature [+*wh*], *that* has the feature [-*wh*].

### 3.3.3.2 "Som" and empty operators.

The assumption in (237A) was that *som* requires an empty operator in its specifier. What is an empty operator?

To answer this question we need to make the assumption here is that in a relative clause something moves from a position inside IP into (the highest) CP-spec. That something may in some cases be an overt element, but it may also be an empty element. This can be seen in examples like the genitive relative clause, (225) = (240), and a normal relative clause, (227) = (241):

- (240) Da. a. ?Jeg ved [CP hvis hund der t har spist æblet]  
 b. \*Jeg kender [CP hvis hund der t har spist æblet]  
 I know whose dog --- has eaten apple-the

- (241) Da. a. \*Jeg ved [NP ham [CP OP der t har spist æblet]]  
 b. Jeg kender [NP ham [CP OP der t har spist æblet]]  
 I know him --- has eaten apple-the

In (240) the moved element is overt, whereas in (241) it is not. This can be seen both from considerations of case and  $\theta$ -roles as well as considerations of constituency (cf. the discussion in 3.3.2.3 above).

In (240) *hvis hund* only gets one case, nominative, and one  $\theta$ -role, "eater of the apple". In (241), on the other hand, *ham (der har spist æbler)* would have to get both accusative from *kender* (cf. that *ham* has accusative form) and nominative as subject of the embedded clause, and it would also get two  $\theta$ -roles, "knowee of I", and "eater of the apple". Consequently we are forced to conclude that in (241) there are two elements involved, one which is overt and which receives accusative and the  $\theta$ -role "knowee of I", and one which is empty (in the embedded CP-spec, I use the notation "OP"), and which receives nominative and the  $\theta$ -role "eater of the apple".

If we now assume that it is a lexical property of *som* that it requires an empty operator in its spec, then we can account why it cannot occur in genitive relative clauses, cf. (209) = (242), nor in indirect questions, cf. (210) = (243), nor in a clause embedded inside a relative clause, (236) = (244):

- (242) Da. a. Jeg kender en pige [<sub>CP</sub> hvis hund t spiser æbler]  
 b. ??Jeg kender en pige [<sub>CP</sub> hvis hund der t spiser æbler]  
 c. \*Jeg kender en pige [<sub>CP</sub> hvis hund som t spiser æbler]  
*I know a girl whose dog --- eats apples*
- (243) Da. a. Jeg ved [<sub>CP</sub> hvis hund t spiser æbler]  
 b. ?Jeg ved [<sub>CP</sub> hvis hund der t spiser æbler]  
 c. \*Jeg ved [<sub>CP</sub> hvis hund som t spiser æbler]  
*I know whose dog --- eats apples*
- (244) Da. a. Jeg ved ikke [<sub>CP</sub> hvem du tror [<sub>CP</sub> t t har gjort det]]  
 b. Jeg ved ikke [<sub>CP</sub> hvem du tror [<sub>CP</sub> t der t har gjort det]]  
 c. \*Jeg ved ikke [<sub>CP</sub> hvem du tror [<sub>CP</sub> t som t har gjort det]]  
*I know not who you believe --- has done it*

In (242) and (243) there is an overt *wh*-element in the spec of *som*. This means that this spec is not an empty operator, and so the sentence is ungrammatical. In (244) the element in the spec of *som* is not overt, but then it is not a operator either, as the operator is *hvem* in the CP-spec of the relative clause itself. As traces of operators are not themselves operators, (244) is also ruled out.

### 3.3.3.3 Proper government of IP-spec.

Let us now move on to (237B) and (237C), which said that *som* and *der* properly govern the spec of their complement iff this spec is coindexed with their own spec, and that *at* and an empty  $C^\circ$  may not properly govern the spec of their complement if their spec contains the empty operator. In order to see how these assumptions work, we will have to consider proper government of IP-spec once again.

As discussed e.g. in 1.2.3, 1.3, and 2.3.7, all traces must be properly head governed. This is not a problem for traces in CP-spec, as they are properly head governed by the matrix verb, nor is it a problem for traces in object position or in the complement of a preposition, as they are properly governed by  $V^\circ$  and  $P^\circ$  respectively.

It is however a problem for traces in IP-spec, as the position from which it could be properly head governed,  $C^\circ$ , does not always contain something which may perform this government. This may be the case, as in subject extractions from embedded V2 clauses in German (as discussed in section 2.3.7 above) where the governor is the verb in  $C^\circ$ . It is also the case in relative clauses with certain complementisers. Rizzi (1990:section 2.5) suggests this kind of analysis for French and for West Flemish.

Depending on the language, the agreeing complementiser may be either possible or obligatory when the subject position is empty. In French, *que* is thus the normal complementiser, and *qui* is the complementiser with the proper government properties:

(245) Fr. a. Le linguiste *que* tu crois *qui* t a lu ce livre  
 The linguist that you think that(+agr) has read this book

b. \*Le livre *que* tu crois *qui* Paul a lu t  
 The book that you think that(+agr) Paul has read

(246) Fr. a. \*Le linguiste *que* tu crois *que* t a lu ce livre  
 The linguist that you think that(-agr) has read this book

b. Le livre *que* tu crois *que* Paul a lu t  
 The book that you think that(-agr) Paul has read

*Qui* is only possible if there is agreement between IP-spec and CP-spec, (245). Furthermore, when this agreement obtains, *qui* is the only possibility, (245a) vs. (246a)(cf. the discussion of *der* in the next subsection).

West Flemish also has a complementiser, *die*, which is possible only when there is agreement between IP-spec and CP-spec, (247). WF. differs from Fr. in that when the agreement obtains, the agreeing complementiser, *die*, is not the only possibility, as the normal complementiser *da* also occurs, (247a) and (248a). The data and the analysis are from Bennis & Haegeman (1983:35):

- (247) WF. a. Den vent da Pol peinst die  $\bar{t}$  gekomen ist  
 The man that Pol thinks that(+agr) come is
- b. \*Den vent da Pol peinst die Marie  $\bar{t}$  getrokken heet  
 The man that Pol thinks that(+agr) Marie photographed has
- (248) WF. a. Den vent da Pol peinst da  $\bar{t}$  gekomen ist  
 The man that Pol thinks that(-agr) come is
- b. Den vent da Pol peinst da Marie  $\bar{t}$  getrokken heet  
 The man that Pol thinks that(-agr) Marie photographed has

I shall argue that *som* and *der* in Da. have the same ability to properly govern as just seen for *qui* in Fr. and *die/da* in WF. This sets them apart from cases with *at* or with no complementiser at all:

- (249) Da. Vi kender mange lingvister<sub>i</sub>, ...  
 We know many linguists ...
- a. \*... [CP OP<sub>i</sub> Ø [IP t<sub>i</sub> vil læse denne bog]]  
 ... will read this book
- b. \*... [CP OP<sub>i</sub> at [IP t<sub>i</sub> vil læse denne bog]]  
 ... that will read this book
- c. ... [CP OP<sub>i</sub> der<sub>i</sub> [IP t<sub>i</sub> vil læse denne bog]]  
 ... there will read this book
- d. ... [CP OP<sub>i</sub> som<sub>i</sub> [IP t<sub>i</sub> vil læse denne bog]]  
 ... that will read this book

It may be somewhat problematic that the empty C° in (249a) or *at* in (249b) does not agree with the empty operator in IP-spec: surely Ø/*at* agree with their own specs, spec-X° agreement supposedly always takes place, and surely also CP-spec and IP-spec are coindexed, as something was moved from one to the other. Maybe one should look at it slightly differently, and ask what kind of "weak" spec-X° agreement obtains in (249a) and (249b) which does not allow C° to properly govern IP-spec, in spite





Notice also that the fact that *at* is possible in these constructions when its spec neither contains an empty operator, nor a *wh*-element is thus accounted for. The insufficiency of the combination empty operator + *at* takes care of the former, while the incompatibility of [ $\pm wh$ ] features sees to the latter: In (250b) and (251b), *at* which is [ $-wh$ ] has a [ $+wh$ ] specifier, *hvis hund*.

