Case-conflict in Norwegian topicalization

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0. Introduction In an effort to account for an observation by Perlmutter (1971), Chomsky & Lasnik (1977) postulate a universal filter which has come to be known as the "+that-trace filter". A simplified statement of the filter reads as (1):

(1) +[$_S$, that [$_{NP}$ e] ...], unless S' or its trace is in the context: [$_{NP}$ NP _ ...]

Taraldsen (1978) tries to deduce the effects of the +that-trace filter from the "nominative island condition" (NIC) proposed by Chomsky (1980), a principle which would require that an empty subject NP in a finite clause be bound to a trace or a nonnull NP in the adjacent COMP in the cases covered by the +that-trace filter. The basi idea is that the presence of that obstructs that binding relation. The same idea is developed in different ways by Pesetsky (1978) and Kayne (1980). It also survived into the current "Government-binding theory" (GB-theory) that issued from Chomsky (1979), but with the modification that the NIC is replaced by the "empty category principle (ECP) so that the crucial relation that must hold between an empty NP in the subject position of a finite clause and a co-indexed element in the adjacent COMP is "proper government", in the sense of (3):

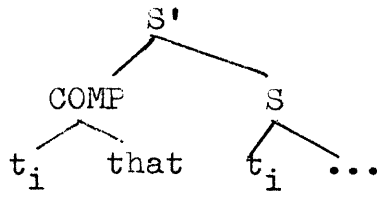
(2) α governs β iff α c-commands β and no major category or major category boundary separates α and β.[1]

(3) α properly governs β iff α governs β and (a) α is a lexical category V, ..., or (b) α and β are co-indexed.

(4) ECP: an empty category must be properly governed.

The main purpose of this article is to provide evidence from a new source in favor of the basic idea common to the various analyses cited above. For independent reasons, however, I shall assume that a version of the GB-theory is correct, i.e. +that-trace effects are related to the ECP. The particular implementation I choose, is due to Kayne (forthcoming), who points out that the complementizer in (5) prevents the trace in COMP from c-commanding the subject trace (or anything else outside COMP) so that government cannot hold either, by the definition in (2):

(5)



Some questions relating to case-marking and succssive cyclic movement in the GB-theory will be discussed as off-shots of the main theme.

1. Topicalization data The examples in (6)-(7) show that the subjec may be topicalized out of an embedded, finite clause in Standard Norwegian, provided there is no overt complementizer (at 'that') in the embedded COMP-position:

(6) Per hadde de trodd - ville komme forsent.
Peter had they thought - would arrive too late

(7) +Per hadde de trodd at - ville komme forsent.
Peter had they thought that - would arrive too late

This contrast follows from the ECP,as pointed out above. The puzzling fact is that the subject in some cases cannot be successfully extracted from an embedded clause even when there is no at in the embedded COMP:

(8) +jeg hadde de trodd - ville komme forsent.
I had they thought - would arrive too late

(9) +du hadde de trodd - ville komme forsent.
you (sg) had they thought - would come too late
(10)+vi hadde de trodd - ville komme forsent.
we had they thought - would arrive too late

The NPs that are barred from appearing in the position of Per are personal pronouns. But not all personal pronouns have this property:

(11) han hadde de trodd - ville komme forsent.
he
(12)?hun hadde de trodd - ville komme forsent.
she
(13) dere hadde de trodd - ville komme forsent.
you (pl)
(14)?de hadde de trodd - ville komme forsent.
they (pl)

Only the pronouns that must use distinct morphological forms corresponding to nominative vs objective case behave like the ones in (8)-(10). They are the elements under (a) in the following chart:

(15)

(a) Obligatory alternation:

Nom:	Obj:	
jeg	meg	1 sg
du	deg	2 sg
vi	oss	1 pl

(b) Optional alternation:

Nom:	Obj:	
han	ham	3 sg masc
hun	henne	3 sg fem
dere	dere	2 pl
de	dem	3 pl

In the pronouns occurring under (b), the morphological distinction between the two cases can be neutralized in favor of the nominative form. [3] No non-pronominal NP has distinct case-forms (except for the genitive).

Notice that the examples in (8)-(10) remain unacceptable even if the corresponding objective case forms are substituted for the nominative pronouns. Thus, we arrive at the following generalization: A NP can be topicalized out of the subject position of an embedded clause just in case it does not always have to use morphologically

distinct forms for nominative and objective case. We will now see that this curious relation between syntax and idiosyncratic, morphological properties can be made sense of on the basis of our explanation of the +that-trace effect.

