

# Breakstructures<sup>1</sup>

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Addressing current generative concerns over the Left Periphery of clause structure, this paper proposes a categorial distinction, based on the choice of value for the feature [ $\pm$ FINITE], between two functional heads, C<sup>o</sup> and Top<sup>o</sup>, which project into CP and TopP, respectively. The choice is responsible for a principled distinction between structural (TopP) and rhetorical (CP) topicalization. Primary data are *Det*-clefts, *Hv*-clefts and so-called *sikke*-expressions in Danish. The latter are peripheral to the core of Danish grammar, but are nevertheless – or perhaps therefore – a mine of evidence for the distinction argued for. Criterial evidence is a conjunction of three diagnostics: lack of V2 word order, so-called ‘pleonastic’ complementizers and the syntactic behaviour of expletive *der*. It is argued that normal (left) movement principles cannot account for the sharing of information between the Specifier and the Complement of Top<sup>o</sup>. Instead, two possibilities for interpretation are tentatively explored, involving various kinds of Right Periphery phenomena. Since the Specifier and the Complement of Top<sup>o</sup> each provides the structural basis for independent, clause-like utterances, TopPs are seen as clear cases of BREAKSTRUCTURES.

## I. BACKDROP

Among current items on the generative agenda, two are devoted to the notion of periphery, a broader one concerning the distinction between the ‘core’ and the ‘periphery’ of grammatical systems (e.g. Culicover & Jackendoff 1999; Kay & Fillmore 1999), a narrower one concerning the properties of the ‘peripheries’ of clause structure, right and left. This paper offers a discussion of aspects of both. It aims to give an account of the LEFT periphery which differs from earlier contributions in a number of ways, among them by appealing to properties of the RIGHT periphery; and it reaches this goal through a fairly detailed examination of a number of phenomena that belong to the periphery of the grammar of Danish.

Discussions of the left periphery come in three general versions:

- I. CP is taken to be the only initial symbol of grammar, and clarification of left periphery phenomena amounts to clarification of the internal properties of that (the standard view).

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[1] I am grateful to the editors of *JL* for careful comments and suggestions, and to two anonymous *JL* referees for inspiring and constructive points of criticism of the original version of this paper.

2. CP has a rival symbol (e.g. Top(ic)P(hrase), Radford 1997: 312–13), and clarification of left periphery phenomena will amount to clarification and justification of this extra root node and its relationship to CP and other categories.
- 1 ⊕ 2. A hybrid form between versions 1. and 2., in which a functional category (e.g. Pol(arity) P(hrase), Culicover 1991) is taken to be an optional complement of C° in some languages (version 1. property) OR a category in complementary distribution with CP in other, even genetically related, languages (version 2. property).

Within 1., there are at least two types of approach:

- a. A functional category TopP projected from a functional head Top° embedded under CP as an obligatory fixture (at least in Germanic, Müller & Sternefeld 1993).
- b. ‘Split-CP’ analyses, where CP constitutes the ‘complementizer layer’ with a fine-grained internal articulation (more details below; Rizzi 1997), or where CP is factored out into WhP, TopP, AgrSP, each heading a specific kind of main clause (Zwart 1993).

In addition, a number of proposals have been made concerning the feature specification of C°. These are not essentially concerned with the structure of the left periphery, but rather with exploring the proper theoretical tools to account for the V2 effect (cf. Vikner 1995: 51ff.).<sup>2</sup>

The approach to be taken here will be of a hybrid type similar to 1 ⊕ 2, but in a different guise from Culicover’s. I shall argue that Danish has two mutually exclusive clausal root categories, CP and Top(ic)P(hrase). Consider Radford’s (1997: 312–313) suggestions for topicalization structures in English:

- (1) (a) [<sub>CP</sub> [<sub>DP</sub> This kind of behaviour]<sub>i</sub> [<sub>C'</sub> [<sub>C°</sub> Top] [<sub>TP</sub> we cannot tolerate t<sub>i</sub>]]].  
 (b) [<sub>TopP</sub> [<sub>DP</sub> This kind of behaviour]<sub>i</sub> [<sub>Top'</sub> [<sub>Top°</sub> Ø] [<sub>TP</sub> we cannot tolerate t<sub>i</sub>]]].

Empirically, there is not much to choose between these two. Whether we operate with a null particle as the realization of C°, as in (1a), or an abstract functional head, Top°, as in (1b), is a matter of theory-internal consistency, at least for the analysis of topicalization in English. Matters seem to be different in Danish, however.

For the analysis of the Danish equivalent of (1) no operation is essentially called for other than the one that characterizes ALL declarative root clauses

[2] I regard Vikner (1995) as setting the generative standard for the description of Danish. This is the work behind talk of ‘the generative standard’ in the text.

in Danish: the obligatory raising of SOME (non-finite) maximal projection to [Spec,CP], and of V to C°; compare (1a) with (2).

- (2) [CP]<sub>[DP</sub> Den form for opførsel]; [C]<sub>[C-kan]</sub> [IP vi ikke tolerere t<sub>i</sub>].  
 that form for behaviour can we not tolerate

Of course there is nothing to prevent us from claiming that cases like this are examples of topicalization in Danish as well, but that would mean that ALL root clauses in Danish were topicalizations. This would be in accord with the claim that Danish is a Topic-language as opposed to English, which would then be a Subject-language (cf. Li & Thomson 1976). But such a claim would be a matter of rhetorical rather than structural choice (see further below).

It is the main contention of this paper that Danish offers precisely such a structural choice between CP and TopP.<sup>3</sup> These two are regarded as maximal projections from two functional heads C° and Top° that differ on the choice of value for a feature, [ $\pm$ FINITE], such that C°, when syntactically invisible, ATTRACTS finite V; Top° does not. This will be made more precise in section 3.3, below.

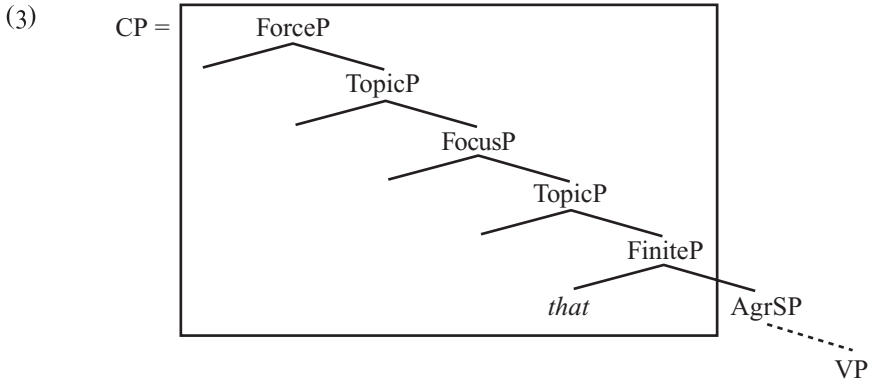
The idea of having the feature [ $\pm$ FINITE] as part of the specification of C° is due to Rizzi (1997: 283ff.), who attributes to it various choices of complementizer as a reflection of properties otherwise expressed morphologically in the IP-system across languages. However, as he suggests in footnote 5 (1997: 328),

[t]hings may be different in full V<sub>2</sub>-languages, in which the inflected verb typically moves to C in certain tensed clauses; presumably in such cases one particular choice of +fin ATTRACTS the finite verb to have its finiteness feature checked by the tense specification on V; even this case differs from verb movement to an inflectional head, though, in that, V movement is not sanctioned by any specific affix on the verb. [Emphasis added – TT]

It is precisely the notion of ATTRACTION of V<sub>fin</sub> by C° in V<sub>2</sub>-languages that is one of the two decisive factors for the choice of a hybrid model over Rizzi's 'split-CP' model of type 1b. This model, in effect, replaces CP by a string of up to five categories, internally organized according to X-bar theoretic principles. The salient points of the model are given in (3).

[3] That this choice is, in fact, also available in English is indicated, I take it, by Rochemont & Culicover's (1990: 177) note 4:

For reasons that we do not understand, examples such as (9b) [*\*To John, a letter, Mary just sent*] sound slightly better when there is no comma intonation after the second topic. It is possible that this fact is related to the fact noted in footnote 2 [stating that *John I don't like* is well-formed as a response to *What do you think about John?* only with a pause following the topicalized phrase, but only without one as a response to *Is there anybody you don't like?* – TT] that THERE ARE IN FACT TWO TYPES OF TOPICALIZATION CONSTRUCTIONS IN ENGLISH, THOSE THAT BEAR COMMA INTONATION AND THOSE THAT DO NOT. [Emphasis added – TT]



There are two features of this arrangement worthy of note for our purposes, both connected with Rizzi's (1997: 288) suggestion that the Topic-Focus system is only activated 'when needed'. The first is that it is precisely topicalized and focalized constituents that are centrally involved in the construction types I'm concerned with. However, Danish employs only prosodic – and not specific syntactic or morphological – means to distinguish between the information-theoretic notions of old and new information in the way it underlies the topic/focus distinction in Italian and other Romance languages (Rizzi 1997: 285ff.).<sup>4</sup> Focal stress may apply to any major constituent, in any position (as in English). When it applies to [Spec,CP], focus just coincides with the topic, yielding cases of what I refer to as RHETORICAL topicalization. What is syntactically operative in Danish, on the other hand, is a distinction between rhetorical and STRUCTURAL topicalization, the topic/comment opposition being the favoured organization of information.

The second feature of Rizzi's model is that it clearly introduces a number of specifier positions not available in simple CP models as landing sites for constituents undergoing leftward movement, but arguably needed in Italian. As we shall see, however, no simple leftward movement account can be given for the Danish phenomena under scrutiny. Taken together, these two points

[4] In the topic/comment pair, according to Rizzi, the topic typically embodies old information, the comment new information; in the focus/presupposition pair, the focus typically highlights new information while the 'rest' (what he calls the 'open sentence', otherwise also called 'ground') expresses information which the speaker presupposes that the listener already has or may infer from textual or situational context. The sense of 'new information' in connection with focus, however, is not the sense of 'new information' in connection with, for example, the introduction of new discourse referents by indefinite NPs. Thus, anaphoric pronouns may be focalized, yet convey 'old' information. The 'newness' of the information conveyed by a focus in such cases is a matter of assigning a value to an 'old' discourse variable (see section 6.2.2).

constitute the second reason for developing an alternative to (3), quite possibly as a distinct V<sub>2</sub>-language alternative. The next section will set the scene for substantiating these claims.

## 2. SETTING THE SCENE

Danish is a V<sub>2</sub>-language. This means that finite V in root clauses, including *Hv*-questions,<sup>5</sup> occurs in clause second position, and that any (non-finite) maximal projection may raise to [Spec,CP]. The root clauses in (4) are all possible and truthfunctionally equivalent, but differ in choice of topic or – with focal stress on (part of) [Spec,CP] – focus.

- (4) (a) [<sub>CP</sub> Per [<sub>C°</sub> gav] sin søn den cykel i går].  
           Per     gave his son that bike yesterday  
 (b) [<sub>CP</sub> Den cykel [<sub>C°</sub> gav] Per sin søn i går].  
           that bike     gave Per his son yesterday  
 (c) [<sub>CP</sub> Sin søn [<sub>C°</sub> gav] Per den cykel i går].  
           his son     gave Per that bike yesterday  
 (d) [<sub>CP</sub> I går     [<sub>C°</sub> gav] Per sin søn den cykel].  
           yesterday     gave Per his son that bike

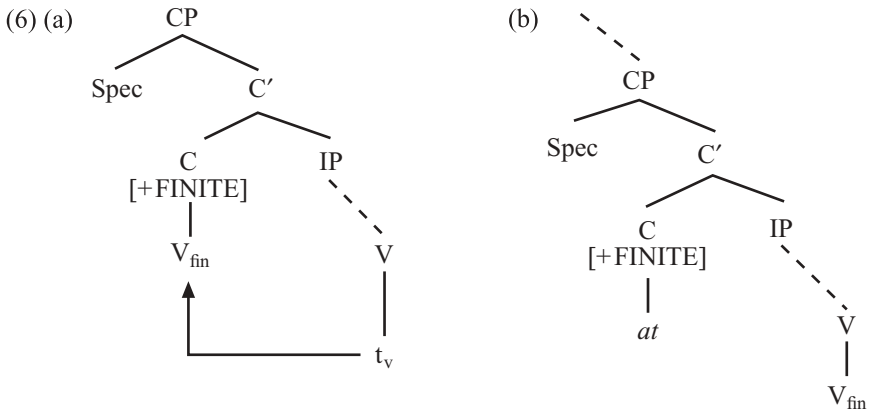
In contrast, embedded clauses are non-V<sub>2</sub>. This may not always be apparent, as Danish is a VO language. The standard test for non-V<sub>2</sub> is the position of adverbs of negation, time and modality BEFORE finite V.

- (5) (a) [<sub>CP</sub> Han [<sub>C°</sub> **har**] **altid** villet<sup>6</sup> være skuespiller].  
           he     has always will-EN be actor  
           ‘He has always wanted to be an actor.’  
 (b) ... [<sub>CP</sub> [<sub>C°</sub> **at**] han **altid** **har** villet være skuespiller]  
           ... that he always has will-EN be actor  
           ‘that he has always wanted to be an actor’

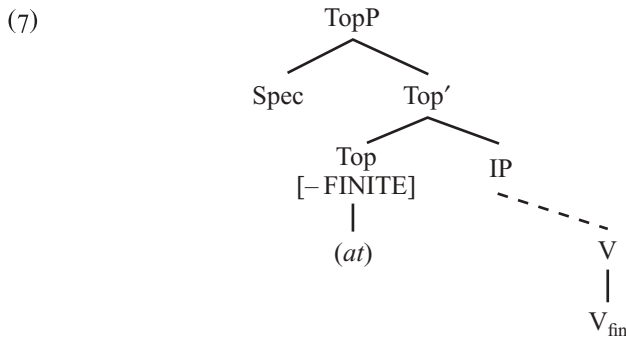
The standard generative explanation for this is that C° is the site of the complementizer, which blocks V-raising. This yields two basic configurations for (a) root and (b) embedded clauses, presented in (6).

