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VP anaphora and verb-second order in Danish[1]

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This paper argues that Danish verb-second clauses have two structural instantiations and that each structure is associated with distinct information-structural properties. Information-structurally undifferentiated V2 clauses are realized as TPs, whereas information-structurally differentiated V2 clauses are CPs. The evidence for this correlation comes from the behavior of the overt VP anaphor *det*, which exhibits a complex, but principled, positioning pattern in V2 clauses. I develop a feature-driven analysis of V2 clauses that accounts for previously unnoticed restrictions on the initial position in declarative V2 clauses.

1. Introduction

Verb-second order is a major syntactic organizing principle of most Germanic languages. Verb-second (V2) order is characterized by the finite verb appearing in the second position of the clause, preceded by exactly one constituent. The classic generative analysis of V2 order is schematized in (1): the finite verb occupies C,

[1] This paper is dedicated to Judith Aissen in recognition of her mentorship, generosity, and contributions to the field of linguistics. The idea at the core of the paper – that word order in Danish verb-second clauses with VP anaphora is in part governed by the information-structural relation between the verb-second clause and the preceding linguistic material – was offered to me by Judith when I presented the very beginnings of the present work at a colloquium at UCSC in April 2008. For valuable criticism and discussion, I am also grateful to Maia Andréasson, Sandy Chung, Elisabet Engdahl, Dan Hardt, Heidi Harley, Sabine Iatridou, Paul Kay, Russell Lee-Goldman, Filippa Lindahl, Helge Lødrup, Emily Manetta, Jim McCloskey, Jason Merchant, Laura Michaelis-Cummings, Eric Potsdam, Chris Potts, Maziar Toosarvandani, Gregory Ward, Ken Wexler, and Bjarne Ørsnes; to Berkeley colleagues and students; to audiences at the 2009 LSA Annual Meeting, MIT, Stanford, UCLA, UCSC, and UCSD; and to three anonymous *Journal of Linguistics* reviewers. For judgments and discussion of individual examples, I am grateful to Liv Mikkelsen, Rikke Marie Mikkelsen, Christel Tarber, Bjarne Ørsnes, and 15 other Danish speakers. For help with the literature, I thank Ute Bohnacker, Gisbert Fanselow, Andrew Garrett, Sam Featherstone, Peter Juel Henriksen, Jenny Ström Herold, Klaus von Heusinger, Caroline Heycock, Lisbeth Falster Jakobsen, Per Anker Jensen, Elsi Kaiser, Philip Miller, Valéria Molnár, Johanna Nichols, Ken Ramshøj, Peter Sells, Ole Nedergaard Thomsen, Ib Ulbæk, Peter Widell, and Jan-Wouter Zwart. I thank Frans Gregersen for giving me access to the BySoc corpus of spoken Danish and Michael J. Houser for technical assistance in creating and maintaining a searchable database of attested examples of VP anaphora. Finally I owe special thanks to Christine Beier for her expert editorial assistance and to Richard Lawrence for his help with typesetting.

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the highest head position in the clause, and the initial constituent (XP) occupies the Specifier of C, which is projected to the left:[2]

(1) $[_{CP}\ XP\ V_{fin}\ [_{TP}\ \ldots]]$

Below C, we find TP which, among other things, is responsible for verbal inflection and the realization of subject, object, and other grammatical relations. Well-known word order differences between the Germanic V2 languages, most strikingly OV vs. VO order, are thus independent of V2 syntax, a point also made outside phrase-structural approaches to V2 (see Diderichsen 1966, Heltoft 1992a). While there have been a number of refinements to the basic analysis sketched in (1), it has proved remarkably robust and I will not challenge it here. My primary concerns are two questions that arise from (1), neither of which have been fully resolved in the literature to date.

The first question is whether there are grammatical restrictions on the choice of XP in declarative V2 clauses. The Danish topological-functional linguistics tradition (as represented by Diderichsen 1968; Hansen 1970, 1984; Heltoft 1986, 1992b; Thomsen 1996; Jakobsen 1998; Jørgensen 2000a) holds that the initial position is multifunctional, hosting unmarked themes (roughly, continuation topics), marked themes (contrastive topics), and rhemes (focus), but defaulting to subject. In the generative tradition there is little explicit discussion of this question, but the implicit consensus seems to be that there are no syntactic restrictions on the initial position in declaratives. If we do find distinctive patterns, they are not a matter of syntax, but of stylistics and text linguistics. In this paper I argue, based on the distribution of an overt Danish VP anaphor, that there are syntactic restrictions on the initial position of declarative V2 clauses, at least in Danish. In particular, I argue that information-structurally undistinguished elements, including expletives, cannot occupy the Specifier of CP, ruling out certain subject-initial V2 clauses. This argument challenges both the topological-functional view and the generative view and paves the way for a new understanding of the relationship between information structure and V2 syntax.

The second question is whether subject-initial V2 clauses also have the structure in (1), or whether such clauses lack the CP layer. This issue was explicitly debated in the 1980s and 1990s (Travis 1984, Schwartz & Vikner 1989, Travis 1991, Zwart 1991, Branigan 1996, Schwartz & Vikner 1996, Zwart 1997), but

[2] Accounting for V2 order was an early success story of Government and Binding Theory, starting with Hans den Besten's work on Dutch and German in the late 1970s (published as den Besten 1983; see especially pp. 54–69) and followed up by numerous researchers, including Tiersch (1978), Koopman (1984: 193–231), Travis (1984), Holmberg (1986), Platzack (1986a, b), Taraldsen (1986), Reinholtz (1989), Schwartz & Vikner (1989), Weerman (1989), Reinholtz (1990), Tomaselli (1990), Travis (1991), Zwart (1991), Holmberg & Platzack (1995: Chapter 3), Vikner (1995), Schwartz & Vikner (1996), and Zwart (1997). Important precursors to den Besten (1983) are Bach (1962) and Koster (1975).

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with no clear resolution. Based on the behavior of the Danish VP anaphor, I argue that some subject-initial clauses are just TPs, namely clauses with initial information-structurally undistinguished subjects. In contrast, subject-initial V2 clauses with information-structurally distinguished subjects are CPs. This view is compatible only with the analyses of V2 proposed in Travis (1984, 1991) and Zwart 1991 and this paper can be seen as developing these analyses further by explicating the information-structural conditions for subject fronting to Spec-CP.

From my examination of these two questions, I draw the larger conclusion that, at least in Danish, V2 syntax is bound up with information structure in a deep and particular way. Whereas some languages have been shown to have distinct positions for topic and focus (e.g. Mayan; Aissen 1992), Danish has a single position, Specifier of CP, which is restricted to information-structurally distinguished elements, but not dedicated to any particular information-structural function. This conclusion relates to Valéria Molnár's theory of C-linking (Molnár 2003, 2006), though my analytic interpretation is somewhat different. My proposal also relates to recent work by Bjarne Ørsnes on non-finite *do*-support in Danish (Ørsnes 2010). Ørsnes shows that the distribution of non-finite forms of the Danish dummy verb *gøre* interacts with the position of the VP anaphor examined in the present paper and attributes that in part to Spec-CP having a 'grammaticalized discourse function (either Topic or Focus)' in Danish (Ørsnes 2010: 12).

This paper also contributes to the understanding of VP anaphors, which are richly attested throughout the Germanic languages, but have been much less studied than VP ellipsis. The major conclusion that emerges on this front is that overt VP anaphors, by virtue of being overt, may interact with clausal syntax very differently from null VP anaphors (VP ellipsis). To my knowledge this observation has not played a role in any work on the typology of anaphora, including Hankamer & Sag (1976), Huang (2000), and Winkler (2005). The present study suggests that it should.

The paper is organized as follows. Section 2 lays out the relevant aspects of verb-second syntax. Section 3 introduces the Danish VP anaphor *det* and establishes two generalizations about its position in V2 clauses. Section 4 develops an analysis of these generalizations within the Minimalist framework and extends the analysis to VP anaphora in embedded clauses and to a word order alternation found with certain types of subjects. In Section 5 I articulate the consequences of this analysis for the analytical understanding of V2 and discuss some previous objections to asymmetric analyses of V2. Section 6 summarizes the results and identifies some avenues for further research.

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2. VERB-SECOND ORDER AND DANISH CLAUSE STRUCTURE

The Danish sentences in (2)–(8) are typical instantiations of V2:[3]

(2) **Hende** havde han jo genkendt forrige tirsdag. [direct object]
her had he indeed recognized last Tuesday
'He had recognized her last Tuesday.'

(3) **Fra hjern-en** kom de sjældent. [PP complement]
from brain-DEF came they rarely.
'They rarely came from the brain.'

(4) **Slagter-en** har du vel givet besked. [indirect object]
butcher-DEF have you ADV given word
'I take it that you have told the butcher.'

(5) **At hun også er den frygtelig-ste**, ved han ikke. [CP complement]
That she also is the terrifying-SUP knows he not
'He doesn't know that she is also the most terrifying one.'

(6) **Morsomt** fandt de det ikke. [predicate of a small clause]
funny found they it not.
'They didn't find it funny.'

(7) **Så meget** gentog verden sig vel ikke. [adverbial]
that much repeated world REFL ADV not
'One wouldn't think that the world would repeat itself that much.'

(8) **Sælge gård-en** ville de under ingen omstændigheder. [non-finite VP]
sell farm-DEF would they under no circumstances.
'They wouldn't sell the farm under any circumstances.'

As the right-margin annotations indicate, a wide range of elements can occupy the initial position. As far as I know, the only elements that cannot occupy the initial position in Danish V2 clauses are finite verbs and finite VPs, negation (*ikke*), and a handful of adverbs (*også* 'also', *jo* 'indeed', *skam* 'really', *sgu* ≈ 'damned', *da* 'surely'); see Jørgensen (2000a: 83).

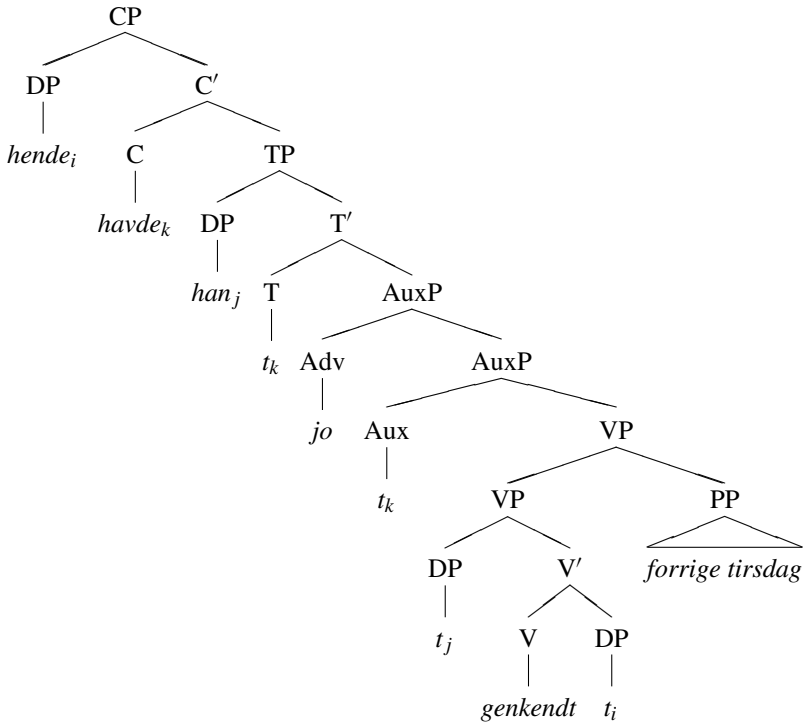
It is also worth noting that the finite verb in the second position can be an auxiliary, as in (2), (4), and (8), or a main verb, as in (3), (5), (6), and (7). Under the standard V2 analysis sketched in the Introduction, the example in (2) has the structure in (9).[4]

[3] I use the following abbreviations in the glosses: ADV = (unglossable) adverbial, DEF = definite, EXPL = expletive, PASS = passive, PRES = present, REFL = reflexive, SUP = superlative. I found it impossible to systematically convey the information structure of the Danish examples in my English translations, and I therefore decided to not attempt this at all, but instead to give simple translations that convey the basic, truth-conditional meaning of the Danish examples. Where relevant, the information structure of Danish examples will be discussed in the accompanying prose.

[4] Since it plays no role in my analysis, I leave out a little *v* layer above VP. I label the projection headed by the perfect auxiliary *have* Aux. Nothing hinges on this choice of label.