2. The analysis We have seen that Standard Norwegian shows the +that-trace effect (cf. (6) vs +(7)). On our assumptions, this means that the extraction of the subject of a finite clause is subject to the ECP. In particular, then, (6) must be analyzable as (16) so that the embedded subject trace is properly governed, by clause (b) of (3):

(16) Per_i hadde de trodd $[_{S'}\underline{t}_i$ $[_S t_i$ ville komme forsent]]

Suppose we modify the definition of government in such a way that $[_{S'}$ does not always block government from outside of S'. [4] Then, the trace in the embedded COMP of (16) is governed by the matrix verb trodd. By the general rule, the trace in this position should therefore be assigned objective case, like any NP governed by a verb. On th other hand, the trace in subject position will be marked as being nominative. If a moved NP inherits trace from its traces, the topicalized NP in (16) accordingly comes to accumulate two case-features, [+nom] and [+obj].

I will assume the preceding assumptions to be essentially correc and make the following claim: The feature matrix [+nom, +obj] is syntactically consistent, and therefore induces ill-formedness just in case the morphology cannot spell out both features. [5] (Notice that my analysis does not lead to the stronger claim that case-conflict never manifests itself at the syntactic level; it may well be that some combinations of case-features other than the one just discussed are inconsistent because of the syntactic/semantic content of the features.) The generalization shown to hold of Norwegian topicalizatio is a direct consequence of this.

The idea that case-conflict (in some cases) is made tolerable by morphological neutralization is supported by data of a different kind. Consider the following examples of German free relatives:

(17) ich zerstöre was mich ärgert.
I destroy what annoys me

(18) +ich zerstöre wer/wen mich ärgert.
who/whom

In a free relative, the wh-phrase is assigned case both via its traces and as the head of the entire relative construction (see Groos & van Riemsdijk (1979)). When two different cases are assigned, as in (17)-(18), the result is ill-formed except if there is no morphologica distinction between the two, as is the case with the neuter pronoun.

As for the assumption that $\bar{S}$, sometimes fails to be a barrier to government (or the alternative proposal mentioned in note 4), it seems to be necessary for independent reasons in the GB-theory. In particular, sentences like I believe John to be honest are taken to involve case-assignment by the matrix verb to the subject of the embedded clause, presupposing that government obtains. Finally, the assumption that a moved NP in some fashion inherits its case from a trace position is clearly necessary, since case is assigned at S-structure and wh-phrases and topics are not in positions to which case is assigned, at that level (except if van Riemsdijk & Williams (1980) is correct). Yet they have case. (In Chomsky (1980), case is assigned to wh-phrases as part of the application of wh-movement; my analysis would be compatible with that view.)

I conclude that the data examined in section 1 support the idea that an empty subject of a finite clause must have a co-indexed elemer in the adjacent COMP, as predicted by the ECP.

3. Clefts Cleft sentences show the same kind of case-conflict as topicalized structures. But to see this, we need to draw a distinction between two types of clefts:

(19) det var jeg som likte meg best.
it was I that enjoyed myself most
(20) +det var meg som likte meg best.
it was me that enjoyed myself most
(21) +det var jeg som likte seg best.
it was I that enjoyed himself most
(22) det var meg som likte seg best.
it was me that enjoyed himself most

These sentences involve involve a sequence verb + reflexive pronoun with a non-compositional meaning. With a non-reflexive direct object the verb and its complement give rise to a compositional interpretatio

'like NP'. The distribution of these two readings in (19)-(22) seems to be determined by the following principle: A reflexive pronoun in the embedded clause in a cleft sentence agrees with the focus NP in person and number if and only if the focus NP has the same case as the antecedent of the reflexive inside the embedded clause.

This generalization allows for (19) with the non-compositional meaning indicated in the gloss for likte meg. 1st and 2nd person pronouns can be used both as reflexives and non-reflexives. In (19), meg 'me' can be taken as a reflexive, since although is agrees with the focus NP, the focus NP has the same case as the antecedent of meg in the embedded clause, i.e. nominative:

(23) det var $\underline{\text{jeg}_i}$ $[_S$, som_i $[_S$ $\underline{t_i}$ likte $\underline{\text{meg}_i}$ best]]

At the same time, the idiomatic reading is unavailable to (20) since one cannot interpret meg as a reflexive pronoun without violating the general condition on agreement between reflexives and focus NPs: The reflexive would agree with the focus NP, although the focus NP did not have the case of the antecedent of the reflexive in the embedded clause. Hence, (20) is impossible on the reading indicated in the gloss. It can only have the compositional meaning, i.e. 'it was me who liked me most'.