[5] *Yes-no*-questions are V-initial, for ANY finite V; Danish has nothing to correspond to English *Do*-inversion.

[6] Note that the Danish modals, as opposed to English, have non-finite forms – in this case, past participle, glossed as ‘-EN’.



Now, there are a number of construction types in Danish which share the property with root clauses of being communicatively independent, while at the same time sharing the property with embedded clauses of lacking V-raising. It is for these that I propose a configuration like (7).



The prime subject matter of this paper is the derivational and interpretive properties of construction types that conform to (7). These properties constitute the basis of **BREAKSTRUCTURES**. For, as it turns out, not only is the structure as a whole communicatively independent, both its Specifier and its IP may be as well. Whenever both Specifier and IP are realized,  $\text{Top}^\circ$  (or its morphological reflex, if there is one) serves as a **BREAK** between two semi-autonomous structures whose interpretation depends on a kind of information-sharing which cannot be explained in standard terms of movement, but which may be an indication of syntactic-semantic asymmetry.

Before we come to that, however, a number of issues must be addressed. First, in section 3, I shall introduce a number of apparently unrelated pieces of

syntactic evidence which is relevant to the defence of (7). Section 4 will give a fairly detailed analysis of so-called *sikke*-expressions.<sup>7</sup> Despite the fact that *sikke*-expressions are independent, they display all the properties covered in the previous section and thus cannot simply be instantiations of either (6a) or (6b); hence their status as peripheral. It is the occurrence of such expressions that is the prime motivating force behind the distinction between CP and TopP.

Given that the need for this distinction is by now firmly established, section 5 discusses the derivational properties of breakstructures, while section 6 explores the consequences the concept of breakstructure has for interpretation.

### 3. INTRODUCING THE EVIDENCE

The various pieces of syntactic evidence I shall adduce for the defence of (7) are provided by interrogative and exclamative *Hv*-expressions (section 3.1), some crucial data involving the Danish complementizer *at* ‘that’ (section 3.2) and the behaviour of *der* ‘there, that’ in clefts (section 3.3). The last section, (3.4), offers a reanalysis of Danish *der*, the results of which are relevant to the discussions of derivation and interpretation in sections 5 and 6.

#### 3.1 *Hv*-questions vs. *Hv*-exclamatives: *V2* vs. *non-V2*

Danish has a battery of *Hv*-lexicalizations of the question operator, corresponding to English *wh*-:

- (8) hvem hvis hvad hvordan hvorfor **hvor** **hvilke** (-n/-t)<sup>8</sup>  
 who(m) whose what how why where which

[7] There is no single or simple translation equivalent of *sikke* in English. Depending on context, it can be translated by (exclamatory) ‘what’ or ‘how’, sometimes by ‘such’. It corresponds in some respects to German *solche*, French *quel*, *comme*. It is a strictly East Scandinavian phenomenon, as it also appears in Swedish *sicka* but not in Norwegian, Faroese or Icelandic, which all just have *Hv*-equivalents of English *Wh*-exclamatives, an option also found in Danish (cf. (9) and discussion there).

[8] In Danish, articles and other determiners agree with the head N in terms of gender and number, as shown in the table below. Notice that Danish has two systems of definite articles, one suffixed to N, one preposed when the NP contains an attributive adjective or a restrictive relative clause. There is no gender distinction in the plural. Apart from articles, there is *-n/-t* (sg. common/neuter)//*-e* (pl.) variation in the systems of possessive determiners, e.g. *min/mit//mine* ‘my’; demonstrative determiners, e.g. *denne/dette//disse* ‘this’; and various quantifier and operator systems, e.g. *nogen/noget//nogle* ‘some, any’, *ingen/intet//Ø* ‘no one, none, nothing’, *hvilken/hvilket//hvilke* ‘which’, etc. – in other words, quite a pervasive distinction.

All of these may introduce normal *Hv*-questions, with expected V2 and the *Hv*-expression in [Spec,CP]. Two of them, however, are also exclamatives in their own right, viz. *hvor* and *hvilke* (-*n/-t*).<sup>9</sup> Apart from the glosses given in (8), they also have translation equivalents ‘how’ and ‘what’, respectively, as in (9) below (cf. the questions in (10); stress marks in (9) and some subsequent examples indicate significant word stress).

- (9) (a) *Hvor* 'den *kjole* *sidder* 'godt!  
 where that dress sits well  
 ‘How well that dress fits!’
- (b) *Hvilken* 'bil *han* 'har!  
 which-COMMON GENDER.SG car he has  
 ‘What a car he has!’
- (10) (a) 'Hvor *sidder* *den* *kjole* *godt*?  
 where sits that dress well  
 ‘Where does that dress fit?’
- (b) 'Hvilken bil *har* *han*?  
 which-COMMON GENDER.SG car has he  
 ‘Which car does he drive?’

Just as the English versions of exclamatives and questions differ with respect to *Aux*-inversion, the Danish versions differ on the V2 parameter.<sup>10</sup> The topological difference between (9) and (10) is the first indication of the choice between TopP and CP, respectively. Given the standard explanation

(i) *Determiner variation in Danish*

	Indefinite		Definite			
	Singular	Plural	Singular		Plural	
Common gender	<b>en</b> båd a boat	båd-e boat-s	båd- <b>en</b> , boat-the,	<b>den</b> store båd the big boat	båd-e- <b>ne</b> , boat-s-the,	<b>de</b> store båd-e the big boat-s
Neuter gender	<b>et</b> skib a ship	skib-e ship-s	skib- <b>et</b> , ship-the,	<b>det</b> store skib the big ship	skib-e- <b>ne</b> , ship-s-the,	<b>de</b> store skib-e the big ship-s

[9] These are the two standard ones. As in English, some of the other *Hv*-words may function as exclamatives as well (cf. Elliott 1974). And, as in English, some of them (including *hvor* and *hvilke*(-*n/-t*)) may function as relatives.

[10] The conclusion that exclamatives are always non-V2 might be rash. For example, (9a) has two exclamative variants, one of which has V2:

- (i) *Hvor* 'sidder *den* *kjole* 'godt!  
 where sits that dress well  
 ‘How well that dress fits!’
- (ii) *Hvor* 'godt *den* *kjole* 'sidder!  
 where well that dress sits
- (same meaning as (i))

Pitch accent, in other words, also plays a role.



of non-V<sub>2</sub>, note that the sentences in (9) have (colloquial) variants (9') as against (10').

- (9) (a) Hvor altså<sup>11</sup> **at** 'den kjole sidder 'godt!  
 Where ARG.PRT that that dress sits well  
 'I dare say that dress fits you!'  
 (b) Hvilken 'bil **at** han altså 'har!  
 which car that he ARG.PRT has  
 'Some car he has, I must say!'

- (10') (a) \*Hvor **at** sidder den kjole godt?<sup>12</sup>  
 where that sits that dress well  
 (b) \*Hvilken bil **at** har han?  
 Which-COMMON GENDER.SG car that has he

This potential occurrence of *at* is significant and will be discussed in 3.2. Meanwhile, I'll take the V<sub>2</sub> vs. Non-V<sub>2</sub> distinction in independent structures as one feature discriminating between the two categories.

### 3.2 *Pleonastic at*

The Danish complementizer *at* 'that' is a general marker of embedding (Hansen 1983: 70) in a variety of contexts, the common feature of which is LACK of V<sub>2</sub>. Except for a few well-defined cases, it is optional. When it is present, however, it often appears in contexts – as normatively argued – where it SHOULD<sup>N</sup>T. Such occurrences are, therefore, often branded as 'pleonastic', 'wrong' or 'superfluous' (those marked with superscripted P below; also (9')), for example, after relative pronouns or adverbs, as in (11d), violating the Doubly Filled COMP Filter, as in (11f), or following another complementizer, as in (11g). Its versatility is illustrated in (11), a selection from the extensive set of data authenticated by Hansen (1983). Those sentences marked with superscripted <sup>d</sup> are dialectal and/or sociolectal. Parentheses indicate where *at* may be, and often is, omitted.

- (11) (a) *Introducing nominal clauses*  
 Jeg tror (**at**) det kan lade sig gøre.  
 I think that it can let itself do  
 'I think (that) it can be done.'

[11] *Altså* is one of a fairly large stock of argumentative particles – glossed as ARG.PRT in numbered examples throughout – which lack precise equivalents in English. I provide appropriate paraphrases (not glosses) in the translation of examples. The diagnostic significance of argumentative as opposed to parenthetical particles (PAR.PRT) will become clear in connection with the discussion of the derivational properties of *sikke*-expressions in section 5.2.2 below.

[12] *Altså* in the relevant sense is inappropriate in questions.

(b) *In rhetorical topicalizations, with left dislocated object (NOT subject) and resumptive pro*

(i) Forhandlerne, dem ved man (at) han har snydt.  
 negotiators-the them knows one that he has cheated  
 ‘We know (that) he has cheated the negotiators.’

(ii) Forhandlerne, dem ved man (\*at) er svindlere.  
 negotiators-the them knows one that are swindlers  
 ‘We know the negotiators are swindlers.’

(c) *In independent clauses with subordinate clause word order (e.g. sikke-expressions)*

<sup>d</sup>Sikken et vandpjaskeri (at)<sup>P</sup> her er!  
 what a watersplashing that here is  
 ‘What a splashing!’

(d) *In relative clauses*

(i) den fyr som (at)<sup>P</sup> hun traf  
 that guy whom that she met  
 ‘the guy whom she met’

(ii) den fyr som (\*at) traf hende  
 that guy who that met her  
 ‘the guy who met her’

(iii) den fyr som (at)<sup>P</sup> der traf hende  
 that guy who that there met her  
 ‘the guy who met her’

(iv) <sup>d</sup>løn for den tiden (at)<sup>P</sup> hun havde været her  
 wages for that time-the that she had been here  
 ‘wages for the time (that) she had been here’

(v) Han kommer fra et land hvor (at)<sup>P</sup> der er meget  
 he comes from a country where that there are very  
 strenge regler.  
 strict rules  
 ‘He comes from a country with very strict rules.’

(e) *In Det-clefts*

Kirsten fandt Guldhornene her. =>

Kirsten found Goldhorns-the here

=> (i) Det var Kirsten (at)<sup>P</sup> der fandt Guldhornene her.  
 it was Kirsten that there found Goldhorns-the here

=> (ii) Det var Guldhornene (at)<sup>P</sup> Kirsten fandt her.

=> (iii) Det var her (at)<sup>P</sup> Kirsten fandt Guldhornene.

(f) *In embedded questions*

Jeg ved ikke, hvem (at)<sup>P</sup> der har fortalt ham det.  
 I know not who that there has told him it  
 ‘I don’t know who has told him.’



- (12') \*Hvem slog der John?  
 who hit there John

So, *der* is not just a mechanical phonetic trace of any raised subject. On the present hypothesis, (12) is a CP, whereas (14) are TopPs. *Der* cannot be an anaphor ((15a)) and no instances of raising within CP allow it (cf. (15b, c)).

- (15) (a) John sagde at {han | \*der} ville gøre det.  
 John said that he there would do it  
 'John said that he would do it.'  
 (b) John synes at (\*der) være en flink fyr.  
 John seems to there be a nice guy  
 'John seems to be a nice guy.'  
 (c) John lovede at (\*der) komme.  
 John promised to there come  
 'John promised to come.'

In fact, there are minimal pairs whose members differ in a way I consider diagnostic in terms of *that*-trace effects. Consider the two *Hv*-moved versions of (16) – a simple instance of a CP with embedded CP as nominal clause object and hence non-pleonastic *at* – given in (17).

- (16) Du tror altid (at) jeg aldrig har bestilt billetter.  
 you think always that I never have booked tickets  
 'You always think I've never booked tickets.'
- (17) (a) Hvem tror du altid, (\*at) aldrig har bestilt billetter?  
 who think you always that never has booked tickets  
 (b) Hvem tror du altid (at) **der** aldrig har bestilt billetter?  
 who think you always that there never has booked tickets

Given (17), I can now be more precise in formulating the condition of  $V_{\text{fin}}$  attraction, attributed to  $[\pm_{\text{FINITE}}]$  above (section 1). There is no way *at* can be present in (17a), pleonastically or otherwise. On the standard assumption of rivalry between complementizer and finite V, this fact is evidence for the attraction of  $V_{\text{fin}}$  to  $C^{\circ}$  – even though the  $C^{\circ}$  in question must be the head of an EMBEDDED CP.<sup>13</sup> Prosodically, this is set off from the matrix by comma intonation, and – by argument from scope – *aldrig* 'never' must be part of it. The relevant structure must, therefore, be (18a), despite its violation of subadjacency. Contrast this with (18b), which I'll comment on below.

[13] The general question of 'embedded V2' in Danish is not easily dealt with, as it is currently on the increase in everyday language in postverbal nominal clauses; cf. Vikner 1995 for some discussion, which does not cover cases like these, however.