Maybe we could also appeal to the feature compatibility to account for why (252c) and (253c) are completely acceptable, whereas (251b) is "?", and (250b) "??". The story would be that *der* is [ $-wh$ ], but may be taken to be [ $+wh$ ]. This would be better if it occurs in a  $C^\circ$ , which is selected as [ $+wh$ ], (251b), than one which is [ $+wh$ ], but not selected, (250b).

The question of whether *som* is compatible with [ $+wh$ ] does not arise at all, as *som* can only occur with an empty operator in its specifier.

### 3.3.3.4 Restrictions on "der".

(237D) stated that *der* only occurs when there is agreement between the spec of its complement (IP-spec) and its own spec (CP-spec), whereas *som* does not have such a restriction.

*Der* is ungrammatical if there is an overt NP in IP-spec:

- (254) Da. a. \*Vi kender en bog [ $C_P$  OP *der* denne lingvist har læst t]  
 b. Vi kender en bog [ $C_P$  OP denne lingvist har læst t]  
 We know a book --- this linguist has read

The judgments are parallel when *som* also occurs:

- (255) Da. a. \*Vi kender en bog [ $C_P$  OP som [ $C_P$  t *der* denne lingvist har læst]]  
 b. Vi kender en bog [ $C_P$  OP som denne lingvist har læst]]  
 We know a book --- --- this linguist has read

If relative *der* is in IP-spec, these facts are accounted for in a very straightforward manner: IP-spec cannot both contain *der* and the subject.

If relative *der* is in  $C^\circ$ , these judgments might seem problematic, as *der* in  $C^\circ$  and *denne lingvist* in IP-spec are in different positions, and should thus be able to occur in the same sentence. However, there might be another requirement that rules out this possibility, viz. the one suggested above, that it is a lexical property of *der* that its own



we do not have two overt NPs which both have to occur in IP-spec, thus nothing stops *der* from occurring in IP-spec. This means that also the *der* in IP-spec account has to say something special to account for this case. Notice that (259) cannot be ruled out just on the grounds that two *wh*-elements are not possible, as the following example (= (217)) is much better (even if it is not completely acceptable):

(260) Da. ?Hvilken bog<sub>j</sub> ved du hvem<sub>i</sub> der t<sub>i</sub> har stjålet t<sub>j</sub>?  
 Which book know you who there has stolen

Where (216)/(259) violates ECP because *der* is not coindexed with the empty subject, which thus is not properly governed, (217)/(260) only violates subjacency and therefore it is much more acceptable, cf. section 2.3.7 above and Rizzi (1990:section 3.1).

Another kind of account for the same facts is offered in Taraldsen (1986b), and the rest of this section will discuss this analysis. As stated above, Taraldsen (1986b) assumes that *der* is in C°.

Taraldsen (1986b:153, 158, 180, n9) argues that the ungrammaticality of (254a)/(255a) follows from (a revised version of) the binding theory. Governing category is defined as in Chomsky (1981), i.e. the least constituent containing the anaphor, its governor and a SUBJECT accessible to the anaphor. The definition of SUBJECT is revised as follows: AGR is not a SUBJECT, only overt nominal elements are. This means that a trace in subject position bound by *der* is bound in its governing category (the SUBJECT is in fact *der* itself and the governing category therefore C'), whereas a trace in a non-subject position bound by *der* will not be bound in its governing category (the SUBJECT is the subject and the governing category will be the IP), thus violating principle A of the binding theory (Chomsky (1981:188)), as the closest possible binder is *der*, which is outside IP. This thus accounts for all three types of cases, (256)-(258), repeated below as (261)-(263).

If the trace inside IP is in subject position, the governing category is C'. The trace is bound by *der* which is inside its governing category:

(261) Da. a. ... [CP OP<sub>i</sub> som<sub>i</sub> [CP t<sub>i</sub> der<sub>i</sub> [IP t<sub>i</sub> vil læse denne bog]]]  
 b. ... [CP OP<sub>i</sub> der<sub>i</sub> [IP t<sub>i</sub> vil læse denne bog]]  
 ... --- --- will read this book

If the trace inside IP is in the object position, its governing category is IP, as the closest SUBJECT is the subject. Here there are two possibilities. If there is a *der*, it will bind it, and the structure is ungrammatical, as *der* is not inside its governing category:

- (262) Da. a. \*... [CP OP<sub>i</sub> som<sub>i</sub> [CP t<sub>i</sub> der [IP denne lingvist<sub>j</sub> har læst t<sub>i</sub>]]]  
 b. \*... [CP OP<sub>i</sub> der [IP denne lingvist<sub>j</sub> har læst t<sub>i</sub>]]  
 ... --- this linguist has read

If there is no *der* at all, the closest binder of the trace is CP-spec, and this means that the trace is not an anaphor, but a variable (Taraldsen (1986b:163): The binder is an 'operator'). Variables may not be bound inside their governing category, and the structure is thus grammatical:

- (263) Da. a. ... [CP OP<sub>i</sub> som [IP denne lingvist<sub>j</sub> har læst t<sub>i</sub>]]  
 b. ... [CP OP<sub>i</sub> Ø [IP denne lingvist<sub>j</sub> har læst t<sub>i</sub>]]  
 ... --- this linguist has read

Taraldsen's (1986b) analysis would also be able to account for the difference between (259) and (260), repeated below:

- (264) Da. \*Hvilken tyv<sub>i</sub> ved du hvad<sub>j</sub> der t<sub>i</sub> har stjålet t<sub>j</sub>?  
 Which thief know you what there has stolen

- (265) Da. ?Hvilken bog<sub>j</sub> ved du hvem<sub>i</sub> der<sub>i</sub> t<sub>i</sub> har stjålet t<sub>j</sub>?  
 Which book know you who there has stolen

The governing category of the trace in the subject position is C', as the SUBJECT is *der*. The trace is only bound inside C' in (265), by *der*. In (264) *der* however has a different index, as it must agree with its specifier.

Even though the facts are thus accounted for under Taraldsen's (1986b) analysis, there are serious theoretical problems with his approach. One obvious problem is that in spite of its position in C°, *der* is considered as a (potential) binder. Given present-day analyses of X'-structure in general, and of the complementiser position in particular (cf. Chomsky (1986:4-5, 68-69)), this is not very feasible, as a binder must be an NP, or at the very least an XP, and relative *der* is a X°-element. Similar problems exist w.r.t. taking an intermediate projection (C') to be the governing category. Further problems are discussed in Vikner (1989:85-87).

Before I move on to the combinations involving *at*, I should like to mention one more distributional fact about *der*, but this time one that cannot be accounted for in any analysis that I know of. This fact is that *der* never occurs in the second of two conjoined relative clauses (as noted e.g. in Jacobsen & Jensen (1982:18)). The judgments are very clear:



- (266) Da.           Jeg kender mange lingvister ...  
                       *I know many linguists ...*
- a. ... der vil læse denne bog og som måske vil synes om den  
 b. \*... der vil læse denne bog og der måske vil synes om den  
 c. ... som vil læse denne bog og som måske vil synes om den  
 d. \*... som vil læse denne bog og der måske vil synes om den  
       ... --- *will read this book and* --- *maybe will like it*

and they are basically the same if a *som* is added to each *der*:

- (267) Da.           Jeg kender mange lingvister ...  
                      *I know many linguists ...*
- a. ... som der vil læse denne bog og som måske vil synes om den  
b. \*... som der vil læse denne bog og som der måske vil synes om den  
c. ... som vil læse denne bog og som måske vil synes om den  
d. \*... som vil læse denne bog og som der måske vil synes om den  
    ... --- --- *will read this book and* --- --- *maybe will like it*

### 3.3.3.5 Combinations with "at".

As discussed in section 3.3.3.3, *at* is only able to properly govern the specifier of its complement if its own specifier does not contain an empty operator, and if the two specifiers are coindexed.