(21) is ungrammatical on any reading. The reason is that the focus NP has picked up the case assigned to the antecedent of the reflexive, the embedded subject, but the reflexive does not agree in person with the focus NP. (22), on the other hand, is good, because the focus NP does not take on the case assigned to the embedded subjec and the reflexive does not agree with the focus NP (but rather, if anything, with the wh-phrase in COMP).

It is not necessary for my purposes to explain why there is such a relation between agreement and case assignment to focus NP. One may think of it in two ways. Either, the distinction between (19) and (22) is attributed to the derivations, so that (19) and (22) come from (24) and (25), respectively, and agreement and case-assignment are determin ed prior to movement of the underlined phrases, or the distinction reflects an option as to how one constructs "grammatical function chains" in the derived structure:

(24) det var NP $[_S$,som $[_S$jeg likte meg best]]

(25) det var meg $[_S$,som $[_S$wh- likte seg best]]

Drawing on ideas of Chomsky's (class lectures, 1980fall), one might explicate the notion "grammatical function chain" (GF-chain) as follows: Let α "locally bind" β iff α binds β and there is no γ such that γ binds β and doesn't bind α. We will say that $(\alpha_1, \ldots, \alpha_n)$ is a GF-chain with respect to the structure Σ iff each α_i, $1 \leq i < n$, locally binds α_{i+1}, α_j is an empty category for $1 < j$, $\alpha_1 \neq e$, and either all α_i, $1 \leq i < n$, are in argument positions or all α_i, $1 \leq i < n$, are in non-argument positions in Σ. Following Chomsky, we may now assume that case is assigned to a GF-chain rather than to a single element (i.e. the member of the chain which is in a position governed by a case-assigner). The case-features assigned to a chain will be realized morphologically in any member of the chain that has the capacity of having a morphological realization of case. Suppose now that we take person and number features to distribute over chains in the same fashion, i.e. any person and number specifications inherent to a member of some chain are shared by all other members of the chain. Given the definition of GF-chains, this means that the initial element of the chain fixes the person/number specification of the other elements in the chain. We may then obtain the desired result for (19)-(22) by assuming that each of the two GF-chains $(\text{jeg}_i, \text{som}_i, t_i)$ and (som_i, t_i) may be associated with the S-structure (26):[6]

(26) det var $\{$jeg,meg$\}$ $[_S$,som$_i$ $[_S t_i$ likte $\{$meg,seg$\}$ best]]

If we choose the chain containing the focus NP, the case of the focus NP will be determined by the other members of the chain. In the case at hand, it will therefore be nominative. At the same time, t_i will have the same person/number specification as the focus NP, so that any element that agrees with t_i in person and number, must also agree with the focus NP.

As for the choice of the shorter chain, we can take the case of the focus NP to be assigned on the same basis as in det er meg 'it is me'.[7] The agreement will then be determined by som 'that' which we take to be unmarked for person and number, giving 3 sg by default.

The pattern exhibited in (19)-(22) recurs in English subject - verb agreement:

(27) it is I who am to blame.
(28) +it is me who am to blame.
(29) +it is I who is to blame.
(30) it is me who is to blame.

The remarks concerning the analysis of (19)-(22) carry over directly to this case.[8]

Notice now that each of the two analyses suggested makes an interesting prediction when combined with the analysis in section 2. It is predicted that the focus NP will never control agreement in the verb or in a reflexive) when it is related to the subject position of an embedded, tensed clause, because if it did, it would pick up the case both of the embedded subject trace and of the trace in the COMP adjacent to the subject trace, exactly like the topic in the topicalized sentences discussed above. Hence, morphological inconsistency arises in all cases where the focus NP has distinct morphological forms expressing the two cases. This prediction is indeed borne out:

(31) +det var jeg/meg som de trodde likte meg best.
it was I /me that they thought enjoyed myself most
(32) +it is I/me who they think am to blame.

(31) is straightforwardly unacceptable with the nominative jeg 'I' and cannot have the non-compositional reading of likte meg ='enjoyed mysel with meg, i.e. meg cannot be a reflexive because of failure of agreement. (32) needs no comment.