- (18) (a) [<sub>CP1</sub> Hvem<sub>i</sub> tror du **altid**, [<sub>CP2</sub> **aldrig** [<sub>C°</sub> **har**<sub>v</sub>][<sub>IP</sub> **t<sub>i</sub>** [<sub>VP</sub> **t<sub>v</sub>** [<sub>VP</sub> bestilt billetter]]]]]? (cf. (17a))  
 (b) [<sub>TopP</sub>[<sub>Spec</sub> Hvem<sub>i</sub> tror du **altid**] [<sub>Top°</sub> (**at**)] [<sub>IP</sub> **der**<sub>i</sub> [<sub>VP</sub> **aldrig** [<sub>VP</sub> **har** [<sub>VP</sub> bestilt billetter]]]]]? (cf. (17b))

(18b), by hypothesis, is a TopP. The category [Spec, TopP] is the subject matter of section 4.4. *At* is syntactically visible, but may or may not be phonetically interpreted. Either way, Top° does not attract *har*, so (19) is ungrammatical:

- (19) \*Hvem tror du altid (at) der **har aldrig** bestilt billetter?  
 who think you always (that) there has never booked tickets

In (18) the Extended Projection Principle (EPP) is satisfied by *der*, the derivational properties of which turn out to be a matter of concern to my main argument, as explained in section 3.4.

### 3.4 *Varieties of der*

Normally, a distinction is drawn between three main uses of *der* in Danish: strong locative *dér*, expletive *der* and subject relative *der* (Vikner 1991).<sup>14</sup> What I – translating Hansen's (1983) term *SUBJEKTVIKAR* – call '(subject) substitute *der*' is related to the expletive rather than to the relative use.<sup>15</sup>

- (20) ©Hold kæft gutter, sikke en rapand, **der**  
 hold mouth lads what a quackduck that/there  
 kommer vraltende!  
 comes waddling  
 'Oh boy, lads, what a duck we have waddling along here!'

Affinity with the expletive appears from the pattern in (21), whereas affinity with relatives would require the acceptance of a rival form like (22).

- (21) (a) **Der** kommer en rapand vraltende!  
 there comes a quackduck waddling  
 (b) \*Sikke en rapand kommer vraltende!  
 what a quackduck comes waddling

[14] After careful discussion, Vikner concludes that expletive *der* occurs in [Spec, IP], while relative *der* is a C° head. However, since this conclusion is reached on the basic assumption that all clauses are CPs, the assumption rejected here, I'll refrain from detailed comment on it, noting that Vikner needs to postulate CP recursion to account for quite normal (*som*) *at der* sequences. His tagging of such sequences with a question mark is a normative rather than a descriptive measure; cf. 6.2.1 for further discussion.

[15] Examples marked by a superscripted '©' are from Bergenholtz DK87/90, a corpus of running Danish text of about 4 million words. They are all examples involving the Danish exclamative *sikke*, a word which has played a major role in the research reported here, and I'll return to it in detail below.

- (c) Sikke en rapand **her** kommer vraltende!  
 what a quackduck here comes waddling
- (22) \*Sikke en rapand **som** kommer vraltende!  
 what a quackduck which comes waddling

Such a rival form is not attested, nor does it conform to standard Danish. I shall, therefore, assume that substitute *der* is an expletive form, despite the demands of English for a relative translation equivalent (if possible at all). For the significance of *her* in (21c) see below.

Although substitute *der* as in (20) shows affinity with expletive *der*, they differ on at least one count. Whereas expletive *der* in standard accounts invariably precedes its associate, substitute *der* follows it. On this score, the latter is like subject relative *der*. However, in contrast to English, Danish may have expletive *der* following its associate:

- (23) (a) **Der** skal nu nok snart komme en taxa.  
 there shall now surely soon come a taxi  
 ‘I’m sure there’ll be a taxi along in a minute.’
- (b) En taxa skal **der** nu nok snart komme.  
 a taxi shall there now surely soon come  
 ‘\*A taxi, I’m sure, there’ll be along in a minute.’

The notion ‘standard account of expletives’ is hardly clear, but I take it to cover such varieties as put forward in Chomsky (1995: 154ff., 286ff.), Vikner (1995: chapter 6), Cardinaletti (1997) and others that share the central ideas that expletive and associate form a chain that is assigned one Case (expletive) and one  $\theta$ -role (associate), irrespective of licensing conditions, and that the principle of Full Interpretation requires the associate to covertly move or adjoin to the expletive at the level of L(ogical) F(orm).<sup>16</sup> If, in (23a), [*en taxa*] is assumed to be the associate of *der*, and if the interpretation of [*en taxa*] relies on covert movement and adjunction to *der* (or raising of its formal features to adjoin to Tense), then (23b) – with overt raising of [*en taxa*] to [Spec,CP] – cannot be an expletive construction.

I find this conclusion strange and shall therefore follow Hatakeyama (1998) in regarding such accounts as misguided on the central ideas. It is not the Theme-argument but an (implicit) Locative that is the associate of expletive *der* and thus replaces it at LF. Agreement phenomena (irrelevant in Danish, but even so) are handled by Hatakeyama in a manner analogous to the account of the Locative Inversion Construction by den Dikken & Næss (1993).

[16] ‘Non-standard’ accounts would then, for example, be analyses like that of Williams (1994), who takes the ‘associate’ NP as the predicate in a subject-predicate juncture with the expletive as the ‘real’ subject.

The bare essentials are that Theme-NP and Locative form a small clause (SC) complement to V and are, therefore, coindexed. Since the Locative raises to [Spec,IP] at LF it is now in a checking relationship with I° and so – due to coindexing – is the Theme-NP, although it remains in situ. Holmberg (2000: 475f.), following Freeze (1992) in assuming the existence of a nominal as well as a purely locative expletive, finds that Danish syntactically must have both, although having only the one form, *der*. These are the basic ideas I shall explore for now. However, I'll return to Hatakeyama's thesis in section 6.1 to propose an extension of it which seems necessary for its generalization.

It is at least open to debate whether the only expletive in Danish is *der*.<sup>17</sup> In (24) below, for example, *her* 'here' combines all the requirements of expletive *der* with a notion of 'deictic centrality', as opposed to the deictic neutrality of *der*.

- (24) Her var en mand der ville tale med dig.  
 here was a man who would talk with you  
 'A man came by to see you.'

This may be 'expanded' into a more canonical expletive structure, (25).

- (25) Der var en mand her der ville tale med dig.  
 there was a man here who would talk with you  
 'A man came by to see you.'

This supports Hatakeyama's thesis that it is a Locative that associates with expletive *der*, even to the extent of satisfying subject requirements not normally associated with locatives.

Whenever *her* appears as an expletive (as in (24)) or as a substitute (as in (21c)), it is unaccented. In (25), on the other hand, it may be either unaccented or accented, corresponding to a 'weak' and a 'strong' locative, the same distinction that applies to *der*. Expletive and substitute *der* are always unaccented and substitutable by weak *her*. They thus contrast with strong locative *dér*, which is always accented and competes with strong *hér*. Against these, subject relative *der* is always unaccented and never substitutable by *her*, but rather by the functionally neutral relative pronoun *som* 'who, which'. Contrast (25) with (26):

- (26) Der var en mand {der | som | \*her} ville tale med dig.  
 there was a man that who here would talk with you  
 'There was a man who wanted to talk to you.'

[17] I'm thinking here of *det* 'it', which is sometimes also regarded as an expletive. Vikner (1995: chapter 7) argues that it is not an expletive but a 'quasi-argument'. This seems to me just a terminological quibble. But then his contention that *der* is the only expletive is simply wrong.

These points can be captured by various choices of value for a prosodic feature [ $\pm$ ACCENT] and a semantic feature [ $\pm$ ENTITY] in their respective feature matrices, thus resulting in a three-way split in the uses of *der* (' $\approx$ ' reads as 'may be substituted by'):

- (27) (a) [..., +ACCENT, ..., -ENTITY, ...]: strong locative *dér* ( $\approx$  strong *hér*)  
 (b) [..., -ACCENT, ..., +ENTITY, ...]: subject relative *der* ( $\approx$  *som*)  
 (c) [..., -ACCENT, ..., -ENTITY, ...]: expletive/substitute *der* ( $\approx$  weak *her*)

These substitution tests turn out to be criterial for determining the derivational history of breakstructures.

Derivationally, the distinction runs between expletive and subject relative *der* on the one hand, and expletive and substitute *der* on the other, as tabulated in (28).

(28) *Distribution of 'weak' der in Danish*

	[Spec,CP]	[Spec,IP]
Root	cf. (23a) Expletive	cf. (23b)
Embedded	Relative, cf. (26)	Substitute, cf. (14a), (20)

#### 4. JUSTIFYING BREAKSTRUCTURES

The phenomena surveyed in sections 3.1–3.4 together provide the foundation on which I am building the concept of BREAKSTRUCTURE. The crystallization of this notion emerged during an attempt to clarify the morphological, syntactic and semantic properties of *sikke*-expressions. Four sub-types of *sikke*-expressions may be identified, all occurring as independent utterances. However, giving a unified account for all four types appears to be impossible within a standard generative framework. Their significance to the proposals made here is the fact that they embody all the syntactic features considered criterial for breakstructure. However, they do so without displaying the BASIC criterial sign of embedding, as they contain at most ONE finite verb.

##### 4.1 *Sikke-expressions*

*Sikke* (and its morphological derivatives) forms a singular distributional class in Danish, etymologically derived from a contraction of *se* 'see, look' + *hvilke* 'which'; cf. fn. 20 below. It requires clause-initial position and does not appear in embedded clauses, yet clauses introduced by it are non-V2 and have embedded adverbial positions. Expressions introduced by it are invariably exclamative, but they coordinate freely with both declarative and



interrogative root clauses. Given these observational facts, they have long resisted uniform analysis in standard generative terms.

#### 4.1.1 Morphology

*Sikke* appears in three forms: *sikke*, *sikken* and *sikket*. It thus apparently conforms to the gender and number morphology of the Danish determiner system (cf. fn. 8 above), and it is indeed sometimes classified as a determiner. We thus have:

- (29) (a) ©Sikke barme! (pl. N)  
           what bosoms  
           ‘What breasts!’  
       (b) ©Sikken ædelse (sg. common N)  
           what grub  
       (c) ©Sikket hastværk! (sg. neuter N)  
           what haste

But this is not true without qualification, for *sikke(n)* does not – in contrast to central determiners – stand in any firm agreement relationship with head N, and it is compatible with ANY following weak (Milsark 1977) determiner, numeral or quantifier:

- (30) (a) ©Sikken en dag!  
           ‘What a day!’  
       (b) ©Sikken nogle gamle laser  
           what some-PL old rags  
           ‘What a bunch of old rags!’  
       (c) ©Sikke et held!  
           what a luck  
           ‘How fortunate!’  
       (d) ©Sikken et svinheld!  
           what a swineluck  
           ‘What a lucky break!’  
       (e) ©Sikke to smukke døtre du har!  
           what two pretty daughters you have  
           ‘What a couple of pretty daughters you have!’  
       (f) ©Sikke noget pjat!  
           what some nonsense  
           ‘What nonsense!’  
       (g) ©Sikke meget jeg har oplevet!  
           how much I have lived!  
           ‘What a lot I’ve seen!’

Only the combinations *sikken* + [sg. common N] and *sikken* + [pl. N] have not been recorded, and must be regarded as ungrammatical.

#### 4.1.2 *Types of sikke-expressions*

From a purely observational point of view there are four types of independent *sikke*-expressions, illustrated in (31)–(34).

#### (31) *Phrasal: sikke<sub>SP</sub>-expressions*<sup>18</sup>

- (a) Sikken en!  
what one  
'What a guy!'
- (b) Sikke noget!  
what something  
'What a mess!'
- (c) Sikke en fin cykel!  
'What a nice bike!'
- (d) \*Sikke fin!<sup>19</sup>  
'How nice!'
- (e) \*Sikke fint!  
'How nicely!'

#### (32) *Adjunct: sikke<sub>adj</sub>-expressions*

Sikke han kører!  
'How he rides!'

#### (33) *Non-finite clausal: sikke<sub>nonFin</sub>-expressions*

- (a) Sikke en fin cykel at få!  
'What a nice bike to get!'
- (b) Sikke fin at være!  
'How nice to be!'
- (c) Sikke fint at køre!  
'How nicely to ride!'

#### (34) *Finite clausal: sikke<sub>fin</sub>-expressions*

- (a) Sikke en fin cykel han fik!  
'What a nice bike he got!'
- (b) Sikke fin den er!  
'How nice it is!'
- (c) Sikke fint han kører!  
'How nicely he rides!'

[18] I shall use 'S(ikke)P(hrased)' as the label for a thus far unspecified phrasal category; see below.

[19] The asterisks in (31d, e) indicate non-occurrence as independent utterance.

(31) contains phrases of a kind that allows only a proform or N as lexical head when occurring as independent utterances, whereas (32)–(34) contain clauses. However, since in (33) and (34) the first constituent in each case is a phrase of one of the forms in (31) – including those marked as non-occurrent as independent utterances – they can't just be NPs. In fact, it would be rash to regard them as ANY kind of lexical category at all, as I will show below. I'll regard them for now as forming an unspecified category, labelled 'SP' when referred to as phrase type, and 'sikke<sub>SP</sub>-expression' when referred to as utterance type. (32) exemplifies clauses with (usually) uninflected *sikke* alone as a clause-initial adjunct (*sikke*<sub>adj</sub>-expressions), while (33) and (34) contain clauses, non-finite (*sikke*<sub>nonFin</sub>-expressions) and finite (*sikke*<sub>fin</sub>-expressions), respectively, with SP as the initial constituent. These various subtypes are jointly referred to as *sikke*-expressions.

#### 4.2 Syntactic properties of *sikke*<sub>adj</sub>-expressions

Pairs like (35) are truth-functionally equivalent given appropriate contextual conditions for (35b):

- (35) (a) Det ser skrækkeligt ud nu.  
           it looks terrible out now  
           'It looks terrible now.'  
       (b) ©Sikke det nu ser ud!  
           how it now looks out  
           'How (bad, awful, ...) it looks now!'

Leaving the semantics aside, (35a) has V2, (35b) does not. It is cases like (35b) that prompted Vikner's (1995: 45f., 1999: 94) proposal that *sikke* – along with a few other 'small words' that introduce exclamations, such as *bare* 'if only', *blot* 'if only', *gid* 'I wish' – is base-generated in C°. <sup>20</sup> Thus *sikke*<sub>adj</sub>-expressions are brought within the standard explanation of non-V2.