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(9)



Four aspects of this structure are important for what follows. First, the finite verb (*havde*) moves to C via T. Second, the direct object (*hende*) moves to the Specifier of CP from its base position as the sister of the main verb *genkendt*. Third, the subject (*han*) surfaces in the third position, immediately after the finite verb, since the Specifier of TP is the canonical subject position in Danish and the Specifier of TP is projected to the left, as are all Specifiers in Danish. This accounts for the position of the subject in all of (2) through (8). Lastly, negation and so-called medial adverbs, like *jo* ('indeed') in (9), left-adjoin to the complement of T. Movement to C is limited to the verb that heads the complement of T, and there is no independent movement of lower verbs. Consequently, non-finite main verbs follow medial adverbs, whereas finite main verbs precede them; compare the order *han jo genkendt* (= SUBJ ADV V) in (2) to *kom de sjældent* (= V SUBJ ADV) in (3).

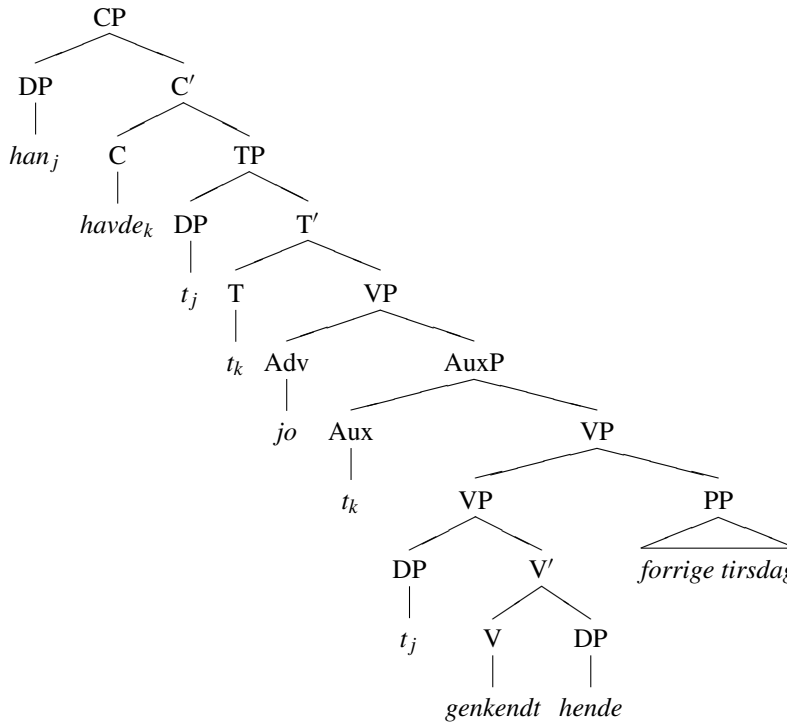
This much is relatively uncontroversial, though see Diesing (1990), Reinholtz (1990), and Rögnvaldsson & Thráinsson (1990) for dissenting views. Issues under active debate include the possible function and causes of V2 order (see e.g. Vikner 1995: 51–64; Brandner 2004; Zwart 2005), its origin (see e.g. Eythorsson 1995, Dewey 2006), and the loss of V2 order in English (Fischer et al. 2000: 104–137; Haeberli 2002). The open issue of most immediate relevance to present concerns is the structure of subject-initial V2 clauses, like (10).

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(10) Han havde jo genkendt hende forrige tirsdag.
he had indeed recognized her last Tuesday
'He had recognized her last Tuesday.'

If we apply the canonical analysis to (10), the result is the structure in (11).

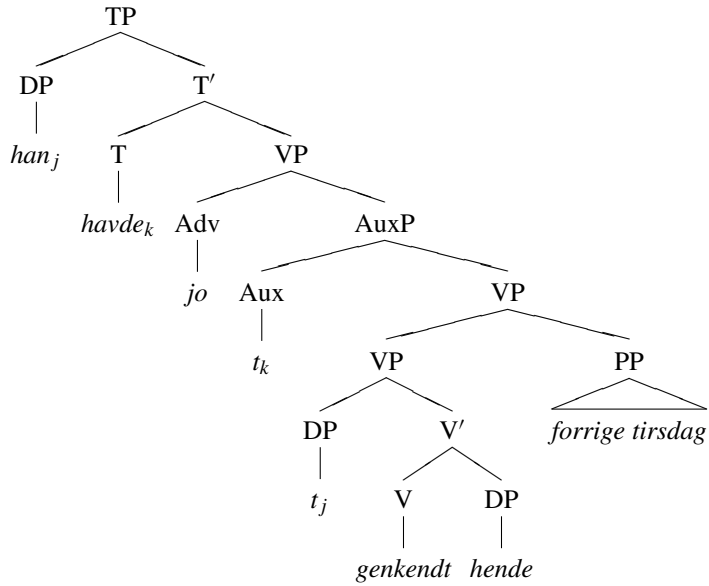
(11)



This is the UNIFORM CP ANALYSIS advocated, in various guises, by den Besten (1983), Koopman (1984), Holmberg (1986), Platzack (1986a, 1986b), Taraldsen (1986), Schwartz & Vikner (1989), Weerman (1989), Tomaselli (1990), Holmberg & Platzack (1995), Vikner (1995), Schwartz & Vikner (1996), and van Craenenbroeck & Haegeman (2007). Unlike (9) above, movement of *han* and *havde* into the CP domain is string vacuous, in the sense that the very same word order results if there is no movement to CP, as in the alternative structure in (12).

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(12)



This structure is associated with the ASYMMETRIC V2 ANALYSES developed by Travis (1984, 1991) and Zwart (1991, 1997);[5] see also Santelmann (1999) and Sells (2001: 16–22). These analyses are asymmetric, because subject-initial V2 clauses, analyzed as TPs, have a different structure than non-subject-initial V2 clauses, which are CPs.

In this paper, I advocate a third position for Danish: some subject-initial V2 clauses are CPs – the ones with INFORMATION-STRUCTURALLY DISTINGUISHED SUBJECTS; while some are just TPs – the ones with INFORMATION-STRUCTURALLY UNDISTINGUISHED SUBJECTS.

3. VP ANAPHOR *det*

This section introduces the Danish VP anaphor *det* and offers two descriptive generalizations about its surface position in verb-second clauses: *det* must appear in situ when the illocutionary force of the clause requires the Specifier of CP to be empty or occupied by an interrogative phrase (THE VP ANAPHORA IN SITU GENERALIZATION) and *det* cannot appear in situ when an information-structurally undistinguished subject occupies the initial position (THE VP ANAPHORA FRONTING GENERALIZATION). An analysis of these generalizations and Danish verb-second clauses is developed in Section 4.

[5] Travis labels TP IP, Zwart (1991) labels T INLF, and Zwart (1997) identifies TP as AgrSP. Whatever the label, the key point is that the projection that hosts the subject and the finite verb is smaller than CP.

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3.1 *Introducing VP det*

The VP-anaphoric construction of interest is exemplified in (13) below.[6] The VP anaphor is *det* and is homophonous with the third person singular neuter pronoun. In (13) *det* is a verbal proform (Houser et al. 2007), and I gloss it as DET throughout. The antecedent is the VP of the main clause ('emphasizes coaching') and through this anaphoric dependency the clause containing *det* (= the target clause) is interpreted as 'Aalborg doesn't emphasize coaching'.

(13) Esbjerg [satser på træner-side-n]$_i$, mens Aalborg ikke gør
Esbjerg emphasizes on coach-side-DEF while Aalborg not does
det$_i$. [P206]
DET
'Esbjerg emphasizes coaching, while Aalborg doesn't.'

Like English VP ellipsis, *det* is licensed by an auxiliary, including modals, the perfect auxiliaries *have* (have) and *være* (be), the passive auxiliary *blive* (become), and the dummy auxiliary *gøre* (do).[7] While overt VP anaphors are attested throughout Germanic languages, they have been studied much less than VP ellipsis. There is important early work on Swedish by Källgren & Prince 1989 and on Norwegian by Lødrup 1994 and, in the last decade, a surge of work on overt VP anaphors and their relation to VP ellipsis in various Germanic languages (López & Winkler 2000; van Craenenbroeck 2004; Winkler 2005: Chapter 3; Houser et al. 2007; Andréasson 2008, 2009; Herold 2009; Ørsnes 2010; Platzack 2012; Ørsnes 2013). To my knowledge, the present paper is the first to relate the positioning of a VP anaphor to the syntax of verb-second clauses.

From a language-internal perspective, there are also good reasons to study the Danish VP anaphor *det*. The anaphor is very common[8] and it is found in all clause types and all registers. It is also worth noting that unlike English *do it* and *do so*, which require their antecedent VP to be non-stative (Lakoff 1966, Kehler &

[6] Most of the data cited in this paper come from a database of 414 attested examples of VP anaphora, drawn from newspapers, magazines, fiction, radio, conversation, and existing corpora; see the Appendix for further details. Examples from the database are cited with their ID number, which is a P followed by a number between 1 and 414. Judgments on other examples come from 19 native Danish speakers residing in Denmark or the San Francisco Bay Area.

[7] The same form (*det*) is also licensed by possessive *have*, copula *være*, and inchoative *blive*. In these instances, *det* is standing in for a non-verbal predicate, specifically a PP, NP, or AP. The proform, however, obeys the same linear order generalizations with these licensors as with the auxiliary licensors, so I will assume that these are all instances of the same construction, which could more appropriately be called predicate anaphora, in line with Baltin's (1995) discussion of English VP ellipsis as predicate ellipsis. For consistency with the literature I continue to refer to *det* as a VP anaphor. The analysis of *gøre* as a dummy auxiliary is developed in Houser et al. (2011), though see also Ørsnes (2010), who argues that *gøre* is a raising verb.

[8] I counted all occurrences of the VP anaphor in the 2002 novel *Nordkraft* by Jakob Ejersbo. The novel is 423 pages and there were 180 instances of the VP anaphor. For comparison, there were 28 instances of VP ellipsis in the same novel.

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Ward 2004, Houser 2010), Danish *det* imposes no semantic restrictions on its antecedent.

In non-V2 clauses, such as the second clause in (13) above, there is only one clause-internal position for *det*, which is the position occupied by regular non-pronominal VPs in such clauses: immediately following the finite auxiliary, which is itself preceded by the subject, negation, and other medial adverbs. Thus in (13), we have the order subject–negation–auxiliary–*det*. I call this position for *det* the regular position. In verb-second clauses, however, there are three potential positions for *det*: regular position (14), object-shifted position (15), and fronted position (16).

(14) Så du en vindmølle, da du var i Turkana? spørger de. [P185]
saw you a windmill when you were in Turkana ask they
'Did you see a windmill when you were in Turkana?, they ask.'
– Selvfølgelig gjorde jeg ikke **det**.
of.course did I not DET
'Of course I didn't.'

(15) En del af dem klarer sig, andre gør **det** ikke. [P166]
a part of them manage REFL others do DET not
'Some of them make it, others don't.'

(16) De eskorterende soldater var rutinemæssigt faldet i søvn – **det** gør
the escorting soldiers be.PAST routinely fallen in sleep DET do
de jo. [P27]
they indeed
'The escorting soldiers had fallen asleep as by routine – they do that.'

In V2 clauses, the finite auxiliary moves to the second position and therefore need not immediately precede a *det* in the regular position. In (14), for example, the order is adverb–auxiliary–subject–negation–*det*. The key to diagnosing the regular position in such clauses is the position of *det* relative to negation and other medial adverbs. In (14) *det* follows negation, whereas in (15) *det* precedes negation. The latter is the object-shifted position. Finally, the fronted position has *det* immediately preceding the finite auxiliary, as in (16).[9]

My focus in this paper is on the interaction between VP anaphora and V2 syntax, in particular the conditions on fronting the VP anaphor to the initial position in V2 clauses. I will not be concerned with the difference between the regular and object-shifted positions and will refer to these collectively as the in

[9] There is no object shift in non-V2 clauses because object shift is conditioned by verb movement and there is no verb movement in non-V2 clauses. Fronted position is also unavailable for the VP anaphor, since all embedded topicalization triggers verb-second order. Hence there is only one clause-internal position for *det* in a non-V2 clause (see (13)). Extraction of *det* out of a non-V2 clause to the initial position of a higher V2 clause is sometimes possible; see examples in (47) and (48) in Section 4.3.

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situ position. (See Andréasson 2008, 2009; Bentzen et al. 2013; and Ørsnes 2013 for detailed discussion of object-shifted vs. regular position of VP-anaphoric *det* in the mainland Scandinavian languages.)