At the same time, pronouns that show no morphological difference between nominative and objective case are expected to occur in the focus position controlling agreement in the embedded clause even when they are linked to embedded subject positions, and this prediction is borne out too:

(33) det var dere som de trodde likte dere best.
it was you (pl) that they thought enjoyed yourselves most
(34) it is you (sg/pl) who they think are to blame.

Finally, we correctly predict that any focus NP can be linked to an embedded subject position when its case is not determined by case-assignment to traces in the embedded clause, e.g. when the focus NP does not control agreement in the embedded clause:

(35) det var meg som de trodde likte seg best.
it was me that they thought enjoyed himself most
(36) it is me who they think is to blame.

Thus, the properties of cleft sentences provide independent support for my analysis of the topicalization data discussed in sections 1-2. This is an important result in view of an alternative approach to the topicalization facts which would fail to confirm the claim that these facts are ultimately reflexes of successive cyclic movement induced by the ECP. One might agree that the topicalization facts show the effect of case conflict while denying that the case-conflict is the result of case-assignment into an embedded COMP. Instead, one might claim that objective case is an inherent property of the topic position. Although this claim is contradicted by the grammaticality of (37) on the well-motivated assumption that (37) must be analyzed as (38), with the subject in topic position,[9] there is no strictly theory-independent counter-evidence:

(37) jeg kom forsent.
I came too late
(38) jeg_i kom_j $[_S t_i$ V_j forsent]

The alternative analysis fails to extend to the analogous cleft data, however, since examples like (19) and (27) show, independently of any particular analysis, that the focus NP position has no inherent objective case. Hence, the analysis in section 2 is to be preferred and the argument for theECP stands up.

4. A divergent dialect So far, only data from Standard Norwegian have been taken into consideration. We will now look at a Southern dialect (spoken at least in the Lillesand - Kristiansand area) which contrasts with Standard Norwegian in way that lends additional support to the idea that the case-conflict phenomenon reflects the ECP.

The dialect in question does not have the +that-trace effect, i.e. sentences like (7) (repeated below) are perfectly acceptable in this dialect:

(7) Per hadde de trodd at - ville komme forsent.
Peter had they thought that - would arrive too late

My analysis makes a precise prediction, given this fact. Since the grammaticality of (7) only can mean that for some reason, the ECP does not require a subject trace to be governed by a co-indexed element in the adjacent COMP in this dialect, the ECP should not induce obligatory movement through the adjacent COMP either. On my analysis, it is the obligatory passage through the adjacent COMP that leads to the case-conflict effect described in section 1. Therefore, we expect no case-conflict in the dialect accepting (7). This prediction turns out to be correct, since (8)-(10) (repeated below) are acceptable in this dialect:

(8) jeg hadde de trodd - ville komme forsent.
I had they thought - would arrive too late
(9) du hadde de trodd - ville komme forsent.
you (sg)
(10) vi hadde de trodd - ville komme forsent.
we

The analysis proposed in section 2 has the desirable property of tracing the two observable differences between the two varieties of Norwegian back to a single difference, since it claims that the +that-trace effect and the case-conflict are both effects of the ECP. But in fact, the analysis can do even better. In answering the question why the ECP should have different consequences in the two dialects, we are able to explain a third difference between the two, a difference relating to the use of "dummy" subjects.

In Standard Norwegian, only the neuter pronoun det 'it' can be used as a dummy subject:

(39) det regner.
it rains
(40) det kom en ny gjest.
it came a new guest

In the Southern dialect, however, der 'there' and her 'here' may also be used:

(41) der/her regner.
there/here rains

(42) der/her kom en ny gjest.
there/here came a new guest

Suppose we analyze (41)-(42) as in (43)-(44), taking the dummy to appear in a preverbal position distinct from the subject position and distinct from COMP and the topic position (since it can be filled in embedded clauses and doesn't lead to verb fronting; cf note 9):