[20] ODS's etymological descriptions of *bare*, *gid* and *sikke* provide plausible diachronic backup to the suggestion that they appear in C°: *bare* in the appropriate sense is classified as a conjunction, *gid* as an (optative) adverb historically derived from a reduction of (*Gud*) *give det (at) (God) give it (that)* and *sikke(n)* as a pronoun derived by contraction from *se* 'see, look' + *hvilken* 'which'. *Blot* is not so clearcut, deriving from Middle Low German *blot* (cf. Modern German *bloss* 'naked, bare'). However, as it came to be used as a conditional conjunction, it took on the same meaning as *gid*. Vikner includes two other – interrogative – 'small words' in this group, namely, *mon* 'I wonder' and *måske* 'perhaps'. For reasons of space I cannot go into all the topological details of all of these. In addition to the properties commented on in the main text, I'll just note as a distributional fact that only *sikke* and *gid* invariably occupy the initial clause position, and that these two (and *mon*) cannot occur in embedded clauses.

Vikner's proposal is ostensibly sustained by data like those in (36).

- (36) C° [Spec,IP] VP
- |     |                |                   |             |
|-----|----------------|-------------------|-------------|
| (a) | Sikke folk     | opfører sig       | ordentligt! |
|     | how people     | behave themselves | decently    |
| (b) | Gid folk       | opfører sig       | ordentligt! |
|     | I wish people  | behave themselves | decently    |
| (c) | Bare folk      | opfører sig       | ordentligt! |
|     | if only people | behave themselves | decently    |
| (d) | Blot folk      | opfører sig       | ordentligt! |
|     | if only people | behave themselves | decently    |

In all cases [Spec,CP] MUST be empty, and in all cases V2 would be ungrammatical. But Vikner's analysis does not carry across to *sikke<sub>fin</sub>*-expressions.

#### 4.3 Syntactic properties of *sikke<sub>fin</sub>*-expressions

Contrast (36a) with (37).

- (37) Sikke folk der opfører sig tåbeligt!  
 what people there/that behave themselves foolishly  
 'What foolish behaviour (by those people)!' (no generic interpretation)

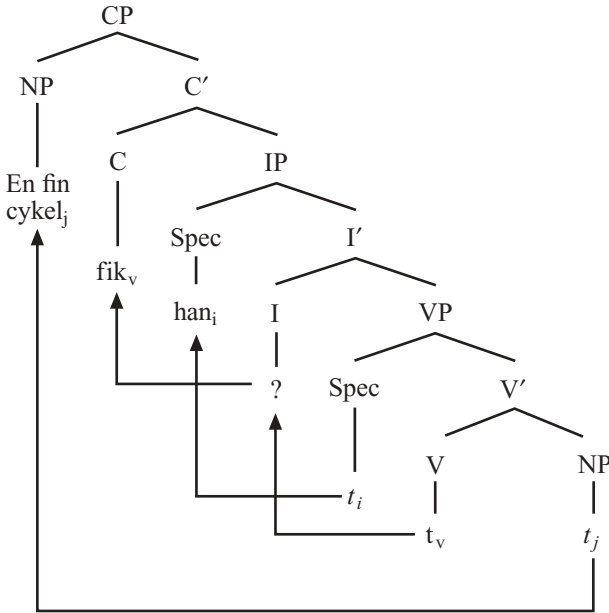
Whereas *sikke* in (36a) is a constituent on its own, it is not in (37). It forms an SP with *folk*, a constituent interpreted as the contentive subject. None of the other 'small words' in (36) display a serialization pattern similar to (37), involving substitute *der*:

- (38) \*{Bare | blot | gid} folk der ville opføre sig ordentligt.

Consider next a case in which an object NP should raise into [Spec,CP], as it does in (39).<sup>21</sup>

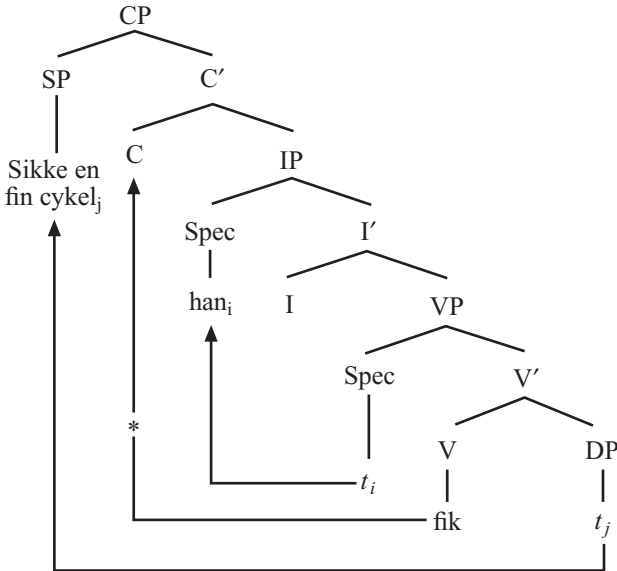
[21] The question mark in I° is intended to suggest that doubt might be raised against the presence of IP, which, in some quarters, is considered inadmissible for the description of Danish (since I° is NEVER filled; cf. Heltoft 1999). I'll nevertheless retain it, assuming that at least one functional category (apart from C°) is required for case checking. Even if the 'Split-Infl' hypothesis may be relevant to explain obligatory weak-pronoun Object Shift in Danish (Roberts 1995), it plays no role in the present context, so I'll ignore it. Since modern Danish has no vestige left of subject-verb agreement, features generated in I° are just Tense/Modality features, but not Agreement features. [Spec,IP] is considered the landing site for subjects, where they are checked for (structural) case.

(39)



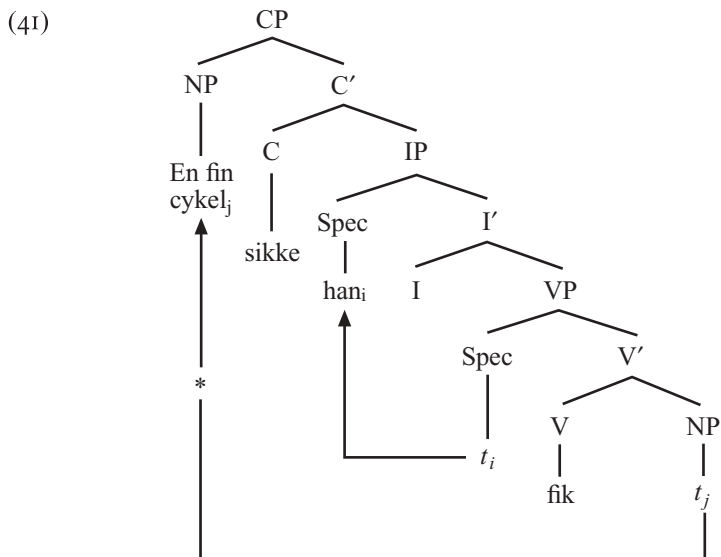
However, sentences like (34a) cannot have a derivational history similar to that sketched in (39), for V-raising is blocked for some reason:

(40)



If (40) were the result of moving the object DP into [Spec,CP], however, there would be no structural reason why this should be. And if *sikke* were invariably

base-generated in  $C^\circ$ , there would be no structural reason why we should not admit (41), which we emphatically do not.



So, like *sikke*<sub>adj</sub>-expressions, *sikke*<sub>fn</sub>-expressions do not have V2. Recalling that *sikke*-expressions are exclamatory, one possibility is now to suggest that *sikke* is a special kind of exclamative *Hv*-operator, which also blocks V2 (cf. (9) and discussion; also fn. 20 above for etymological backup). However, the evidence of (42) and (43) below suggests that *sikke*-expressions and *Hv*-expressions are only partly similar in expressive force, and not at all in syntactic derivation.

In contrast to *Hv*-expressions, *sikke*-expressions can only be exclamatory, not interrogative. Hence, we never find SP in (assumed) situ in ‘echo-exclamatives’, nor in embedded positions:

- (42) (a) (i) Han har HVILKEN cykel?  
           ‘He has WHICH bike?’  
       (ii) \*Han har SIKKEN cykel!
- (b) (i) Jeg spekulerede på hvilken cykel han fik.  
           I speculated on which bike he got  
           ‘I wondered which bike he got.’  
       (ii) \*Jeg spekulerede på sikken cykel han fik!

*Sikke*, in contrast to *hvilke*, allows *dog* ‘just’ to intervene between itself and the succeeding article:

- (43) (a) Sikke **dog** en flot cykel han fik!  
           what just a nice bike he got

- (b) \*Hvilke **dog** en flot cykel han fik?  
 which just a nice bike he got

Still exploring Vikner's assumption that *sikke* realizes  $C^\circ$  also in *sikke*<sub>fin</sub>-expressions – on a par with *sikke* and other 'small words' in *sikke*<sub>adj</sub>-expressions – we might consider other possibilities.

- (44) (a) [<sub>CP</sub>[ $C^\circ$  Bare | blot | gid]][<sub>IP</sub>[<sub>DP</sub> han<sub>i</sub>]][<sub>VP</sub>[<sub>DP</sub> t<sub>i</sub>]][<sub>V</sub>[<sub>V</sub> fik]][<sub>DP</sub> en fin  
 if only I wish he got a nice  
 cykel]]]]].  
 bike  
 (b) [<sub>CP</sub>[ $C^\circ$  Sikke]][<sub>IP</sub>[<sub>DP</sub> en fin cykel<sub>i</sub>]][<sub>VP</sub>[<sub>DP</sub> han]][<sub>V</sub>[<sub>V</sub> fik]][<sub>DP</sub> t<sub>i</sub>]]].  
 what a nice bike he got

The derivation (44a) displays standard movement of the subject to [Spec,IP] for case checking under the VP-internal hypothesis. The derivation (44b), however, moves an already case-checked object into derived subject position, which should cause it to crash.

It could further be argued, for example, with reference to the peripheral status of *sikke*-expressions, that  $C^\circ$  generates a set of strong grammatical features spelled-out as *sikke*, and that therefore the object raises overtly. Under standard assumptions about the nature of  $X^\circ$  elements as lexical items, this would demand an adjunction structure like that in (45).

- (45) [<sub>CP</sub>[ $C^\circ$  Sikke]][<sub>IP</sub>[<sub>DP</sub> en fin cykel<sub>i</sub>]][<sub>IP</sub>[<sub>DP</sub> han<sub>j</sub>]][<sub>VP</sub>[<sub>DP</sub> t<sub>j</sub>]][<sub>V</sub>[<sub>V</sub> fik]][<sub>DP</sub> t<sub>i</sub>]]].

This would be in accordance with some analyses of topicalization (e.g. Culicover 1991, Bošković (1997: 30ff.); for arguments against, see Müller & Sternefeld (1993: 481), Vikner (1995: 100ff.), Rizzi 1997, Iwakura 1999). But it would also mean that [*sikke en fin cykel*] is no longer a constituent; and it would be ad hoc: the non-agreeing interrelation with a succeeding article would remain unexplained, it would not explain why only INdefinite articles may follow *sikke* and it would not explain why *sikke*<sub>SP</sub>-expressions cannot be given a generic interpretation.

#### 4.4 *Properties of sikke*<sub>SP</sub>-expressions

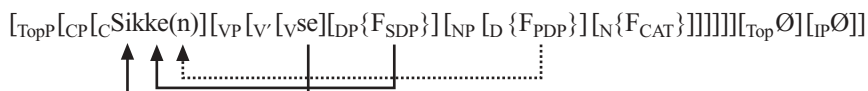
The selectional constraint imposed on its complement by *sikke* is that it should be limited to a set of features that usually define predicative (PDP) rather than referring (SDP) phrases.<sup>22</sup> How to formulate such a constraint escapes me

[22] Adopting a semantics that takes meaning as the provider of information needed for interpretation, *sikke* instructs the listener to focus on one or more (situational) FEATURES. This is supposed to capture the term that Strawson (1959: 202ff.) employs in his discussion of 'feature-placing statements', an expression type he felt ought to be there, but which has no clear structural prominence in English and which he therefore had to exemplify by expletives like *There is gold here*. This is what the semantics of *sikke* is about. *Sikke* directs the listener's interpretation towards PROPERTIES, rather than towards INDIVIDUALS as carriers of properties.

if one must work on the assumption that *sikke* is generated somewhere in the Top-layer while ‘acting at a distance’ on phrases generated in the V-layer and subsequently moved, as the discussion so far has implied. For such a constraint to work, it must be brought to do so in a local domain (the complement-adjacency condition of Chomsky 1986: 161f.).

Consider once again two points previously raised: Vikner’s claim that *sikke* is base-generated in  $C^\circ$  and thus blocks V2, and the etymological claim that *sikke* is the result of morphological merging of imperative *se* ‘see, look’ and *hvilke* ‘which’. Suppose it is correct that *sikke* surfaces in  $C^\circ$ , BUT THAT IT DOES SO AS A RESULT OF HEAD MOVEMENT FROM  $V^\circ$ , in complete analogy with normal Danish  $V^\circ$ -to-( $I^\circ$ -to)- $C^\circ$  raising. And suppose further that the historical process of morphological merging is reinterpreted as a lexicalization of the features making up *se* and just that part of the feature matrix for *hvilke* (-*n/-t*) which is concerned with spatio-temporal identification<sup>23</sup> and which provides *sikke* with its situation dependency, leaving behind the subset of features concerned with categorization. Something like this would be needed anyway to account for *sikke*<sub>adj</sub>-expressions and cases like (33b, c) and (34b, c), none of which involves a head N as required by *hvilke* (-*n/-t*). Suppose finally that this lexicalization – though historical in origin – is synchronically active, but slightly unstable, a case of wobbly Generalized Pied-Piping one might say. This seems to be the only feasible explanation for the lack of (strong) agreement between *sikke*-forms and their nominal complements: sometimes ALL features (‘F’) pertaining to number and gender are pied-piped, sometimes not. The situation looks like this:

(46)



Occurrences of *dog* ‘just’, etc. fall naturally into this pattern as adjuncts to VP. If this is true, then SPs, superficial evidence notwithstanding, are CPs.<sup>24</sup> As such, they may either be independent, expressing a ‘hidden’ proposition to the effect that a particular set of categorial features is identifiable ‘here–now’,

Various types of ‘instruction semantics’ are offered by Thrane (1980, 1983, 1994, 1997), Woods (1981), Kamp (1982), Johnson-Laird (1983), Heim (1983), Fauconnier (1985), Dinsmore (1991), Kamp & Reyle (1993); cf. also Chomsky (1986: 44ff.; 1995: 15; 2000: 91). For the distinction between PDP and SDP and their mutual relationships, see Zamparelli (1996).

