NyS

Betingelser for brug af denne artikel

Denne artikel er omfattet af ophavsretsloven, og der må citeres fra den. Følgende betingelser skal dog være opfyldt:

- Citatet skal være i overensstemmelse med „god skik"
- Der må kun citeres „i det omfang, som betinges af formålet"
- Ophavsmanden til teksten skal krediteres, og kilden skal angives, jf. ovenstående bibliografiske oplysninger.

Søgbarhed

Artiklerne i de ældre NyS-numre (NyS 1-36) er skannet og OCR-behandlet. OCR står for 'optical character recognition' og kan ved tegngenkendelse konvertere et billede til tekst. Dermed kan man søge i teksten. Imidlertid kan der opstå fejl i tegngenkendelsen, og når man søger på fx navne, skal man være forberedt på at søgningen ikke er 100 % pålidelig.

Clefting in Danish?

Henning Nølke

Introduction

Recent years have seen a growing interest in analyzing clefts within the framework of the Extended Standard Theory, now developed into the Government and Binding (GB) Theory. There are at least three reasons for my taking up this subject. First I believe that much confusion and disagreement in recent linguistic work on clefts is due to misanalysis of the construction proper. Some arguments are lacking substantial support, and others have been drawn from sentences that appear not to be real clefts. In fact, it seems that the more general development of linguistic theory tends to overlook the importance of in-depth studies of particular constructions. Secondly I will try to show that such a study of Danish clefts presents some arguments against a transformational approach, and more specifically against Chomsky's proposal (1977a) for distinguishing between NP and PP clefts, which are base-generated, and Adverb clefts, which are transformationally derived. A uniform non-transformational treatment seems to be required. Thirdly I shall argue that such an analysis not only has at least as much explanatory power as former proposals, but that it also throws light on interesting theoretical problems in the GB-Theory as it is presented in Chomsky (1981 and 1982), especially as regards the status of the empty categories. These problems may find their solutions in a development of the Logical Form (LF) component.

In the first section I outline briefly some characteristics of clefts that any analysis has to account for. Then (in 2.) I discuss prior proposals, after which I (in 3.) argue for an analysis that base-generates the focal element *in situ* and makes use of move-α into COMP. In the fourth section I sketch how the LF-component may be developed to treat some residual problems, and finally I try to evaluate the contribution this kind of approach may give to general linguistic theory.

1. What is a cleft?

1.1 Definition
I shall only be concerned with clefts of the kind in (1):

(1) i.   Det er Peter, der synger.
          (It is Peter THERE smokes)[1]
     ii. Det var Søren, han sendte bogen til.
          (It was Søren he sent the book to)
     iii. Det er kun om sommeren, vi tager på landet.
          (It is only in the summer we go into the country)

In (i.), for instance, I shall call *Peter* "the focus" and *der ryger* "the c-clause" ("cleft-clause"). The so-called pseudo-clefts of (2):

(2) i.   Den der ryger, er Peter.
          (The one THERE smokes is Peter)
     ii. Den hun sendte bogen til, var Søren.
          (The one she sent the book to was Søren)

will only be discussed in connexion with the possible analyses of type (1).
    It is very important to distinguish genuine clefts as in (1) from sentences like (3):

     (Hvem er drengen til højre?)
     ((Who is the boy to the right?))
(3) Det er Peter, der (jo) lige er kommet hjem.
     (It is Peter THERE (you know) just has returned)

Although (3), for a cursory examination, presents a structure very much like the sentences in (1), there are some very essential differences to be noted.
    First there is a difference in the function of *det*, which has to do with the discourse function of the entire sentence. In a real cleft *det* has no reference outside the sentence, whereas in (3) *det* refers to *drengen* mentioned in the preceding question[2]. This reflects a difference in paraphrasability. Disregarding pragmatic features (cf. *infra*), the clefts have synonymous non-cleft counterparts, while the "referential constructions" have no such paraphrases. In order to test whether a given sentence is a genuine cleft or not we have to put it into a context. This test reveals some formal differences

73

between clefts and sentences like (3).

Let us note that while the presence of *jo* in (3) seems quite natural, this word cannot enter (1). To put it more precisely, the structure we would obtain (*Det er Peter, der jo ryger*) is no more a cleft. It can only be uttered in a context where *det* has a reference outside the sentence. Actually (3) contains a parenthetical relative, and it is well-known that the speaker may "introduce himself" in such constructions by means of pragmatic words like *jo*. Another difference lies in the use of complementizers. Whereas we may find any relative pronoun in (3), only *som* may enter the cleft[3] (*der* is not a complementizer in the cleft constructions, cf. 3.4). Moreover, there is a much stronger tendency to omit the relative pronoun in clefts than in parentheticals.

I have stressed the importance of testing whether or not a given sentence is a cleft. In fact, we find an astonishing confusion on this point in the literature. Thus Chomsky (1981:280), footnote 19) presents (4):

(4)   It is John to whom I spoke.

as an argument for his analysis of clefts. (4), however, can hardly be uttered without *it* having a reference outside the sentence, and it is therefore no cleft. At any event, its Danish counterpart is impossible as a cleft. It goes without saying that the smuggling of non-clefts into the argumentation obscures the whole analysis.

Even if a cleft sentence is self-containing (since *det* cannot refer outside the sentence), it may be context-dependent in a sense which has yet to be made explicit. The clause may be omitted so that we get a so-called *reduced cleft.* This is said to be context-bound, as its existence depends on the possibility of recovering the clause by appealing to the context. Thus, in an appropriate context (5) may be a reduced cleft:

(5)   Det er Peter.
        (It is Peter)

(5) may for instance be equivalent to (1 i.) if *der ryger* can be recovered from the context. In this way, even (3) may have a reading as a reduced cleft, as can be seen from the possibility of (6):

(6)   Det er Peter, der jo lige er kommet hjem, der ryger.
        (It is Peter THERE you know just has returned THERE smokes)

74

uttered as an answer to a (implicit) question like *Hvem er det, der ryger?* (*Who is it THERE smokes?*). What is important here is to note that in the cleft reading of (3), the relative is not the c-clause; rather it is part of the focus.

Mogens Dyhr (1978:158f) suggests to consider utterances like (7):

(7)   Peter.

as strong cleft reductions when uttered as an answer. Even though he is right in claiming that (5) and (7) are often synonymous, many semantic and pragmatic arguments may be put forward to show that they are not equivalent. To me, a very important feature of a cleft sentence is the set of presuppositions and implicatures which is attached to its use; briefly: its semantic structure. This structure may be informally summed up as follows: It consists of an argument (which is "focused" in a sense to be precised later) denoting an individual or a number of individuals, and an open sentence which is predicated of this argument (see the fourth section for a more explicit formulation). Now, the clefts always (i) presuppose strongly that the open sentence is true of a specific number of (unknown) individuals, (ii) presuppose weakly that it is false of some other individuals and (iii) assert the identification of the presupposed "true" individuals (see Vikner (1973) and Nølke (1983b) for more detailed analyses of the semantic structure of clefts). This semantic structure is retained in (5) but is lost in (7). Therefore I shall not regard (7) as a cleft in this article.

To be complete, let me finally mention that clefts may be used as questions or may be embedded as in (8):

(8)   i.   Hvem er det, der ryger?
             (Who is it THERE smokes?)
       ii.   Hun sagde, at det var Peter, der havde gjort det.
             (She said THAT it was Peter THERE had done it)

These constructions exhibit all the defining properties of clefts: *det* has no reference outside the sentence, and the appropriate semantic (presuppositional) structure is present.

1.2 Special properties

Let us now consider more in detail some properties of Danish clefts that any analysis has to account for.

1.2.1 *Similar constructions*

The clefts display analogies to certain other constructions. The semantic structures of the examples in (1) and (2) are in effect almost identical; at least everybody seems to agree that they are synonymous at the logical level. In the GB-Theory this means that they must be identical in LF. This similarity has led some linguists (e.g. Akmajian (1970)) to propose a transformational relation between the two types of constructions. We shall see, however, that such an approach encounters some structural problems, and I shall argue that the synonymy has to be treated only in LF.

Syntactically, clefts might seem to be related to relatives. We have seen that they differ considerably from the parentheticals, but they might be closer to restrictive relatives. Actually, already Jespersen (1927) regards cleft sentences (though he does not yet use this term) as containing restrictive relative clauses, and it has been proposed in generative grammar that clefts contain a restrictive clause in D-Structure (Emonds (1976) provides a recent example). However, the analogy is only superficial. To mention but a few differences: The focus of a cleft may be a proper name, impossibility for the antecedent of a restrictive relative clause; the range of possible complementizers is different (e.g. *hvor* (*where*) is possible only in relatives); the focus may be expanded with a parenthetical relative (cf. ex. (6)), whereas this is quasi-impossible in the restrictive relative construction. I shall take it for granted that the derivation of the c-clause is different from that of a restrictive relative clause, and that it does not even make use of this notion.

The semantic structure of the clefts involves a focalization (cf. *supra*), and, as Erik Hansen points out (1973), there is for all constituents a clear correspondence between their capability of being focalized and that of being topicalized. Hansen writes: "(...) if a constituent cannot be placed in the front position[4], it cannot be focalized (from which we cannot draw the conclusion that every constituent capable of being placed in the front position can be focalized)". It is essentially this analogy which makes Chomsky (1977a) suggest that the focus is placed in the node TOP in SS (Surface Structure $\neq$ Logical Form, and $\neq$ Phonological Form). I shall reject this analysis, but the analogy must be accounted for.

1.2.2 *det ('it')*

The status of *det* ('it') has been subject to some disagreement. The question is whether it is merely a dummy element or whether it is an anaphoric pronoun coindexed with the c-clause. I see no convincing arguments for either

analysis. Erik Hansen (1973) considers the cleft to contain an "anaphoric pronominalization". He gives the example:

(9)   (en eller anden *har smadret ruden*)
        ((somebody *has broken the window*))
        Ole *har smadret ruden* – Det er Ole, der har smadret ruden.
        (Ole *has broken the window* – It is Ole who has broken the window)

and says: "What is in the parenthesis is an explicit or a presupposed sentence; what is underlined is the information common to the two sentences, which means that the line in the second sentence gives the old information. This is just a rough recapitulation of the conditions that the creation of a cleft sentence must meet". Poul Levin (1981:6), for his part, argues that it is awkward to consider *det* as anaphoric. Among his arguments is the diachronic observation that *det* could be deleted in older states of the language.