(43) der NP regner

(44) der NP_i kom en ny gjest$_i$

Then, the choice of the dummy is uniquely determined by the following considerations: Since the dummy is not in a position where it is assigned case (the nominative case being reserved for the subject position marked by 'NP' in (43)-(44)), a NP in that position must somehow supply its own case to meet the case-filter,i.e. it must come with a preposition. This requires the dummies to be instance of PP. But since the subject NPs in (43)-(44) are empty categpries they must be governed by a co-indexed phrase. Thus, the dummies must be co-indexed with the subjects and govern them. But then, the dummies must also be NPs (assuming co-indexing to be restricted to phrases of the same syntactic categpry) and c-command the subject positions. The only choice of dummies that satisfy both conditions is der, her, which can plausibly be regarded as PPs with a null P governing the NP (der, her). [10] Notice that the position assigned to der in (43)-(44) is not an "argument position", i.e. a position that enters into a grammatical relation such as "subject of-" etc. Hence, allowing the dummy to bind an empty category bearing case (nominative) is compatible with the idea that case-marked empty categories are "variables" in the sense that they only can be bound to non-argument positions.

Der, her couldn't occur in the subject position, since they would then have to carry nominative case, conflicting with the inherent, morphologically marked case (assigned by the null P). Hence, the lack of der, her as dummies in Standard Norwegian can be attribute to the lack of an "extra" preverbal position to hold the dummy. But

notice now that this extra position in the Southern dialect also can be used as an extra escape hatch for extraction, on a par with COMP: If we restrict the ECP to empty categories occurring in argument positions, (45) is a well-formed analysis of (7):

(45) $\underline{\text{Per}}_i$ hadde de trodd $[_S$ at $[_S\ t_i\ t_i$ ville komme forsent]]

The first of the two traces in the embedded clause is in a non-argumer position (the same as the dummies in (43)-(44)) and is therefore exempt from the ECP by assumption. The second one is in an argument position and is subject to the ECP. However, it is properly governed by the first trace.

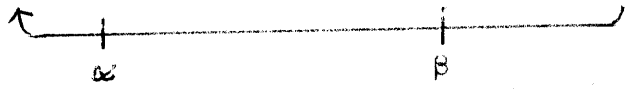
Notice that neither of the two traces in (45) is governed by the matrix verb so that the question of case-assignment from the matrix verb, leading to case-conflict, does not arise. Hence , the three-way distinction between Standard Norwegian and the aberrant Southern dialect is led back to a single difference in one parameter. This difference will affect the predictions made by the ECP in exactly the right way. Correspondingly, the success of this attempt at explaining the contrast between the two dialects supports the initial claim that the +<u>that</u>-trace effect and the case-conflict are both reflexes of the ECP.

<u>5. Subjacency and the ECP</u> I have just claimed that a certain dialect of Norwegian does not show the effect of case-conflict in the sense of section 1 just because the ECP in that dialect fails to induce movement through the adjacent $\overset{\text{COMP}}{\wedge}$ under extraction of the subject of a embedded finite clause. However, the ECP is not the only principle that might induce movement through the adjacent COMP or some other COMP governed by a potential case-assigner. The subjacency principle (see Chomsky (1973) and much subsequent work) would have the same effect:

(46) No application of "Move α" may relate X and Y in
$\ldots X \ldots [_\gamma \ldots [_\beta \ldots Y \ldots] \ldots] \ldots X \ldots$
where γ and β are "bounding nodes".

Specifically, although a representation like (45) may be well-formed with respect to the ECP, it is underivable without violation of the subjacency principle, if S is a bounding node (along with NP and possibly S'):

(47) TOPIC $[_S$ de hadde trodd $[_S$, at $[_S$ Per ville komme forsent



If S is not a bounding node in Norwegian (as suggested by facts discussed by Taraldsen (to appear)), the same question arises with respect to sentences where the topicalized subject NP would have to cross two or more S'-boundaries to avoid passing through a COMP-position (taking S' to be a bounding node if S isn't, as is necessary if the effect of the "complex NP constraint" is to be derived from the subjacency principle [11]). In other words, since the subjacency principle imposes a derivation of the sort shown in (49), one might expect (48) to be ruled out as an effect of morphological case-conflict even in the Southern dialect accepting (8):

(48) jeg trodde de at noen hadde sagt (at) ville komme forsent.
I thought they that somebody had said (that) would come too lat

(49) TOPIC de trodde $[_S$, COMP noen hadde sagt $[_S$, COMP jeg ville ...