[23] Cf. the distinction between *which N* and *what N* in English, where the former presupposes situational identifiability.

[24] Obviously, they are CPs of a somewhat ‘frozen’ nature, especially with respect to choice of lexical verb. This turns out also to hold for other CPs in [Spec,TopP] position. If TopP is an option in English at all, as I suspect, then one candidate for a ‘frozen’ realization of [Spec,TopP] might be the expression *How come*, which allows a following complementizer *that* and blocks inversion, in contrast to *why* (cf. Culicover 1992).



or they may function as specifiers in TopPs whose complement expresses a ‘comment’ on the feature made identifiable by the SP. The comment is thus comparable to an open sentence predicated of the topic (or focus; see below) set by the specifier (Rizzi 1997: 285).

#### 4.5 Structural topicalization

The structure in (46) is supposed to make explicit why SPs may function independently as *sikke*<sub>SP</sub>-expressions: they are CPs. However, it is not difficult to see how (46) may serve also as the structural description of *sikke*<sub>fin</sub>-expressions; cf., e.g. (11c), repeated here as (47a), but with *altid* ‘always’ inserted to show the non-V2 effect in IP.

- (47) (a) [<sub>TOPP</sub>[<sub>CP</sub> Sikken et vandpjaskeri]] [<sub>TOP°</sub> (at)] [<sub>IP</sub> her altid er]]!  
           what a watersplashing that here always is

Here CP sets a topic that the IP comments on, pleonastic *at* is generated in Top°, and [Spec,IP] is by necessity, owing to EPP, realized as a substitute (cf. (27) above). It is expressions conforming to this basic configuration that I consider STRUCTURAL TOPICALIZATIONS.

We find a close parallel to (46) in a construction type already commented on, *Hv*-clefts; cf. (14a), repeated here as (47b), again, with *altid* added.

- (47) (b) [<sub>TOPP</sub>[<sub>CP</sub> Hvem var det]] [<sub>TOP°</sub> (at)] [<sub>IP</sub> der altid slog John]]?  
           who was it that there always hit John  
           ‘Who always hit John?’

The notions of topic and focus hardly make sense in connection with an interrogative pronoun – an interrogative just expresses the variable for which a value is sought. However, since *Hv*-clefts are naturally seen as *Det*-clefts (English *It*-clefts) + *Hv*-movement, *Det*-clefts should be amenable to the same kind of analysis, as indeed they are. Compare the more detailed structure of (47b) given in (48) with its *Det*-clefted version in (49).

- (48) [<sub>TOPP</sub>[<sub>CP</sub> [<sub>Spec</sub> Hvem<sub>i</sub>]] [<sub>C</sub> [<sub>C°</sub> var<sub>v</sub>]] [<sub>IP</sub> [<sub>Spec</sub> det<sub>j</sub>]] [<sub>VP</sub> [<sub>t<sub>j</sub></sub> [<sub>V</sub> [<sub>t<sub>v</sub></sub> t<sub>i</sub>]]]]]]]  
           who was it  
           [<sub>TOPP</sub> [<sub>TOP°</sub> (at)] [<sub>IP</sub> der slog John]]?  
           that there hit John
- (49) [<sub>TOPP</sub>[<sub>CP</sub> [<sub>Spec</sub> Det<sub>i</sub>]] [<sub>C</sub> [<sub>C°</sub> var<sub>v</sub>]] [<sub>IP</sub> [<sub>Spec</sub> t<sub>i</sub>]] [<sub>VP</sub> [<sub>t<sub>i</sub></sub> [<sub>V</sub> [<sub>t<sub>v</sub></sub> Bill]]]]]]]  
           it was Bill  
           [<sub>TOPP</sub> [<sub>TOP°</sub> (at)] [<sub>IP</sub> der slog John]].  
           that there hit John

Standard analyses of *It*-clefts in English, with *it* as [Spec,IP] in the matrix clause, would – if carried over to Danish – run afoul of the combination of pleonastic *at* and substitute *der*. This point is further substantiated if we take into account the – stigmatized, but quite normal – combination *som* + *at* + *der* ‘who + that + there’. The account of this peculiar sequence presupposes

the discussion of the derivational properties of breakstructures in section 5 and will be taken up again in section 6.2.1.

So, parallel to the two generalized structures in (47a, b), we have a third, in (47c).

- (47) (c) [TopP[CP Det var Bill][Top° (at)][IP der altid slog John]]!  
 it was Bill that there always hit John  
 ‘It was Bill who always hit John!’

As for the interplay between topic and focus, note that, as CP is considered the domain of rhetorical topicalization, we would expect to find structural topicalizations with rhetorically topicalized CP in [Spec,TopP]. This, too, is borne out. Applied to (47c), the result is a ‘rhetorical structural topicalization’:

- (50) [TopP[CP **Bill** var det][Top° (at)][IP der altid slog John]]!  
 Bill was it that there always hit John

The next section is designed to show why I call this configuration BREAK-structure.

## 5. DERIVATIONAL PROPERTIES OF BREAKSTRUCTURES

The central, common derivational features of each of (47) and (50) can be given in the schematic form in (51), where ‘ZP’ is a variable and subscript ‘*a*’ an ‘index’ for an associative link.

- (51) [TopP [CP ...ZP<sub>*a*</sub>...]] [[Top° (at)] [IP ...*a*...]]

This structure bears a remarkable resemblance to that proposed by Culicover & Jackendoff (1999: 558) for the English Comparative Correlative (CC) construction, i.e. constructions like (52).

- (52) The more you eat, the fatter you get.

As they assume a generalized CP analysis, their CP equals my TopP, while their XP is my CP. QP is idiosyncratic to the CC construction:

- (53) [CP [XP, [QP X’]] [[C° (that)] [IP ...t<sub>*i*</sub>...]]

This is no coincidence, considering what Culicover & Jackendoff (1999: 560) call the ‘signature’ of the construction:

the grammar contains a general treatment of long-distance dependencies in terms of the relation between a gap (or trace) within a clause and a constituent or operator in front of the clause. THIS CONSTITUENT, ALONG WITH PROPERTIES OF C, SUBJECT, AND I OF THE UPPERMOST CLAUSE OF THE CONSTRUCTION, ARE CHARACTERISTIC OF THE CONSTRUCTION. [Emphasis added –TT]

The components of the ‘signature’ are optional presence of *that* even when clashing with the Doubly Filled COMP Filter, obligatory presence of subject

in IP, and vacillating *Aux*-inversion in IP – all of them with appropriate parallels in Danish, as shown above. And, like *sikke*-expressions, CC constructions are peripheral.

### 5.1 *The derivational ‘signature’ of breakstructures*

I take (51) to be the canonical structure for the types of clause we have so far considered. In particular, I take the syntactic visibility of Top<sup>o</sup> as the prime ‘signature’ element for these types. It sets a ‘break’ – even prosodically, in terms of ‘comma intonation’, cf. fn. 3 above – between two strings, each of which forms the structural basis for a potentially independent utterance whose interpretation is situation-dependent. I’ll refer to these two strings as the S(PECIFIER)-STRING and the C(OMPLEMENT)-STRING, respectively. The S-string sets a (focalized) topic for the C-string to comment on. Whenever both strings are realized, they share information between them, indicated by ‘*a*’ in (51), to suggest that this is no ordinary instance of leftward movement. I’ll examine these claims in turn.

#### 5.1.1 *Complementized exclamatives*

*Sikke*-expressions form just one class of exclamatives peculiar to Danish (and Swedish). But there is another type, also known in other Germanic languages (though not in English).

- (54) (a) At du ikke kunne se det!<sup>25</sup>  
           that you not could see it  
           ‘How could you not have seen it!’

[25] Vikner (1995: 63) assumes a different, CP, analysis of exclamatives such as these, in which there is ‘free variation’ between a complementizer and a finite verb:

- (i) At du da ikke kan holde din mund!  
     that you EMPHASIS not can hold your mouth  
 (ii) Kan<sub>v</sub> du da ikke t<sub>v</sub> holde din mund!  
     can you EMPHASIS not hold your mouth

Both sentences are translated as ‘I wish you hadn’t said that’. This is correct as far as it goes. However, transposed into other tense forms, they no longer display ‘free variation’:

- (i’) At du da ikke kunne holde din mund!  
     that you EMPHASIS not could hold your mouth  
 (ii’) Kunne<sub>v</sub> du da ikke t<sub>v</sub> holde din mund!  
     could you EMPHASIS not hold your mouth

Whereas (i’) expresses CURRENT irritation with a specific PAST TIME situation, (ii’) expresses ‘polite’ irritation with a PRESENT situation. To emulate (i’) we would need (iii).

- (iii) Kunne<sub>v</sub> du da ikke t<sub>v</sub> have holdt din mund!  
     could you EMPHASIS not have held your mouth

Explained in terms of the distinction argued for here between TopP (= (i)) and CP (= (ii) and (iii)), in so far as they ‘predicate’ anything, (i) ‘predicates’ something about the CURRENT SITUATION and (ii) ‘predicates’ something of *du*.

- (b) At der ikke kunne være gjort noget!  
that there not could be done something  
'But couldn't something have been done?'
- (c) Om jeg vil!  
if I will  
'You bet I want to!'
- (d) Som du dog altid skal opføre dig!  
as you just always shall behave yourself  
'Why must you always misbehave/show off?'

It is examples like these that I consider TopPs with unrealised S-string:  $[_{TOPP}[_{Spec} \emptyset][[_{TOP}[_{TOP} \{at | om | som\}][[_{IP} ]]]]$ . Like *sikke*<sub>SP</sub>-expressions, such exclamatives are situation-dependent; like *sikke*<sub>fin</sub>-expressions, they involve an (otherwise) embedding complementizer and substitute *der*; and like *sikke*<sub>adj</sub>- and *sikke*<sub>fin</sub>-expressions, they have embedded adverb positions. Yet, they are independent. In fact, just as *sikke*<sub>SP</sub>-expressions are 'feature-placing statements' (cf. fn. 22 above), complementized exclamatives like (54) are eminent examples of 'comment-placing statements'.

### 5.1.2 Evidence against movement

As far as I can tell, the relationship between  $ZP_a$  and ...*a...* in (51) cannot be expressed in terms of standard concepts defining overt, leftward movement. Theoretical evidence against this is that c-command only holds between all of [Spec,TopP] – that is, CP – and a relevant A-position in the C-string – that is, DP – in other words, between different categories. Moving the specifier or complement of V from the C-string into the S-string can only be into a COMPLEMENT position, thus violating the standard (since Emonds 1976) principle of Structure Preservation. Empirical evidence against (a copy theory of) movement is provided by data like those in (55), which break with the uniformity condition (Chomsky 1995: 253f.).

- (55) (a) (i) Han havde fart på.  
he had speed on  
'He was in a hurry.'
- (ii) \*Han havde en fart på.  
he had a speed on
- (b) (i) \*Sikke fart han havde på!  
(ii) Sikken fart han havde på!  
what-SG.COMMON GENDER speed he had on  
'What a hurry he was in!'
- (iii) Sikke(n) en fart han havde på! (same meaning as (55bii))  
what a speed he had on

*At have fart på* 'to have speed on' is an incorporating structure. The incorporated object in (a) cannot be introduced by the indefinite article which is

required in (b). But perhaps incorporated objects contain a covert article made overt by movement.<sup>26</sup>

A similar type of argument can be made for cases like

- (56) ©Men sikke obsternasigt hun havde opført sig!  
 but how obstinate she had behaved herself  
 ‘But how obstinately she had behaved!’

*At opføre sig* {Adv} ‘to behave oneself {Adv}’ is a semi-idiom, with variable {Adv}. Whenever it occurs in straightforward declarative sentences, {Adv} is ALWAYS morphologically marked as such by the derivational suffix *-t* ‘-ly’:

- (57) Hun opførte sig vel nok {pænt | dårligt | obsternasigt}.  
 she behaved herself ARG.PRT nicely badly obstinately  
 ‘I dare say she behaved herself nicely/badly/obstinately.’

If *obsternasigt* in (57) had moved, an explanation would be required for why the obligatory adverbial marking had been lost on the way.

Cases like these provide evidence that ordinary leftward movement is not involved in the formation of the SP that makes up the initial constituent of *sikke<sub>fin</sub>*-expressions. Further general arguments against standard movement in cases subsumed under (53) are given by Culicover & Jackendoff (1999), and additional empirical evidence against it in cases like (51) is given in the next section.

## 5.2 Deriving breakstructures

Having established that overt, leftward movement is not involved in the derivation of breakstructures, we need to suggest an alternative. What we

[26] It was suggested to me by a *JL* referee that this is not a case of incorporation since *fart* may be modified and so require an indefinite article: *han havde en vældig fart på* ‘he had A vast speed on’. Even if this were true (cf. (ii) below), it wouldn’t affect the issue. Suppression of the indefinite article, accompanied by variation in the distribution of accent, is a productive and pervasive feature of Danish incorporated objects (cf. Nedergaard Thomsen 1991; Herslund 1995), and results in a systematic shift between objects with ([PDP +]) and without ([PDP –]) a determiner, as shown in (i) and (ii).