In this section I want to discuss the possible combinations with *at*. As mentioned in connection with (212) above (and as noted in Jacobsen & Jensen (1982:10)), it is possible to combine all three C°s in one clause, but only in one particular order:

- (268) Da. a. ?Vi kender mange lingvister som at der vil læse denne bog  
 b. \*Vi kender mange lingvister som der at vil læse denne bog  
 c. \*Vi kender mange lingvister at som der vil læse denne bog  
 d. \*Vi kender mange lingvister at der som vil læse denne bog  
 e. \*Vi kender mange lingvister der som at vil læse denne bog  
 f. \*Vi kender mange lingvister der at som vil læse denne bog  
 We know many linguists ----- will read this book

Though it may seem that (268a) should be improved if *der* is an expletive subject, this is actually not the case:



- (i) Da. ?Vi kender en lingvist som at der bliver nævnt i denne bog  
 We know a linguist who that there is mentioned in this book

as there still seems to be a very weak restriction w.r.t. the cooccurrence of *som* and *at* which is violated. This restriction may be prescriptive, cf. the following comment on this kind of structures: "The relative pronoun *som* can never be followed by the conjunction *at*", made by Nissen (1982:135), which is a rather prescriptive volume ("Some [of my] rules may seem quibbling, and they are often neglected in the spoken language", Nissen (1982:7)).

What rules out (268b-f)? If *som* has to have an empty operator in its specifier, as argued in 3.3.3.2 above, then this rules out all combinations where *som* is not the leftmost of the three, i.e. (268c-f). The ungrammaticality of (268b) is a problem however, if the conditions for *der* are as stated above. I will argue that these conditions have to be made more restricted, so that *der* not only requires agreement between its own specifier and the specifier of its complement, but that *der* also requires that the specifier of its complement is IP-spec. When we consider the other combinations involving *at*, it will be obvious that such a further restriction is necessary.

Consider first variations over (268a):

- (269) Da. a. ?Vi kender en lingvist som at der vil læse denne bog  
 ??Vi kender en lingvist som at vil læse denne bog  
 \*Vi kender en lingvist at der vil læse denne bog  
 \*Vi kender en lingvist der at vil læse denne bog  
 We know a linguist ----- will read this book

(269a) is the same as (268a). I have no account for (269b), i.e. it is predicted to be acceptable, at least as acceptable as (272b) below. (269c) is a violation of the ECP, according to section 3.3.3.3, as *at* has an empty operator in its specifier, and this prevents *at* from properly governing the trace in the specifier of its complement (in the specifier of *der*). (269d) is only explained if we appeal to the strict requirement that *der* must properly govern IP-spec.

- (270) Da. a. \*Vi ved hvem som at der vil læse denne bog  
 b. \*Vi ved hvem som at vil læse denne bog  
 c. \*Vi ved hvem at der vil læse denne bog  
 d. \*Vi ved hvem der at vil læse denne bog  
 We know who ----- will read this book

(270a) and (270b) are ruled out as *som* has an overt *wh*-element in its spec. (270c) is ruled out as *at* and its spec do not agree w.r.t. [ $\pm wh$ ]. (270d) is ruled out only if we appeal to the strict requirement that *der* must properly govern IP-spec.

- (271) Da. a. \*Vi kender en pige hvis far som at der vil læse denne bog  
 b. \*Vi kender en pige hvis far som at vil læse denne bog  
 c. \*Vi kender en pige hvis far at der vil læse denne bog  
 d. \*Vi kender en pige hvis far der at vil læse denne bog  
 We know a girl whose father ----- will read this book

(270a) and (270b) are ruled out as *som* has an overt *wh*-element in its spec. (270c) is ruled out as *at* and its spec do not agree w.r.t. [ $\pm wh$ ]. (270d) is ruled out only if we appeal to the strict requirement that *der* must properly govern IP-spec.

- (272) Da. a. \*Vi kender en bog som at der denne lingvist vil læse  
 b. ?Vi kender en bog som at denne lingvist vil læse  
 c. \*Vi kender en bog at der denne lingvist vil læse  
 d. \*Vi kender en bog der at denne lingvist vil læse  
 We know a book ----- this linguist will read

(270a) and (270c) are ungrammatical as *der* does not agree with the specifier of its complement (IP-spec), and (270c) also violates the ECP, as *at* has an empty operator in its specifier, and therefore cannot properly govern the specifier of its complement. (270b) violates nothing but the prescriptive ban on the combination of *som* and *at*. (270d) violates the strict requirement that *der* must properly govern IP-spec.

Summing up, it would seem that with the added sharpening of the restriction on *der*, the hypotheses set up in section 3.3.3.1 above have turned out to account for (almost) all the data.

### 3.3.4 Conclusion.

In this section on relative *der*, it was shown that an analysis compatible with the facts of other languages could be given of the distribution of  $X^0$ -elements at the head of relative clauses. Special attention was paid to the question of the status of *der* in relative clauses, and it was shown that this is a different element from the one in expletive constructions, as the former is a  $X^0$ -element, the latter an XP-element.

### 3.4 Conclusion.

This chapter has discussed expletive constructions and related areas. The overall relevance of this topic is that the distribution of expletive constructions could be shown to be distributed across languages in covariance with the kind of verb movements allowed in the language. Section 3.1 provided an account for these facts, crucially making reference to the notion of partitive case, and a restriction on assignment on two cases to one chain, and a reformulation of the projection principle.

Section 3.2 went on discussing expletive constructions and case assignment, but now with the aim of accounting for the distribution of *it* vs. *there* as expletive subjects. It was argued, following Bennis (1986) that only *there* is really an expletive, and that it always is an argument, and as such must be base-generated in a position to which a  $\theta$ -role is assigned. This gave the fundamental difference from *there* with respect to case assignment: As *there* is not base-generated in a  $\theta$ -position, it is compatible with cases where a case is assigned inside the clause. *It* is not compatible with this, as it would then get two cases, one in its base-generated position and one in IP-spec.

Finally, in section 3.3. it was argued that although they look alike, the Da. expletive subject *der* and the relative complementiser *der* are not the same type of element at all, the former being an XP, and the latter an  $X^0$ . In the process, a number of properties of Da. relative clauses were analysed, and an account was arrived at, which could explain the possibility of up to three relative complementisers in one clause.

## 4. Object shift.

### 4.1 Introduction.

In the first part of this chapter, I will discuss object shift in Danish and compare it to scrambling in German, relying heavily on Holmberg (1986), and paying special attention to the A-/A'-movement distinction. In section 4.3, I will propose an analysis of double object constructions, to account for the behaviour of these constructions when they are subject to object shift and to other kinds of movement.

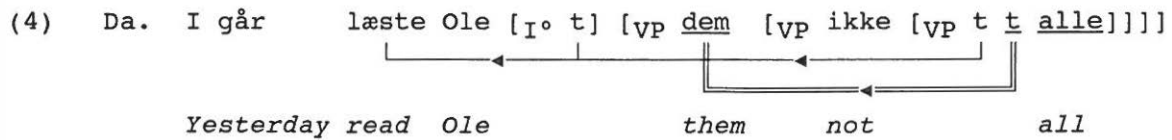
I will use the term "scrambling" for the movement found in German and Dutch, and the term "object shift" for the movement found in Scandinavian. As I will argue below, these two are different processes, although they are related.

(German) scrambling is illustrated in (1) and (2). In both the object is base-generated immediately left of the verb from which it receives a thematic role, and from there it moves to the left of the VP-adjoined adverbials. As the examples are main clauses, the verb itself has moved to  $C^\circ$ . (2) furthermore illustrates that scrambling may separate an object from its quantifier, as suggested by Giusti (1989a,b), using the analysis of floated quantifiers in Sportiche (1988b).

- (1) Ge. Gestern las Uli [vp das [vp ohne Zweifel [vp nicht [vp t t]]]] [I° t]
- 
- Yesterday read Uli it without doubt not
- (2) Ge. Gestern las Uli [vp sie [vp nicht [vp t alle t]]] [I° t]
- 
- Yesterday read Uli them not all

(Scandinavian) object shift is illustrated in (3) and (4). Also here the object moves from its base-generated position next to the verb to a position left of the VP-adjoined adverbials, and also here a quantifier may be left behind in the process. Again the verb itself has moved to  $C^\circ$ , as the examples are main clauses.