Table 1 offers a first indication that VP-anaphoric *det* interacts in a significant way with verb-second order. The GENERAL column gives the frequency of different constituents in the initial position in Danish V2 clauses generally and the VPA CLAUSES column gives the frequency for these constituents in the initial position in V2 clauses with VP anaphora.[10]

INITIAL	GENERAL	VPA CLAUSES
Subject	61%	23%
Adverbial	22%	16%
Object	9%	1%
Other	7%	60%

Table 1
Distribution of initial elements in Danish V2 clauses in general compared to V2 clauses with VP anaphora.

Comparing the two columns, we see that VPA clauses have radically fewer subjects in the initial position (23% vs. 61%), radically fewer objects (1% vs. 9%),[11] and slightly fewer adverbs (16% vs. 22%). Instead, VPA clauses have a dramatically higher rate of 'Other' initial constituents than V2 clauses generally (60% vs. 7%). Table 2 breaks down the 'Other' category into Empty, VP-anaphoric *det*, Object of preposition, and Remainder. The category Empty includes polar questions, imperatives, and verb-initial antecedents of conditionals. In all of these, there is no element in the initial position or, under certain analyses, there is an element, but that element is null.

The important thing to note in Table 2 is that in 53% of VPA clauses, the VP anaphor occupies the initial position. It is thus by far the most frequent initial element in such clauses, far outnumbering subjects (53% to 23%) and adverbials (53% to 16%). A natural interpretation of Table 2 is that VPA clauses have a very different distribution of elements in the initial position, because the VP anaphor itself is very frequent in this position. And yet *det* obviously does not have to occur in the initial position. In just under half of all VPA clauses it is not fronted.

[10] VPA abbreviates VP anaphora. Percentages do not necessarily sum to 100 due to rounding. Details on the quantitative study can be found in the Appendix.

[11] The possibility of objects in the initial position in VPA clauses (1% in the corpus) is not due to the extraction of an object out of the VP anaphor – in fact, that is ungrammatical (Houser et al. 2007) – but rather is due to one of two configurations: (i) an object is extracted out of an embedded clause across a VP anaphor in the matrix clause or (ii) the VP anaphor is in an embedded clause and the object of the matrix clause is extracted to the initial position, either by interrogative movement or topicalization.

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INITIAL	GENERAL	VPA CLAUSES
Subject	61%	23%
Adverb	22%	16%
Object	9%	1%
Empty	3%	7%
VP-anaphoric *det*	2%	**53%**
Object of preposition	1%	0%
Remainder	1%	0%

Table 2
Distribution of initial elements in Danish V2 clauses in general compared to V2 clauses with VP anaphora.

This is important, because one of the few previously published claims about the position of *det* is that it must front (Vikner 1988: 11, fn 5). The data reported in Table 2 contradict that claim.[12] The remainder of this section seeks to establish two generalizations about the position of *det* in V2 clauses. These generalizations, along with the analysis in Section 4, take us a long way toward explaining the quantitative patterns seen in Table 2, specifically the dramatic difference in the number of initial subjects in VPA clauses, as compared to V2 clauses generally.[13, 14]

[12] Vikner's claim is strictly about VP *det* licensed by a modal, whereas the proportions listed under VPA clauses in Table 2 include both modal and non-modal licensing auxiliaries. Examining the VPA corpus by a licensor reveals that VPA clauses with a modal licensing auxiliary do have a higher ratio of fronted anaphors, namely 62% (vs. 53% for all licensors), but even with modal auxiliaries fronting of the VP anaphor is in no way obligatory, contra Vikner (1988: 11).

[13] To be more precise, the syntactic analysis that follows predicts that *if* there is a difference in the proportion of subjects in the initial position in VPA clauses and all V2 clauses, then VPA clauses will have a *lower* ratio of subjects in the initial position, since the analysis posits a particular restriction on initial subjects in VPA clauses, which is absent in V2 clauses without VP anaphora. The actual size of the difference – and in particular, that the VP anaphor outnumbers subjects in the initial position of VPA clauses – does not follow from the proposed analysis. I thank a reviewer for prompting me to clarify this claim. To account for the actual frequencies of initial subjects in the two corpora (VPA clauses and all V2 clauses) one needs a text linguistic or discourse coherence analysis. To that end, Valéria Molnár's ideas about C-linking and cross-linguistic differences in how Spec-CP is utilized to establish discourse coherence offer an excellent starting point (Molnár 2003).

[14] The lower number of initial objects in VPA clauses (1% vs. 9%) follows from an independent restriction against A-bar extraction out of pronominal VPs. Houser et al. (2007) show this for constituent questions, and it is also true for topicalization and relativization. The data for comparatives is less clear (Dan Hardt, personal communication) and deserves further attention than I can give it here. Thus whenever we see a V2 construction that contains a VP anaphor and has an initial object, the VP anaphor and the object originated in different clauses within the larger V2 construction. I have found four such examples, corresponding to the 1% reported in Tables 1 and 2. See also the Appendix on how the initial position was determined for VPA clauses.

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3.2 *VP anaphor in situ*

Certain clause types require *det* to appear in situ. As I show below, this is the case for constituent questions, polar questions, imperatives, and antecedents of conditionals. I propose to unify these in terms of the generalization in (17).

(17) *VP Anaphor In Situ Generalization*
When the expression of illocutionary force makes demands on the initial position, VP-anaphoric *det* is possible only in a non-fronted, in situ position.

The proposal is that these clauses all use the initial position to signal their illocutionary force (question, command, and conditional), and that this eliminates the possibility of *det*-fronting to that position. In such clauses the VP anaphor appears in situ, which means either the regular (unshifted) position or the object-shifted position.

3.2.1 *Constituent questions*

In (18), the VP anaphor occurs in a subject question, and the only legitimate order is that in (18a), with the *wh*-word in the initial position and the anaphor in situ.

(18) Vi [trætte-s], men . . .
we tire-PASS.PRES but
'We get tired, but . . . '

(a) hvem gør ikke **det**! [P223]
who does not DET
'who doesn't!'

(b) ***det** gør hvem ikke!
DET does who not

The same is true for questions of manner, location, time, and reason. Object questions, which would require extraction out of the pronominal VP, are ungrammatical (see Houser et al. 2007: 3, 9–11 for data and analysis), so the question of word order in these is moot. The ungrammaticality of (18b) follows from two well-established facts: Danish constituent questions require *wh*-fronting and in a verb-second clause there is only one fronted position available, namely the Specifier of CP. Hence *det* cannot front in (18).

3.2.2 *Polar interrogatives*

Polar interrogatives also disallow fronting of *det*, as shown in (19).[15]

[15] Fronting of *det*, as in (19b), is grammatical as a declarative; it is interpreted as an assertion or a question depending on intonation.

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(19) Ja - febrilsk ædru og spurgte om jeg kunne [låne hende nogle
yes agitatedly sober and asked whether I could lend her some
penge].
money
'Yes, she was sober but agitated and asked whether I could lend her some money.'

(a) 'Gjorde du **det**?' spørger Mette. [P311]
did you DET asks Mette
'Did you?, Mette asks.'

(b) *'**Det** gjorde du?' spørger Mette.
DET did you asks Mette

The relevant factor here is that Danish polar interrogatives require a (phonologically) empty initial position and hence *det* cannot front. Some analyses assume that the initial position is empty in polar interrogatives (Diderichsen 1968: 162); others assume that the initial position is occupied by a null question operator (Vikner 1995: 49, following Baker's (1970) original analysis of English). The analysis I develop later in the paper is compatible with either assumption. The important point here is that the syntax of polar interrogatives makes demands on the initial position that preclude *det*-fronting. Hence *det* surfaces in situ, as shown in (19a).

3.2.3 *Imperatives*

Imperatives also disallow *det*-fronting, as (20) shows.

(20) '[Fortæl ham det og se, hvad der sker],' siger Lars. 'Nej,' siger
tell him it and see what there happens says Lars no says
Lisbeth.
Lisbeth
'Tell him and see what happens, Lars says. No, Lisbeth says.'

(a) 'Gør **det**. Ellers gør jeg det.' [P362]
do DET otherwise do I DET
'Do it or I'll do it.'

(b) *'**Det** gør. Ellers gør jeg det.'
DET do otherwise do I DET

Like polar questions imperatives are verb-initial and hence require an (phonologically) empty Spec-CP. Consequently, there is no room for *det* to front, which accounts for the ungrammaticality of (20b). Jensen (2007) argues that Danish imperatives are just TPs with a null subject and the finite verb in T. This structure also accounts for the observed verb-initial word order, but is incompatible with the analysis of the VP anaphor developed below, which requires *det* to be licensed by a C-head. The present paper thus provides an indirect argument in favor of the more standard view that imperatives, including Danish ones, are CPs. (See Potsdam 2007 and references cited there for details of the CP analysis.)

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3.2.4 *Conditionals*

Finally, *det*-fronting is prohibited in the antecedents of conditional constructions. Like polar questions and imperatives, the verb must be the first phonologically realized element of the clause, as shown by the contrast in (21).

(21) Et net af lytte-centraler skal oprette-s, og alle private
a net of listening-centers shall create-PASS and all private
internet-udbydere skal [installere systemer, der gør
internet-service.providers shall install systems that makes
overvågningen mulig.]
surveillance possible
'A web of listening stations are to be created and all private internet service providers are to install systems that allow for surveillance.'

(a) Gør de ikke **det**, kan ejer-en straffe-s med fængsel i op
do they not DET can owner-DEF punish-PASS with prison in up
til tre år. [P117]
to three years
'If they don't, the owner can be punished with up to three years in prison.'

(b) ***Det** gør de ikke, kan ejer-en …
DET do they not can owner-DEF

The syntax of conditionals requires an (phonologically) empty initial position in the antecedent clause. *Det*-fronting would target that initial position and hence cannot take place.

To summarize, these patterns can all be understood in terms of the established syntax of questions, imperatives, and conditionals. In each case, a hard syntactic requirement (empty/no Spec-CP or a *wh*-phrase in Spec-CP) precludes fronting of *det*. All we need to say is that *det* may surface in situ and the interaction with established syntactic principles will yield the attested restriction. This is as far as other accounts go (Andréasson 2008: 37–38; Herold 2009: 80, 125f, 160f; Ørsnes 2010: 16–17). What has not been observed, to my knowledge, is that there are also contexts that require fronting of *det*. I present several such cases in the next section.

3.3 *VP anaphor fronting*

The received wisdom about declarative V2 clauses in Germanic languages is that the choice of initial element is syntactically free, but is subject to discourse-pragmatic and textual requirements. This view is consistent with the quantitative data on the initial position in V2 clauses reported in Tables 1 and 2. Setting aside non-declaratives, we find subjects, various kinds of objects, adverbials, and VP-anaphoric *det* in the initial position. It is entirely possible that this distribution directly reflects discourse pragmatics, text structuring, and other

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patterns of language use. Superficially, the same is true of VPA clauses: if we set aside the kinds of non-declaratives analyzed above, we find the typical range of elements in the initial position: subjects, objects, and adverbials. However, when we examine individual V2 clauses with VPA, a striking pattern emerges. In VPA clauses with expletive subjects, the expletive cannot take the place of the anaphor in the initial position. In answers to polar questions, in generalizations, and in repetitions, the VP anaphor must likewise take the initial position over the subject, whether the subject is expletive or not. I propose that these patterns fall under the generalization in (22).

(22) *VP Anaphor Fronting Generalization*
In a verb-second clause with a VP anaphor, an information-structurally undistinguished subject cannot occupy the initial position, where information-structurally undistinguished subjects are either expletives or discourse-old subjects of an equally discourse-old predicate.

In Section 4, I propose an explanation of this generalization in terms of the structure of V2 clauses, the function of Spec-CP in such clauses, and the licensing requirements on VP anaphora. The remainder of the present section lays out the empirical evidence for the VP Anaphor Fronting Generalization (or the Fronting Generalization, for short), and unpacks the notion of an undistinguished subject. I first show that the Fronting Generalization holds for expletive subjects (Section 3.3.1) and that it is the right way to characterize the observed word order restriction in such clauses. Then, in Section 3.3.2, I turn to the other three environments listed above (22) – answers to polar questions, generalizations, and repetitions – which all involve discourse-old subjects of equally discourse-old predicates and show that they too obey the Fronting Generalization in (22). Section 3.4 considers and rejects a stronger version of the Fronting Generalization, before moving on to the analysis in Section 4.

3.3.1 *Expletive subjects*

Danish makes wide use of the subject expletive *der*, cognate with English *there*. While the expletive routinely occupies the initial position, as in the first clause of (23), VPA clauses do not allow an initial expletive (23b, c). Instead the VP anaphor must occur in the initial position (23a):

(23) Der skal bare [skinne overalt].
EXPL shall just shine everywhere
'Everything has to be squeaky clean.' (Lit. 'There must shine everywhere.')