1.2.3 *The gap*
Perhaps the most striking property of clefts is the fact that the focus is always construed with a gap in the c-clause. Or, to put it otherwise: The c-clause is incomplete, and what is lacking corresponds exactly to the focalized element. To interpret (10) you must understand that it means more or less the same as (11):

(10)   Det var Peter, Marie holdt af.
        (It was Peter Marie was fond of)

(11)   Marie holdt af Peter.
        (Marie was fond of Peter)

The difference between (10) and (11) is that (10) is transmitting some presuppositions and implicatures absent in (11), but in LF the two sentences must get equivalent interpretations (granted that presuppositions and implicatures are pragmatic aspects which have nothing to do with the Logical Form, cf. 4.). (12) once more shows that the focus must be construed with the gap:

(12)   Det var sin søster, Peter havde med.
        (It was HIMSELF'S sister Peter had with)

The reflexive determiner *sin* (reflexive possessive) is coreferent with the grammatical subject of the c-clause, and it appears that (12) must have a structure like (12'):

(12') Det var (sin søster)$_i$ ($_{S'}$ Peter havde e$_i$ med)

where e$_i$ is an empty element.

Furthermore, the focus and the gap have to be of the same category in order to be construed together. It is therefore tempting to try to derive the cleft transformationally from its simple counterpart. We shall see, however, that such an analysis will face several technical problems, and I will argue that it has to be abandoned.

1.2.4 *The actual foci*

Early transformational analyses seem to have overlooked that not any phrase can constitute the focus. Until recently, only NP clefts have been examined, and also in Chomsky (1977a) the PP and the Adverb clefts are only cursorily studied. A thorough analysis of clefts has to explain why some constituents may be in the focus position while others are excluded from it.

We may begin by noticing that only maximal lexical phrases are allowed. Therefore we don't find particles, pleonastic pronouns or reflexives which are part of reflexive verbs:

(13) ?Det er ud, han går.[5]
       (It is out he goes)
(14) *Det er det, der regner.
       (It is it THERE is raining)
(15) *Det er sig han skynder.[6]
       (It is himself he hurries up)

On the other hand, any kind of maximal lexical phrases may be in the focus position:

(16) Det er Peter, der ryger.   (NP)
       (It is Peter THERE smokes)
(17) Det er om mandagen, han går ud.   (PP)
       (It is Monday he goes out)

(18)   Det var frivilligt, han gik efter morgenbrød.   (ADV)
       (It was voluntarily he went for morning bread)

(19)   Det var skrigende grøn, han ville male bilen.   (AP)
       (It was glaring green he would paint the car)

(20)   Det er det, at du ikke svarer mig, jeg bliver sur over.   (NP/S(?))
       (It is IT THAT you don't answer me I become sour of)

(21)   Det er, fordi du ryger, jeg ikke kan holde dig ud.
       (It is because you smoke I can't stand you)

(22)   Det er kun, når solen skinner, vi tager på landet.
       (It is only when the sun is shining we go into the country)

(23)   Det er temmelig langt, vi skal gå.   (QP)
       (It is pretty long we have to walk)

(24)   ??Det er grædt, hun har.   (VP)
       (It is weeped she has)

(25)   ??Det er danse, hun gør.   (VP?)
       (It is dance she does)

(24) and (25) seem rather strange to me, and (25) poses the additional problem that the construction contains the "dummy verb" *gør* (*do*). I think that these sentences are only acceptable in very specific contexts. Maybe they even require to be "metalinguistic correctives" (*Det er grædt hun har, ikke tudet.*), and in this use everything can be focused, cf. *Det var ud hun gik, ikke ind.* (*It was out she went, not in*). How be it, I shall not consider verbal foci in this article. (20) displays another interesting property. A completive sentence can be focus, but only if preceded by *det*. (20') is not grammatical:

(20') Det er, at du ikke svarer mig, jeg bliver sur over.
       (It is THAT you don't answer me I become sour of)

Probably the focus of (20) is an NP which dominates an S'. In the same way the foci of (21) and (22) seem to be ADV dominating S'. Thus an S' alone in the focus appears to be impossible.

   The non-acceptability of the following clefts is rather due to semantic constraints.

(26)   *Det er heldigvis, Peter er kommet tilbage.
       (It is fortunately Peter has come back)

(27)   *Det er man, der skulle tro, det var svært.
       (It is ONE THERE should think it was difficult)

(28)   *Det var ikke nogen, der kom.
       (It was not SOME(BODY) THERE came)
(29)   *Det er, hvis solen skinner, vi tager på landet i morgen.
       (It is if the sun shines we go into the country to-morrow)

According to the semantic structure of clefts summed up above (cf. 1.1), the clefts assert an identification of an individual (or a number of individuals). An important aspect of the meaning of a cleft sentence is therefore that the focal constituent is presented as having been selected among similar possibilities, which implies that it is associated with a paradigm of alternatives. As no such alternatives are available to the foci in the clefts *supra*, they are not acceptable. But note that small adjustments make (28) and (29) acceptable:

(28') Det var (i hvert fald) ikke nogen af pigerne, der kom.
       (It was (at any rate) not any of the girls THERE came)
(29') Det er kun, hvis solen skinner, vi tager på landet i morgen.
       (It is only if the sun shines we go into the country to-morrow)

This fact corroborates the given explanation: The adjunction of *af pigerne* and *kun* introduces the existence of alternatives (cf. Nølke (1983b) for an analysis of such sentences in French).[7]

Whereas a syntactic analysis has to account for the syntactic restrictions on the focus, the explanation of the constraints due to the lack of "alternativity" may appeal to an interpretative component which is not our concern here. To put it otherwise, we may regard the sentences in (26)-(29) as grammatical but uninterpretable[8].

1.2.5 COMP

We have already mentioned the very limited possibilities for the filling of COMP. I have argued that *som* is the only relative pronoun that may enter a cleft. The following sentences are ungrammatical as clefts.

(30)   Det er på landet, hvor vi bor.
       (It is in the country where we live)
(31)   Det var Peter, til hvem hun sendte bogen.
       (It was Peter to whom she sent the book)
(32)   Det var Peter, hvem hun sendte bogen.
       (It was Peter whom she sent the book)

(33) Det er huset, hvilket vi har ledt længe efter.
      (It is the house which we have long looked for)

Dyhr (1978:120) gives, however, the following examples of clefts:

(34) Det var svigerfaderen, hvis politiske indstilling han altid hidsede sig
      op over.
      (It was the father-in-law whose political attitude he always worked
      himself up because of)
(35) Det er sommerhuset, hvis tag blev tjæret.
      (It is the summerhouse whose roof was tarred)
(36) Det var bedsteforældrene, hvis lejlighed han så godt kunne lide.
      (It was the grandparents whose apartment he liked so much)

Unfortunately, Dyhr has invented these examples, as there were no clefts
of this kind in his corpus. In my dialect, however, I am unable to imagine
a context in which these sentences may be used as clefts according to
the definition given in 1.1. Therefore they are only apparent counter-
examples[9]. It is perhaps worth noting at this point that English and French
do not have a genitive relative pronoun in their clefts either.

    Actually, most often there is no overt complementizer in the Danish
clefts, though the natural one (-*wh*) *at* is always possible (at least in collo-
quial speech). *at* is in fact the only possible overt complementizer for non-
NP-foci. Consider:

(37) i.   Det var Peter, som hun sendte bogen til.
            (It was Peter WHO she sent the book to)
      ii.   *Det var til Peter, som hun sendte bogen.
            (It was to Peter WHO she sent the book)
      iii. Det var Peter, som hun sendte bogen.
            (It was Peter WHO she sent the book)

These examples show that the possibility of *som* depends entirely on the
category of the focus constituent (cf. footnote 3).

    In colloquial speech, COMP may be doubly filled (or even triply if *der*
is in COMP). Thus (38):

(38) Det er Peter, som at der ryger.
      (It is Peter WHO THAT THERE smokes)

81

has been accepted by almost all of my informants, although with a remark like "it is typically Storm P. language" (a famous Danish humorist). It is very important to note here that no other order of the elements in COMP is possible:

(39)   *Det er Peter, $\begin{Bmatrix} \text{som der at} \\ \text{at som der} \\ \text{at der som} \\ \text{(etc.)} \end{Bmatrix}$ ryger.

Every time we find two elements in COMP, *som* must precede *at*, and *at* must precede *der*.


2. Some prior Analyses

I shall now discuss some prior analyses. All of them have explained some of the characteristics mentioned in the first section, but I will try to show that none of them can be maintained. The derivation from a relative construction shall not be discussed. We have already seen why it cannot be defended, and, to my knowledge, nobody has advocated such an analysis in recent years. Adrian Akmajian (1970) has proposed to derive clefts from pseudo-clefts. I shall briefly review his analysis. Then I shall give a survey of the problems that a transformational analysis which derives clefts from corresponding non-clefts must face. This serves as an introduction to Chomsky's (1977a) proposal. Chomsky generates NP and PP foci in the base, whereas ADV foci derive from a transformation analoguous to the ADV preposing. This dual theory will be examined, and I will show that it solves essential problems mentioned in the first section. Nevertheless, there are several reasons for rejecting it in favour of a unique non-transformational analysis.