- (3) Da. I går læste Ole [I° t] [vp den [vp uden tvivl [vp ikke [vp t t]]]]
- 
- Yesterday read Ole it without doubt not



## 4.2 A-movement or A'-movement?

Most of the discussion in the literature has been about whether scrambling and object shift are instances of A-movement or of A'-movement. As for scrambling, no real consensus has been reached, though most linguists now seem to agree that it is not A-movement,

With some exceptions, e.g. Vanden Wyngaerd (1989).

but rather something close to A'-movement, even if it differs from more familiar cases of A'-movement, such as *wh*-movement and topicalisation. As for object shift, Holmberg (1986) suggested that it is A-movement, and this is what will be argued for below.

The arguments in 2.1-2.5 are built on the two facts that A-movement (cf. passivisation and raising) goes from a caseless position into a case-assigned one, and that it cannot give rise to parasitic gaps.

### 4.2.1 Which NPs may be moved?

Scrambling is not movement to a case-assigned position, whereas object shift is. The assumption is that NPs with morphological case (m-case) may be licensed or case marked by the verb (or verb trace) in I°, whereas NPs without m-case cannot be licensed by the verb (or verb trace) in I°.

In Holmberg (1986:216), it is assumed that the NP which undergoes object shift does not have to be assigned case at all. The NP is assumed to have inherent case, and this is reflected by its m-case. In section 4.2.3, arguments against this analysis are presented.

In Holmberg (1989:19) another analysis is proposed: The object-shifted NP receives case from I°, as "structural case is assigned by functional categories". In other words for Holmberg (1989), case from I° is not dependent on the verb having moved (through) I°, whereas under the present analysis it is. Though this difference has no consequences for the data discussed in this chapter, I disagree with Holmberg's suggestion. I find it counterintuitive to have case assigned by a category as devoid of content as I° is in Da./Sw. (cf. e.g. Holmberg & Platzack (1988), where the verb does not even move through I° on its way to C°). As discussed in chapter 2, I assume that nominative is assigned from C°.

Scrambling moves any (definite) NP in Du., (5), and Ge., (6), but object shift only moves some NPs in Scandinavian.



- (5) Du. a. Ik ontmoet de directeur morgen over die zaak in Paris t t  
*I meet the manager tomorrow about this matter in Paris*  
 b. Ik ontmoet morgen de directeur over die zaak in Paris t t  
 c. Ik ontmoet morgen over die zaak de directeur in Paris t t  
 (adapted from Vanden Wyngaerd (1989:256))
- (6) Ge. a. Ich treffe den Direktor morgen wegen dieser Sache in Paris t t  
*I meet the manager tomorrow because of this matter in Paris*  
 b. Ich treffe morgen den Direktor wegen dieser Sache in Paris t t  
 c. Ich treffe morgen wegen dieser Sache den Direktor in Paris t t

Full NPs move in Icelandic, (7), as all NPs have m-case in Ic. In Da. only pronouns move, (8) and (9), as only pronouns have m-case. This observation is due to Holmberg (1986:225). (The fact that pronouns have to move, cf. (9a), will be discussed below in connection with (29)).

- (7) Ic. a. Hvers vegna lásu stúdentarnir ekki greinina?  
 b. Hvers vegna lásu stúdentarnir greinina ekki t?  
*Why read students-the (article-the) not (article-the)?*  
 (adapted from Holmberg (1986:166))
- (8) Da. a. Hvorfor læste studenterne ikke artiklen?  
 b. \*Hvorfor læste studenterne artiklen ikke t?  
*Why read students-the (article-the) not (article-the)?*
- (9) Da. a. \*Hvorfor læste studenterne ikke den?  
 b. Hvorfor læste studenterne den ikke t?  
*Why read students-the (it) no (it)?*

It is a problem for this analysis that Faroese, which has morphological case, seems to behave like Da. and differently from Ic., i.e. only pronouns object shift:

- (10) Fa. a. Jógvan keypti ikki bókina  
 b. \*Jógvan keypti bókina ikki t  
*Jógvan bought (book-the) not (book-the)*  
 (from Barnes (1989:11))
- (11) Fa. a. \*Jógvan keypti ikki hana  
 b. Jógvan keypti hana ikki t  
*Jógvan bought (it) not (it)*





This analysis of object shift receives support from data where object shift is 'fed' by what I will call *let*-movement. In Vikner (1987a), I discussed a construction where the external argument of the verb embedded under *let* is not lexically realised. My suggestion was that in Da. the embedded verb has lost its case-assigning properties, whereas this is not the case in Swedish. Thus (20) and (21) are grammatical in Sw. but not in Da., because the object in (20) and the passive morphology in (21) must be assigned case.

- (20) a. Da. \*Peter lod [vp støvsuge tæppet]  
 b. Sw. Peter lät [vp dammsuga mattan]  
*Peter let vacuum-clean carpet-the*
- (21) a. Da. \*Peter lod [vp tæppet [v' støvsuges t]]  
 b. Sw. Peter lät [vp mattan [v' dammsugas t]]  
*Peter let carpet-the vacuum-cleaned-be*  
 (from Vikner (1987a:262))

In Da. the object has to move in order to get case. It may move to the specifier position of the lower VP, where it receives case from *let*, resulting in (22a) (this is *let*-movement). In (22b) we see that it may be moved again by object shift, as expected if the NP bears m-case and receives case from V°. The case motivation for object shift and the case motivation for *let*-movement thus both receive further support from this interaction, as they give exactly the right prediction.

- (22) Da. a. Peter har  
 [vp1 formentlig [vp1 ladet [vp2 det [v'2 støvsuge t]]]]  
*Peter has presumably let it vacuum-clean*
- b. Peter lod  
 [vp1 det [vp1 formentlig [vp1 t [vp2 t [v'2 støvsuge t]]]]]  
*Peter let it presumably vacuum-clean*

### 4.2.3 Adjacency requirements on landing site.

Scrambling is not movement to case-assigned position, but object shift is. Case is assigned from I°, and adjacency between assigner and assignee is required.

As the scrambled object does not need case, it does not need to be adjacent to I°, as seen in (23). In (24), which is from Webelhuth & den Besten (1987), *Marianne* scrambles out of the VP before the VP moves into CP-spec. (24b) shows that it may even scramble to a position between the negation and the VP.

(23) Ge. a. Peter hat ...  
           *Peter has ...*

- a. ... das Buch ohne Zweifel nicht t gelesen  
 b. ... ohne Zweifel das Buch nicht t gelesen  
 c. ... ohne Zweifel nicht das Buch gelesen  
    ... (*the book*) without doubt (*the book*) not (*the book*) read

(24) Ge. a. [t Das Buch zurückgegeben] hat er Marianne nicht t  
           b. [t Das Buch zurückgegeben] hat er nicht Marianne t  
               *The book back-given has he (Marianne) not (Marianne)*

As the shifted object in object shift constructions needs case, it must be next to  $I^0$ , and therefore it only occurs to the left of the VP-adjoined adverbials in (25). (26) shows that the object may object-shift out of a constituent, here an adjectival small clause, before this moves into CP-spec, but also in this case object shift has to end up adjacent to  $I^0$ .