- (i) (a) Han 'spiste en 'bøf.  
 he ate a steak  
 ‘He ate a steak.’  
 (b) Han ,spiste 'bøf.  
 he ate steak  
 ‘He had steak.’
- (ii) (a) Han tog en 'sort 'frakke 'på.  
 he took a black coat on  
 ‘He put on a black coat (not his usual grey one).’  
 (b) Han tog 'sort 'frakke ,på.  
 he took black coat on  
 ‘He dressed in a black coat (so he is probably going to a funeral).’

The point HERE is that *sikke* selects [PDP +], and thus cannot just have raised a [PDP –] object into its complement.

are after is clearly a derivationally coherent expression of an interpretive relationship. Various pertinent proposals have appeared recently, e.g. Syntactic Connectedness (Heycock & Kroch 1999, exploring a notion originally proposed by Higgins 1979) to account for pseudoclefts, Generalized Modification (Kiss 2000) and Parallel Construal (Koster 2001) to account for extraposition.

I shall begin by pointing out a peculiarity in the behaviour of *der* in *sikke<sub>fin</sub>*-expressions. On the basis of that I shall establish an interpretive distinction between GROUNDING and NON-GROUNDING clauses (see section 5.2.2), arguing that it has a derivational basis comparable to that between restrictive and non-restrictive relative clauses. This will lead, in section 6, to a discussion of two possibilities for interpreting breakstructures.

### 5.2.1 *Der in sikke<sub>fin</sub>-expressions*

Not all Danish verbs and verb forms allow expletive constructions.<sup>27</sup> Without prejudicing the choice of labels for various subclasses of verbs, I will just group together in (58) those that in non-expletive constructions would require a single argument under the valency-theoretic label 'MONOVALENT', those that would require two in (59) under 'DIVALENT'.

#### (58) *Monovalent*

- (a) \*Der grinede en dreng ude i haven.<sup>28</sup>  
there grinned a boy out in garden-the
- (b) Der boede en dreng ude i haven.  
there lived a boy out in garden-the
- (c) Der sank et skib nede i havnen.  
there sank a ship down in harbour-the

[27] The most thorough generative account of expletive constructions in Danish is no doubt Vikner (1995). It would take me too far afield to offer a general critique of it here, however. Suffice it for our purposes to say that the coverage, encompassing only five verbs, is not exhaustive for Danish, and that consequently his division of verbs into just two monovalent subclasses (ergative, intransitive) and one divalent subclass (transitive) is too coarse-grained to capture the distributional facts of Danish expletive constructions. On a more theoretical note, it would appear that his reliance on a derivational process of 'subject lowering' from [Spec,VP] to [V', Compl] to account for intransitives (pp. 202ff.) runs counter to general assumptions about movement (see Rochemont & Culicover (1990: 77) for some discussion). Empirical evidence against it will be offered below.

[28] A *JL* referee suggests that my grammaticality judgement in (58a) is wrong. This may well be true. However, a search on the Web failed to reveal a single instance of the rejected construction type with any of these verbs: *gynge* 'swing', *grine* 'grin', *græde* 'cry', *le* 'laugh', *råbe* 'shout', *smile* 'smile' and *syng* 'sing'. I'm aware that this need not necessarily mean that the construction is ungrammatical but I take it as evidence that it is not an option employed in standard Danish.

(59) *Divalent*

- (a) (i) \*Der kyssede en pige en dreng ude i haven.  
 there kissed a girl a boy out in garden-the  
 (ii) \*Der kyssede en pige ude i haven.  
 there kissed a girl out in garden-the
- (b) (i) \*Der knækkede en vind et træ ude i haven.  
 there snapped a wind a tree out in garden-the  
 (ii) Der knækkede et træ ude i haven.  
 there snapped a tree out in garden-the

The noteworthy thing is that ALL of these may reappear in grammatical form in construction with *sikke* (a dagger marks examples we would not expect, since they are ungrammatical in (58) and (59)):

(60) *Monovalent*

- (a) †Sikke en dreng der grinede ude i haven!  
 what a boy there grinned out in garden-the
- (b) Sikke en dreng der boede ude i haven!  
 what a boy there lived out in garden-the
- (c) Sikke et skib der sank nede i havnen!  
 what a ship there sank down in harbour-the

(61) *Divalent*

- (a) (i) †Sikke en pige der kyssede en dreng ude i haven!  
 what a girl there kissed a boy out in garden-the  
 (ii) †Sikke en pige der kyssede ude i haven!  
 what a girl there kissed out in garden-the
- (b) (i) †Sikke en vind der knækkede et træ ude i haven!  
 what a wind there snapped a tree out in garden-the  
 (ii) Sikke et træ der knækkede ude i haven!  
 what a tree there snapped out in garden-the

Suppose that (60) and (61) were derived by movement from (58) and (59), respectively, and further that *der* in each case was expletive. We would then expect (58) and (59) to be related to (60) and (61) as (23a) is to (23b), both repeated here for convenience.

- (23) (a) **Der** skal nu nok snart komme en taxa.  
 (b) En taxa skal **der** nu nok snart komme.

Since (23a, b) are both grammatical, we would expect all of (58)–(61) to be grammatical as well. As this is not the case, I conclude that the relationship between (58)–(59) and (60)–(61) is not one of movement and, further, that *der* in (60) and (61) is not expletive.

5.2.2 *Grounding and non-grounding clauses*

But there are the other two ‘weak’ versions of *der* to consider (cf. (28) above). Recall that *her* ‘here’ may replace expletive/substitute *der*, while *som* ‘who, which’ may replace subject relative *der*. The application of these substitution tests to (60) and (61) yields the following picture:

(62) *Monovalent*

- (a) †Sikke en dreng {\*her | som} grinede!  
what a boy here who grinned
- (b) Sikke en dreng {her | \*som} boede!  
what a boy here who lived
- (c) Sikke et skib {her|?som} sank!  
what a ship here which sank

(63) *Divalent*

- (a) (i) †Sikke en pige {\*her | som} kyssede en dreng!  
what a girl here who kissed a boy
- (ii) †Sikke en pige {\*her | som} kyssede!  
what a girl here who kissed
- (b) (i) †Sikke en vind {\*her | som} knækkede et træ!  
what a wind here which snapped a tree
- (ii) Sikke et træ {her | ?som} knækkede!  
what a tree here which snapped

In other words, the daggered examples in (60) and (61) contain relative *der*, the non-daggered ones contain substitute *der*. If this is true, what might the reason be? I’ll regroup the data, exploiting the independence of *sikke*<sub>SP</sub>-expressions on a par with root clauses:

(64) *From substitute constructions*

- (a) Sikke en dreng. Han boede ude i haven.  
what a boy he lived out in garden-the
- (b) Sikke et skib. Det sank nede i havnen.  
what a ship it sank down in harbour-the
- (c) Sikke et træ. Det knækkede ude i haven.  
what a tree it snapped out in garden-the

(65) *From relative constructions*

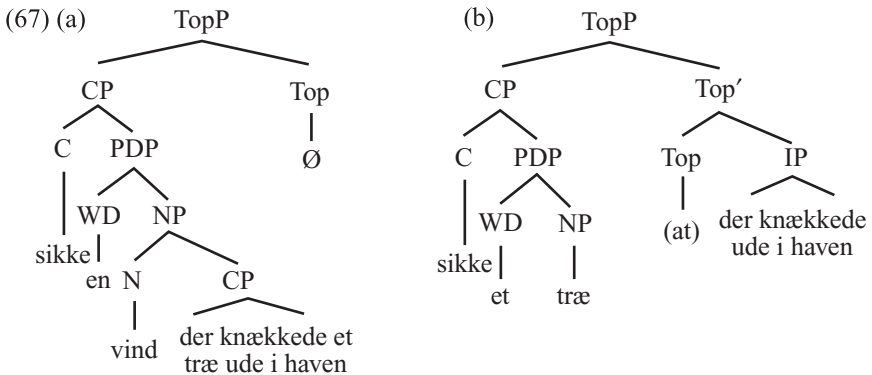
- (a) †Sikke en dreng. Han grinede ude i haven.  
what a boy he grinned out in garden-the
- (b) †Sikke en pige. Hun kyssede en dreng ude i haven.  
what a girl she kissed a boy out in garden-the
- (c) †Sikke en pige. Hun kyssede ude i haven.  
what a girl she kissed out in garden-the
- (d) †Sikke en vind. Den knækkede et træ ude i haven.  
what a wind it snapped a tree out in garden-the



This resolution is significant for interpretation. Recalling the status of *sikke*-expressions as ‘feature-placing’ statements (cf. fn. 22), the basis for the speaker’s implicit evaluation of the situated features ‘dreng’, ‘skib’, ‘træ’, ‘pige’ and ‘vind’ conveyed by the *sikke*<sub>SP</sub>-expression is made explicit by the consecutive clause in (65), but not in (64). Accepting the truth of the propositions expressed by the consecutive clauses in each of (65) is a precondition for accepting the evaluation given by the preceding *sikke*<sub>SP</sub>-expressions as justified. I call such propositions *GROUNDING*, irrespective of what form they take. A similar interpretation of (64) is possible, but not especially natural. The grounding propositions in (65) are comparable to *RESTRICTIVE* relative clauses in that they make explicit the *GROUNDS* for identification, not of entities, but of properties. In contrast, the consecutive clauses in (64) are similar to *NON-RESTRICTIVE* relative clauses. This is borne out by the availability of different kinds of particles in (64) and (65). The communicative function of argumentative particles like *nemlig* ‘for, because’ and *vel nok* ‘surely’ is to turn the clauses they appear in into *EXPLICITLY* grounding propositions. In contrast, parenthetical particles like *iøvrigt* ‘by the way’ (glossed below as ‘par.prt’) do not. Replacing one type for another in (64) and (65) – in so far as it is possible at all – will therefore lead to interpretive changes in grounding properties. (66) illustrates.

- (66) (a) †Sikke en dreng. Han grinede {nemlig | vel nok | ?iøvrigt}  
 what a boy he grinned ARG.PRT ARG.PRT PAR.PRT  
 ude i haven.  
 out in garden-the
- (b) Sikke en dreng. Han boede {??nemlig | \*vel nok | iøvrigt}  
 what a boy he lived ARG.PRT ARG.PRT PAR.PRT  
 ude i haven.  
 out in garden-the

The upshot of this is that the daggered examples in (60) and (61) are, in fact, *sikke*<sub>SP</sub>-expressions, while the rest are *sikke*<sub>fin</sub>-expressions. So, rough s-structures for (61bi) and (61bii) would be (67a) and (67b), respectively (‘WD’ = ‘weak determiner’).



Recalling that PDP, by hypothesis, is base-generated as the complement of (*se*, partly etymon of) *sikke*, (67a) is a simple case of relative clause formation (cf. also comment after (49) above).

Another noteworthy type of grounding clause is provided by *sikke*<sub>nonFin</sub>-expressions. One approach to these might be to regard them as TopPs with *at* as Top° and the infinitive as the sole realization of the C-string, along the lines of (67b). Consider the non-finite versions of the monovalent clauses in (60), given in (68).

- (68) (a) \*Sikke en dreng at (der) grine ude i haven!  
           what a boy that there grin out in garden-the  
       (b) \*Sikke en dreng at (der) bo ude i haven!  
           what a boy that there live out in garden-the  
       (c) \*Sikke et skib at (der) synke nede i havnen!  
           what a ship that there sink down in harbour-the

On a standard generative distinction between intransitive (68a, b) on the one hand, and ergative (68c) on the other, *grine* and *bo* should have an external but no internal argument, whereas *synke* should have no external but an internal argument. So, if the derivation of *sikke*<sub>nonFin</sub>-expressions were assumed to involve leftward movement from [Spec, VP] of the C-string into the S-string, we would predict (68a, b) to be grammatical, and (68c) to be ungrammatical.

In fact, none of them are grammatical, with or without *der*. This is because *at* is not the complementizer but the infinitive marker, equivalent to English *to*, in normal Danish speech pronounced as a low-mid round back vowel [ɔ]. In contrast, complementizer *at* is always pronounced with a low spread front vowel, [a] or [ad<sup>h</sup>].<sup>29</sup>

Reinterpreting *at* in (68) as the infinitive marker will make each come out grammatical, without *der*. The natural interpretation is for each infinitive phrase to be grounding, as confirmed by the possibility of incorporating the argumentative particle *sådan*<sup>30</sup> ‘thus, in this/that way’:

- (69) (a) Sikke en dreng (sådan) at grine ude i haven!  
           what a boy thus to grin out in garden-the  
       (b) Sikke en dreng (sådan) at bo ude i haven!  
           what a boy thus to live out in garden-the  
       (c) Sikke et skib (sådan) at synke nede i havnen!  
           what a ship thus to sink down in harbour-the

The claim, in other words, is that the infinitive phrase is a grounding complement of *dreng* and *skib*, respectively, and that (33) and (69) are derived

[29] There is a certain asymmetry here. Due to the spelling, the infinitive marker *at* is often pronounced [ad<sup>h</sup>] in careful speech. Complementizer *at*, however, is NEVER pronounced [ɔ].

[30] The argumentative particles used in the finite clauses above (*nemlig*, *vel nok*) to argue for the grounding status of the consecutive clauses in (65) are not available in non-finite contexts.

along the lines of (67a). This explains why (31d, e) are impossible as independent utterances. They require explicit grounding.