2.1 The Pseudo-cleft Analysis

The clear-cut (semantic) relationship between clefts and pseudo-clefts (cf. 1.2.1) has led to many proposals for deriving the former type from the latter. Perhaps the most advanced is that by Akmajian. Akmajian (1970:149) proposes "that the cleft sentence is syntactically derived from the pseudo-cleft sentence by a rule which extraposes the initial clause of the pseudo-cleft sentence to the end of the sentence.". Thus (1 i.) is derived from (2 i.):

(1) i. Det er Peter, der ryger.
(It is Peter, THERE smokes)

(2) i. Den der ryger, er Peter.
(The one THERE smokes is Peter)

Underlying both sentences is the structure (40):

(40)
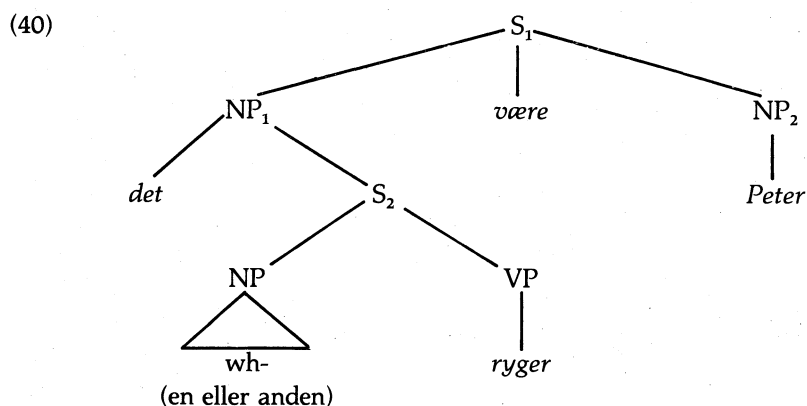
Omitting technical details, the cleft is now obtained by means of the Rule of Cleft Extraposition which extraposes S_2 to its postfocal position so that we get the structure:

(41)
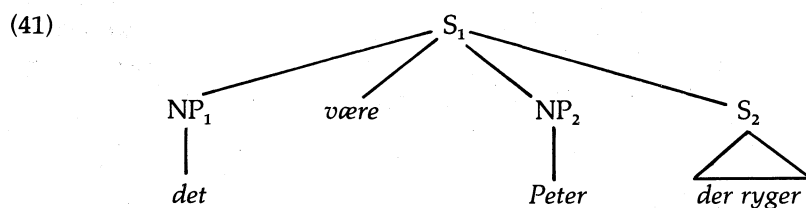
The evidence that Akmajian provides in support of this analysis can be reduced to the observation that we find the same kind of agreement and referential relations in the two constructions. As a matter of fact, this is the kind of evidence that should support proposals of syntactic derivation. We have seen that mere synonymy is no argument for derivational relationship. Rather, synonymy should be expected to be treated in LF. However, it is possible to present several syntactic arguments against Akmajian's analysis. Delahunty (1982:60ff) points out some technical problems that I shall not repeat here. I shall limit myself to adding two. The first one con-

cerns *det*. Akmajian is not explicit concerning this point, and it is not evi-
dent how we get the right Phonetic Form from the structure in (41) without
adding *ad hoc* rules. This problem might be solved if we generate an emp-
ty NP in the place of *det* in (40). The other problem is that the Rule of Cleft
Extraposition appears to violate the Projection Principle (cf. this volume,
p. 27). This problem, too, might be solved, for example by adding in (40)
a VP-node as a sister to NP_1 and dominating *være*, NP_2 and an empty
category, to which S_2 could be moved. This might entail problems with
the θ-criterion, but even these could be solved with the help of sophistic-
ated technique.

Maybe even more serious are the empirical arguments against Akmaji-
an's theory. These are of two kinds. First there are constituents that cannot
be focus in both constructions, and secondly the two sentence types permit
different fillings of COMP. A minor problem is that the pseudo-cleft in
certain cases is much more natural than the corresponding cleft:

(42) i. ??Det er om han har forstået spørgsmålet, det drejer sig.
    (It is WHETHER(+ ABOUT) he has understood the question
    it is)

ii. Det, det drejer sig om, er, om han har forstået spørgsmålet.
    (THAT it is about is whether he has understood the question)

To explain the difference in acceptability, we might appeal to the different
pragmatic use of the two constructions. Also the fact that *om* appears
twice in (ii.) and only once in (i.) might be accounted for by independent
rules. What is much more embarrassing for a derivation of clefts from
pseudo-clefts is the fact that many clefts have no synonymous pseudo-
clefts from which they ought to be derived:

(43) i. Det var først derefter, de forstod det.
    (It was only afterwards they understood it)

ii. *Det, de forstod, var først derefter.
    (THAT they understood was only afterwards)

(44) i. Det var til Peter, hun sendte bogen.
    (It was to Peter she sent the book)

ii. *Den, hun sendte bogen, var til Peter.
    (THE ONE she sent the book was to Peter)

(45) i. Det er om aftenen, Peter er mest veloplagt.
    (It is in the evening Peter is most in form)

ii. ??Når Peter er mest veloplagt, er om aftenen.

(When Peter is most in form is in the evening)
iii. Det tidspunkt, Peter er mest veloplagt på, er om aftenen.
(The moment Peter is most in form is in the evening)

(44) and (45) show that the problem has to do with the filling of the head of NP$_1$ in the pseudo-cleft. The pronoun clearly has to be of the same category as the focus, and as we have no PP pronouns, (44 ii.) is impossible. This leads to the second observation concerning COMP. Actually, in the pseudo-clefts we find many different forms (*hvad, hvor* etc.) which are excluded from the clefts:

(46) i.   Hvad jeg ikke forstår, er, at du allerede går.
           (What I don't understand is THAT you already leave)
     ii.   Der, hvor bogen er svagest, er i personbeskrivelsen.
           (THERE where the book is weakest is in the description of the characters)

2.2 Focus Placement Transformation

Why not simply derive the clefts (and the pseudo-clefts) transformationally from their corresponding non-clefts?

(47) i.   Hansens var i Frankrig sidste sommer.
           (The family Hansen was in France last summer)
     ii.   Det var Hansens, der var i Frankrig sidste sommer.
           (It was the family Hansen THERE was in France last summer)
     iii. Det var i Frankrig, Hansens var sidste sommer.
           (It was in France the family Hansen was last summer)
     iv.   Det var sidste sommer, Hansens var i Frankrig.
           (It was last summer the family Hansen was in France)

Intuitively (ii.), (iii.) and (iv.) seem all to be like the sentence in (i.) plus a focalization of a selected element. That some elements cannot be focalized (e.g. *sidste* (*last*)) should not cause any problems for a direct transformational analysis. Such restrictions might be explained by general conditions on transformations (cf. Chomsky 1973), or – as we have seen – by semantic or pragmatic constraints on the focus position.

   Another intuitive argument for a "Focus Placement Transformation" (FPT) comes from the preposition stranding phenomenon. FPT would be

be one of several transformations allowing stranding and falling within the structures studied in Herslund (this volume). If we reject FPT (on technical grounds), we must reestablish these generalizations in the non-transformational account.

Most of the arguments against FPT are in fact of a technical nature. As a matter of fact, FPT poses insuperable problems in a GB-Theory. (48) may, however, present some additional empirical evidence against FPT:

(48) i.   Det var Karen$_i$ Peter$_j$ beundrede for $\left\{ \begin{array}{c} sit_i \\ hendes_i \end{array} \right\}$ mod.

(It was Karen Peter admired for $\left\{ \begin{array}{c} HERSELF's \\ HER \end{array} \right\}$ courage)

ii. Peter$_j$ beundrede Karen$_i$ for $\left\{ \begin{array}{c} *sit_i \\ hendes_i \end{array} \right\}$ mod.

(Peter admired Karen for $\left\{ \begin{array}{c} HERSELF's \\ HER \end{array} \right\}$ courage)

Whereas no informant has accepted sit_i (coreferential with *Karen*) in (ii.), most of them even preferred sit_i in (i.). This may be explained by some sort of late rule, but I do not see how such a rule could find independent motivation, and (48) would thus complicate the grammar in a FPT-Theory[10].

The bulk of the argumentation against FPT is technical, and I shall only enumerate some of the most essential problems FPT would have to face in a GB-Theory. I shall furthermore limit myself to considering NP clefts, as I shall address the other clefts in my discussion of Chomsky's proposal (in 2.3).

Two possible variants of FPT present themselves. It might be a "structure building transformation" simply taking the simple sentence as input, and – under certain conditions – giving the cleft as output. Many arguments have been put forward against structure building transformations (e.g. Chomsky 1977a:96), and, simply, they do not exist in the modern GB-Theory, where move-α is the only transformation. The other solution generates a structure like (49):

(49) Det er (e)   ((   )   (.. (X) ..))
             NP   S' COMP   S   NP

where S' corresponds to the non-cleft counterpart. I have omitted all ir-relevant structure. This is in essence Emonds' proposal (Emonds 1976), and it is structure-preserving in his sense. Using GB-terms, move-α now first moves X to COMP and then to the focus position.

First problem: If the focus is generated as a complement of *være*, FPT would violate the θ-criterion (hence the Projection Principle). The focus is subcategorized by *være* and receives therefore a θ-role. The moved NP will receive a θ-role from its D-Structure position in S', and therefore cannot be moved to a θ-position.

Second problem: We often find the (overt) relative pronoun *som* in COMP. As move-α must have left a trace in COMP, this means that a special rule must respell this trace as *som*. This rule has to be optional (in fact, it is normally not applied, cf. *supra*), and it is hard to see any independent motivation for it. Anyhow, this rule would apparently be limited to cleft constructions. Note that the $+/-$ presence of *som* is quite another problem, as there is no trace in the COMP of a relative construction.

Third (possible) problem: The ECP (cf. Chomsky 1981:274f), the NIC, the SSC and/or the subjacency conditions will be violated. There is however strong evidence that these conditions do not apply to the Scandinavian languages (cf.: "(...) the modern Scandinavian languages (...) are notorious for violating the CNPC and the *wh*-island Constraint" (V at 1978: 714)).

Fourth problem: Sentence adverbials like *heldigvis (fortunately)*, *måske (perhaps)*, *selvfølgelig (of course)*, etc. are not allowed in the c-clause. On the other hand, they quite naturally precede the focus. To treat this fact an FPT analysis would have to resort to one of the two following "tricks": (i) It could move the adverb together with the focus. This would not only mean that the adverb would be regarded as belonging to the focus, but what is worse, it would require *either* a complete, very strange and otherwise unmotivated redefinition of move-α allowing it to work on two independent nodes in one stroke, *or* new phrase-structure rules generating the sentence adverbial as a sister of an NP. The only other possibility would be (ii) to invent constraints that prevent FPT from working on sentences containing sentence adverbials, and at the same time to base-generate these in the pre-focal position. Then the synonymy might be taken care of in LF. This second solution is technically possible, but it demands some constraints for which it is hard to find any other justification than their necessity in the actual derivation, and by having to resort to the LF-component in order to handle the synonymy problems, the entire idea behind the transformational approach is lost.