(25) Da. a. Peter læste den uden tvivl ikke t t  
           b. \*Peter læste uden tvivl den ikke t t  
           c. \*Peter læste uden tvivl ikke t den  
               *Peter read (it) without doubt (it) not (it)*

(26) Da. a. [t Helt tåbeligt] fandt Peter det nu ikke t t  
           b. \* [t Helt tåbeligt] fandt Peter nu ikke det t t  
               *Completely stupid found Peter (it) however not (it)*

If we now turn to Ic., we see that the facts are completely parallel to the Da. (25). If the object is a pronoun, it must shift, hence (25c)/(27c) is ungrammatical, and if it shifts, it must be adjacent to  $I^0$ , hence (25b)/(27b) is ungrammatical, whereas (25a)/(27a) is well-formed. If the object on the other hand is a full NP, it does not have to shift, and therefore the version where it is left in situ is grammatical, (28c). Nevertheless, if the (full NP) object shifts (which is impossible in Da., as full NPs do not bear m-case), it must move to a case-assigned position, i.e. it must be adjacent to  $I^0$ , hence (28b) is ungrammatical, whereas (28a) is well-formed:

(27) Ic. a. Hann las hana eflaust ekki t t  
           b. \*Hann las eflaust hana ekki t t  
           c. \*Hann las eflaust ekki t hana  
               *He read (it) doubtlessly (it) not (it)*



- (28) Ic. a. Hann las bókina eflaust ekki t t  
 b. \*Hann las eflaust bókina ekki t t  
 c. Hann las eflaust ekki t bókina  
*He read (book-the) doubtlessly (book-the) not (book-the)*

The fact that pronouns must undergo object shift, whereas this is optional for full NPs as objects, is probably a separate requirement. This requirement would be that pronominal objects occurs as early (as far left) as possible in the sentence (cf. Holmberg (1986:228ff)). If we consider the Ge. version of (25)/(27), i.e. with a pronominal object, we see that also here the pronoun is ungrammatical if left in situ, (29c) and that in the intermediate position, (29b), it is also not very acceptable. In neither case is there any lack of case, cf. that the full NP is grammatical in both positions, (23b,c).

- (29) Ge. a. Peter hat sie ohne Zweifel nicht t gelesen  
 b. ??Peter hat ohne Zweifel sie nicht t gelesen  
 c. \*Peter hat ohne Zweifel nicht sie gelesen  
*Peter has (them) without doubt (them) not (them) read*

I will now turn to another way of illustrating the above-mentioned difference between scrambling and object shift, i.e. that object shift is movement to a case-assigned position, and therefore the shifted object must be adjacent to I°, whereas scrambling is not movement to a case-assigned position, and the scrambled object does not have to be adjacent to anything. If we assume the analysis of floated quantifiers of Sportiche (1988b), i.e. that a floated quantifier may only occur in positions in which the quantified NP may occur (or through which the quantified NP may have moved), then we can explain the following Ge./Ic. difference. The Ge. quantifier *alle* can occur in the intermediate position in (30b), whereas the intermediate position is not a possible one for the Ic. quantifier *allar*, (31b), because the quantified NP may not occur here, as case cannot be assigned to this position:

- (30) Ge. a. Er wird die Bücher alle ohne Zweifel nicht lesen  
 b. Er wird die Bücher ohne Zweifel alle nicht lesen  
 c. Er wird die Bücher ohne Zweifel nicht alle lesen  
*He will the books (all) without doubt (all) not (all) read*
- (31) Ic. a. Hann las allar bækurnar eflaust ekki t  
 b. \*Hann las bækurnar eflaust allar ekki t  
 c. Hann las bækurnar eflaust ekki t allar  
*He read (all) books-the doubtlessly (all) not (all)*

#### 4.2.4 Can PP be moved?

Scrambling is not movement to a case-assigned position, but object shift is. PPs may not receive case, and can thus be moved by scrambling, as in (32), but not by object shift, as in (33), not even if the complement of  $P^o$  is a pronoun, as in (34):

- (32) Ge. a. Ich habe nicht für das Buch bezahlt  
 b. Ich habe für das Buch nicht t bezahlt  
*I have (for the book) not (for the book) paid*

- (33) Da. a. Jeg betalte ikke t for bogen  
 b. \*Jeg betalte for bogen ikke t t  
*I paid (for book-the) not (for book-the)*

- (34) Da. a. Jeg betalte ikke t for den  
 b. \*Jeg betalte for den ikke t t  
*I paid (for it) not (for it)*

#### 4.2.5 Parasitic gaps.

Scrambling is not A-movement, therefore parasitic gaps may occur, as seen in (35): (cf. e.g. Bennis & Hoekstra (1985:65ff.))

- (35) Ge. ... daß er sie [ohne PRO e kennengelernt zu haben]  
t einladen wollte  
*... that he them without met to have*  
*invite wanted-to*  
 (= ... that he wanted to invite them without having met them)  
 (ex. from Vikner & Sprouse (1988:11))

Object shift is movement from a caseless to a case-assigned position, i.e. it is an instance of A-movement, and therefore it does not trigger parasitic gaps, as seen in (36) (as noted by Holmberg (1986:225)). That parasitic gaps do occur under A'-movement in Danish can be seen in (37).

- (36) Da. \*Han inviterede dem ikke t t uden at kende e på forhånd  
*He invited them not without to know beforehand*

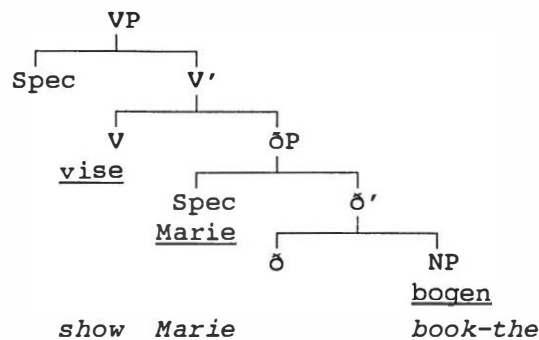
- (37) Da. (?) Hvor mange gæster har han inviteret t  
 uden at kende e på forhånd?  
*How many guests has he invited*  
*without to know beforehand?*

### 4.3 Double object constructions.

#### 4.3.1 The structure of double object constructions.

I propose that double object constructions have an underlying structure like (38). It almost corresponds to the structure that Larson (1988:353) posits for this construction, except that Larson derives his structure from an underlying one where the direct object is the specifier and the indirect object the complement of  $\bar{o}$ . Then the direct object is 'demoted' to an adjunct of  $\bar{o}P$  and the indirect object moves into  $\bar{o}P$ -spec.

(38) Da.



I will follow Larson (1988:343) in assuming that  $\bar{o}$  actually is a trace of the verb. Given the assumptions made in section 4.2.2, following Holmberg (1986:225), case-assignment from  $\bar{o}$  is always optional. This means that an NP which receives case from  $\bar{o}$  may also occur in other case-marked positions.

I will furthermore assume Rizzi's (1990) relativised minimality approach, as discussed in 1.3 and repeated in (39):

(39) Relativised minimality (Rizzi (1990)):

An element  $\alpha$  cannot (antecedent-) govern an element  $\beta$   
 if another element  $\tau$  intervenes (i.e.  $\tau$  c-commands  $\beta$  but not  $\alpha$ ), and  
 if  $\tau$  is of the same kind as  $\alpha$  and  $\beta$  (same kind: A-, A'-, or X<sup>0</sup>-element)

We can now account for why the direct object cannot move past the indirect object in object shift and in the other cases discussed below.

As for why antecedent government is necessary (and why  $\theta$ -government is not relevant) in A-movement of an argument, but not in A'-movement of an argument, cf. Chomsky (1986a:77), Rizzi (1990:section 3.5).

This is precluded by relativised minimality in the following way: the indirect object is in an A-position and it c-commands the direct object. If the direct object moves to a

position,  $\alpha$ , where it is no longer c-commanded by the indirect object,  $\tau$ , the indirect object will then be an intervening NP, preventing the moved direct object,  $\alpha$ , from antecedent-governing its trace,  $\beta$ .

Maybe the same effect could have been achieved with the SSC, if the indirect object is considered a SUBJECT in the Chomsky (1981) version of binding theory. The trace of the direct object could not be bound from a position not c-commanded by the closest SUBJECT, i.e. from outside  $\delta P$ . With the binding theory of Chomsky (1986b), an anaphor only has to be bound within its CFC and  $\delta P$  would not be a CFC, as the external thematic role is not assigned within  $\delta P$ . The CFC is thus at least VP (or IP, depending on whether subjects are base-generated in VP-spec or IP-spec), and thus movement of the direct object across the indirect object to a VP-adjoined position is not ruled out.

This is why it was important in section 4.2 to show that object shift is A-movement.