(a) **Det** gør **der** også . . . [P137]
DET does EXPL also
'*And it is . . . '* (Lit. 'It does there too.')

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(b) *__Der__ gør __det__ også . . .
EXPL does DET also

(c) *__Der__ gør også __det__ . . .
EXPL does DET also

In (23b) the VP anaphor is object-shifted across the adverbial *også* (also) and in (23c) it is not, appearing instead in the regular position. Either order is impossible, showing that the source of the ungrammaticality is the initial expletive, not the object shift of *det* or lack thereof.[16] The pattern in (23) follows the Fronting Generalization in (22): the undistinguished subject (expletive *der*) cannot occupy the initial position at the expense of the VP anaphor (as it does in (23b) and (23c)), but the VP anaphor can surface in the initial position, as in (23a), relegating the expletive subject to the third position.

The Fronting Generalization is not dependent on the antecedent VP having an expletive subject, as (24) shows. Here the antecedent clause has the contentful subject 'many misunderstandings', whereas the target clause has the expletive subject *der*. The attested order is (24a) with the VP anaphor in the initial position. It is ungrammatical to have the expletive in the initial position, whether the VP proform is object-shifted or not (24b).

(24) Derved kunne mange misforståelser opstå, også af følelsesmæssig
thereby could many misunderstandings arise also of emotional
art. [P31]
kind
'In this way many misunderstandings could arise, also of an emotional nature.'

(a) __Det__ gør der for eksempel mellem denne roman-s to
DET does EXPL for example between this novel-POSS two
hoved-personer, . . .
main-characters
'As they do, for instance, between the two main characters of this novel, . . . '

(b) *Der gør (__det__) for eksempel (__det__) . . .
EXPL does DET for example DET

Neither is the Fronting Generalization specific to VP anaphora licensed by the dummy auxiliary *gøre*. We find the same pattern with all licensing auxiliaries, exemplified for the perfect auxiliary *have* in (25) and the passive auxiliary *blive* in (26).

[16] In the parallel examples below, I therefore collapse the regular and object-shifted order into one example with a parenthesized *det* in each of these positions.

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(25) Da jeg åbnede dør-en troede jeg først at der havde [været
when I opened door-DEF thought I first that EXPL had been
indbrud], men …
break.in but
'When I opened the door, I first thought that someone had broken into the house but …'

(a) **det** havde der heldigvis ikke.
DET had EXPL luckily not
'luckily that wasn't the case.'

(b) *der havde (**det**) heldigvis ikke (**det**).
EXPL had DET luckily not DET

(26) Arrangører-ne håbede på at der ville blive [solgt mange
organizers-DEF hoped on that EXPL would become sold many
billetter] og …
tickets and
'The organizers hoped that tickets would sell well and …'

(a) **det** blev der også.
DET became EXPL also
'they did.'

(b) *der blev (**det**) også (**det**).
EXPL became DET also DET

As (27) and (28) show, there is no such restriction on non-expletive subjects. In (27), the initial position can be occupied by the contentful subject *en anden* (someone else), as in (27b), which is the attested order, or by the VP anaphor (27a). In (28), the attested order has the VP anaphor initially (28a), but the subject-initial order in (28b) is also grammatical.[17]

[17] A reviewer finds (28b) 'not very good'. I consulted with a number of speakers on this issue and indeed some of them find the subject-initial word order infelicitous in this context. Others accept it, but point out that it is most natural if there is prosodic emphasis on *jeg* in the main clause of the antecedent and on *du* in the VPA clause. This observation supports my claim in Section 4.4 that the subject-initial order in (28b) is the result of construing the subject of the VPA clause as a contrastive focus. For speakers who accept both (28a) and (28b), (28) is an example of 'optionality' in the sense explored here. See also the discussion of example (52) in Section 4.4.

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(27) Vi kan ikke [fare rundt og spørge], det vil alle opdage og
we can not rush around and ask it will everyone discover and
undre sig over.
wonder REFL about
'We cannot run around asking questions. Everyone would notice it and wonder about it.'

(a) **Det** må en anden gøre.
DET must a other do
'Someone else has to do it.'

(b) En anden må gøre **det**. [P169]
a other must do DET
'Someone else has to do it.'

(28) 'Jeg [holder mig til de faktuelle hændelser, når jeg taler om
I hold REFL to the actual occurrences when I speak about
fortid-en] ...
past-PAST
"I stick to what actually happened when I speak about the past."

(a) **det** burde du også gøre,' siger han. [P381]
DET ought you also do says he
"You should too', he says.'

(b) du burde også gøre **det**,' siger han.
you ought also do DET says he
"You should too', he says.'

In each of these examples, the (a) and (b) versions of the VPA clause are truth-conditionally equivalent, though they differ subtly in their pragmatic relation to the antecedent clause, a point to which I will return briefly in Section 4.4.

A natural question to ask at this point is whether the ban on *det* in situ in (23)–(26) could be due to an independent property of expletive constructions, in particular the DEFINITENESS EFFECT (Milsark 1979), which is operative in Danish (Mikkelsen 2002). The definiteness effect refers to the general infelicity of definite NPs as pivots of expletive constructions. Personal pronouns are definite and generally infelicitous as pivots. VP-anaphoric *det* is an anaphoric proform, and it is possible that this makes VP *det* definite (though see Lødrup 1994). If so, the ban on *det* in the pivot (= in situ) position in (23)–(26) could be analyzed as a definiteness effect and as such not in need of independent explanation.

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Three considerations speak against this possibility. First, fronting of a definite pivot does not generally ameliorate the definiteness effect. Thus (29c) is as degraded as (29b).[18, 19]

(29) (a) Der sad **et egern** på rækværk-et.
EXPL sat a squirrel on fence-DEF
'There was a squirrel sitting on the fence.'

(b) #Der sad **egern-et** på rækværk-et.
EXPL sat squirrel-DEF on fence-DEF

(c) #**Egern-et** sad der på rækværk-et.
squirrel-DEF sat EXPL on fence-DEF

In contrast, fronting VP-anaphoric *det* in expletive clauses restores these to full grammaticality, as shown by examples (a) in (23)–(26).

Second, fronting something other than the pivot does not ameliorate the definiteness effect with NP pivots, as (30) shows. In contrast, fronting something other than the VP anaphor can restore expletive VPA clauses to full grammaticality. An example of this is (31), which is a possible continuation of (25) above.

(30) #På rækværk-et sad der egern-et.
on fence-DEF sat EXPL squirrel-DEF

(31) heldigvis havde der ikke det.
luckily had EXPL not DET
'luckily that wasn't the case.'

Even if these two differences between expletive clauses with definite NP pivots and expletive VPA clauses could be accounted for, there is a third reason not to analyze the ill-formedness of examples (b) in (23)–(26) as a definiteness effect. Danish has two other expletive constructions – weather clauses and extraposition structures – which are not associated with any definiteness effect and yet these constructions exhibit the exact same ordering restriction with VP anaphora as the expletive construction examined above.[20] An account of (23b)–(26b) above in terms of the definiteness effect would not extend to these expletive constructions, and would therefore miss a significant generalization.

[18] #indicates infelicity in a given context.

[19] The string in (29c) is grammatical with stress on *der*, but then *der* must be interpreted as a locative adverbial (there). Under that interpretation, *egernet* is in the subject position and we are no longer dealing with an expletive construction.

[20] The expletive used in weather clauses and extraposition structures is homophonous with the VP anaphor. Consequently, showing that the Fronting Generalization is obeyed in these structures is more involved, because these two kinds of *det* need to be disambiguated structurally. For reasons of space, I therefore omit the data here.

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3.3.2 *Discourse-old subjects*

The second type of information-structurally undistinguished subjects that are included in the Fronting Generalization are DISCOURSE-OLD SUBJECTS of equally DISCOURSE-OLD PREDICATES. Discourse-old entities are those that have been already mentioned in the prior discourse (Prince 1992: 11), as opposed to entities that are known to the hearer, and hence HEARER-OLD, but have not been mentioned in the current stretch of discourse.[21] Prince's work and subsequent work by Gregory Ward, Betty Birner, and others have demonstrated the relevance of discourse-oldness for a range of word order alternations in English and other languages, and the need to distinguish discourse-old/new from hearer-old/new (Prince 1981, 1992; Birner 1994; Ward & Birner 1995; Birner 1996; Birner & Ward 1996; Prince 1997; Birner & Ward 1998; Kaiser 2000; Miller 2001; Kaiser 2002).

Most of the pragmatic conditions on word order documented in this body of work involve a particular subpart of a clause having a particular information status for the non-canonical word order in question to be felicitous. The information-status condition included in the Fronting Generalization singles out clauses where subject and predicate are both discourse-old, and equally discourse-old. This situation arises when a clause is a repetition or near repetition of a previous utterance. Below I examine three such recurrent contexts: answer to polar questions, generalizations from prior statement of specific instances, and repetitions.

3.3.2.1 Answers to polar questions In matching (i.e. not over-informative; Kiefer 1980, Yadugiri 1986) answers to polar questions, a subject cannot take the initial position in place of a VP anaphor:

(32) Tjener! Bestilte jeg ikke en gin og tonic?
waiter ordered I not a gin and tonic
'Waiter, didn't I order a gin and tonic?'

(a) Jo, **det** gjorde De. [P131]
yes DET did you
'Yes, you did.'

(b) #Jo, De gjorde **det**.
yes you did DET

(c) Jo, De bestilte en gin og tonic.
yes you ordered a gin and tonic
'Yes, you ordered a gin and tonic.'

The subject in (32a&b) is information-structurally undistinguished, because both it and its predicate are rendered equally discourse-old by the question. The

[21] While it is technically the entities in the discourse model that are new or old, and not the linguistic expressions denoting these, I will extend the terminology to the linguistic expressions themselves. Thus, a discourse-old NP is one that refers to a discourse-old entity.

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Fronting Generalization in (22) thus rules out (32b), in which the undistinguished subject takes the initial position at the expense of the VP anaphor. The grammaticality of (32c) shows that undistinguished subjects can occupy the initial position if the VP is not pronominal. The same is true for expletive subjects (see the first clause of (23) above) and for undistinguished subjects in generalizations and repetitions (discussed below).

The example in (32) involves a direct question–answer exchange and one could imagine that this pragmatic fact could affect word order. In that light, it is relevant to observe that the word order restriction holds beyond direct question–answer exchanges. Thus we find it in direct answers to indirect questions (33), in indirect answers to direct questions (34), and in indirect answers to indirect questions (35).

(33) Jeg spørger bekymret, om han sørger for at lære sin kone dansk.
I ask concerned if he take.care for to teach POSS wife Danish
'I ask concerned, whether he is making sure to teach his wife Danish.'

(a) 'Nej, **det** gør jeg ikke; faktisk …' griner han … [P94]
no DET do I not actually laughs he
'No, I'm not, in fact [it's me that's learning a bit of Georgian], he laughs [and hesitates a little].'

(b) #'Nej, jeg gør (**det**) ikke (**det**); faktisk …' griner han …
no I do DET not DET actually laughs he

(34) Du er vel ikke blevet for fin til at more dig?
you be DP not become too fine to to enjoy REFL
'I trust you haven't become too high-class to have a good time?'

(a) **Det** var Kurt Victor ikke. [P148]
DET was Kurt Victor not
'Kurt Viktor hadn't.

(b) #Kurt Viktor var (**det**) ikke (**det**).
Kurt Viktor was DET not DET

(35) Morales spurgte en dreng på 7-8 år, om han havde fået sine
Morales asked a boy on 7-8 years if he has received POSS
børnepenge.
child.money
'Morales asked a boy who was 7 or 8 years old whether he had received his "child money."'

(a) **Det** havde han. [P41]
DET had he
'He had.'

(b) #Han havde **det**.
he had DET

The persistent infelicity of subject-initial order in (33)–(35) is accounted for by the Fronting Generalization, since in all of these answers, the subject and VP

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anaphor are made equally discourse-old by the question. Collectively, these data offer good evidence that the initial position is governed by discourse-oldness, not by a specific conversational interaction. This conclusion is further supported by the fact that we find the same pattern (no initial undistinguished subjects in VPA clauses) outside question–answer pairs.

3.3.3 *Generalizations*

Generalizations from a specific instance can also give rise to undistinguished subjects with VP anaphora, as seen in (36).

(36) Men Bush [sagde nej]. [P99]
but Bush said no
'But Bush said no.'

(a) **Det** gør han ofte.
DET does he often
'He often does.'