It is not easy to see how any D-Structure of the type in (49) could over-
come all these problems. The first and the third one may find solutions in
Chomsky's S″ analysis with the TOP-node, which I shall address below,
but the fourth problem would then be even more embarassing. How be it,
the second problem seems to demand severe modifications of the theory.
And then I have only mentioned the most serious problems. There will be
problems, too, with the ordering of rules, etc. (cf. Delahunty (1982:38ff)
for further discussion). I shall therefore consider an FPT solution as out of
the question.

2.3 Chomsky's dual analysis

As already mentioned (cf. 1.2.1), only the constituents capable of being
topicalized can be focalized. Chomsky (1977a) exploits this fact in his ar-
ticle on *wh*-movement. He introduces a node S″ and adds the base rule R1
("in addition to Bresnan's R2, already assumed") (p. 91):

(50)   R1: S″ → TOP S′

$$R2: \quad S' \rightarrow COMP \left\{ \begin{array}{c} S'' \\ S \end{array} \right\}$$

He writes that "(...) in the TOP S′ structure, S′ is a *wh*-clause – in effect a
kind of a free relative, (...)". In the case of topicalization, now, the topic
is generated in TOP, and *wh*-movement ensures the right construal of the
topic with S′. Chomsky has to postulate an obligatory rule of *wh*-phrase
deletion, as there is never an overt *wh*-word in the topic structure. In the
article, this deletion rule is however already motivated for comparatives.

Chomsky presents a good share of empirical evidence in support of this
analysis of topicalization, and then proposed to use the rules for the gene-
ration of clefts too (as "topicalization and clefts seem to share striking pro-
perties" (p. 94)). To this end he suggests that the underlying structure of
clefts is like (51):

(51)   It is S″

Two provisos are demanded for (as Chomsky notes): The S′ within the S″
must be subject to *wh*-movement, and the COMP-node cannot become
terminally null. The last proviso is indeed superfluous in Danish where

COMP is often null in clefts. In this analysis clefts, topic structures and structures of the form [NP is S'] are expected to be parallel, which in fact they seem to be. The minor differences could be explained by the interpretation rules, i.e. in LF.

According to Chomsky, only NP and PP clefts can be analyzed in this way. To treat ADV clefts he appeals to the analogy between these and adverb preposing:

(52) i. Det var modvilligt, jeg blev væk.
          (It was reluctantly I stayed away)
      ii. Modvilligt blev jeg væk.
          (Reluctantly stayed I away)

Chomsky is not very explicit concerning this point. He says that, if we suppose "that adverb preposing, in some cases at least, places the adverb in the position TOPIC" (p. 96), then it already accounts for ADV clefts, given the structure in (51).

To recapitulate, Chomsky proposes that there be two different sources of clefts, one involving *wh*-movement (NP and PP clefts), and the other involving adverb preposing. His theory elegantly exploits the relationship that can be observed between clefts, topicalization, left dislocation and other constructions, and thus obtains a certain amount of explanatory power. However, I shall try to demonstrate that it cannot stand a closer examination.

Chomsky's proposal embodies three aspects: (i) it is dual (giving different sources for NP-clefts and ADV-clefts), (ii) it makes use of the TOP-node, and (iii) it involves *wh*-movement. Delahunty (1982) argues against all of these aspects. I shall repeat some of his arguments against (i) and (ii), and add others. However, I shall argue that clefting does imply *wh*-movement.

Chomsky supports his dual approach with two kinds of evidence: (i) adverb clefts differ paradigmatically from NP and PP clefts, and (ii) in adverb clefts the focus cannot be construed with a gap in an embedded sentence within the cleft clause. The first piece of evidence is based on the claim that, to a given NP or PP cleft there will always be corresponding sentences of the structure [NP is S'] and [$_{S''}$ TOP S'], and that this is not the case for adverb clefts. As Delahunty observes, under the structural description [NP is S'] Chomsky includes the sentence (53):

(53) In England is where I told Bill that I went to live.

Probably, what Chomsky has in mind is the following paradigm of structures:

(54) i. X^n is S'
      ii. $(_{S''}$ TOP S')
      iii. It is $(_{S''}$ TOP S')

where X^n is some maximal category.

Delahunty claims that (i.) does exist with X^n = ADV. This is not the case in Danish, where his examples (e.g. *Only when it rains is when we have to sweep the court*) are ungrammatical. On the other hand, even the Danish counterpart of (53) is ungrammatical, so Chomsky's paradigmatic evidence could be an argument for a dual analysis; but the distinction would be between the NP clefts (for which (54 i.) is acceptable in Danish) on one hand, and the rest of the clefts on the other. Yet note that (54 ii.) is perfectly grammatical both with NPs, PPs and Adverbs.

As for Chomsky's second piece of evidence, it does not seem to stand scrutiny:

(55) Det var kl. 3, Søren sagde, han ville komme hjem.
      (It was at three o'clock Søren said he would come home)
(56) Det var venligt, han sagde, hun burde behandles.
      (It was kindly he said she ought to be treated)
(57) Det var med en hammer, Peter sagde, han ville slå låsen op.
      (It was with a hammer Peter said he would break up the lock)

(55) is ambiguous and perfectly natural in both readings: The adverb (*kl. 3*) may denote the time of Søren's saying or the time of his coming home. (56), too, seems to be ambiguous, whereas in (57) the focus only can be construed with the embedded clause[11]. (56) and (57) are perhaps a little odd, but clefts with focus adverbs denoting other things than time and place always are, so that is beside the point. What is at stake here seems to be a difference in construal between NP clefts (and certain PP clefts) and adverb clefts. In the first case the gap is a complement of a verb and is therefore more or less felt as obligatory. In the second case, the gap is rather accidental. Thus there may be a tendency towards construal with the matrix sentence. However, when we are faced with strong selection restrictions as in (57), one interpretation is forced through.

Not only can Chomsky's evidence be contested, there exists actually a direct counter-argument against it. His proposal of adverb preposing to

TOP is a variant of the Focus Placement Transformation reviewed *supra*, hence the arguments which lead to abandon FPT force us to reject Chomsky's generation of adverb clefts as well. If there are no arguments left for dual approach, then, other things being equal, a uniform approach should be preferred on grounds of simplicity and generality. Further empirical evidence, too, seems to point to the desirability of a uniform approach. We shall see in the third section that some tests indicate that all types of clefts have the same Surface Structure. They also have identical semantic and discourse functions. These remarks also include the QP and the AP clefts, which Chomsky does not discuss, so it is not obvious which analysis he would propose for them. Finally, there are some complex clefts that may contain different kinds of foci:

(58) i. Det er fordi han er russer, at det er vodka, han drikker.
          (It is because he is a Russian THAT it is vodka he drinks)
     ii. *Det er vodka, at det er, fordi han er russer, han drikker.[12]
          (It is vodka THAT it is because he is a Russian he drinks)
(59) i. Det var i går, det var i haven, de drak te.
          (It was yesterday it was in the garden they drank tea)
     ii. *Det var i haven, det var i går, de drak te.
          (It was in the garden it was yesterday they drank tea)

It is not too easy to see how a dual approach could handle these sentences. On the other hand, in a uniform theory, some kind of superiority condition may explain why (i.) is grammatical and (ii.) is not. Hansen (1973) shows that the possible foci enter in a sort of a hierarchy that accounts for their possible combinations.

Could the uniform analysis we are looking for be Chomsky's TOP approach? I shall argue that it could not. My first argument concerns the economy of the entire grammar. New rules should only be proposed when you cannot do without them. I shall not discuss here the justification of the introduction of the node S″ which is necessary to permit the generation of the TOP-node. It appears motivated independently of my special concern. What I will say is this: To use it for the generation of clefts you have to add to (50) the rewriting rule R3: $VP \rightarrow V\ S''$ and to subcategorize the verb *være* (*be*) for the complement S″. *være* will then be the only verb with this special subcategorization and which makes use of R3.

Perhaps this would not be too bad if the presence of TOP and the structure of *være* were motivated empirically. However, though it is correct that "as has often been noted, topicalization and clefts seem to share strik-

ing properties" (op. cit.), on scrutiny this analogy turns out to be rather superfluous. I shall demonstrate striking (!) differences concerning the lexical filling as well as the syntax and the semantics of the two structures.

Topicalization is very productive in Danish. In Danish, adverb preposing appears to be a variant of topicalization, since it manifests quite similar properties. Now, many of the elements capable of being topicalized cannot be focalized (cf. Hansen's remark in 1.2.1). This is particularly true of sentence adverbials like *klogt nok*, *måske*, *faktisk* etc., which are very often topicalized, but which can never be clefted:

(60) i.   Klogt nok lod hun vognen stå.
           (Wisely let she the car stay)
      ii. *Det var klogt nok, at hun lod vognen stå.
           (It was wisely THAT she let the car stay)
(61) i.   Jeg havde glemt, at faktisk var det Peter, der havde gjort det.
           (I had forgotten THAT in fact was it Peter THERE had done it)
      ii. *Jeg havde glemt, at det var faktisk, at Peter havde gjort det.
           (I had forgotten THAT it was in fact THAT Peter had done it)

(61) demonstrates that the same rules govern the matrix and the embedded sentences. Predicates are another example:

(62) i.   Klog er han, men ikke smart.
           (Wise is he but not smart)
      ii. ?Det er klog, han er, ikke smart.
           (It is wise he is not smart)

Even in the explicit contrastive context, (ii.) is strange whereas (i.) is perfect.