But (48) is just as good as (8) in this dialect. In the context of my account of the case-conflict effect in terms of case-marking into COMP, this fact leads to choice between two major hypotheses. The first option is to discard the subjacency principle. In fact, Kayn (to appear) shows that an extension of the ECP can capture many of the subjacency facts without inducing successive cyclic movement (although this remains compatible with his analysis). The central idea in his formulation is to regard the ECP as a condition on representations determining where a given empty category can find its antecedent. The implementation turns on the notion 'Percolation-projection': Assume that maximal projections in the X'-system may be indexed by special superscripts such that a superscript i assigned to some maximal projection α percolates to the head of α, by convention. Assume also that V is the head of S'. Finally, let V assign, optionally, its superscript to any S' (and, in some languages, PP) it governs. Now, a maximal X'-projection containing β is said to be a "percolation-projection" of β just in case that maximal projection and β carry the same superscript. Kayne's extension of the ECP can then be stated as:

(50) Extended ECP: An empty category α must have an antecedent β such that either (a) α is governed by some γ and β is contained in a percolation-projection of γ, or (b) β governs α.

It is easy to check that this formulation permits (48) to be derived without successive cyclic movement through COMP (except as required by clause (b), i.e. when a subject trace must be governed from the adjacent COMP).

However, the extended ECP does not capture all the subjacency effects. As observed by Kayne, the "wh-island constraint" will not follow from the extended ECP.[12] Another case in point is discussed in Taraldsen (to appear): In Norwegian, there is a sharp contrast between (51) and (52) indicating that an empty category inside a complex NP can be related to a wh-phrase outside that complex NP only if the wh-phrase also binds a different empty category also outside the complex NP:

(51) her er et bilde som alle som ser -, liker -.
here is a picture that all who see -, like -

(52) +her er et bilde som alle som ser -, liker det.
here is a picture that all who see -, like it

Given a theory where the subjacency principle (or an equivalent formulation) constrains movement rules, and no other rules, we straightforwardly account for this contrast by taking the rightmost gap in (51) to be the source of the wh-phrase that binds both gaps, while the gap inside the complex NP is base-generated as an empty category and linked to the preposed wh-phrase by an interpretive principle.[13] Since the movement out of the rightmost gap-position does not violate subjacency, as shown in (53), and the leftmost gap is not linked to the wh-phrase by movement, it follows that (51) is grammatical:

(53) ... et bilde $[_S$, COMP $[_{NP}$ alle $[_S$, som ser $[_{NP}$ e]]] liker wh-]

But in (52), the gap-position in the complex NP is the only possible source for the wh-phrase, and the only possible derivation must involve wh-movement from this position to the COMP outside the complex NP, in violation of the subjacency principle.

It is clear that this explanation cannot be reconstructed if the subjacency principle is to be subsumed under the extended ECP or any

other principle applying to representations rather than derivations. This leads me to consider the second major option with respect to the problem raised by (48).

Maintaining the subjacency principle, we must now take the position that although sentences like (48) must be derived by successive cyclic movement through COMP, this movement does not affect case-assignment. This claim can in turn be made precise in (at least) two slightly different ways. An assumption common to both versions is that wh-phrases are assigned case via their traces rather than directly, in conjunction with application of wh-movement. To explain the fact that successive cyclic movement through governed COMP does not lead to a case-conflict except when the movement is forced by the ECP rather than just the subjacency principle, we may then follow Pesetsky (1978) (see also Longobardi (to appear) for a similar proposa which, however, uses case-marking as a criterion for deletability in way that is inconsistent with the analysis in section 4 above) and assume that a rule of "free deletion" in COMP (cf. Chomsky & Lasnik (1977)) may apply at S-structure,i.e. prior to conversion into LF. Then, a trace in COMP may be deleted prior to case-assignment just in case it is not required to survive into LF to satisfy a condition applying to LF-representations. The ECP is the only relevant condition. (see Kayne (to appear) for evidence that the ECP applies at LF). Hence, movement through COMP governed by a case-assigner must induce a "secondary" case-marking in the wh-phrase if and only if the trace in COMP is needed to make an empty category properly governed.