The assumption that object shift is A-movement gives rise to a serious problem, if we maintain both Rizzi's (1990) relativised minimality and Sportiche's (1988b) VP-internal subjects: The shifted object moves across the base-generated position of the subject (which presumably is an A-position), and the subject moves across the shifted object (which is an A-element):

- (i) Da. De<sub>j</sub> så<sub>v</sub> den<sub>i</sub> formentlig t<sub>j</sub> alle<sub>j</sub> t<sub>v</sub> t<sub>i</sub> i TV i går aftes  
*They saw it presumably all on TV last night*

This is only possible under relativised minimality if neither the position of the shifted object, nor the base-generated position of the subject, are specifier positions (this will exclude them from the class of typical potential antecedent A-governors). However, even if thus technically possible, it seems to go against the basic intuition of relativised minimality.

I will now discuss the data, starting with various other kinds of movements in section 4.3.2, before returning to object shift in 4.3.3, and before discussing in 4.3.4 the alternative analyses of double object constructions proposed in Holmberg (1986) and in Vikner (1987a).

### 4.3.2 Double object constructions and various kinds of movement.

First, let us consider *let*-movement. As discussed in connection with (20)-(22) above, when the external argument of the verb embedded under *let* is left out, the object moves to the specifier position of the embedded VP in Da.

- (40) Da. Jeg lod Peter anbefale Martin hotellet  
*I let Peter recommend Martin hotel-the*  
 (=I let Peter recommend the hotel to Martin)

If the embedded verb is one that has two objects, as in (40), the absence of the external

argument of the embedded VP yields 6 logical possibilities:

- (41) Da. a. \*Jeg lod anbefale Martin hotellet  
 b. Jeg lod Martin anbefale hotellet  
 c. Jeg lod Martin hotellet anbefale  
 d. \*Jeg lod anbefale hotellet Martin  
 e. \*Jeg lod hotellet anbefale Martin  
 f. \*Jeg lod hotellet Martin anbefale  
 (all mean "I let someone recommend the hotel to Martin")

As assumed above, when its external argument is missing, the verb embedded under *let* cannot assign case (cf. also Vikner (1987a)), and therefore the indirect object, *Martin*, must move into a position where it receives case from *let*. Thus (41a,d,e) are ungrammatical, as *Martin* does not precede *anbefale*. I am assuming here that  $\bar{o}$  does not lose its case-assigning properties, even though the embedded verb does (i.e. even in (41) case may but does not have to be assigned by  $\bar{o}$ , cf. sections 4.3.1 and 4.2.2).

(41b) is movement of the indirect object alone, and (41c) is movement of  $\bar{o}P$ . (41f) on the other hand requires the direct object to move past the indirect object (and so do (41d,e)), which is impossible, because of relativised minimality, as discussed in the previous section (see also the discussion of (47) below).

Passive is illustrated in (42). Only the indirect object may be passivised, (42a), as the direct object may not move past the indirect object, again due to relativised minimality, (42b):

- (42) Da. a. ... at Sofie blev vist bogen  
 ... that Sofie was shown book-the  
 b. \*... at bogen blev vist Sofie  
 ... that book-the was shown Sofie

Finally an example of a different kind of movement, A'-movement:

- (43) Da. a. Hvad viste du Sofie?  
 What showed you Sofie?  
 b. Hvem viste du bogen?  
 Who showed you book-the?

Here even the direct object may leave  $\bar{o}P$ , as this is A'-movement and the indirect object, which is an A-position, does not interfere.

The equivalent of (42b) is possible in Norwegian (as well as in (dialects of) English and Swedish):



- (44) No. a. Jon ble gitt en bok  
           Jon was given a book
- b. En bok ble gitt Jon  
           A book was given Jon

(from Hellan (1988:10))

Given that (42b)/(44b) was ruled out in Da. as a violation of relativised minimality (an A-movement cannot take place across another A-position), we would expect this kind of structure to be ruled out in all languages. Cf. also that other violations of this restriction are not possible in these languages:

- (45) No. a. \*Johan lot til at [IP det ble beundret t]  
           Johan appeared that it was admired
- b. Johan lot til [IP t å bli beundret t]  
           Johan appeared to be admired

An A-movement like raising cannot skip an A-position like IP-spec, hence the difference in (45).

Luigi Rizzi (p.c.) suggests that the difference between the two cases has to do with the possibility of analysing  $\delta^\circ$  as being part of the verb in some sense. Then the direct object position would be governed by something which also governs the indirect object, and this prevents the indirect object from interfering with the antecedent-government of the direct object. This maybe because the indirect object, which now has the same governor as the direct object, no longer counts as a specifier intervening in the chain formed by the movement of the direct object.

This analysis would also be relevant for the following difference between It. and Fr.:

- (46) a. Fr. \*Je lui considère Marie fidèle t  
       b. It. Gli ritengo Maria fedele t  
           I to-him consider Mary loyal

where *consider* and *loyal* may be analysed as forming one verb in It., but not in Fr., i.e. *Maria* is no longer an intervening A-specifier in (46b). When faced with variations such as these, i.e. ones that look like relaxation of relativised minimality, we would thus predict that the language which appears not to respect relativised minimality also is the languages which has the highest degree of reanalysis. This is certainly true both for the pair Italian/French and for the pair Norwegian/Danish (cf. e.g. the remarks on pseudo-passive in section 3.2.3.3 above).



- (48) Da. a. ??Peter viste jo hende bogen  
               *Peter showed indeed her book-the*
- b. Peter viste hende jo bogen  
 c. \*Peter viste hende bogen jo  
 d. \*Peter viste jo bogen hende  
 e. \*Peter viste bogen jo hende  
 f. \*Peter viste bogen hende jo

In (48) the indirect object is a pronoun, and the only possibility is (48b): the indirect object must object-shift to the left of the adverbial, (48a,d,e), and the direct object cannot object-shift, (48c,e,f).

- (49) Da. a. ??Peter viste jo Marie den  
               *Peter showed indeed Marie it*
- b. \*Peter viste Marie jo den  
 c. ??Peter viste Marie den jo  
 d. \*Peter viste jo den Marie  
 e. \*Peter viste den jo Marie  
 f. \*Peter viste den Marie jo

In (49) the direct object is a pronoun, and there is no grammatical permutation: the direct object must object-shift to the left of the adverbial, (49a,b,d), and the indirect object cannot object-shift, (49b,c,f). Relativised minimality rules out (49d,e,f).

- (50) Da. a. \*Peter viste jo hende den  
               *Peter showed indeed her it*
- b. \*Peter viste hende jo den  
 c. Peter viste hende den jo  
 d. \*Peter viste jo den hende  
 e. \*Peter viste den jo hende  
 f. \*Peter viste den hende jo

In (50) both objects are pronouns, and the only possibility is (50c): Both objects must object-shift, (50a,b,d,e), leaving us with (50c,f). One might expect both to be ungrammatical because it is not possible for both objects to be adjacent to  $I^0$ , or expect them both to be good, because absolute adjacency is not necessary. However, only (50c) is good. Assuming that the direct object cannot leave  $\delta P$  because of relativised minimality would mean that neither should be good: the direct object is both forced to leave  $\delta P$  (it is a pronoun), and prevented from leaving  $\delta P$ . I suggest that the  $\delta P$  itself is object-shifted, as this would allow only the base-generated order indirect object-direct object.

Summing up, there are three different requirements operating here, and each

of the ungrammatical sentences above is ruled out by at least one of them:

- (51) a. full NPs may not object-shift (they do not have morphological case),  
 b. pronominal NPs must object-shift, and  
 c. the direct object may not move past the indirect object.

#### 4.3.3.2 Icelandic.

Support for this analysis may be found in Ic., where (51a) does not apply: full NPs may object-shift, because they have morphological case, as discussed in section 4.2.1 above. The Ic. facts may be exhaustively accounted for in terms of the interaction between (51b) and (51c).