The topic is always followed by Aux/subject inversion in Danish, in the embedded sentences, too. In clefts, however, inversion is impossible:

(63) i.   I går kom Peter tidligt hjem.
            (Yesterday came Peter early home)
      ii.   Marie påstod, at i går kom Peter tidligt hjem.
            (Marie claimed THAT yesterday came Peter early home)
      iii. *Det var i går, kom Peter tidligt hjem.
      iv.   Det var i går, Peter kom tidligt hjem.

As Chomsky remarks, there is never any overt complementizer after the topic in topicalization. He suggests (1977a:95) that it might be a special case of the process of deletion that applies uniformly in matrix sentences. However, the impossibility of a complementizer after topic is not limited to matrix sentences. Complementizers simply cannot follow TOP. As we know, *at* is always possible after the focus of a cleft, wherefore it does not seem appropriate to consider this one as being in TOP. On the other hand, topics embedded in completives require the presence of the complementizer *at:*

(64) i.   Han sagde, at han kunne klare sig selv.
          (He said THAT he could shift for himself)
     ii. Han sagde, han kunne klare sig selv.
     iii. Han sagde, at heldigvis kunne han klare sig selv.
          (He said THAT luckily could he shift for himself)
     iv. *Han sagde, heldigvis kunne han klare sig selv.[13]

Of course *at* is completely excluded in front of the focus of a cleft.

Sentence adverbials cannot be focalized, but they can appear in front of the focus. They can even follow the focus with a special intonation pattern. In topicalization the adverbials are never removed from their natural position in the sentence:

(65) i.   Bilen har vi heldigvis solgt.
          (The car have we luckily sold)
     ii. *Heldigvis bilen har vi solgt.
     iii. *Bilen heldigvis har vi solgt.
(66) i.   ?Det er bilen, vi heldigvis har solgt.[14]
          (It is the car we luckily have sold)
     ii. Det er heldigvis bilen, vi har solgt.
     iii. Det er bilen, heldigvis, vi har solgt.

Finally the discourse function of the two constructions is entirely different. The last semantic function the focus could have is the function as topic. The focus is never "what is talked about".

Probably this argument has not much strength, because such differences appropriately could be handled by the interpretation rules. Together with all the other problems summarized above, which a TOP-Theory has to face, it contributes to the conclusion that we must look for another analysis of the clefts. Every single problem might be solved, either by supple-

mentary *ad hoc* rules, or by appealing to LF (as no independently motiv-
ated principle of GB-Theory – to my knowledge – is of any help here).
However, all the problems are created by the proposed analysis itself. The
approach which I shall advocate in the next section will avoid them by
describing the similarities between topicalization and clefts not in the D-
and S-Structures, but rather at LF. While Chomsky wants to treat the simi-
larities in the syntax and then the differences in the interpretation rules
(which he is only hinting at), my approach is the reverse, so to speak; and,
indeed, it seems more appropriate to capture the structural uniformity of
all the clefts in the syntax, and then resort to describing synonymy rela-
tions in LF.

I shall address the third aspect of Chomsky's approach, viz. the *wh*-
movement in the clause, in the next section, where I shall meet Delahunty's
arguments against it.

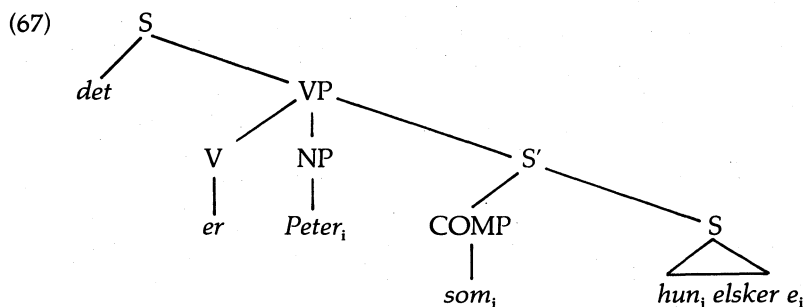## 3. A uniform approach generating focus *in situ*

In the preceding sections we have seen that the reviewed cleft analysis lead
to the creation of new rules which inevitably complicate the grammar, and
that, in spite of these extra rules, they still encounter problems whose solu-
tions would probably require the addition of further rules which, in turn,
often are not otherwise motivated, and which therefore complicate the
grammar even more. In this section, I shall propose an analysis that makes
use only of already existing rules. I shall show that it accounts satisfactori-
ly for the properties mentioned in the first section, and that it succesfully
tackles most of the problems that the analyses discussed in the second sec-
tion have to face. By its empirical success it provides arguments for the
GB-framework in which it is developed. We shall see – in effect – that it
brings evidence for the choice of path in some recent discussions, as it
points out some particular problems.

NB!   In what follows there are some clear analogies to Delahunty's 1982
      study. His dissertation came to my knowledge only when I had de-
      veloped most of my analyses. He proposes the same basic structure
      and advances some of the same arguments as mine. I have also pro-
      fited from some of his suggestions. However, Delahunty's proposal
      is not compatible with the GB-Theory for several reasons. For in-
      stance he has to treat *wh*-phrases as variables. In opposition to Dela-
      hunty, I shall argue that clefting involves *wh*-movement compatible
      with the GB-Theory (Chomsky 1982).

3.1 S-Structure

If we must reject any transformational approach, and if we do not accept the focus to be under the TOP-node, what can we do then? We have to generate the focus *in situ* in the base, but in which structure? I shall argue that the structure given in (67) is appropriate:

(67)

```
                S
              /    \
           det       VP
                   / |  \
                  V  NP    S'
                  |  |    /  \
                  er Peter_i COMP    S
                          |        /\
                        som_i   hun_j elsker e_i
```

Let me start by underlining that (67) is invulnerable to the arguments which have been raised against base generation of clefts (cf. par example Moreau, 1976). As I shall show, it does not require any restrictions which are not already in the grammar, and it does not extend the power of the grammar, as it demands only already existing rewriting rules in the base. Chomsky (1982:8) discusses the rules in (68):

(68) a. S → NP INFL VP
      b. VP → V NP S'

which probably any grammar contains. These rules generate already the NP clefts. More generally, rewriting rules for VP like those suggested in Jackendoff (1977:69) permit the generation of all the clefts under consideration:

$$(69) \quad VP \rightarrow (NP)(Prt) \; \left(\left\{ \begin{array}{c} NP \\ AP \end{array} \right\} \right) \; \left(\left\{ \begin{array}{c} ADVP \\ QP \end{array} \right\} \right) \; (PP) \; \left(\left\{ \begin{array}{c} PP \\ S \end{array} \right\} \right)$$

Due to the Projection Principle, the actual possibilities for a given verb depends on the syntactic frame in its lexical entry. It is thus the form of the lexical entry of *være* (*be*) that prevents for instance the existence of more than one focus (permitted by (69)), and the burden of the proof lies in the argumentation for the right lexical entry.

Let us regard some sentences in which *være* can enter:

(70)   i.   Petersen er rig.
          (Petersen is rich)
     ii.   København er Danmarks hovedstad.
          (Copenhagen is the capital of Denmark)
   iii.   Problemet er, at vi ikke kan komme.
          (The problem is that we cannot come)
   iv.   Det er uheldigt, at du allerede er træt.
          (It is unfortunate THAT you already are tired)
    v.   Trine er i København.
          (Trine is in Copenhagen)
   vi.   Hvor stor er København?
          (How big is Copenhagen?)
  vii.   Gud er.
          (God is)
 viii.   *Det, han vil, er synge.
          (THAT he wants to is sing)

The copula *være* requires the obligatory presence of a complement. *er* in (vii.) means *exists* and is a different verb. This strictly subcategorized element can be any maximal lexical phrase. On the other hand, VP and S' are not allowed. (iii.) apparently embodies an S' complement, but there are good reasons to believe that the S' is dominated by an NP node. For instance it is quite natural to intercalate a *det* between *er* and S'. (iv.) shows the structure $(_{S'}$ Det er $(_{AP}$ $)$ $(_{S'}$ $))$, and *være* thus appears to allow an S' as a facultative complement. On the basis of these considerations I propose the following syntactic frame in the lexical entry of *være*:

(71)   [*være* X^n (S')]

where X^n represents an arbitrary maximal lexical category.

    I shall now present further evidence for the structure (67) and the lexical entry (71), which together account for the generation of the clefts. The first argument concerns the LF. An essential property of clefts is that there has to be a gap in the c-clause with which the focus can be construed. Suppose that the Rule of Predication (RP), which applies to the LF representation, takes care of this construal (cf. Chomsky (1982:92f)). Though the conditions for and the effects of RP have not been much studied, it appears to be tacitly assumed that it requires the constituents involved to be sisters in LF. Therefore an S-Structure where the focus and S' (the is-to-be open sentence) are sisters is to be preferred on technical grounds, as it does not

complicate the transmission into LF. (67) is such an S-Structure.

The second argument concerns the possible foci. We have seen (in 1.2.4) that any maximal lexical phrase may constitute the focus. This is exactly the prediction of (71) (and (69)), which is independently motivated. On the other hand, (67) only permits foci that are dominated by VP. Sentence adverbials never are, and they are thus properly excluded by the system. Apart from some minor problems[15], the analysis is predicting the actual range of focus constituents.

The third argument is based on the existence of complex clefts like (72):

(72) Det var i går, (at) det var Frederik, der vaskede op.
      (It was yesterday (THAT) it was Frederik THERE washed up)

Whereas it is far from evident how to treat (72) in other theories, complex clefts pose neither structural nor interpretational problems in our framework. The structure is straightforwardly generated, and I shall demonstrate in the fourth section that the interpretation follows automatically.

The fourth argument appeals to the θ-theory. The semantics of the copula *være* involves two elements between which it establishes some kind of likeness. It is therefore natural to assume that it involves two θ-roles.[16] Jackendoff (1976:100ff) suggests that these roles be 'Theme' and 'Location'. He makes a distinction between the roles 'Location', 'Source' and 'Goal'. This entails a problem, since *være* seems to have sometimes the role 'Source' (cf. *He is from Glasgow*). In PC-Grammar (cf. Korzen et al. 1983), this problem is solved, and *be* has the roles TOPOS and LOCUS. Suppose we call the role attached to the strictly subcategorized complement L (LOCUS) and the other role required by the structure T (TOPOS). We now see that T may be produced in two ways. Either it may be in the subject position, or it may be S'. Hence we predict that the subject is a θ-position if there is no S'-complement and no θ-position if there is an S'. This distribution appears to match reality.