(b) #Han gør (**det**) ofte (**det**).
he does DET often DET

By virtue of the antecedent clause, the subject and predicate in (36a,b) are equally discourse-old. The Fronting Generalization thus correctly rules out (36b) where the undistinguished subject takes the initial position in place of the VP anaphor.

3.3.4 *Repetitions*

Perhaps the most straightforward case of contextually undistinguished subjects comes from repetition. Danish speakers often use VP anaphora in repetitions and here the anaphor must take the initial position over the subject, as the contrast between (37a) and (37b) shows.

(37) Men jeg [tilgiver ham på sted-et]. [P88]
but I forgive him on place-DEF
'But I forgive him on the spot.'

(a) **Det** gør jeg.
DET do I.
'I do.'

(b) #Jeg gør **det**.
I do DET

I conclude that undistinguished subjects cannot take the initial position in place of VP-anaphoric *det*, irrespective of whether the undistinguishedness is lexically determined (expletive subjects) or contextually determined (contentful subjects in matching answers to polar questions, generalizations, and repetitions). Putting the In Situ and Fronting Generalizations together, we arrive at (38).

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(38) (a) *VP Anaphor In Situ Generalization*
When the expression of illocutionary force makes demands on the initial position, VP-anaphoric *det* does not front.

(b) *VP Anaphor Fronting Generalization*
In a verb-second clause with a VP anaphor, an information-structurally undistinguished subject cannot occupy the initial position, where information-structurally undistinguished subjects are either expletives or discourse-old subjects of an equally discourse-old predicate.

It is the second generalization that helps explain why there are radically fewer initial subjects in VPA clauses than in V2 clauses in general (23% vs. 61%). The Fronting Generalization places no restrictions on subjects in V2 clauses generally, but it bans certain subjects from the initial position in VPA clauses (namely undistinguished subjects), thereby lowering the number of initial subjects in VPA clauses compared to V2 clauses generally.

3.4 *A hypothetical Fronting Generalization*

An important question to ask at this point is whether we can strengthen the Fronting Generalization to state that in a V2 clause with an undistinguished subject, the VP anaphor must occupy the initial position. Then we would have a nice symmetric account of the position of *det*: one condition that states when *det* cannot front (38a) and another that states when it must front. The short answer is no. Whether or not the VP anaphor must occupy the initial position in clauses with undistinguished subjects depends on what other elements are present in the clause. If there is another frontable element, e.g. a PP, a subordinate clause, or an adverb that is not inherently banned from the initial position, then it is possible to front that element instead of the VP anaphor, PROVIDED THAT IT FULFILLS REGULAR CONTEXTUAL, DISCOURSE, AND TEXT-PRAGMATIC REQUIREMENTS. Returning to the expletive examples in (23)–(26), we can observe the following. In (25), repeated here as (39), there is another frontable element in the target clause, namely, the adverb *heldigvis* (luckily). The pragmatic relation between antecedent and target clause can be mediated by this adverb in the initial position, and the adverb-initial order in (39c) is possible alongside (39a).

(39) Da jeg åbnede dør-en troede jeg først at der havde [været
when I opened door-DEF thought I first that EXPL had been
indbrud], men …
break.in but
'When I opened the door, I first thought that someone had broken into the house but …'

(a) **det** havde der heldigvis ikke.
DET had EXPL luckily not
'luckily that wasn't the case.'

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(b) *der havde (**det**) heldigvis ikke (**det**).
EXPL had DET luckily not DET

(c) heldigvis havde der ikke **det**. [= (31)]
luckily has EXPL not DET
'luckily there hadn't (been a break-in).'

In (39c), the VP anaphor occurs in situ with the undistinguished subject in the third position. The hypothetical generalization that VP *det* must front in the presence of an undistinguished subject would incorrectly rule out such constructions. They are allowed by the Fronting Generalization in (38b) because that generalization explicitly refers to the position of the undistinguished subject and only bans in situ VP anaphors when the undistinguished subject is in the initial position, as in (39b).

Similarly, the unabbreviated version of (23a) has a temporal subordinate clause following the adverb *også* (also). Such clauses can generally occur in the initial position and it would be grammatical, and felicitous, to have the temporal clause in place of the VP anaphor in the initial position in (23).

In (24), reproduced as (40) below, there are two candidates for the initial position: the PP *mellem denne romans to hovedpersoner* (between the two main characters of this novel) and the PP *for eksempel* (for example).

(40) Derved kunne mange misforståelser opstå, også af følelsesmæssig
thereby could many misunderstandings arise also of emotional
art. [P31]
kind
'In this way many misunderstandings could arise, also of an emotional nature.'

(a) **Det** gør der for eksempel mellem denne roman-s to
DET does EXPL for example between this novel-POSS two
hoved-personer, . . .
main-characters
'As they do, for instance, between the two main characters of this novel, . . . '

(b) *Der gør (**det**) for eksempel (**det**) . . .
EXPL does DET for example DET

(c) #Mellem denne roman-s to hoved-personer gør der **det**
between this novel-POSS two main-characters does EXPL DET
for eksempel . . .
for example

(d) #For eksempel gør der **det** mellem denne roman-s to
for example does EXPL DET between this novel-POSS two
hoved-personer . . .
main-characters

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Neither of these PPs are categorically banned from the initial position, but in the context of (40) it is quite odd to front either of them, as shown in (40c) and (40d). I am not in a position to fully explain why the initial PPs are not pragmatically well-formed in (40c,d), but I believe it is relevant that there is a paragraph break between the antecedent and target clauses in the original passage. I thus interpret (40) as a case where pragmatic considerations conspire to make fronting of the VP anaphor the only option, rather than a point in favor of a hypothetical requirement that a VP anaphor must front in a clause with an undistinguished subject.

Finally, in (26), repeated here as (41), there are no other frontable elements present in the VPA clause.

(41) Arrangører-ne håbede på at der ville blive [solgt mange
organizers-DEF hoped on that EXPL would become sold many
billetter] og …
tickets and
'The organizers hoped that tickets would sell well and …'

(a) **det** blev der også.
DET became EXPL also
'they did.'

(b) *der blev (**det**) også (**det**).
EXPL became DET also DET

(c) *også blev der **det**.
also became EXPL DET

(d) *blev der (**det**) også (**det**).
became EXPL DET also DET

In (41a–d) we have just the finite auxiliary *blev* (became) and the adverb *også* (also), in addition to the expletive and VP anaphor. *Også* is one of the handful of adverbs barred from the initial position (see p. 4), so fronting it results in ungrammaticality (41c). Similarly, a finite verb cannot occupy the initial position outside of the three environments discussed in Section 3.2. Hence (41d) is also ungrammatical on a declarative interpretation. Thus the only elements that are in principle frontable are the expletive and the VP anaphor, and here the Fronting Generalization prohibits the expletive from taking the initial position over the VP anaphor, leaving (41a) as the only possible word order. If viewed in isolation, (41) appears to suggest obligatory fronting of a VP anaphor with an undistinguished subject, but that is untenable given the grammaticality of examples like (39c). In contrast, (39c) is unproblematic for the real Fronting Generalization, and so are (41c) and (41d), since their ungrammaticality has nothing to do with the presence of the VP anaphor; the initial elements are categorically banned from the initial position whether the verb phrase is pronominal or not.

The upshot of this discussion is that obligatory fronting of *det* is epiphenomenal. This sets VPA clauses apart from constituent questions, polar questions, imperatives, and antecedents of conditionals. In a constituent question, the *wh*-phrase must occupy the initial position, no matter what other elements happen

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to be around in the clause[22] and in a polar question the initial position must be (phonologically) null or we have no polar question. Similarly, the initial position must be empty in imperatives and antecedents of conditionals. We cannot test to see which of these requirements is stronger, since we cannot combine a constituent question with a polar question nor with an imperative nor with the antecedent of a conditional. Each requirement is absolute and they never interact. The situation is interestingly different with VP-anaphoric *det*, because *det* is compatible with all clause types. Consequently, the positioning of VP *det* opens a new window on the inner workings of V2 syntax.

4. An analytical proposal

My account of the VPA In Situ and VPA Fronting Generalizations involves a particular analysis of verb-second syntax, which I couch in the Minimalist framework. Following Travis (1984, 1991) and Zwart (1991), I assume that Danish V2 clauses may be TPs or CPs. Verb-second TPs are necessarily subject-initial, since Spec-TP is reserved for subjects. Verb-second CPs, on the other hand, may be subject-initial or not, and require that the initial element bear a C-related function. C-related functions include expression of illocutionary force (specifically, interrogative, imperative, and conditional force), information-structural categories like topic and focus (of various kinds), and marking of the rhetorical relation to the previous clause (typically by adverbs). In structural terms, this means that all V2 Cs require a Specifier and all place some content requirement on that Specifier (that it be a *wh*-phrase, that it be a contrastive topic, that it signal a certain rhetorical relation, etc.). Concretely, I propose to implement this as a series of C items that differ in their selectional features, specifically the identity of the feature that triggers the movement of some element to Spec-CP. For example, the C used in constituent questions bears a strong uninterpretable *wh*-feature (*u*wh*) that triggers the movement of a phrase bearing a matching interpretable *wh*-feature to Spec-CP. Analogously, Danish has a V2 C containing a strong uninterpretable focus feature (*u*foc*) and that C attracts an element bearing a matching interpretable focus feature to Spec-CP.[23] If a C is used in a derivation where no element bears a matching interpretable feature, the derivation fails. Crucially, information-structurally undistinguished elements do not bear the kinds of interpretable features that are required by V2 Cs, and can therefore not be attracted to Spec-CP in a V2 clause. Collectively these assumptions about feature distribution encode the idea that, in Danish, Spec-CP is reserved for elements

[22] Multiple *wh*-questions complicate this statement in an obvious way, as do echo questions.

[23] The existence of uninterpretable features like *u*wh, *u*focus, and *u*topic, and their uninterpretable counterparts, is contested within the Minimalist Program. Chomsky advocates them in one of his early statements of the Minimalist Program (Chomsky 1993: 32), and they are in wide use. Others denounce them in favor of specialized projections (ForceP, FocP, TopP, etc.), following Rizzi (1997), or interface conditions (Chomsky 2008; Fanselow & Lenertova 2011). See also López 2009.

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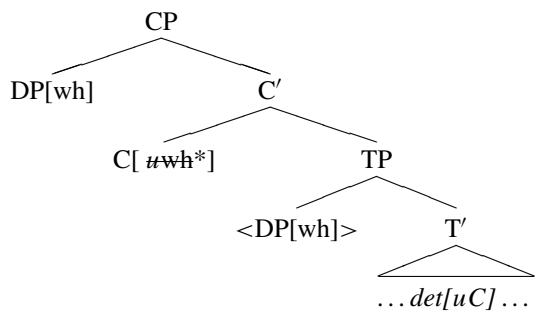
that serve some discourse-relevant function and elements that cannot serve such functions (either by nature or in the given context) are never realized in Spec-CP. In contrast, T places no discourse requirements on its Specifier. It just requires a nominal there to serve as the subject. Hence there are no information-structural requirements on the initial element in a V2 TP. Turning, finally, to the VP anaphor itself, I assume that it is inherently an ANAPHORIC TOPIC (cf. López & Winkler 2000), and as such is able to appear in Spec-CP, given the appropriate C, i.e. a C that bears an uninterpretable anaphoric topic feature, which I will annotate as *u*atop. In addition, VP *det* comes with a licensing requirement of its own: it must be licensed by a C. This requirement is independent of movement to Spec-CP. While only a C equipped with *u*atop* can attract VP *det* to the initial position, any C can license VP *det*. If C bears a selectional feature other than *u*atop, the licensing is done remotely, by Agree. If C bears *u*atop*, it can license *det* locally, following the movement of *det* to Spec-CP. I implement this licensing requirement as an uninterpretable C feature on *det* (*u*C). The feature is weak, which allows it to be checked in situ by Agree. Note that this is an instance of upwards Agree (in the sense of Baker 2008: 45ff), since the Goal (C) c-commands the Probe (*det*). With these assumptions in place we can turn to cases of *det* in situ and explain why the anaphor must surface in situ in these cases.

4.1 *Accounting for det in situ*

When a VP anaphor occurs in a constituent question, a polar question, an imperative, or the antecedent of a conditional, the anaphor must surface in situ. In presenting the relevant data (in Section 3.2), I suggested that this is because each of these constructions puts independent demands on the initial position, which conflict with fronting the VP anaphor; as a result the anaphor is prevented from fronting. We are now in a position to make that suggestion more concrete using the featural apparatus introduced above.

