Expletive subjects in subject relative clauses[*]

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One of the oldest problems in Danish syntax is the status of *der* in a subject relative clause like (1):

(1) ?Vi kender de lingvister **som at der** vil læse denne bog.
We know the linguists who that there will read this book.

The left periphery of a subject relative clause may be realized by different combinations of the three elements *som*, *at* and *der* with varying degrees of grammaticality. The judgements given in (2) are based on Jacobsen and Jensen (1982, 10):

(2) Vi kender de lingvister

a.	?som at der ...	e.	?at der ...
b.	??som at ...	f.	der ...
c.	som ...	g.	*at ...
d.	?som der ...	h.	* ...

The most complete and successful analysis to date is that of Vikner (1991), who argues that each of these three elements is a lexical complementizer, each projecting a CP. The distribution and internal ordering of *som*, *at* and *der* is argued to follow from idiosyncratic, lexical properties of each of the three heads.

Here I explore a different analysis, following earlier work by Erteschik-Shir (1984), which makes less elaborate assumptions about the range of structural positions available. In particular, I argue for the analysis of (1) given in (3):

(3) ... [$_{\text{DP}}$ de lingvister [$_{\text{CP}}$ som$_i$ at [$_{\text{IP}}$ der I^0 [$_{\text{VP}}$ t$_i$ vil læse denne bog]]]]

where *som* som is a wh-operator in [Spec,CP], *at* a complementizer in the head position of CP, and *der* an expletive element in [Spec,IP]. I assume that *som* is an invariant operator – an overt counterpart to the invariant null operators frequently postulated in analyses of A-bar movement.

There are at least three descriptive advantages to this analysis.

- First, *der* is only possible in the context of subject extraction, which follows from *der* being an expletive element that is inserted to satisfy the EPP.
- Second, when all three elements are present only one of the six logically possible orders is grammatical, namely the one found in (1). This fact follows directly from the assumptions about the categorial nature of each of these elements made above.
- Third, the analysis can account for the pattern of variation in (2) given certain assumptions about Case requirements and A-bar movement that are made explicit below.

To account for (2a) and (2d), I assume that the wh-operator may satisfy Case requirements in its thematic position in virtue of its relationship with the c-commanding finite I, and move directly from there to [Spec,CP]. The expletive *der* is inserted in [Spec,IP] to satisfy the EPP, and does not require Case. Alternatively, *som* may

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move to [Spec,CP] via [Spec,IP], satisfying the EPP in the intermediate position. This is the analysis of (2b) and (2c), where no expletive is inserted. The relative illformedness of (2b) in comparison with (2a) and (2c) can be understood as reflecting the contribution of the *that*-trace effect, the weakness and variability of the judgement being analogous to the weakness and variability of the corresponding effect in English. In (2e) - (2h) there is no overt wh-operator; instead there is a null operator. Based on the fact that Danish is not a pro-drop language, I argue that the null operator, unlike its overt counterpart *som*, cannot satisfy the EPP even if it passes through [Spec,IP], the ungrammaticality of (2g) and (2h) thus reflecting EPP violations. The same assumption may provide a solution to the old puzzle of why the trace of an infinitival null operator may never originate in [Spec, IP], first noted by Arlene Berman (see also Stowell (1984) and Browning (1987)):

(4) *This candidate is hard [$_{\mathrm{CP}}$ OP$_i$ for [$_{\mathrm{IP}}$ people to believe [$_{\mathrm{IP}}$ t$_i$ to be competent]]]

English is also non pro-drop, thus the null operator cannot satisfy the EPP.

Finally, the analysis of *der* in (1) as an expletive opens up the possibility of a unified analysis of relative clauses and expletive constructions of the kind illustrated in (5) and discussed in detail in Vikner (1995).

(5) Der er kommet en pakke
There is arrived a parcel

Vikner (1991) points out two serious obstacles to the program of unifying expletive and relative constructions, and these must now be confronted. First, expletive constructions in Danish exhibit definiteness effects on the associate of the expletive, analogous to the English existential construction, while no such definiteness effect is observed in relative clauses. Secondly, subject relative clauses may be transitive (cf. (1) above), while transitive expletive constructions are not possible in Danish, as illustrated in (6):

(6) *Der har mange lingvister læst denne bog
There has many linguists read this book

I propose that both of these differences arise from independent factors, in particular the fact that the subject DP moves out of IP in relative clauses, but not in expletive constructions, and the assumption that some wh-operators (including at least Danish *som*) are either inherently indefinite or unspecified for definiteness.

Consider the analysis of the subject relative in (3) above. The wh-operator has moved to [Spec,CP] leaving a trace in its thematic position. The trace functions as the associate of the expletive, and since the wh-operator and, by extension, its trace, are either inherently indefinite or unspecified for definiteness there is no violation of the definiteness restriction.

As for the lack of transitive expletive constructions, Bobaljik and Jonas (1996) argue that this is due to the lack of an intermediate subject position between [Spec,VP] and [Spec,IP] (their [Spec,TP]) in Danish. Furthermore, Jonas (1996) argues on the basis of Icelandic that some argument must leave VP. The same holds in Danish, and (6) is ungrammatical, because neither argument has left VP. Moreover neither argument could leave VP, given that object shift is not available for lexical DPs, and there is no intermediate position for the subject argument to move to, and the highest subject position is occupied by the expletive.

This analysis could provide a solution to the puzzle observed in Diderichsen (1946, 187-8) that in both expletive constructions and subject relative clauses without *som*, *der* may be absent when one of a small class of adverbials is fronted. Assuming that these adverbials can occupy [Spec, IP] and locally satisfy the EPP, the absence of the expletive in both constructions can be explained in a simple and uniform manner.

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