The fifth argument concerns the optionality of S'. If the subject of *være* assumes the θ-role T, there is no role left for S' (according to the Projection Principle), which, in fact, in this case cannot appear. On the other hand, if the subject has no θ-role, the presence of S' is obligatory, however only semantically. We have seen that S' may be missing in the so-called context-bound reduced clefts, where its semantic content, and its θ-role (T), are detectable from the context. The + / – appearance of S' is thus regulated by independent principles, which constitutes an extra argument for the lexical entry given in (71).

The following paragraphs will produce more direct and indirect arguments for the proposed analysis.

3.2 Move- α

The question arises: What kind of empty category is the gap e? There are in principle two structures to be considered, as e may be either the subject or a complement of the c-clause. In either case e is governed, in the complement position by the verb, and – as the c-clause is always tensed – it is governed by AGR in the subject position (cf. Chomsky, 1981:50). Therefore e cannot be PRO, so it has to be trace, and trace involves move-α. On the other hand, I have argued that the focus cannot be involved in the transformation (cf. 2.2), but we can resort to the *wh*-analysis proposed by Chomsky. Actually none of the arguments advanced against Chomsky's cleft theory regard the *wh*-movement proper; and note that *wh*-movement does not imply any of the problems that lead us to rejecting the Focus Placement Transformation.[17] As Chomsky shows (1977:95ff), the *wh*-movement accounts for the different kinds of island-conditions that the clefts observe. *wh*-movement also captures the generalization that we find in the case of preposition stranding between clefts and other stranding structures (cf. Herslund, this volume). The tendency we can observe in clefts for having an empty COMP is no problem in principle, as we find the same tendency in other *wh*-constructions such as relatives.

The proposed analysis of clefts thus involves the structure (67) with base-generated focus, the lexical entry of the copula *være* given in (71) and *wh*-movement in the c-clause. I shall now show that these assumptions lead to the right coindexing (and ultimately to the right interpretation), that they make the right predictions as regards the filling of COMP, and that they explain the presence of *det*. Thereby these considerations provide additional evidence for the analysis.

3.3 The construal

Now, is the proper construal of the focus with the trace possible? Let us repeat the structure in (67):

(67') Det (er (Peter) ((som) (hun elsker t)))
          VP   NP   S' COMP   S

Here there is indeed no problem as t is bound by *som* in COMP. t is thus locally Ā-bound and is a variable. This is in accordance with the ECP as

formulated in Chomsky (1981:274f). The Rule of Predication (RP) now takes care of the right construal just as in, for example, relative constructions. I shall discuss RP in the fourth section.

What about the sentences in (73):

(73) i.   Det er Peter (hun elsker t).
          (It is Peter (she loves t))
      ii. Det er Peter (der ryger).
          (It is Peter (THERE smokes))
      iii. Det var til Marie (hun sendte brevet t).
          (It was to Mary (she sent the letter t))
      iv. Det er om mandagen (de vasker tøj t).
          (It is on Mondays (they clean the laundry))
      v.   Det var frivilligt (hun gik t efter morgenbrød).
          (It was voluntarily (she went t for morning bread))

In (i.) we can retain the same analysis as above if we postulate *wh*-deletion. This rule is largely motivated otherwise. The same is possible in (ii.) as we may have *som* preceding *der* (or substituting *der*) in casual speech. In the other sentences no *wh*-phrase is possible, however. Note that t cannot be bound by the focus. As we have seen, this would violate not only the Binding Theory (SSC or NIC, and even ECP), but also the θ-Criterion, as t presumably is in a θ-position (apart from in (iv.) and (v.), perhaps). The only possibility left open to us is then that t still is a variable, and is locally Ā-bound by an empty operator O in COMP. This solution, which looks monstrous at first sight, has in fact been suggested for other constructions. In his theory of preposition stranding, Kayne introduces the complementizer Ø, which is prepositional and is phonetically null (cf. Chomsky 1981:295f), and Chomsky appeals to it for the analysis of sentences like (74) (cf. Chomsky, 1982:30f):

(74) The men are too stubborn (e_1 to talk to e_2).

In (74) e_2 is bound by O in COMP. There is nevertheless an important difference between Kayne's and Chomsky's empty operators. Chomsky's O is "an empty category, and it is semantically empty unlike a *wh*-phrase for example" (ibid:31). If we do not want to accept the existence of free variables in LF, we therefore have to "supplement the principle barring vacuous operators by the requirement that each LF variable either be assigned a value by its operator or be assigned a value by an antecedent that

A-binds it" (ibid.). In the clefts this means that the focus A-binds the trace (when there is no *wh*-phrase in COMP), and the proper construal is ensured.

A proviso is necessary: As Chomsky remarks, "free" in the formulation of principle C of the Binding Theory (Chomsky 1981:188) must be read as "locally free". Or to put it otherwise, a variable may be A-bound by an argument which is outside the domain of its binding ($\bar{\text{A}}$-)operator, if (and only if) this operator is empty.

I would suggest now that (73) i. and ii. also contain the empty operator O and do not involve *wh*-deletion. In this analysis the appearence of the *wh*-operator is the marked case. It is only possible with NP trace but is *never obligatory.* Given the strong tendency of *wh*-deletion when the category can be retrieved from the matrix clause, and the fact that O is motivated from many different areas of the grammar, this seems to be a very plausible solution. I shall bring further arguments for it in what follows.

3.4 COMP
Though Danish shows a strong inclination for empty COMPs, the *Doubly-filled* COMP *filter* may not be obeyed in casual speech. We may well find sentences like:

(75) i.   Det er Peter, som at der ryger.
          (It is Peter WHO THAT THERE smokes)
    ii. Det er Peter, som der ryger.
    iii. Det er Peter, at der ryger.
    iv. Det er Peter, som at hun elsker.
          (It is Peter WHO THAT she loves)

The order, however, is fixed:

(76) i.   *Det er Peter, som der at ryger.
    ii. *Det er Peter, at som ryger.
    iii. *Det er Peter, der som ryger.
       etc.

As (77) shows, there are even clearer constraints:

(77) i.   *Det er Peter, som at ryger.
    ii. Det er Peter, som ryger.

iii. *Det er Peter, ryger.
iv. *Det er Peter, at der hun elsker.

We already know that *som* is possible if and only if the focus is an NP. (77) shows a further constraint: If and only if t is subject of the c-clause we may have *der*. *der* is in effect obligatory unless we have a *wh*-phrase alone in COMP as in (ii.). Suppose that we accept the theory of *som* as a marked possibility for NP operators.[18] Then the observed distinction is predicted in the system: As is generally assumed for *wh*-phrases, *som* is added to COMP by Chomsky adjunction to the left (cf. Jensen, 1979:141). Hence COMP has the structure:

(78) $(_{COMP} (_{COMP} som) (_{COMP} -wh))$

(-*wh*) may surface as *at* or as null. Note that *at* is always possible in clefts. As *der* is always to the right of *at*, it cannot be in COMP; hence it is not a *wh*-phrase. Actually, there are several independent arguments for not considering *der* as a *wh*-phrase (cf. for example Diderichsen, 1976:183). Rather *der* has appeared by *der*-insertion, which – in effect – is obligatory in certain cases. Consider (79):

(79) i. Det er Peter, der ryger.
          (It is Peter THERE smokes)
      ii. Det er Peter ((O_i) (t_i ryger))
                        S' COMP   S

ii. is the S-Structure of (i.) which we can obtain after application of move- ; but (ii.) cannot surface, since trace as an anaphor has to be properly bound. It is fair to assume that the empty operator is not a governor, and though AGR (always part of INFL in tensed sentences) is a governor, it is not a proper governor for trace. *der*-insertion solves the problem.

Note that *der* is not necessary (it is even bad) in (75 ii.), but obligatory in (75 i.):

(75) i. Det er Peter, som at der ryger.
          (It is Peter WHO THAT THERE smokes)
      ii. Det er Peter, som ryger.

This seems to indicate that *at* is not present in the S-Structure of (ii.). If it is not, *som* may govern the trace, and there is no need of *der*-insertion. In (i.), indeed, *at* is a barrier to this government relation. This evidence may

indicate that also in the case of the [-*wh*]-complementizer *at*, we should talk rather of insertion than of deletion. A solution which even for other reasons may be preferred in the most recent model of GB-Theory, where deletions are to be avoided.

Why do we have *der-* and not *det-* (*it-*) insertion? Chomsky proposes (for English) that we may have a rule "insert *there* anywhere" (1981:88), restricted by some requirements in the lexical entry of *there*. Danish shows the following pattern:

(80) i. Der$_i$ er ikke (noget at gøre)$_i$
        (THERE is not (anything to do))
    ii. (Den mand)$_i$ (der$_i$ gjorde det) må være skør.
        (The man (THERE did it) must be mad)
    iii. Det$_i$ siges (at hun er forsvundet)$_i$.
        (IT is said (THAT she has disappeared))
    iv. Det$_i$ er ærgerligt (at du må gå allerede)$_i$.
        (IT is a pity (THAT you must go already))
    v. Det regner.
        (IT is raining)

Chomsky's proposal may work for Danish, though the exact formulation of the lexical entry of *der* is not evident. We have *der* for "real" NP traces (where NP does not have as only daughter an S'), and otherwise we have *det*. However, as Hansen observes (Hansen, 1974:149), *det* can alternate with *der* in modern Danish in sentences like (iii.).

3.5 *det* ('it')

The generation of the frontal *det* in the clefts is automatic in the proposed analysis. The Projection Principle together with the assumed base-rule (S → NP INFL VP) requires that there be a subject in the matrix clause. In non-Pro-drop languages this has to be phonetically realized, and *det*-insertion applies.

3.6 Summary

To summarize: The uniform analysis of the clefts generating the focus *in situ* and involving move-α to COMP and an empty operator (considering the *wh*-operator *som* as the marked case) appears to overcome in a principled way all the problems which previous analyses have run into. We

have not, however, accounted for the analogies between clefts and other constructions like pseudo-clefts and topicalization – let alone the corresponding non-clefts. I will address these problems in the Logical Form.