Constituent questions involve a C-head that bears *u*wh*. This feature attracts the *wh*-phrase to Spec-CP, yielding the schematic structure in (42) for a subject question with a VP anaphor:

(42)



What remains to be checked is the *u*C feature on the anaphor. The C-head checks this, using its category feature C. Since the *u*C on *det* is weak it is checked in situ

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by Agree. (Note that C c-commands the anaphor in (42).) Hence, *det* surfaces in situ. At this point we need to ask what would happen if, instead, we had a C with a *u*atop feature. Such a C would attract *det* to Spec-CP, leaving the subject *wh*-phrase in Spec-TP. The resulting word order (*det* Aux wh) is impossible, as demonstrated in Section 3.2. Depending on how we treat *wh*-phrases, there are two ways to account for this within my analysis. If *wh*-elements are distinguished only by an interpretable *wh*-feature and carry no uninterpretable features themselves, such structures are grammatically well-formed but semantically uninterpretable, since we have a question word (the *wh*-element) in a declarative clause (C[*u*atop] is declarative). Alternatively, *wh*-elements themselves carry an uninterpretable feature that must be checked by an interrogative C (that is, a C that carries the value Q for the clause-type feature). Since the C that carries [*u*atop] is declarative, the relevant feature on the *wh*-element cannot be checked and the derivation fails. To summarize, for semantic or syntactic reasons, the *wh*-element must be in an interrogative CP. The C that projects an interrogative CP attracts the *wh*-phrase to Spec-CP and hence the VP anaphor stays in situ.

The anaphor must also stay in situ in polar questions, imperatives, and antecedents of conditionals. In all of these, the initial position must be empty. Previous work has implemented this requirement in one of two ways: Spec-CP is occupied by a null element (an operator that carries the illocutionary force of the utterance) or Spec-CP is absent. I will not take a stand here on which analysis is correct (for which construction), since either is compatible with my account of VPA in situ. If these verb-initial constructions do indeed involve a null operator in Spec-CP, the account of VPA in situ is similar to that given for constituent questions above: the relevant C requires that the operator to occur in Spec-CP (through a specific selectional feature) and hence *det* cannot be fronted, but must surface in situ. If they do not involve null operators, then obligatory VP *det* in situ is accounted for as follows: C is present but lacks a selectional feature. The finite auxiliary is attracted to C, by whatever mechanism it normally is in V2 clauses, but since C has no selectional feature nothing is attracted to Spec-CP and these structures surface with an initial verb.[24]

4.2 *Accounting for the VPA Fronting Generalization*

In V2 clauses with an undistinguished subject, the subject cannot occupy the initial position at the expense of a VP anaphor. The VP anaphor itself, or some other frontable element, must take the initial position. This pattern is schematized for V2 clauses with an expletive subject and a frontable adverbial in (43).

[24] For imperatives, it has been argued that there is no CP layer (Jensen 2007). That view is incompatible with the analysis of VP-anaphoric *det* developed here, since, by hypothesis, *det* can only occur in a CP and *det* is licensed in imperatives; see also Section 3.2.3.

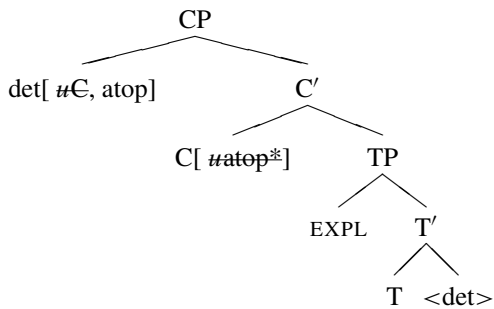
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(43) (a) DET V_{fin} EXPLETIVE Adv . . .
(b) Adv V_{fin} EXPLETIVE DET . . .
(c) *EXPLETIVE V_{fin} (Adv) DET . . .

The goal of this section is to account for this pattern using the analysis developed above for *det* in situ. I illustrate the analysis using expletive constructions and then extend it to the other, context-dependent, cases of obligatory fronting with undistinguished subjects.

We will first consider (43a), where the VP anaphor occupies the initial position. Since (43a) is not subject-initial, it is a V2 CP. C is in charge of attracting the VP anaphor to the initial position and it does that by way of a *u*atop* feature, which matches the discourse function of the VP anaphor (*det* is an anaphoric topic). The C-head licenses the VP anaphor by checking its *u*C feature, resulting in the structure below:

(44)



The order in (43b) comes about when a different C is chosen, one that attracts the adverbial to Spec-CP. C licenses the VP anaphor in situ by checking *u*C on *det* via Agree. As in (44), the expletive surfaces in Spec-TP.

The crux of the analysis is the explanation it offers for the ungrammaticality of (43c). This is a subject-initial V2 clause and as such could be either a TP or a CP. If it is a CP, the initial element must bear a C-relation function, since all V2 Cs require their Specifier to bear some C-related function. However, the expletive cannot bear any C-relation function: it is not a *wh*-word, it cannot be a topic or a focus, and it cannot express the rhetorical relation to the previous sentence. Hence, (43c) cannot be a well-formed CP. Expletives can occupy Spec-TP, so we need to consider the possibility that (43c) is a V2 TP. Here it becomes relevant that the clause contains VP-anaphoric *det*, which must be licensed by a C. If (43c) is a TP, there is no C to license *det* and the derivation fails due to an unchecked *u*C feature on *det*. Hence, (43c) cannot be a well-formed TP either. Consequently, there is no well-formed structure for (43c) and it is therefore ungrammatical.

Importantly, this analysis applies equally well to the other cases of undistinguished subjects presented above (answers to polar questions, generalizations, and repetitions). In each case, a C must be present to license VP-anaphoric *det*. Every V2 C requires an information-structurally distinguished Specifier; so no matter

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which C is involved it requires the initial element to bear a C-related function. However, the subject is information-structurally undistinguished and therefore cannot bear any such function and there is consequently no derivation that results in a subject-initial realization.

At this point we have accounted for the two generalizations established in Section 3. First, VP-anaphoric *det* cannot front in questions, imperatives, and antecedents of conditionals, since the C-head involved in these clause types makes contrary demands on the initial position. Second, an undistinguished subject cannot take the initial position at the expense of the VP anaphor, since VP anaphors only occur in CPs and undistinguished elements cannot occupy Spec-CP. This analysis makes a prediction about VP anaphora in embedded clauses, which I articulate and examine in the next section.

4.3 *VPA in embedded clauses*

If VP-anaphoric *det* can be licensed in situ by any and only C, and if expletive-initial V2 clauses are just TPs (because expletives cannot occupy Spec-CP), the possibility of VP-anaphoric *det* in a clause embedded inside an expletive-initial clause is predicted to depend on whether the embedded clause is a TP or a CP. In particular, we predict the following distribution:

(45) *[$_{TP}$ EXPLETIVE V_{fin} … [$_{TP}$ … DET]]

(46) [$_{TP}$ EXPLETIVE V_{fin} … [$_{CP}$ … DET]]

The structure in (45) is predicted to be ungrammatical because there is no C to license *det*, whereas (46) is predicted to be grammatical because the embedded clause contains a C that can license *det*. To test these predictions we need to identify constructions that have these structures.

4.3.1 *[$_{TP}$ … [$_{TP}$ …]] case*

A strong candidate for the C-less structure in (45) is a raising construction with a raised expletive subject and VP anaphora in the embedded clause, as in (47a, b).

(47) "Lad os gå en tur," sagde Klump, "så sker der nok
let us go a walk said Klump then happens EXPL probably
noget spændende.
something exciting
'Let's go for a walk, Klump said, then probably something exciting will happen.'

(a) *[$_{TP}$ Der plejer jo [$_{TP}$ at gøre **det**]]. [= (45)]
EXPL used.to indeed to do DET

(b) [$_{CP}$ **Det** plejer der jo [$_{TP}$ at gøre]].
DET used.to EXPL indeed to do
'As is usually the case.'

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The raising verb *plejer* has no verbal equivalent in English, but it is one of the most used raising predicates in Danish. The antecedent of the embedded VP anaphor is *sker noget spændende* ('happens something exciting') which takes an expletive subject. (The constituency of the antecedent VP is obscured by verb movement of *sker*.) In both (47a) and (47b), the expletive subject of the embedded clause has raised to the subject position of the matrix clause, i.e. Spec-TP. In (47b), the VP anaphor has also moved out of the embedded clause and surfaces in the sentence-initial position, preceding the finite raising verb. The result is a non-subject-initial V2 clause: some constituent other than the subject occupies the initial position (i.e. Spec-CP), the finite verb occupies the second position (i.e. C), and the subject appears in the third position (in Spec-TP). The movement of the VP anaphor to matrix Spec-CP is prompted by a *u*atop feature on matrix C. (The movement of the expletive to the matrix subject position is triggered by the regular EPP feature on matrix T, and will not concern us further here.) The VP anaphor is licensed by the matrix C and the derivation converges. This accounts for the grammaticality of (47b).[25]

Turning to (47a), first note that it is indeed ungrammatical as predicted if it instantiates the structure in (45). Following the logic of the previous section, we know that the matrix clause in (47a) is just a TP, since the expletive is initial in the matrix clause and expletives cannot occupy Spec-CP. The syntax of raising tells us that the embedded clause is also a TP (Chomsky 1981: 66 and much subsequent work) and hence (47a) instantiates the structure in (45). It is ungrammatical because the VP anaphor is not licensed. It can only be licensed by C (as encoded in the *u*C feature on *det*) but there is no C in this structure, only TPs.

[25] A reviewer questions whether VP-anaphoric *det* can ever be licensed in an embedded clause by a matrix C, citing the ill-formedness of (i) as a continuation of (47):

(i) *Her i byen plejer der jo at gøre det.
here in town used.to EXPL indeed to do DET
Intended: *'As is usually the case in this town.'*

In (i), the initial locative indicates the presence of a CP in the matrix clause, and thus there is a C present to license VP-anaphoric *det*, and yet the sentence is ill-formed. I do not at present have a good explanation of why (i) is ill-formed, though on the logic of the present proposal it would be a pragmatic issue, not a grammatical issue. Support for this interpretation comes from the well-formedness of the polar question in (ii), as a response to (47):

(ii) Plejer der at gøre det?
used.to EXPL to do DET
'Does that usually happen?'

Here the matrix raising verb *plejer* has moved to C to precede the expletive subject and form a polar question and VP-anaphoric *det* surfaces in the embedded clause. On the present account, the embedded VP anaphor in (ii) is licensed by the matrix C.

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4.3.2 *[$_{TP}$ ... [$_{CP}$ ...]] case*

The schematic structure in (46) is instantiated by expletive constructions with a CP complement to the N-head of an NP pivot.[26] As predicted, these are grammatical with VP-anaphoric *det* inside the complement clause to N, as in (48a):

(48) Hossein ligner overhovedet ikke en mand, der har behov for at
Hossein resembles at.all not a man who has need for to
[drage til Christiania som kurer] for at klare sig.
go to Christiania as courier for to manage REFL
'Hossein doesn't at all look like someone who needs to go to Cristiania as a courier to make a living.'

(a) [$_{TP}$ Der må være en anden grund til, [$_{CP}$ at han
EXPL must be a second reason to that he
gør **det**]]. [P248; cf. (46)]
does DET
'There must be some other reason for him to do it.'

(b) [$_{CP}$ **Det** må der være en anden grund til [$_{CP}$ at han gør.]
DET must there be a second reason to that he does
'There must be some other reason for him to do it.'

(c) *Der må være en anden grund til, [$_{CP}$ **det** at han gør].
EXPL must be a second reason to DET that he does

(d) *Der må være en anden grund til, [$_{CP}$ **det** gør han].
EXPL must be a second reason to DET does he

We know that the matrix clause in (48a) is a TP since it is expletive-initial. The embedded clause, however, is a CP; it is headed by the declarative complementizer *at* ('that').[27] The embedded clause is not a V2 clause; complement clauses to N never are. The verb stays in situ and nothing moves to Spec-CP; compare (48a) to the ungrammatical versions with *det*-fronting to embedded Spec-CP in (48c) and (48d). Consequently the leftmost element of the embedded clause is the complementizer *at*. Since *at* is a C, it can license VP *det*. In (48a) it does that by Agree.

Importantly, (48b) is also grammatical. In this structure, the VP anaphor has moved from the embedded clause to matrix Spec-CP. Unlike the fronting in (47b), this involves movement out of a complex NP and one might therefore expect a

[26] Clausal complements to indefinite Ns are preceded by a preposition in Danish, here *til* 'to' (Hankamer & Mikkelsen 2009).