- (52) Ic. a. Pétur sýndi oft Maríu bókina  
           *Pétur showed often María book-the*  
 b. Pétur sýndi Maríu oft bókina  
 c. Pétur sýndi Maríu bókina oft  
 d. \*Pétur sýndi oft bókina Maríu  
 e. \*Pétur sýndi bókina oft Maríu  
 f. \*Pétur sýndi bókina Maríu oft

In (52) both objects are full NPs, and thus the requirement that pronouns must object-shift is not applicable. This leaves only the prohibition against the direct object moving past the indirect object, because of relativised minimality, which rules out (52d,e,f). The analysis of (52c) (and also of (53c), (54c), and (55c) below) is that the entire  $\bar{\theta}$ P is object-shifted, as discussed in connection with (50c).

- (53) Ic. a. ??Pétur sýndi oft henní bókina  
           *Pétur showed often her book-the*  
 b. Pétur sýndi henní oft bókina  
 c. Pétur sýndi henní bókina oft  
 d. \*Pétur sýndi oft bókina henní  
 e. \*Pétur sýndi bókina oft henní  
 f. \*Pétur sýndi bókina henní oft

In (53) the indirect object is a pronoun, which must object-shift to the left of the adverbial, (53a,d,e). Relativised minimality rules out (53d,e,f).

- (54) Ic. a. \*Pétur sýndi oft Maríu hana  
           Pétur showed often María it
- b. \*Pétur sýndi Maríu oft hana
- c. Pétur sýndi Maríu hana oft
- d. \*Pétur sýndi oft hana Maríu
- e. ?Pétur sýndi hana oft Maríu
- f. \*Pétur sýndi hana Maríu oft

In (54) the direct object is a pronoun, so it must object-shift to the left of the adverbial, (54a,b,d). Relativised minimality rules out (54d,e,f).

- (55) Ic. a. \*Pétur sýndi oft henní hana  
           Pétur showed often her it
- b. \*Pétur sýndi henní oft hana
- c. Pétur sýndi henní hana oft
- d. \*Pétur sýndi oft hana henní
- e. \*Pétur sýndi hana oft henní
- f. \*Pétur sýndi hana henní oft

In (55) both objects are pronouns, and the only possibility is (55c): Both objects must object-shift, (55a,b,d,e), and the direct object cannot pass the indirect object, (55d,e,f).

### 4.3.3.3 German, Dutch, and West Flemish.

Given that scrambling is not A-movement (cf. section 4.2), it is rather surprising that the facts of Dutch and West Flemish seem to be subject to the same restrictions as Icelandic in the previous section. This might indicate that scrambling is A-movement at least in double object constructions in these languages, at least if the case question could be solved: As all other scrambled elements, the objects moved in the data below still seem to be starting out from a position to which case is assigned, as V2 or V°-to-I° movement is not necessary the way they are in both Da. and Ic..

The Dutch data are the following:

- (56) Du. a. ?... dat Peter echt Marie het boek getoond heeft  
           ... that Peter indeed Marie the book shown has
- b. ... dat Peter Marie echt het boek getoond heeft
- c. ... dat Peter Marie het boek echt getoond heeft
- d. \*... dat Peter echt het boek Marie getoond heeft
- e. \*... dat Peter het boek echt Marie getoond heeft
- f. \*... dat Peter het boek Marie echt getoond heeft



- (57) Du. a. ??... dat Peter echt haar het boek getoond heeft  
           ... *that Peter indeed her the book shown has*
- b. ... dat Peter haar echt het boek getoond heeft  
 c. ... dat Peter haar het boek echt getoond heeft  
 d. \*... dat Peter echt het boek haar getoond heeft  
 e. \*... dat Peter het boek echt haar getoond heeft  
 f. \*... dat Peter het boek haar echt getoond heeft
- (58) Du. a. \*... dat Peter echt Marie het getoond heeft  
           ... *that Peter indeed Marie it shown has*
- b. \*... dat Peter Marie echt het getoond heeft  
 c. ... dat Peter Marie het echt getoond heeft  
 d. \*... dat Peter echt het Marie getoond heeft  
 e. \*... dat Peter het echt Marie getoond heeft  
 f. ... dat Peter het Marie echt getoond heeft
- (59) Du. a. \*... dat Peter echt haar het getoond heeft  
           ... *that Peter indeed her it shown has*
- b. \*... dat Peter haar echt het getoond heeft  
 c. ... dat Peter haar het echt getoond heeft  
 d. \*... dat Peter echt het haar getoond heeft  
 e. \*... dat Peter het echt haar getoond heeft  
 f. ... dat Peter het haar echt getoond heeft

Disregarding the question of whether verb movement is necessary, Du. clearly basically has the same grammaticality judgments as Ic. The main differences are that Du. (and WF.) allow (58f)/(59f), where Ic. does not allow (54f)/(55f). This may be explained as a case of the direct object cliticising, i.e. moving as an  $X^0$ -element, in which case it does not interact with scrambling/object shift. In Ic. (and Da.) object pronouns are never clitics, and the corresponding examples are therefore ruled out.

The data from West Flemish are:

- (60) WF. a. ... dan-ze echt Marie da werk gegeven een  
           ... *that-they indeed Marie the job given have*
- b. ... dan-ze Marie echt da werk gegeven een  
 c. ... dan-ze Marie da werk echt gegeven een  
 d. \*... dan-ze echt da werk Marie gegeven een  
 e. \*... dan-ze da werk echt Marie gegeven een  
 f. ... dan-ze da werk Marie echt gegeven een

(61) WF. a. ??... dan-ze                      echt    eur da werk gegeven een  
                     ... *that-they*                      *indeed her the job given have*

- b.    ... dan-ze    eur                      echt                      da werk gegeven een  
 c.    ... dan-ze    eur da werk echt                      gegeven een  
 d.    \*... dan-ze                      echt                      da werk eur gegeven een  
 e.    \*... dan-ze                      da werk echt                      eur                      gegeven een  
 f.    ... dan-ze                      da werk eur echt                      gegeven een

(62) WF. a. \*... dan-ze                      echt    Marie et gegeven een  
                     ... *that-they*                      *indeed Marie it given have*

- b.    \*... dan-ze    Marie    echt                      et gegeven een  
 c.    ... dan-ze    Marie et echt                      gegeven een  
 d.    \*... dan-ze                      echt                      et Marie gegeven een  
 e.    \*... dan-ze                      et echt                      Marie gegeven een  
 f.    ... dan-ze    et Marie echt                      gegeven een

(63) WF. a. \*... dan-ze                      echt    eur et gegeven een  
                     ... *that-they*                      *indeed her it given have*

- b.    \*... dan-ze    eur    echt    et                      gegeven een  
 c.    ... dan-ze    eur et echt                      gegeven een  
 d.    \*... dan-ze                      echt    et eur gegeven een  
 e.    \*... dan-ze                      et echt                      eur gegeven een  
 f.    ... dan-ze    et eur echt                      gegeven een

In West Flemish, there are two types of double object constructions, cf. Haegeman (1986:283). (60) - (63) above are the standard cases with *give*, (64) - (67) below the so-called possessor ones. The differences between the two paradigms are very slight indeed: Where (62c)/(63c) are acceptable, (66c)/(67c) get a "?".

(64) WF.                      ... dan-ze                      ...  
                     ... *that-they* ...

- a.    ...                      echt    Marie die tanden getrokken een  
                     ...                      *indeed Marie those teeth pulled have*
- b.    ... Marie                      echt                      die tanden getrokken een  
 c.    ... Marie die tanden echt                      getrokken een  
 d.    \*...                      echt                      die tanden Marie getrokken een  
 e.    \*...                      die tanden echt                      Marie                      getrokken een  
 f.    \*... die tanden Marie echt                      getrokken een

(65) WF. ... dan-ze ...  
... *that-they* ...