4. Logical Form

In GB-Theory the grammar assigns to each sentence a Logical Form. This is a representation of the function and argument structure of the sentence, and it allows the derivation of its truth conditions. I shall assume that it does not concern the presuppositions, the implicatures and other pragmatic aspects of the meaning. We have seen in the first sections that the pragmatic structure of clefts may, among other things, account for the range of possible foci. This is not my concern here.

On the other hand, the clefts share their truth conditions with their noncleft counterparts, and even with the pseudo-clefts and (probably) the topicalizations. These constructions therefore should be expected to have equivalent Logical Forms.

4.1 LF of clefts

I shall accept without further discussion Chomsky's proposal (e.g. Chomsky, 1982:92ff) that the Rule of Predication (RP) intervenes at the LF level to ensure the right interpretation of the clefts. Roughly speaking, in LF the c-clause is an open sentence. RP takes this open sentence and predicates it of the focus. Chomsky presents syntactical evidence for his solution which I shall not repeat here. Instead I would like to scrutinize the function of RP. To this end, I shall suggest a formalization. Resorting to a well-defined formal language enables us to calculate equivalences, anomalies etc. by means of translation rules and algorithms, in short, we obtain an operational system. In order to treat RP it is tempting to make use of the lambda- (λ-) calculus language of formal logic, for, as Allwood et al. (1977:156) points out, we may interpret the lambda-operator as denoting a property, which, in turn, may be predicated of an argument[19]. In the following presentation I shall disregard irrelevant technical details. The λ-abstraction permits the conversation of an open sentence into a predicate. Given the open sentence $p(x)$, λ-abstraction converts it into $\lambda x(p(x))$, which may in turn be predicated of an individual belonging to the same semantic type as x. Assuming such an individual a, we have:

(81)   (a) $(\lambda xp(x)) \equiv (\lambda xp(x))$ (a) $\equiv p(a)$

Suppose now the following Rule of Translation:

(82)   *wh*-operators translate into the λ-operator in LF. The O-operator is considered as the unmarked *wh*-operator.

By "unmarked" I mean that it is not assigned to any syntactic category. The intuitive idea behind (82) is that it is the function proper of the *wh*-phrases to transform an open sentence into a property that can be predicated of a constituent situated outside the open sentence. Relatives are predicated of their antecedent, questions of their answer, and so on. (82) seems in fact to be in accordance with generally shared assumptions.

Assuming the one-to-one relation between syntactic categories and semantic types (e.g. Montague 1974), we now see why and how a variable bound by O has to seek its range outside the domain of the empty operator. To receive an interpretation it simply has to be categorized. Thus the A-binding, which Chomsky stipulates (1982:31), follows in a principled way. Furthermore, according to (82), Chomsky is on the right track when he proposes that the variable is free "whether or not the *wh*-phrase in the COMP is deleted" (1977a:129, note 25). In both cases this variable is free in S-Structure but bound by λ in LF. The difference is that the *wh*-phrase determines its syntactic category and thereby its semantic type in the λ-language.

As (81) shows, two conditions must be fulfilled in LF in order to permit the λ-reduction. The λ-bound open sentence and the argument have to be sisters in the constituent structure. Since the focus and the c-clause are already sisters in S-Structure, this constraint is met in LF. The other requirement is that a and x must be of the same semantic type. This means that interpretation is only possible (given the above mentioned one-to-one relation) if the focus and the trace belong to the same syntactic category. We have seen that they have to fulfill this requirement in order to permit a well-formed cleft, so this property about clefts follows without stipulation in the λ-approach.

4.2 Clefts and equivalent constructions
Consider (83):

(83)   i.   Det er Peter, Marie elsker.
            (It is Peter Mary loves)
       ii. Det er ((Peter$_i$) ((O$_i$) (Marie elsker t$_i$)))

t_i being the trace of O_i by move-α, these are coindexed in S-Structure. *Peter* receives the same index by RP. Now let us assume that the semantic dummy *det* combined with the copula does not contribute to LF. Suppose furthermore that *Peter* denotes the individual p, *Marie* m and *elske* the binar predicate constant E. (83) can then be translated into the λ-language as:

(84)   (p) $(\lambda x E(m,x))$

As p and x are both of the semantic type corresponding to NP, we get (84) by λ-reduction:

(85) $E(m,p)$

(85) is the translation of (86):

(86)   Marie elsker Peter.
        (Mary loves Peter)
(87)   Det er Marie, der elsker Peter.
        (It is Mary THERE loves Peter)

and it is easy to show that it is also the translation of (87), as it ought to be.
   Thus the LFs of the cleft and its corresponding non-cleft are shown to be equivalent. What about the topicalization?

(88)   i.   Denne bog holder jeg virkelig af.
             (This book am fond I really of)
       ii.   ((denne bog) ((O_i) (jeg holder virkelig af t_i)))
             S″ TOP   S′
       iii. Det er denne bog, jeg virkelig holder af.
             (It is this book I really am fond of)
       iv.   Jeg holder virkelig af denne bog.
             (I am fond really of this book)

According to Chomsky (1977a:91) (88 ii.) is the structure of (i.), except that I have replaced the *what*-to-be-deleted-obligatorily by O. It follows immediately that (ii.) receives the same translation into λ-language as the analogous cleft in (iii.), and that both reduce to (iv.). This is as it should be, since topicalizations and clefts should both be logically equivalent to their "simple" counterparts.
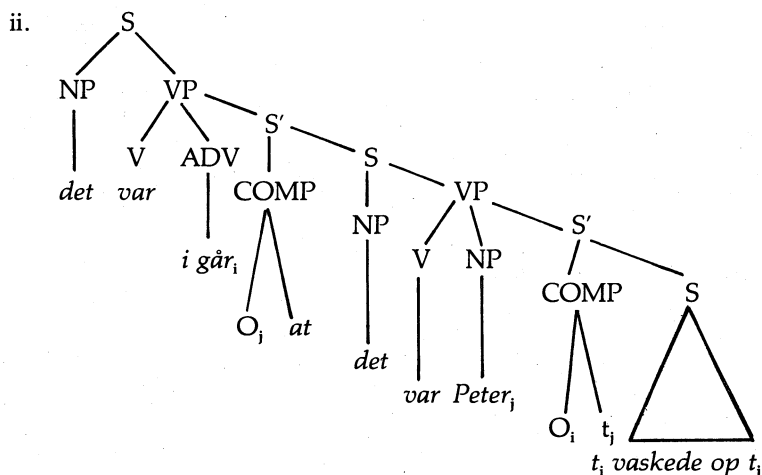
As I do not dispose of an analysis of pseudo-clefts, I cannot extend my demonstration to them, but it is supposed to be completely parallel.

4.3 Complex clefts

Complex clefts pose no special problem for this analysis:

(89) i. Det var i går, at det var Peter, der vaskede op.
          (It was yesterday THAT it was Peter THERE washed up)

ii.

I shall not develop syntactic details, but only point out two facts. Note that only O, never *som*, can "bridge" to the higher COMP, and this only when it leaves a trace which is not strictly subcategorized to the verb.[20]

Nor shall I discuss how to treat optional complements in the λ-language. Suppose that they combine with the verb phrase to form a predicate with an extra argument (however the exact technical procedure required may be, it will not change the line of the argumentation). We can then translate (89) into LF. Suppose x and y to be variables ranging respectively over individuals and points of time, p and q to be the individuals denoted by *Peter* and *i går*, and V the predicate denoted by *vaske op*, then we get the following translation into the λ-language with the shown λ-reduction:

(90) $(q) (p) (\lambda x \lambda y(V(x,y)))$ $<=>$
      $(q) (\lambda y(V(p,y)))$ $<=>$
      $V(p,q)$

Bridging constructions can be treated in a similar way.

106

4.5 Focalization

I shall finally in a few words address the phenomenon of focalization:

(92) Det er den gule kjole, Sørine bedst kan lide (ikke den røde).
      (It is the yellow dress Sørine bedst likes (not the red one))

In (92) focalization takes place inside the focus of the cleft. There is nothing surprising in this observation. Chomsky proposes (1977b:203) a FOCUS-rule, which applies in LF. Of course, this rule may extract whatever it permits by itself from the focus of a cleft, this construction having been formed in the D- and S-Structures. But note that the extraction must take place from the focus-position. Furthermore the FOCUS-rule must obligatorily apply to the cleft structure. Clefting may in effect be considered as a syntactic "focus-marker" on a par with focal stress (cf. Nølke 1983a). Due to the syntactic restriction that the focus constituent in clefts must be a maxical item, there is no one-to-one relation between clefting and FOCUS-assignment. The relationship between the FOCUS-rule and the LF of clefts deserves close scrutiny. I shall not, however, elaborate this subject here.

5. Conclusion

There is no clefting in Danish, only cleft sentences!

On the basis of a discussion of the nature of properties that define the cleft construction and a review of some prior cleft analyses, I have argued in this article for a uniform derivation of the Danish cleft sentences generating focus *in situ*. I have shown that this analysis, which involves *wh*-movement inside the cleft clause, escapes most of the technical and empirical problems that prior approaches have faced. Nevertheless, it accounts for at least as many facts about clefts as any of its predecessors, and it permits an interpretation of the function and argument structure of the clefts and of their truth conditions. Neither the very interesting pragmatic aspects of the meaning of clefts[21], nor their discourse function has been examined. Such studies would belong to a text grammar or to a performance theory, which was not my concern here.

Some problems have not found their solutions. Some of these are of a technical nature rather (e.g. the exact formulation of the Rule of Predication) and will have to wait for the development of the general theory. I should like to mention here a conceptual one: The frontal *det* intuitively seems to be coreferential with the cleft clause. Contrary to some prior

analyses (e.g. Akmajian 1970), no relation of this kind has been established in the present analysis. We may, however, imagine a sort of explanation emanating from the distribution of the θ-roles. In ordinary COPULA-constructions, the θ-role T is attached to the clause, which may therefore be felt to "substitute" the subject. In this "explanation" it is not surprising that no syntactic arguments have been advanced in support of the coindexing.