[27] In writing, the declarative complementizer is indistinguishable from the infinitival marker *at* (used in (47a, b)). They are, however, pronounced differently. The complementizer is [æ], except in emphatic listings of CPs where it is [æd]. The infinitive marker, which I take to be a T, is a low rounded central vowel ([ɒ]), except utterance initially (as in English *To leave now is to give up.*), where it is [æd]. See Reinholtz (1990: 471) for relevant discussion.

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contrast between (47b) and (48b), in particular that (48b) be ungrammatical. Its grammaticality is consistent with observations by Erteschik-Shir (1973: 32–49) and Jakobsen (1996) that complex NPs are not generally islands in Danish. Thus, from a language-internal perspective there is nothing surprising about (48b) and in terms of my analysis of fronting, it works exactly like (47b): matrix C bears *u*atop and thereby attracts *det* to matrix Spec-CP. I include (48b) to rule out an alternative explanation for the grammaticality of (48a), one that would not offer as strong support for the analysis of the VP anaphor and Danish verb-second structures developed in the previous sections. Had (48b) been ungrammatical, one could potentially argue that (48a) is grammatical because there is no other way to express the relevant meaning (recall the ungrammaticality of both (48c) and (48d)). But (48b) **is** grammatical, ruling out this alternative explanation for the contrast between (48a) and (47a). Instead, I contend, the contrast between (48a) and (47a) follows from an independently motivated structural difference between complement clauses to N (they are CPs) and raising constructions (they involve an embedded TP). Together with the categorical licensing requirement of the VP anaphor (*det* must be licensed by a C), this structural difference produces the observed contrast.

There is one more alternative explanation that I would like to set aside.[28] In (47) the VP anaphor originates in a non-finite clause; in (48) it originates in a finite clause. If the VP anaphor could not surface in a non-finite clause, that would account equally well for the key contrast between (47a) and (48a). It would also account for the grammaticality of both (47b) and (48b), since, in both, the anaphor surfaces in a finite matrix clause. Examples like (49) rule out this explanation.

(49) Hun studerede mig kritisk et øjeblik og så ud til at godkende mig.
she studied me critically a moment and saw out to to approve me
'She studied me critically for a moment and appeared to approve of me.'

(a) Der var heller ingen grund til [ikke at gøre **det**]. [P191]
EXPL was also no reason to not to do DET
'There wasn't any reason not to.'

(b) **Det** var der heller ingen grund til ikke at gøre.
DET was EXPL also no reason to not to do
'There wasn't any reason not to.'

Like (48), (49) is an expletive construction in which the NP pivot contains a complement clause. However, in (49) the CP complement to N is non-finite, as shown by the inflection of the embedded verb (*gøre* is infinitive) and the lack of an overt subject; the subject is PRO_{arb}.[29] Again we cannot pin the grammaticality

[28] I thank Adrian Brasoveanu for raising this possibility.

[29] The PRO subject of a non-finite complement to N can also be controlled from a higher clause, as seen in the antecedent clause of (48). Here the PRO subject of *drage til Christiania som kurer* is controlled by the relative clause operator, which in turn is co-indexed with the external head of the relative clause, *en mand*.

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of (49a) on the lack of alternative ways of expressing the semantic content, since (49b), with fronting of *det* to matrix Spec-CP, is perfectly grammatical. If finiteness were the factor governing the surface position of the VP anaphor, we would expect (49) to pattern with (47), but it patterns with (48). This shows that it is syntactic category (C vs. T) that matters for licensing the VP anaphor, not finiteness.

4.4 *'Optional' fronting*

Recall from Section 3.3.1 that with non-expletive subjects, *det*-initial and subject-initial versions of a given V2 clause are sometimes both possible:

(50) Vi kan ikke [fare rundt og spørge], det vil alle opdage og
we can not rush around and ask it will everyone discover and
undre sig over.
wonder REFL about
'We cannot run around asking questions. Everyone would notice it and wonder about it.'

(a) **Det** må en anden gøre.
DET must a other do
'Someone else has to do it.'

(b) En anden må gøre **det**. [P169]
a other must do DET
'Someone else has to do it.'

(51) 'Jeg [holder mig til de faktuelle hændelser, når jeg taler om
I hold REFL to the actual occurrences when I speak about
fortid-en] . . .
past-DEF
"I stick to what actually happened when I speak about the past."

(a) **det** burde du også gøre,' siger han. [P381]
DET ought you also do says he
'You should too, he says.'

(b) du burde også gøre **det**,' siger han.
you ought also do DET says he
'You should too, he says.'

In (50), the attested order is (50b), with the subject in initial position, but (50a) with anaphor fronting is also possible. In (51), the attested order is (51a) with initial *det*, but the subject-initial order in (51b) is also possible. I propose to analyze this alternation as follows. In both examples, the subject of the target clause is contentful ('someone else' in (50) and 'you' in (51)) and may therefore take on an information-structural function. The linguistic context, specifically the antecedent clause, allows each subject to function as contrastive focus ('someone else' vs. 'we' in (50) and 'you' vs. 'I' in (51)). As a contrastive focus, the subject

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can occur in the Specifier of CP (given the appropriate C), as in (50b) and (51b). However, the linguistic context does not require initial focus; speakers have a choice about how to construe the relation between the two clauses. If they construe it contrastively, we get subject fronting. If they construe it anaphorically, we get *det*-fronting. Notice that under this analysis, (50b) and (51b) are CPs, despite being subject-initial.

For some attested examples, speakers differ in whether they allow the alternative order (see Table 7 in the Appendix). A typical example is given in (52).[30]

(52) En del af dem klarer sig,
a portion of them manage REFL
'Some of them manage,'
(a) %**det** gør andre ikke.
DET do others not
(b) andre gør **det** ikke. [P166]
others do DET not
'others don't.'

I interpret this variation as follows. Some speakers can only construe the relation between the clauses as one of contrasting two sets of individuals. This construal forces the order in (52b). Other speakers also allow an anaphoric relation between the two clauses and for these speakers both orders are possible. Clearly more work is needed to establish the factors that determine which clausal construals speakers allow. The important point here is that *det*-fronting is never truly optional; a clause with a fronted *det* places a different set of restrictions on its use in text and discourse than the same clause with *det* in situ.

5. Asymmetric verb-second order

My account of the word order generalizations governing the VP anaphor *det* requires that Danish V2 clauses come in two sizes: TP and CP. This is in line with the asymmetric V2 analyses developed by Travis (1984, 1991), Zwart (1991), and Sells (2001), but in direct conflict with the dominant analysis of verb-second order, which holds that all V2 clauses are CPs (den Besten 1983; Koopman 1984; Holmberg 1986; Platzack 1986a, b; Taraldsen 1986; Schwartz & Vikner 1996; Weerman 1989; Tomaselli 1990; Holmberg & Platzack 1995; Vikner 1995; Schwartz & Vikner 1996; Jouitteau 2008).[31] It is thus relevant to reexamine the empirical arguments advanced in favor of the uniform CP analysis over an asymmetric TP/CP analysis of V2. As far as I can tell, only four such arguments have been advanced for Mainland Scandinavian languages:[32]

[30] % indicates inter-speaker variation in acceptability. See fn. 17 for related discussion.

[31] It is equally in conflict with the minority views held by Branigan (1996) (subject-initial V2 clauses involve one less CP projection than other V2 clauses), Diesing (1990) (all V2 clauses are TPs), and Zwart (1997: 262–267) (all declarative subject-initial V2 clauses are AgrSP).

[32] There are many more arguments for German and Dutch, where the position of T is at issue, but these do not carry over to Danish, Norwegian, and Swedish, which are all VO languages.

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(1) Distribution of unstressed pronouns (Schwartz & Vikner 1996)
(2) Extraction from embedded V2 clauses (Holmberg 1986: 110ff)
(3) Position of finite V in clauses with *mon* (Vikner 1995: 45–46)
(4) Adjunction to TP (Schwartz & Vikner 1996)

I concentrate on arguments 3 and 4 here.[33]

5.1 *Mon clauses*

The argument from *mon* clauses targets the assumption that the finite verb may surface in T in V2 clauses, as it is claimed to do under the asymmetric analysis in subject-initial V2 clauses that are just TPs. *Mon* clauses, like (53), are relevant because they would seem to be main clauses with a lexical C. (*mon* has no direct correlate in English, but translates as 'I wonder'. Following Vikner 1995 I gloss it that way too.)

(53) Hvilke film mon børn-ene har set?
which.PL film I.wonder children-DEF have.PRES seen
'I wonder which films the children have seen.' (Vikner 1995: (29b))

If *mon* occupies C, we can make sense of the fact that in (53) *mon* sits between the *wh*-phrase and the subject. If *mon* is in C, that position is not available as a landing site for verb movement, but presumably T is available so we need to ask whether the finite verb is in V or T in (53). The relative position of the verb and negation in (54) shows that the verb is in V, not in T:

(54) Hvilke film mon børn-ene (*har) ikke har set?
which.PL film I.wonder children-DEF have.PRES not have.PRES seen
'I wonder which film the children haven't seen.'

This is unproblematic for the uniform CP analysis, because under that analysis V2 movement is always movement of V to C (via T) and if V cannot move to C (here because *mon* occupies C), then V cannot move at all. Under the asymmetric V2 analysis, on the other hand, V2 is movement of the finite verb to the highest head position of its clause, which is C in a V2 CP and T in a V2 TP. Moreover, the finite verb MUST move to this position in both V2 CP and V2 TP (otherwise, the verb would not necessarily surface in the second position). Thus, the asymmetric V2 analysis would seem to predict the starred position for *har* in (54). However, this argument only succeeds if *mon* is indeed a complementizer. In an unrelated paper on subject relative clauses (Vikner 1991), Sten Vikner advocates a different view

[33] Schwartz & Vikner (1996: 16–19) themselves show that (1) is only problematic if subject-initial V2 clauses with the subject in Spec-TP involve a null CP layer above TP and that assumption is not a necessary component of asymmetric analyses. In fact, Zwart (1997: 159) explicitly states that the CP level is not projected in such clauses, as does Travis (1991: 355). As for Holmberg's argument in (2), Schwartz & Vikner (1989: 35–44) show it is not valid for Mainland Scandinavian, though it is valid for German.

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of *mon*, originally due to Kristian Mikkelsen (1911: 582), namely that *mon* is a reduced verb form that introduces an embedded non-V2 clause, but no subject. Vikner (1991: 118–119) gives some diachronic support for this view, which I will not review here. The important point is that on this analysis of *mon*, (54) is a biclausal structure with *wh*-extraction out of the embedded clause. The string *børnene ikke har set* is an embedded clause of the non-V2 variety and therefore no verb movement is expected under any V2 analysis, including the asymmetric analysis.

5.2 *Adjunction to TP*

The argument from adjunction to TP starts from the observation that some V2 languages allow adverbs to intervene between C and the subject of a non-subject-initial V2 clause. This is illustrated for Swedish in (55), where the adverb *trots allt* intervenes between the finite verb in C (*vill*) and the subject (*Johan*). (This is example (4c) from Schwartz & Vikner 1996.)

(55) [$_{CP}$ De här böckerna vill trots allt [$_{TP}$ Johan inte läsa.]]
these here books will despite all Johan not read
'These books Johan won't read despite everything.'

Schwartz & Vikner (1996: 12) point out that such examples would seem to require adjunction of adverbs to TP. If subject-initial V2 clauses are TPs, we would expect adverbs to be able to adjoin to these, producing the ungrammatical word order in (56). This example is cited from Schwartz & Vikner (1996: (5)).

(56) *Trots allt Johan vill inte läsa de här böckerna.
despite all Johan will not read these here books

This is perhaps the strongest argument against the asymmetric V2 analysis (though see the response in Sells (2001: 19–21)). However, it does not actually apply to Danish. Haeberli (1999) shows that Germanic languages differ with respect to the availability of the adverb–subject order in (55). Among the North Germanic languages, Swedish (55) and Norwegian (57) allow adverb–subject order (as do most West Germanic languages), whereas Icelandic (58) and, crucially, Danish (59) do not (nor do West Flemish and Afrikaans).[34]

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[34] A reviewer brings to my attention that XP V*finite* ADV SUBJ order is attested in Danish with heavy subjects, citing the example in (i) from Jørgensen (2000b).

(i) I Rumle Hammerichs 'regeringstid' har således 39 instruktører og 46
in R. H. reign have thus 39 directors and 46
forfattere været involveret i produktionen i afdelingen …
writers been involved in production.DEF in department.DEF
'Thus during Rumle Hammerich's "reign" 39 directors and 46 writers have been involved in production in the department …'

I do not currently have an explanation for this.