The propoal just outlined is compatible with the assumption that case is automatically assigned by α to β when α governs β and α is a case-assigner, and that a matrix-V always governs the COMP of any S' it governs. Suppose, however, that one of these assumptions (or both) is false. Then, we need not assume deletion of traces in COMP (prior to case-assignment). Instead, we can look for a principle which makes case-marking into COMP obligatory just in case the NP in COMP must be a proper governer for the ECP. To this end, let us assume that the second half of the extended ECP is correct, i.e. that an empty category which is not governed by a lexical category V, ... must be governed by its real antecedent. Assume furthermore that α can be an antecedent for another phrase just in case α has an interpretation at LF. An element in COMP receives an interpretation only if the COMP is the

initial COMP in some structure in which a quantifier reading can be assigned to this position. A trace in an intermediate COMP-position will therefore not qualify as an antecedent so as to be able to rescue another trace from the ECP, unless it can be reanalyzed as the argument of the matrix-V, and we may try to make this reanalysis dependent on case-assignment from the matrix-V to the trace in COMP.[14] This again prevents successive cyclic movement from introducing unwanted instances of case-conflict. At the same time, this approach might give a handle on the well-known observation that extraction of a the subject of an embedded, finite clause often seems to depend on the specific choice of matrix predicate in ways that don't affect the extraction of non-subjects, since extractibility now depends on the argument structure associated with the matrix predicate in the case of subjects,[15] but not elsewhere.

Obviously, these remarks are far from being conclusive. They strongly suggest, however, that the acceptability of (48) in the Southern dialect does not pose a major threat to the analysis of case-conflict developed in this paper.

6. Conclusion I have examined a restriction on topicalization in Norwegian in order to show that a rather straightforward explanation of puzzling facts follows from current assumptions reducing the +that-trace effect to a general principle of grammar. This contention was seen to be supported by the existence of similar facts in clefts in English and Norwegian, and by the interdependence of the case-conflict effect and the +that-trace effect in Norwegian dialects. This constitutes the core of this paper.

As partially independent questions, we have considered the question why a certain Norwegian dialect does not have the +that-trace effect and the case-conflict effect, and why successive cyclic movement not induced by the ECP fails to lead to a case conflict. The proposal made at this second point should be considered as particularly tentative, but the difficulty seems to lie in the choice between competing, plausible alternatives rather than in the lack of any coherent story.

Notes:

[1]The requirement that no major category boundary may intervene is modified later in the text. Chomsky's (1979) formulation differs from the one in (2) in ways that don't affect subsequent discussion.

[2]The assumption that the node COMP cannot be ignored in determining c-command relations also renders the "doubly-filled COMP filter" (see Chomsky & Lasnik (1977)) unnecessary for all cases in which some element which must c-command a position outside COMP co-occurs with a nonnull element in COMP. As shown by Kayne, this leads to analyzing a book that appeared last week as a book $[_S, [_{COMP} \ldots$ that$_i$ $][_S$ t_i appeared last week $]$ with t_i bound to that (see Pesetsky (1978) for the basic idea) and ... either nothing at all (wh-deletion erasing the entire category) or a trace (wh-deletion erasing the contents of the category, as proposed by Kayne (op.cit.)), in which case trace is "invisible" with respect to c-command, i.e. the appropriate definition of 'c-command' turns on string-inclusion: _ c-commands β iff the least category that properly contains _ also contains β.

[3]The naturalness of neutralization differs from one form to another: The most current one is with han where ham is close to obsolete in colloquial speech. The de vs dem opposition is suspended completely in favor of dem in substandard Oslo-speech and many dialects and in favor of de in "hypercorrect" Oslo-speech and other dialects. In Standard speech, the distinction is neutralized in favor of de when de is used as a demonstrative pronoun, a reading easily available in examples like (14). The use of hun instead of henne, however, is more restricted. It occurs naturally when hun/henne is the head of a restrictive relative clause, or is modified by the deictic der 'there' or some PP,i.e. when it is used like a demonstrative pronoun (see remarks about de/dem above). The hun occurring in examples like (12) can plausibly be interpreted in this way.

[4]Alternatively, assume that there is a rule changing the category label from S' to S, a non-maximal projection in the X'-system, and ban intervening constituents and boundaries only when belonging to maximal projections. As pointed out by Chomsky (class, fall 1980), the label-chainging rule subsumes "S'-deletion" (see Rouveret &

Vergnaud (1980).

[5]Alternatively, NPs are inserted into underlying structures as fully inflected forms and different case-forms are related lexical items whose case-features are checked by interpretive analogs of the case-assignment rules. Ill-formedness in the topicalization cases then arises with all lexical items that are not specified as having both case-features.