## 6. INTERPRETING BREAKSTRUCTURES

We still need to account for the relationship between PDP and the position in IP in (67b) where it receives an interpretation. This involves two steps. The first is an extension of Hatakeyama's (1998) proposal for expletive structures (see section 3.4 above and section 6.1 below). This will be needed for either of the two interpretive strategies to be discussed in section 6.2. These involve an assessment of the influence that RIGHT periphery phenomena may have on the interpretation of breakstructures.

### 6.1 Extending Hatakeyama's (1998) proposal

Consider first Vikner's (1995: 202ff.) proposal, mentioned in fn. 27 above, that the external argument in intransitive expletive constructions is lowered into V' to account for the post-verbal occurrence of the associate, as in (70).

- (70) ...at der<sub>i</sub> [VP[NP t<sub>i</sub>][V[V har][VP[NP t<sub>i</sub> [V' dancet nogen<sub>i</sub>]]]]  
 that there has danced someone  
 'that someone has been dancing'

The proposal is based on the supposition that [V', Compl], though not functionally required with intransitives, is nevertheless available as a structural position and can be exploited in expletive constructions because it will always be empty.

This is empirically questionable, however, as shown by the linearization properties of reflexive verbs like *danne sig* 'form itself'. If such verbs were transitive, they should not be available to expletive construction, which they are. Given Vikner's bifurcation they must then be intransitives, and the reflexive pronoun *sig* must occupy [V', Compl], thus blocking 'subject lowering':

- (71) (a) ...at der naturligvis [V' danner sig] frost på ruden  
 that there of course forms itself frost on pane-the  
 'that naturally frost forms on the pane'  
 (b) Der [C° danner<sub>v</sub>][V' t<sub>v</sub> sig] naturligvis frost på ruden.  
 there forms itself of course frost on pane-the  
 'Naturally, frost forms on the pane.'

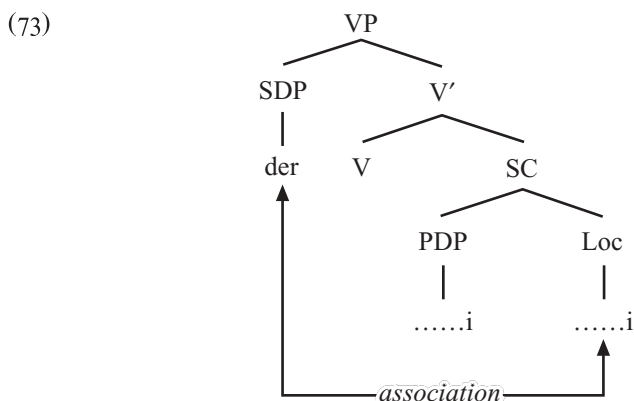
Assuming the reflexive pronoun to be left in situ inside V' after raising of *danner* to C° (as in (71b)), and maintaining the bijection principle, the only way to account for cases like these would appear to be by adjunction of a small clause (SC) argument [*frost på ruden*] and some version of a

‘mirror image’ convention for adjunction structures, since *naturligvis* shifts relative to *sig*. This is borne out by a number of other possible linearizations, illustrated in (72).

- (72) (a) [Frost på ruden]<sub>i</sub> danner der sig naturligvis [<sub>SC</sub> t<sub>i</sub>].  
 frost on pane-the forms there itself of course  
 (b) [Frost]<sub>i</sub> dannerder sig naturligvis [<sub>SC</sub> t<sub>i</sub> på ruden].  
 frost forms there itself of course on pane-the  
 (c) [På ruden]<sub>i</sub> danner der sig naturligvis [<sub>SC</sub> frost t<sub>i</sub>].  
 on pane-the forms there itself of course frost  
 (d) [Naturligvis]<sub>i</sub> danner der sig [<sub>AdvP</sub> t<sub>i</sub>]<sub>SC</sub> frost på ruden].  
 of course forms there itself frost on pane-the

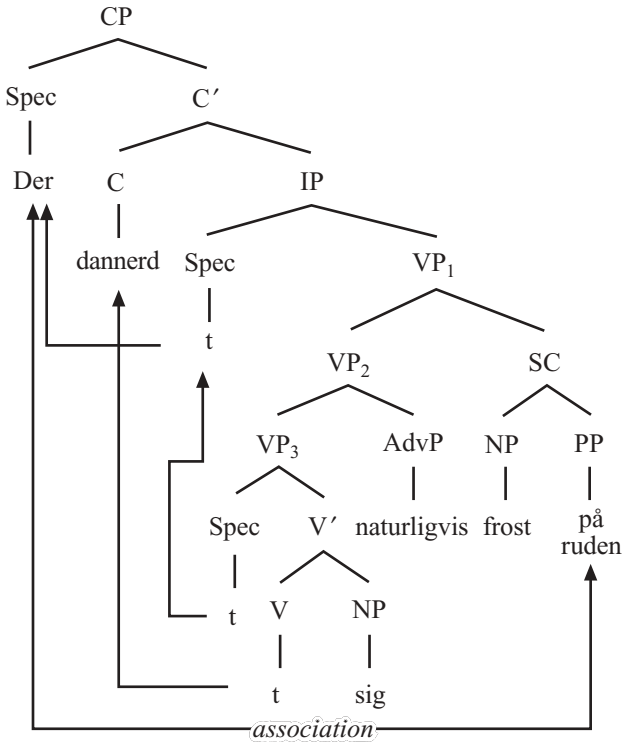
This would be in accord with Hatakeyama’s (1998) approach to expletive constructions. As it stands, however, it is designed to cover only expletive constructions with forms of ‘be’ (Danish *være*) as the lexical verb, so the essential claim of the presence of a small clause complement involving a locative phrase is perfectly natural and justified. If, as I am suggesting, this account should be extended to cover expletive constructions in general, why should other verbs suddenly develop the need to project small clause complements over and above simple (DP) complements? This question ties in with another puzzle about expletives, the so-called ‘definiteness effect’: how does a(n) (standardly assumed NP-) associate ‘know’ that it can only be weak?

Suppose that the following abstract base-configuration underlies any instance of (for simplicity, monovalent) expletive constructions:



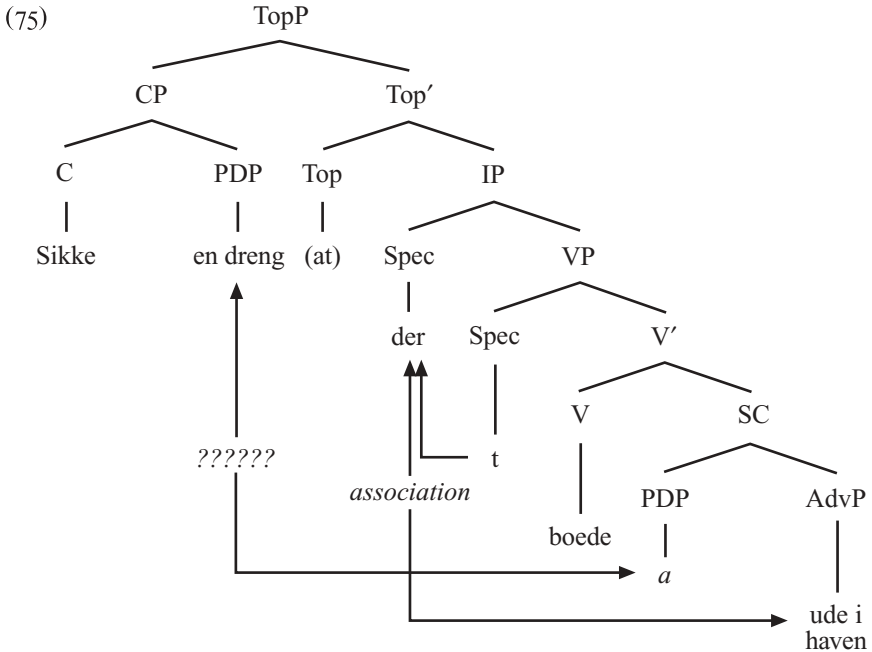
This is a ‘Small Predication’, attributing (V) spatio-temporal (SDP) existence to a set of categorial features (PDP) at location Loc, where Loc may be Nil at PF. Adopting this proposal, a structure that would accommodate all of (71b) and (72) would be as in (74).

(74)



The key feature here is the ‘factoring out’ of association from movement of the ‘real’ subject, which is *der* (as in Williams 1994). Alternatively, movement may apply to the full SC, (72a), to its subject alone, (72b), to its predicate alone (72c), or to the AdvP *naturligvis*, (72d). It cannot apply to *sig*. Whichever option is chosen, the association relation is constant between *der* and [*på ruden*].

Returning now to (60) and (61), I argued that only the undaggered examples derive from (67b), involving substitute *der*; these in turn are precisely those that allow expletive constructions, as in (58) and (59). Given the thesis of (28), that expletive and substitute *der* are the root and embedded versions of each other, it is natural to assume the same underlying configuration for both, i.e. (73). I envisage an s-structure for (60b), for example, as in (75).



If the complement of *sikke* is taken as object, subject complement or (manner) adverbial in the C-string, as in (34a–c), the basic configuration would be the same, except that now there would be a contentive subject in [Spec,VP], and hence no small clause complement.

There is, then, a uniform interpretation for *sikke<sub>fin</sub>*-expressions: interpret the complement of *sikke* as the (PDP-constituent of the) complement of V. The same holds, *mutatis mutandis*, for clefts. The problem is to determine how this interpretive relationship is established.

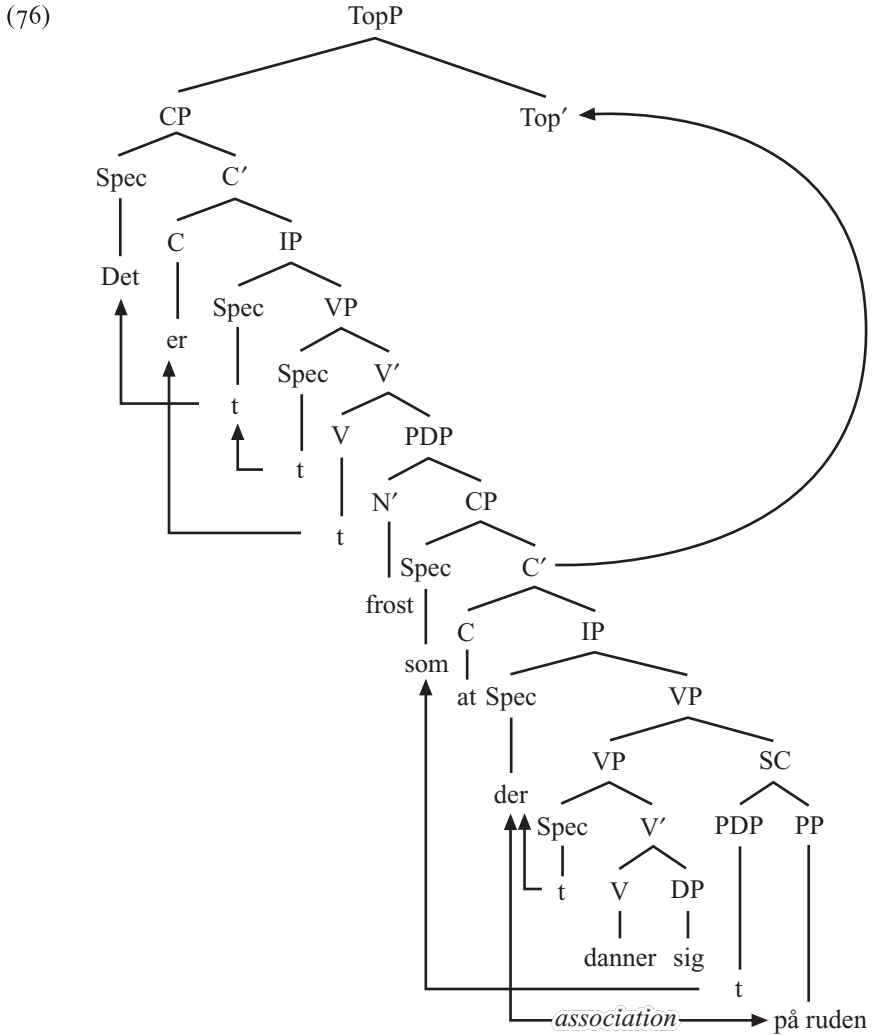
### 6.2 Right periphery evidence

The course of inquiry I shall take appeals to the structure of the RIGHT periphery. As I see it, there are two possible approaches. The first sets out from the assumed parallelism between grounding and restrictive relative clauses on the one hand and non-grounding and non-restrictive relative clauses on the other, and draws on extraposition (see section 6.2.1 below). The second sets out from the notion of preferential information-packaging, drawing on pseudoclefts (section 6.2.2).

#### 6.2.1 Interpretation as extraposition

The two structures in (67) are supposed to be s-structures. Do they correspond to two distinct d-structures, or just one? Since I draw on parallelism to

relative clauses, I shall assume the latter. What turns up as the C-string of (67b) is extraposed into the empty Top' of (67a), illustrated in (76) with the clefted version of (72).



Empirical support would come from the existence of the colloquial variants mentioned briefly in section 4.5 above.

- (77) (a) Hvem var det **som (at) der** slog John? (cf. (48))  
 who was it who that there hit John
- (b) Det var Per **som (at) der** gav sin søn cyklen.  
 it was Per who that there gave his son bike-the

Such ‘double relative’ constructions are quite normal, but discouraged in written Danish. The crucial point, however, is that versions of (77) would NEVER occur – not even colloquially – with *som + at* alone, without *der*, because in that case the EPP would be violated (cf. (11di–iii)). Given the format of (76), they could be explained as cases of ‘relative stranding’.

This explanation extends to the data in (11c–g), all of which display normal, but proscribed, occurrences of pleonastic *at*. In each case, *at* can be seen as breaking up a CP complement to yield a derived structure of the general format of (76).