It is an argument for the suggested analysis that it appeals only to rules already existing in the grammar of Danish (in a GB-Theory). Incidentally this means that we should expect the existence of cleft constructions in languages whose grammar contains the rules we have made use of. A detailed study of a specific grammatical structure which does not complicate the grammar (by resorting to *ad hoc* rules) provides indirect evidence for the linguistic theory. Granted our general acceptance of the GB-Theory, our cleft analysis has corroborated (for instance) the formulation of the θ-criterion, the Projection Principle, the ECP, the empty operator O and *wh*-movement. In this way, the study may contribute to the development of the general linguistic GB-Theory of Universal Grammar.

April, 1983   Henning Nølke, University of Copenhagen

Notes

1) I give literal word by word English translations, and use capitals where the translation has merely a symbolic value. The word *der* merits a special remark. It resembles the English *there*, but it can also be used as a quasi relative.

2) Therefore we may expand *det* with the deictic *der* (*Det der er Peter, der lige er kommet hjem*). This expansion is never possible in a cleft.

3) Diderichsen (1976:72, 196, 208) considers *som* as a mere conjunction having no representative value. His line of argument seems to be the following: (i) We should classify the words according to their possible combinations (p. 33), (ii) therefore *som* is a conjunction (p. 72), (iii) from which it follows that it has no representative value (p. 208). However, the fact that *som* is only possible in clefts with NP foci (cf. 1.2.5) seems to point to the conclusion that *som* actually does have a representative value very close to that of relative pronouns. Consequently, I shall consider *som* in clefts as a *wh*-phrase.

4) Actually, Hansen is using Diderichsen's concept of "fundament(al)felt", cf. Diderichsen (1976:185).

5) (13) is in fact possible in a "contrast context" with a heavy stress on the focus *ud*. This may constitute an argument for considering particles as PPs, see Herslund (this volume).

6) Clefting from idioms is impossible, too:

    (i)   *Det er grin, han dør af.
        (It is laugh he dies of)

(ii)   *Det er af grin han dør.
       (It is of laugh he dies)

This fact may be an argument for (re)analyzing idioms as maximal lexical phrases.

7)   It may be the lack of obvious alternatives that makes verbal foci odd. I shall not elaborate this question here.

8)   Dyhr (1978) notes that a necessary condition for the focalization of an element is that it can be stressed, and Hansen (1973) puts forward that it is the same constituents that can be cleft and topicalized. I shall show that these claims are "truths with modifications", but even if they had turned out to be correct, they seem only to point out the relationship between clefting and topicalization. The reasons behind these common possibilities are still to be looked for. More interesting is probably Hansen's observation that the possible foci are exactly those constituents that can be connected with old information. For instance we have *Hun gik, og det med det samme* (where *det* anaphorically repeats *hun gik*) and we have *Det var med det samme, hun gik*; but we do not have either *Hun gik, og det desværre* or *Det var desværre, hun gik*. This observation seems in fact – as Hansen notes – to corroborate the hypothesis that *det* is anaphoric in the cleft construction.

9)   Admittedly, I cannot exclude completely that sentences like those in (30)-(36) may occur as clefts. This may be due to a sort of contamination from the superficially related relative constructions (suggested to me by Erik Hansen). Considering their clear marginal status, I shall regard this fact as a periphery problem (cf. Chomsky, 1981:8).

10) The frequent context-bound deletion of the c-clause would demand a deletion rule that does not seem to be motivated independently in a FPT-Theory. Since we should always try to avoid *ad hoc* emendations, this is another counter-argument.

11) It is important to note that the corresponding adverb preposing sentences *Venligt sagde han, hun burde behandles* is non-ambiguous. The adverb has to be construed with the matrix sentence.

12) Examples proposed by Carl Vikner.

13) (iv.) may be accepted in spoken language with a special intonation pattern – unnecessary in (ii.) – marking the embedding structure.

14) (68 i.) is possible, but hardly as a cleft.

15) For instance as regards predicates. Their reduced capacity of being focalized appears however to be explained independently by their semantics, cf. 1.2.4. Note however perfect examples like *Det er jo skrædder, han er* (Mikkelsen, quoted by Levin 1981:10).

16) Delahunty (1982) claims that the copula has no θ-positions, as it is semantically null. Such an analysis (which is in fact necessary in his cleft-theory) is inconsistent with the GB-framework, because it violates the Projection-Principle, cf. Chomsky (1981:37).

17) Delahunty argues against *wh*-movement. Apart from some dubious empirical facts, his essential (only argument is that *wh*-movement, according to him, necessitates the introduction of a filter to account for the impossibility of certain *wh*-phrases in COMP. This filter is not necessary in a GB-approach, so I shall disregard his objections.

18) Note that nobody else has explained why only NP-*wh*-phrases can occur in the clefts.

19) Delahunty, too, resorts to the lambda-calculus, though he does not connect it with the Rule of Predication. It may be worth stressing that I use the lambda-language only to treat the function of RP. It is by no means supposed to be a formalization of LF as such. Even with this limited scope, the use of the λ-calculus poses however some serious problems pointed out to me by Elisabet Enkvist (personal communication). As this came

to my knowledge only after my finishing this article, I have not been able to discuss these problems here, but have to refer the reader to Enkvist (1982) where they are treated at length.

20) Many interesting facts about complex clefts are worthy of a deeper analysis. For example: Apparently, any not strictly subcategorized complement may "bridge" to the higher COMP. There is, however – as Hansen (1973) shows – a hierarchy: 'Cause' dominates 'Time' which dominates 'Place' and so on. The following examples illustrate another striking fact about complex clefts:

(i)   Det er kun på grus, det er Wilander, der er den bedste.
      (It is only on gravel it is Wilander THERE is best)
(ii) *Det er kun grus, det er Wilander, der er den bedste på.
      (It is only gravel it is Wilander THERE is best on)
(iii) Det er kun grus, Wilander er den bedste på.
      (It is only gravel Wilander is best on)

The place-PP allows preposition stranding (cf. (iii)). Stranding to the higher COMP of a complex cleft is, however, impossible. Actually no NP can "bridge" in these constructions. This seems to be correlated to the observation that *som* is never found in the higher COMP.

21) Vikner (1973) and Nølke (1983b) scrutinize the semantic/pragmatic structure of French clefts.

References:

Akmajian, A. (1970): "On deriving Cleft Sentences from Pseudo-Cleft Sentences." *Linguistic Inquiry 1* pp. 149-168

Allwood, J., L.-G. Andersson, Ö. Dahl (1977): *Logic in Linguistics.* Cambridge University Press, Cambridge.

Bresnan, J. (1977): "Variables in the Theory of Transformations." *in:* Culicover, Wasow, Akmajian (ed.): *Formal Syntax.* Academic Press, London. pp. 157-196

Chomsky, N. (1973): "Conditions on Transformations." *in:* Anderson, S. & P. Kiparsky (ed.): *A Festschrift for Morris Halle.* New York.

– (1977a): "On *wh*-movement." *in:* Culicover, Wasow, Akmajian (ed.): *Formal Syntax.* Academic Press, London. pp. 71-132

– (1977b): *Essays on Form and Interpretation.* North Holland.

– (1981): *Lectures on Government and Binding.* Foris Publications. Dordrecht.

– (1982): *Some Concepts and Consequences of the Theory of Government and Binding.*

Delahunty, G.B. (1982): *Topics in the Syntax and Semantics of English Cleft Sentences.* IULC.

Diderichsen, P. (1976): *Elementær Dansk Grammatik.* Gyldendal, Copenhagen. (third edition)

Dyhr, M. (1978): *Die Satzspaltung im Dänischen und Deutschen.* TBL Verlag Gunter Narr-Tübingen.

Emonds, J. (1976): *A Transformational Approach to English Syntax.* Academic Press, New York.

Enkvist, E. (1982): "A note on the use of lambda conversion in generalized phrase structure grammars." *Linguistics and Philosophy 4.*

Hansen, E. (1973): Private letters to Carl Vikner on Danish Clefts.

– (1974): "Bestemt og ubestemt sætning." *NyS 7* Akademisk Forlag, Copenhagen. pp. 130-150

Herslund, M. (to appear): "The Double Object Construction in Danish." *in:* Hellan and Koch Christensen (ed.): *Topics in Scandinavian Syntax.* Reidel, Copenhagen.

– (this volume): "Particles, Prefixes and Preposition Stranding."

Jackendoff, R. (1976): "Toward an Explanatory Semantic Representation." *Linguistic Inquiry 7* pp. 89-150

– (1977): $\bar{X}$ *Syntax: A Study of Phrase Structure.* MIT Press.

Jensen, P.A. (1979: *Transformationel Syntaks.* Anglica et Americana 8, Copenhagen.

Jespersen, O. (1927): *A Modern English Grammar III.* George Allen and Unwin.

Korzen, H. et al. (1983): "PC-Grammar – an Alternative?" *Acta Linguistica Hafniensia 18* pp. 5-53

Levin, P. (1981): *Om sætningskløvning på dansk.* ms.

Montague, R. (1974): "The Proper Treatment of Quantification in Ordinary English." *in: Formal Philosophy.* Yale University Press. pp. 247-270

Moreau, M.-L. (1976): *C'est. Etude de syntaxe transformationnelle.* Université de Mons.

Nølke, H. (1983a): "Remarques sur la focalisation." *in:* Herslund, Mørdrup, Sørensen (ed.): *Analyses grammaticales du français.* pp. 147-165

– (1983b): "Quelques réflexions sur la structure sémantique des phrases clivées en français moderne." *Modèles Linguistiques V.* pp. 117-140

Sørensen, F. (1981): *Tre anvendelsesprincipper for transformationer.* University of Copenhagen.

Vat, J. (1978): "On Footnote 2: Evidence for the Pronominal Status of *ær* in Old English Relatives." *Linguistic Inquiry 9* pp. 695-716

Vikner, C. (1973): "Quelques réflexions sur les phrases clivées en français moderne." *Actes du 5ième Congrès des romanistes scandinaves.* Turku.