- a. ??... echt eur die tanden getrokken een  
... *indeed her those teeth pulled have*
- b. ... eur echt die tanden getrokken een
- c. ... eur die tanden echt getrokken een
- d. \*... echt die tanden eur getrokken een
- e. \*... die tanden echt eur getrokken een
- f. ... die tanden eur echt getrokken een

(66) WF. a. \*... dan-ze echt Marie ze getrokken een  
... *that-they indeed Marie them pulled have*

- b. \*... dan-ze Marie echt ze getrokken een
- c. ... dan-ze Marie ze echt getrokken een
- d. \*... dan-ze echt ze Marie getrokken een
- e. \*... dan-ze ze echt Marie getrokken een
- f. ... dan-ze ze Marie echt getrokken een

(67) WF. a. \*... dan-ze echt eur ze getrokken een  
... *that-they indeed her them pulled have*

- b. \*... dan-ze eur echt ze getrokken een
- c. ?... dan-ze eur ze echt getrokken een
- d. \*... dan-ze echt ze eur getrokken een
- e. \*... dan-ze ze echt eur getrokken een
- f. ... dan-ze ze eur echt getrokken een

One of the facts that make the Du. and WF. facts above rather surprising is that they are so radically different from the Ge. cases, where the number of combinations allowed is far higher:

(68) Ge. a. ... daß Peter ja Maria das Buch gezeigt hat  
... *that Peter indeed Maria the book shown has*

- b. ... daß Peter Maria ja das Buch gezeigt hat
- c. ... daß Peter Maria das Buch ja gezeigt hat
- d. ... daß Peter ja das Buch Maria gezeigt hat
- e. ... daß Peter das Buch ja Maria gezeigt hat
- f. ... daß Peter das Buch Maria ja gezeigt hat

- (69) Ge. a. ??... daß Peter ja ihr das Buch gezeigt hat  
           ... that Peter indeed her the book shown has
- b. ... daß Peter ihr ja das Buch gezeigt hat  
 c. ... daß Peter ihr das Buch ja gezeigt hat  
 d. ?... daß Peter ja das Buch ihr gezeigt hat  
 e. \*... daß Peter das Buch ja ihr gezeigt hat  
 f. ... daß Peter das Buch ihr ja gezeigt hat
- (70) Ge. a. ... daß Peter ja Maria es gezeigt hat  
           ... that Peter indeed Maria it shown has
- b. \*... daß Peter Maria ja es gezeigt hat  
 c. ... daß Peter Maria es ja gezeigt hat  
 d. ?... daß Peter ja es Maria gezeigt hat  
 e. ... daß Peter es ja Maria gezeigt hat  
 f. ... daß Peter es Maria ja gezeigt hat
- (71) Ge. a. \*... daß Peter ja ihr es gezeigt hat  
           ... that Peter indeed her it shown has
- b. ... daß Peter ihr ja es gezeigt hat  
 c. ... daß Peter ihr es ja gezeigt hat  
 d. \*... daß Peter ja es ihr gezeigt hat  
 e. ... daß Peter es ja ihr gezeigt hat  
 f. ... daß Peter es ihr ja gezeigt hat

It is interesting that there also is another difference between Du./WF. on one hand and Ge. on the other, which might be accounted for in the same terms. This difference is that only in Ge. is it possible to scramble full NPs to IP, i.e. past the subject.

- (72) a. Ge. ... daß diesen Mann Peter nie früher gesehen hat  
       b. Du. \*... dat deze man Peter nooit voordien gezien heeft  
           ... that this man Peter never before seen has

This would also be accounted for if scrambling in Du. and WF. was A-movement, but not in Ge. This has been suggested for Du. by e.g. Vanden Wyngaerd (1989). Scrambling would then not be able to move past IP-spec, which is an A-position. On the other hand, as also mentioned at the beginning of this section, the evidence adduced in sections 4.2.2 - 4.2.5, that scrambling in Du. and WF. is not A-movement remains: Like in Ge., scrambling in Du. and WF. moves an NP out of a case-assigned position, it does not require adjacency, it may apply to PPs, and it may trigger parasitic gaps, cf. section 4.2.2-4.2.5).

### 4.3.4 Two previous analyses: Holmberg (1986) and Vikner (1987a).

Holmberg (1986:181, 206) suggests, following Kayne (1984:195ff.), that the direct object receives case from the verb, and the indirect object receives case from an empty preposition which is licensed by the verb. The case-assignment properties of the empty preposition depends on the case-assignment properties of the verb (the empty preposition is only able to assign case to the indirect object if the verb assigns case to the direct object). If the direct object object-shifts, the verb is not assigning any case, and therefore the empty preposition cannot assign case to the indirect object either, explaining why all (e)-examples are ungrammatical. If we furthermore assume that the empty preposition has to be adjacent to the case assigner ( $V^o$  or  $I^o$ ), we can also explain why the direct object cannot precede the indirect object, both in the cases where neither object-shifts, as in the (d)-examples, and in the cases where both object-shift, as in the (f)-examples. This leaves the empty preposition analyses with no problems as far as object shift is concerned.

It should be mentioned that the Sw. data discussed by Holmberg do not quite correspond to the Da. data in (47)-(50): my judgments for Da. disagree with Holmberg's for Sw. in at least three cases: (47b) and (50b,f).

With respect to the data concerning *let*, assuming an analysis where the verb embedded under *let* has lost its case-assignment properties, it seems to me that an empty preposition analysis would predict that neither object could remain in situ, as both are dependent on the verb being able to assign case. In fact, even without assuming any loss of case-assignment properties, these data would seem to be very difficult to account for in an empty preposition analysis, because of the differences between the situation of a single object and the one of an indirect object: In single object constructions the obligatory movement applies to the object (which receives case from the verb), whereas in double object constructions the obligatory movement applies to the indirect object (which does not receive case from the verb but from the empty preposition) but not (cf. (41b)) to the direct object (which does receive case from the verb).

Furthermore, as also noted by Holmberg himself (1986:213), a PP with an overt preposition cannot object-shift, cf. (33b) and (34b) above. This may be taken as an indication that when the indirect object object-shifts, it leaves the empty preposition behind. But this is not very attractive, given that overt prepositions cannot be stranded by A-movement in Da. (this argument was originally made for Ic. by Sigurðsson (1989:347)):

(73) Da. \*Bogen blev læst i t  
 Book-the was read in



In Vikner (1987a), the assumption was that the indirect object receives case from the verb, and the direct object has inherent case. The direct object should thus be able to occur anywhere, subject to other requirements, such as not preventing adjacency between a case assigner and an assignee. Though this accounts for the *let*-data when the external agent of the embedded verb is absent (i.e. (41)), it cannot deal with the cases where the embedded external argument is present, as in (40). The problem is that it predicts that the following should be grammatical:

(74) Da. \*Jeg lod Peter t hotellet [anbefale Martin t]  
           I    let Peter    hotel-the    recommend Martin

Here the direct object does not interfere with any structural case-assignment.

With respect to the object shift data (which were not discussed in Vikner (1987a)), the predictions are almost completely wrong, as e.g. (47d,e)-(68d,e) would be predicted to be grammatical, which they are not (The direct object should be able to adjoin to VP, even though this is not a case-assigned position, as long as no other requirements are violated).

#### 4.4 Conclusion.

In section 4.2 it was argued that object shift is A-movement, as opposed to scrambling, which is not A-movement. In section 4.3, this analysis was then used to explain the interaction between object shift and double object constructions.

By assuming an underlying structure for double object constructions like the one shown in (38), and combining it with the constraints on movement/government of the relativised minimality-framework, it was possible to account for all three kinds of A-movements discussed: object shift, *let*-movement and passivisation, while also explaining why A'-movement has completely different properties.

Many aspects of the double object constructions are left unaccounted for in this section, cf. the following two which are pointed out by Hellan (1988):

Why is only the direct object subject to indefiniteness, when the indirect object is not?

- (i) a. Der blev vist en pige en bog  
 There was shown a girl a book
- b. Der blev vist Sofie en bog  
 There was shown Sofie a book
- c. \*Der blev vist en pige bogen  
 There was shown a girl book-the

Why can the direct object undergo *what-for*-split (cf. section 3.1.2.2 above), when the indirect object cannot?

- (ii) a. Hvad viste du Sofie for en bog?  
What showed you Sofie for a book?
- b. \*Hvad viste du for en pige bogen?  
What showed you for a girl book-the?

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