### 6.2.2 *Preferential information-packaging*

Although furnishing us with a structure that seems to capture what we want, (76) leaves us with an unknown form of Relative Clause Extraposition involving single-bar rightward movement under dubious triggering conditions and a clash of values of [ $\pm$  FINITE]. In view of the lack of consensus about rightward movement in general,<sup>31</sup> this need not cause too much worry, perhaps. Nevertheless, I shall suggest a more promising alternative.

It is likely that breakstructures display syntactic-semantic asymmetry and that the interpretation of them is a matter of further refinement at the LF interface, as suggested for pseudoclefts by Heycock & Kroch (1999) (H&K in what follows). Furthermore, the proposal by Koster (2001), that phrase structure takes two forms, primary and parallel, offers a neat structural basis for interpretation.

It seems clear that the interpretive relationship we are looking at holds between nodes of two branches of semi-autonomous structure. Similar, if not identical, properties are found with pseudoclefts like (78) (adapted from data in H&K).

- (78) (a) What Mary bought was that book on linguistics.  
 (b) What Mary was was proud of herself.  
 (c) What Mary claimed was that John was innocent.

H&K conclude that such structures are equative copular sentences. Suppose that, as such, they are also instances of parallel construal in Koster’s terms, similar in pertinent respects to the cases of asyndetic specification he discusses (2001: 20f.), as exemplified in (79) by the English version of one of his Dutch examples.

- (79) John built something beautiful: a golden igloo.

[31] For an overview of syntactically biased approaches to right periphery phenomena, see Baltin (2001). Extraposition is an area of concern particularly for researchers on SOV languages like German and Dutch. For discussion of various proposals see the papers by Bayer; Büring & Hartmann; Haider; and Müller in Beerman, LeBlanc & van Riemsdijk (1997); and also Kiss (2000), Koster (2001).



The general format for parallel constructions is illustrated by the ‘Colon Phrase’ (Koster 2001: 21), [ : XP<sub>2</sub>], given in (80),

(80) [XP<sub>1</sub> [ : XP<sub>2</sub>]] [Subnumerals added – TT]

The colon is one type of connecting head, of which he says; ‘[I]n general, the connecting heads of parallel construals are Boolean operators of some sort’ (Koster 2001: 20). What distinguishes primary from parallel phrase structure is the way things are licensed. Notably for our concerns, feature checking (of XP<sub>2</sub>) in parallel structures can be done by a more inclusive phrase, in which the licenser (XP<sub>1</sub>) is embedded, provided Right Roof and other constraints are respected.

In addition to ideas by H&K and Koster, I shall incorporate the passage from Culicover & Jackendoff (1999: 560) quoted above (see early part of section 5) in the following tentative proposal. Structures like (81)–(85) below are assumed to be LF-representations at a level that DETERMINES semantic types of arguments in terms of primitives *e* and *t*, and complex types built from these in familiar ways. Type notations are superscripted to arguments, and *x*, *y*, ... are variables for either traces or gaps. Syntactic indices (*i*, *j*, *v*, ...) are subscripted. LINKING is now a computation on semantic types whereby a syntactically indexed gap or trace in what H&K call the GROUND<sup>32</sup> of the pseudocleft (CP<sub>2</sub> in the examples below) is ASSIGNED TO A SEMANTIC TYPE under variable assignment *g*. In an instructional semantic framework, however, *g* itself must be determined from input sources (textual or situational). Here it is computed from what H&K call the FOCUS (IP below). The whole process is conceptually akin to Pustejovsky’s (1995) notion of ‘type coercion’. Adopting (80) as the basis for analysis of (78), we get:

- (81) (a) [CP<sub>1</sub> [CP<sub>2</sub> What<sub>*i*</sub> :=<sup>e</sup> Mary bought *x<sub>i</sub>* :=<sup>e</sup>]<sup>g(i)</sup> [C’ [C° was<sub>v</sub>] [IP *t<sub>v</sub>* [NP that book on linguistics]<sup>e</sup>]<sup>g</sup>].  
 (b) [CP<sub>1</sub> [CP<sub>2</sub> What<sub>*i*</sub> :=<sup><e,t></sup> Mary<sub>*j*</sub> was *x<sub>i</sub>* :=<sup><e,t></sup>]<sup>g(i)</sup> [C’ [C° was<sub>v</sub>] [IP *t<sub>v</sub>* [AP proud of herself<sub>*j*</sub>]<sup><e,t></sup>]<sup>g</sup>].  
 (c) [CP<sub>1</sub> [CP<sub>2</sub> What<sub>*i*</sub> :=<sup>t</sup> Mary claimed *x<sub>i</sub>* :=<sup>t</sup>]<sup>g(i)</sup> [C’ [C° was<sub>v</sub>] [IP *t<sub>v</sub>* [CP<sub>3</sub> that [IP John was innocent]<sup>t</sup>]<sup>g</sup>].

The main argument for this approach, which meets the requirement of dynamic interpretation that H&K (p. 391) acknowledge the need for, is that it obviates the need to postulate a PRIOR semantic type for the free relative (the ground), which they assume to be a generalized *iota*-expression of

[32] H&K’s use of GROUND (as opposed to FOCUS) is not (quite) the same as the notion of GROUNDING (as opposed to NON-GROUNDING) introduced above. Both GROUNDING and NON-GROUNDING clauses would constitute the GROUND. Both sets of terms are concerned with the structuring and classification of information, in particular, with the notions of old and new information (ground/focus), and restrictive and additive information (grounding/non-grounding).

the form  $\iota x[f(x)]$ , and the subsequent need for  $\iota$ -reduction. In fact, this issue boils down to the question of what level(s) of grammar should be sensitive to type assignment. If semantic type is an INHERENT property of lexical items, the notion of type coercion seems redundant, unless dot-notation or something similar is introduced to account for polysemy. And the buck doesn't stop there. H&K (p. 375) talk about the type of the (D-)POSITION out of which *what* has been moved, namely,  $\langle e, t \rangle$ . But that holds only for copular sentences. It would not cover cases like (81a, c). *What*, as a lexical item, must be unspecified for semantic type, and so must d-structure positions.

The type of  $CP_2$  must reduce to  $e$  for  $CP_1$  to be truth-functional. I ignore this in the notation above, but assume it to be implicit to H&K's claim (p. 394) that the ground, in carrying old, yet parametricised, information, has already established in the interpretive model a discourse VARIABLE whose value is now being determined by the focus. In addition, for (81b), *Mary* must license *herself*. *Was* is the natural language reflex of the Boolean operator of equality, which should allow a reversal of linear order. This has no effect on dominance or licensing conditions. The result is still a specificational equative pseudo-cleft, but not an especially favoured one (Quirk et al. 1972: 14.21), with focus preceding ground:

- (82) (a)  $[CP_1[CP[IP\ t_v\ [NP\ \text{That book on linguistics}]^e]^g\ [C^\circ\ \text{was}_v]]][CP_2\ \text{what}_i:=^e\ \text{Mary bought } x_i:=^e]^g(i)$ .  
 (b)  $[CP_1[CP[IP\ t_v\ [AP\ \text{Proud of herself}]^{\langle e, t \rangle}]^g\ [C^\circ\ \text{was}_v]]][CP_2\ \text{what}_i:=^{\langle e, t \rangle}\ \text{Mary}_j\ \text{was } x_i:=^{\langle e, t \rangle}]^g(i)$ .  
 (c)  $[CP_1[CP[IP\ t_v\ [CP_3\ \text{That } [IP\ \text{John was innocent}]^t]]^g\ [C^\circ\ \text{was}_v]]][CP_2\ \text{what}_i:=^t\ \text{Mary claimed } x_i:=^t]^g(i)$ .

If Quirk et al.'s judgement is correct, it suggests a PREFERRED structuring of information for English, where given/presupposed information, encoded as ground, precedes new information, encoded as focus.

Turning to potential Danish equivalents of (81), the first thing to note is that direct parallels with initial free *Hv*-relatives are unlikely to the point of ungrammaticality. Instead, we have replicas of English *that which*-expressions, given in (83).

- (83) (a)  $[CP[DP\ \text{Det}:=^e\ [CP\ (\text{som}_i)\ \text{Mary købte } x_i:=^e]^g(i)\ [C[C^\circ\ \text{var}_v]]\ \text{that}\ \text{which Mary bought}\ \text{was}\ [IP\ t_v\ [NP\ \text{den bog om lingvistik}]^e]^g]]$ .  
           that book on linguistics  
 (b)  $[CP[DP\ \text{Det}:=^{\langle e, t \rangle}\ [CP\ (\text{som}_i)\ \text{Mary var } x_i:=^{\langle e, t \rangle}]^g(i)\ [C[C^\circ\ \text{var}_v]]\ \text{that}\ \text{which Mary was}\ \text{was}\ [IP\ t_v\ [AP\ \text{stolt af sig selv}]^{\langle e, t \rangle}]^g]]$ .  
           proud of REFL self

- (c) [CP [DP Det:<sup>t</sup> [CP (som)<sub>i</sub> Mary påstod x<sub>i</sub>:<sup>t</sup>]]<sup>g(i)</sup> [C [C° var<sub>v</sub>] [IP  
that which Mary claimed was  
t<sub>v</sub> [CP at [IP John var uskyldig]]<sup>g</sup>]].  
that John was innocent

The organization of information here reflects the English preferred arrangement of (81). While natural for (83c), it is somewhat strained for (83a) and downright odd for (83b). Notice in (83a) that *det* cannot be a cataphor for [*den bog om lingvistik*] for syntactic (agreement) reasons, so no syntactic co-indexing holds between *det* and its interpretant. *Det* is, arguably, projected by the assignment **g(i)** to serve as ‘anchorage’ for a semantic type at LF. It may thus not be EXPLETIVE, but rather EXCRESCENT (cf. fn. 17 above).

Direct versions of (81) with free *Hv*-relatives are quite possible, however, especially for (81c):

- (84) (a) [CP[C° [IP t<sub>v</sub> [DP Den bog om lingvistik]]<sup>e</sup>]]<sup>g</sup> [C° var<sub>v</sub>]] [CP hvad<sub>i</sub>:<sup>e</sup>Mary  
købte x<sub>i</sub>:<sup>e</sup>]]<sup>g(i)</sup>.  
(b) [CP[C° [IP t<sub>v</sub> [AP Stolt af [sig selv]<sub>j</sub>]]<sup><e,t></sup>]]<sup>g</sup> [C° var<sub>v</sub>]] [CP hvad<sub>i</sub>:<sup><e,t></sup> Mary<sub>j</sub>  
var x<sub>i</sub>:<sup><e,t></sup>]]<sup>g(i)</sup>.  
(c) [CP[C° [IP t<sub>v</sub> [CP At [IP John var uskyldig]]]]<sup>g</sup> [C° var<sub>v</sub>]] [CP hvad<sub>i</sub>:<sup>t</sup> Mary  
påstod x<sub>i</sub>:<sup>t</sup>]]<sup>g(i)</sup>.

Information structure is here INVERSE to the English preference, and encoded as RHETORICAL topicalizations. The most natural form of expression for (a) and (b) in Danish, however, would not be by means of pseudoclefts at all, but by means of *Det*-clefts, an option not in general available to (c):

- (85) (a) [TOPP[CP Det var [PDP den bog om lingvistik]]<sup>e</sup>]]<sup>g</sup> [TOP° (at)  
it was that book on linguistics that  
[IP Mary købte x<sub>i</sub>:<sup>e</sup>]]<sup>g(i)</sup>]].  
Mary bought  
(b) [TOPP[CP Det var [AP stolt af [sig selv]<sub>j</sub>]]<sup><e,t></sup>]]<sup>g</sup> [TOP° (at)  
it was proud of REFL self that  
[IP Mary<sub>j</sub> var x<sub>i</sub>:<sup><e,t></sup>]]<sup>g(i)</sup>]].  
Mary was

How this sketch should be worked out in finer detail, perhaps in terms of modified variable assignment, is beyond the scope of this paper. For now, I'll have to rest content with summing up how it relates to my main argument.

There are construction types, peripheral or not, in both English and Danish, whose interpretation requires mechanisms above and beyond standard principles of movement and so implies syntactic-semantic asymmetry. Such asymmetry results in different, language-preferential syntactic encodings of information structure. Preferences may be based on different priorities in information-theoretic pairs like GROUND/FOCUS and TOPIC/COMMENT, which is the case here. Danish gives priority to the TOPIC/COMMENT pair, English to the

GROUND/FOCUS pair. The favoured linear encoding of interpretive instructions embedded in non-clausal arguments of both pairs is PROGRESSIVE in that it moves from ‘old’ to ‘new’ information: first TOPIC/GROUND, then COMMENT/FOCUS. Thus, while in neither language is the inverse order impossible (cf. (82) and (83)), it is nevertheless the ordering seen in (81) for English, and (84) and (85) for Danish, that is preferred. It is these preferences that TopP encodes, (85) being clearly preferred over (84). Danish is truly a Topic-language.

## 7. CONCLUSION

This account falls short of the ideal of fully exploring ALL the issues it raises. It does, however, satisfy a more modest aim, which was to confront what I have called a ‘standard’ generative account of Danish, as set out by Vikner (1995), with an array of data not clearly belonging to the core grammatical system, and to determine the consequences this confrontation would have for the standard account. Two construction types, clefts and *sikke*-expressions, were found to display the same properties on three diagnostic points: non-V2 in IP, the potential occurrence of pleonastic *at*, and the obligatory presence of substitute *der*. Each construction type was shown to embody a CP as Specifier in a functional category, labelled here TopP, with the general property that its head, Top<sup>o</sup>, does NOT attract the finite verb, and thus accounting for the property of non-V2. These two types of construction are the clearest examples of BREAKSTRUCTURE, so called because either of its two immediate strings [Spec,TopP] and [Top',Comp] can serve as the structural basis for independent utterances with clause-like properties. There are other construction types in Danish that are potential candidates for breakstructure, but I'll have to leave these for discussion elsewhere.

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