[6]Obviously, the longer of these chains fails to meet the condition that all members of a chain except the initial one be null. Notice, however, that this condition can in part be deduced from independent principles. Suppose, for instance, that thematic roles, in the sense of Chomsky (1980), are distributed according to the "projection principle" (Chomsky (class lectures, 1980 fall), so that they come to be uniquely associated with the initial elements of GF-chains, but only if these initial elements are arguments positions (i.e. bear grammatical relations). Then, the thematic role that the verb associates with its direct object is uniquely associated with John in John was promoted, but with the trace (variable) of the wh-phrase in who did they promote ? Therefore, if a GF-chain whose initial element is an argument position contains some nonnull member other than the initial element, there will be a nonnull element with which no thematic role is associated. But the θ-criterion (cf. Chomsky (1980)) requires every nonnull NP in an argument position to carry a thematic role. Hence, GF-chains whose initial elements are in argument positions have only one nonnull element each. As for the case considered in the text, we must now consider the focus position to be a non-argument position. Notice that the text assumption concerning distribution of person/number over GF-chains constrains the occurrence of nonnull elements in GF-chains with initial elements in non-argument positions.

[7]With a problem caused by the well-formedness of det er jeg similarly English it is I, in formal style.

[8]Notice that we are forced to consider the wh-pronoun as unmarked with respect to person/number, like the Norwegian complem izer som 'that'.

[9]If this assumption is correct, the rule that fronts the ten verb in main clauses, accounting for subject/verb inversion as wel as differences between main clause word order and embedded clause word order, can uniformly position the tensed verb in S-initial position. (On the proposals made by Safir & Pesetsky (1980), the topicalization of the subject is required to provide a proper gove for the inflection.)

[10]See Grimshaw (1977). For our purposes, der, her could also monomorphemic PPs or NPs with inherent (locative) case.

[11]I argue in Taraldsen (to appear) that the "complex NP constraint" does indeed hold in Norwegian inspite of appearances to the contrary.

[12]However, it is currently unclear why the presence of a wh-phrase in COMP would prevent a second wh-phrase from attaching to COMP, thus inducing the "wh-island" effect by subjacency.

[13]Or just supplied with the same index by arbitrary indexing (subject to the binding conditions).

[14]Suppose, for instance, that government by the matrix verb is optional, possibly as a result of an optional rule rewriting S' as S Notice now that when the trace in COMP gets to be governed, it also acquires a minimal governing category (MGC) in the sense of Chomsky (1979). Unless it can be treated as a variable, it will be treated a an anaphor and must be bound in its MGC, by an argument position, a condition that can never be met, for independent reasons. But suppos now that a trace is a variable if and only if it has case, and case inherited from a trace in an argument position does not count with respect to this definition (recalling that the fact that case associated with a trace in COMP by virtue of its being a member of a

GF-chain does not make the trace "visible" with respect to wanna-type contraction; cf. Jaeggli (1980)). Then, whether or not case-marking from the matrix verb is in itself optional, the matrix verb must assign case to trace in COMP in the situation described in the text.

Let us assume that $\underline{\alpha}$ is in a an argument position in the chain C = (..., α, ...) if and only if $\underline{\alpha}$ is in an argument position in the least major category containing C. Let $\underline{\beta}$ be some phrase in a non-argument position and $\underline{t'}$ and $\underline{t}$ traces of $\underline{\beta}$, $\underline{t}$ in the subject position of a tensed clause and $\underline{t'}$ in the COMP adjacent to $\underline{t}$. We then have two GF-chains whose initial elements are in non-argument positions: $\bar{A}_1$ = (β, t') and $\bar{A}_2$ = (t', t). Assuming the proposal referred to in footnote 6, the thematic role corresponding to the subject position held by $\underline{t}$ is uniquely associated with $\underline{t}$ (the initial member of A = (t), the only chain containing $\underline{t}$ that has only arguments as its members). The fact that the variable in subject position is bound to something which is an argument (in the matrix clause), can be made compatible with the part of the GB binding theory requiring variables to be "argument-free" by replacing the latter with "variables may not occur in GF-chains with argument-positions as initial elements", which in turn may be deduced from the θ-criterion and the projection principle: Thematic roles go to the initial elements of GF-chains when the initia elements are in arguments positions, but variables, qua referring expressions, must carry thematic roles, by the θ-criterion.

[15]By the previous proppsal (footnote 14), the matrix predicate must minimally be able to assign case (cf. Kayne (1980)). Presumably, it must also be able to assign a thematic role to the trace in COMP, a referring expression in an argument position, on our analysis.

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