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(57) Denne klokka hadde (seinere) min gamle far kjøpt.
this watch had later my old father bought
'This watch my father had bought later on.' (Haeberli 1999: (5c))

(58) Sennilega mun (*seinna) Jón kaupa sama úrið.
probably will later John buy same watch.DEF
Intended: *'Probably John will buy the same watch later on.'*
(Haeberli 1999: (5d))

(59) Dette ur vil (*senere) min far købe.
this watch will later my father buy
Intended: *'This watch my father will buy later on.'*
(Haeberli 1999: (5a))

In so far as there is no independent evidence that Danish allows adjunction to TP, the ungrammaticality of adjunction to a subject-initial Danish V2 clause, as in (60), is unproblematic under the asymmetric analysis:

(60) *Senere min far vil købe dette ur.
later my father will buy this watch
Intended: *'Later on my father will buy this watch.'*

The conclusion that emerges is this: none of the known arguments against the asymmetric V2 analysis holds for Danish. This is interesting for at least two reasons. First, it means that there are no outstanding problems for the analysis of Danish V2 proposed here. Second, while positional restrictions on overt VP anaphors in other Germanic V2 languages have not been systematically examined, there is preliminary evidence that the VPA Fronting Generalization proposed here for Danish does not hold throughout Mainland Scandinavian. Helge Lødrup provides the Norwegian examples in (61) and (62). In (61), the VP anaphor *det* occurs in a matching answer to a polar question and yet the undistinguished subject takes the first position, leaving *det* in situ (answer words like *ja* (yes) and *nei* (no) do not count for V2). In (62), the VP anaphor is in an expletive clause (62a) and, contrary to the Danish pattern, the VP anaphor may surface in situ (after the negation *ikke*) with an initial expletive subject.[35]

(61) (Kan du strikke?) Ja, jeg kan det.
(can you knit) yes I can DET
'Can you knit? Yes, I can.' (Lødrup 1994: (3))

[35] Norwegian and Swedish have only one expletive *det*, which is used where Danish uses expletive *det* and where Danish uses expletive *der*. In (62), the position of negation in the target clause shows that the first *det* is the expletive and the second *det* is the VP anaphor.

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(62) Har det skjedd noe spennende i det siste?
have.PRES EXPL happened anything exciting in the last
'Has anything exciting happened lately?'

(a) -Nei, det har ikke det.
no EXPL have.PRES not DET
'No, nothing exciting has happened.' Lit. 'No there has not it.'

This suggests that the exact information-structural restrictions on V2 structure detailed above might be particular to Danish and not shared by all or even any of the other Germanic V2 languages. This might seem like an undesirable result, but it is hardly unique. Much of the research on Germanic V2 in recent years has pointed to the same general conclusion: V2 across the Germanic languages, and across dialects of individual languages, is not as unified a phenomenon as we first thought. There are differences in the distribution of V2 in embedded clauses (Heycock 2005, Heycock et al. 2010), differences in the possibility of V3 in *wh*-questions (Westergaard & Vangsnes 2005, Westergaard 2009), differences in the movability of complex verbs (Vikner 2005), etc. Moreover, we know from the work of Bohnacker and Rosén that the Germanic languages differ in how the initial position is filled in language use (Bohnacker & Rosén 2008). The results of the present paper suggest that some of these usage and frequency differences might relate to structural and grammatical differences between the individual V2 languages.

From an analytical standpoint, one might object that the asymmetric V2 analysis splits V2 into two separate phenomena: a CP structure with the finite verb in C and a TP structure with the finite verb in T; this point is elaborated in Williams (1997: 267–268). Within a representational theory of syntax, like the Government and Binding Theory within which the original generative analysis of V2 was couched, that critique carries a certain heft. In a derivational theory like Minimalism, the issue presents itself somewhat differently, a point also made in Zwart (1997: 254). In both V2 structures the finite verb is in the highest head position of the V2 clause, namely, C if the V2 clause is a CP and T if it is a TP. Once we allow V2 clauses to be either CPs or TPs, the different positions for the finite verb will follow. Simplifying somewhat, a V2 TP is generated when the numeration contains no C; a V2 CP when it contains a C. If it does contain a C, that C will attract the finite verb from T to C. If the numeration contains no C, there is nothing to move V beyond T and the finite verb will surface in T.[36]

[36] As a reviewer points out, this generalization does not account for the lack of verb movement to T in non-verb-second clauses, which includes most types of embedded clauses. In these clauses there is no verb movement at all, whether the highest head is a C, which is generally the case, or a T, as in the case raising constructions.

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6. Conclusion

I will summarize the paper by highlighting four conclusions. First, while the initial position in Danish V2 clauses is multifunctional, there are more syntactic restrictions on this position than previously acknowledged. In particular, we can add declarative VPA clauses to questions, imperatives, and antecedents of conditionals, as clause types where the choice of initial element is restricted. Second, the analysis proposed to account for restrictions on the initial position in expletive constructions extends straightforwardly to cases of context-governed restrictions on the initial position, found in answers to polar questions, generalizations, and repetitions. I take this to be a real strength of the analysis. Third, Danish subject-initial V2 clauses are not structurally uniform: information-structurally differentiated ones are CPs, undifferentiated ones are TPs. Since TP is necessarily subject-initial, this explains why the initial position 'defaults to subject', as noted in the descriptive literature (see references in the Introduction). Fourth, V2 involves a different relationship between information structure and syntax than systems in which there are dedicated positions for topic and/or focus, such as Hungarian (Kiss 1998), Italian (Rizzi 1997), and Mayan (Aissen 1992). In Danish, Spec-CP must be occupied by an information-structurally distinguished element, but is not dedicated to a particular function.

There remain a number of open questions. Here I will focus on three that I find particularly important. The first question is whether the notion of an 'undistinguished subject' that is at the core of my proposal about Danish verb-second syntax has application outside of Danish. This is an especially pressing issue, since the two languages most closely related to Danish – Norwegian and Swedish – appear to differ from Danish with respect to information-structural conditions on the initial position in VPA clauses. As shown in examples (61) and (62) in Section 5, Norwegian allows initial undistinguished subjects in VPA clauses and the corresponding Swedish examples are also felicitous, provided that the auxiliary is stressed (Elisabet Engdahl, personal communication, March 7, 2013). These observations show that the syntax–information structure mapping proposed here for Danish does not hold, at least not in full detail, for Norwegian and Swedish. That of course does not entail that undistinguished subjects have no syntactic effects in Swedish and Norwegian, but I leave the investigation of such possible effects for future research.

Somewhat surprisingly, the most direct evidence for the syntactic relevance of undistinguished subjects in another Germanic language comes from English, which is Germanic, of course, but not V2. First, David Pesetsky points out the paradigm in (63)–(64), which shows an interaction between word order and distinguished (*Mary*) vs. undistinguished (*he*) subjects in clauses with the VP anaphor *so* (personal communication, September 16, 2011).

(63) I said John would be arrested and . . .

(a) so he was.

(b) #so Mary was.

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(64) John was arrested and so was Mary.

This paradigm cannot be explained in exactly the structural terms developed for Danish, since it does not revolve around undistinguished subjects in the initial position; the VP anaphor is initial in all three variations. Nonetheless, it does provide evidence that English syntax is sensitive to the notion of undistinguished subjects.

Intriguingly, there is evidence from language acquisition for a connection between undistinguished subjects and reduced clause structure in English. In recent work, Ken Wexler argues that the notion of undistinguished subjects developed in the present paper is relevant for understanding the omission of subjects in finite clauses in young children acquiring English (Wexler 2013). Wexler's argument starts from the observation that young children (up to six years of age) omit undistinguished subjects more frequently than they omit distinguished subjects. To account for this, he brings together the hypothesis developed in the present paper – that initial undistinguished subjects occur in structurally reduced clauses (namely, TPs) whereas initial distinguished subjects occur in CPs – with Rizzi's (1994) proposal that the root projection is special in child language in that it allows omission of material in its Specifier. Bringing these two ideas together, Wexler argues that children omit undistinguished subjects because subjects occur in the Specifier of TP and when the subject is undistinguished the clause is a TP and, as a root, the TP projection allows its Specifier to be dropped. Distinguished subjects also occur in Spec-TP but clauses with distinguished subjects project a CP above TP and thus the subject is not in the Specifier of the root and, by Rizzi (1994), cannot be omitted. If this explanation is on the right track, Wexler's observations provide striking confirmation of the syntactic relevance of the notion of information-structurally undistinguished subjects beyond the facts of Danish word order presented here.

Second, I have argued that discourse-oldness restricts the position of the VP anaphor, but I have said nothing about how discourse STRUCTURE might affect the position of VP *det*, though I think there are good reasons to suspect that it does play a role. For instance, López (2009) argues that left dislocation of anaphors in Romance is sensitive to discourse structure in that the clause containing the antecedent must be in a subordinated discourse relation to the clause containing the left-dislocated element (Asher & Vieu 2005). And Kehler (2000, 2002) shows that the derivation and interpretation of English VP ellipsis is sensitive to discourse structure, in particular Cause–Effect relations vs. Resemblance relations. Both are obvious directions for future research on Danish VP-anaphoric *det*.

A final open question is why VP-anaphoric *det* should require licensing by C.[37] Danish nominal anaphors do not require such licensing; they can occur in situ with undistinguished subjects. One could hypothesize that VP anaphora affects

[37] I thank Amy Rose Deal and Eric Potsdam for pushing me to think about this question.

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discourse – and ultimately syntax – differently because event tracking is different from tracking of individuals. However, Danish VP ellipsis also does not require licensing by C – VP ellipsis is possible with expletive clauses with an initial expletive – so it cannot simply be a matter of nominal vs. verbal. The possibility of VP ellipsis in the very environments where the VPA Fronting Generalization prohibits overt VP anaphora further suggests that overtness matters for V2 syntax in a fundamental way.

APPENDIX

The proportions of initial elements reported in Tables 1 and 2 were obtained in the following way.

V2 CLAUSES IN GENERAL. Surprisingly, there appears to be no comprehensive quantitative study of initial position in Danish V2 clauses. I therefore conducted a small pilot study and compared the results to existing comprehensive studies of Swedish and Norwegian, as well as to an existing pilot study of spoken Danish. I extracted samples from Danish newspapers, fiction, and spoken language. Each sample contained 250 V2 clauses. The newspaper sample was drawn from three articles in *Weekendavisen* (May 24–June 1, 2006), the fiction from Jakob Ejersbo's novel *Nordkraft* (published in 2002 by Gyldendal), and the spoken sample from the BySoc corpus, which contains transcriptions of sociolinguistic interviews. Counts of initial elements in those three samples are given in Table 3.[38]

	NEWSPAPER		FICTION		SPEECH		ALL SAMPLES	
Subject	158	(63%)	162	(65%)	140	(56%)	460	(61%)
Adverbial	72	(29%)	26	(10%)	69	(28%)	167	(22%)
Object[1]	8	(3%)	41	(16%)	21	(8%)	10	(9%)
Other	12	(5%)	21	(9%)	20	(8%)	53	(7%)

Table 3
Distribution of initial elements in Danish V2 clauses by genre.

Thomsen (1996) reports 57.5% subject-initial V2 clauses for spoken Danish in a corpus of 9002 words, which concurs with 56% initial subjects in my BySoc sample. He does not provide ratios for objects or adverbials. In general, the proportions are comparable to those reported for Swedish and Norwegian based on comprehensive corpus studies: subject (64%–73%, depending on genre),

[38] Of the 41 initial objects in the fiction sample, 34 are fronted objects of saying verbs. All 34 are direct speech. The comparatively high number of initial objects in the fiction sample is thus due to the source being dialogue-heavy.

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adverbials (23%–30%), and objects (2%–14%) (Bohnacker & Rosén 2008 and Ute Bohnacker, personal communication, March 30, 2009). These studies only considered declarative V2 clauses.

Table 4 represents the same samples, but differentiates the categories further. The category 'Null' includes polar questions, imperatives, and verb-initial antecedents of conditionals. In all of these, there is no element in the initial position or, under certain analyses, there is an element, but that element is a null operator.

INITIAL	NEWSPAPER		FICTION		SPEECH		ALL SAMPLES	
Subject	157	(63%)	162	(65%)	140	(56%)	459	(61%)
Subject-*wh*	1	(0%)	0	(0%)	0	(0%)	1	(0%)
Adverb	27	(11%)	16	(6%)	65	(26%)	108	(14%)
Adverb-*wh*	6	(2%)	2	(1%)	1	(0%)	9	(1%)
Adverbial PP	33	(13%)	7	(3%)	3	(1%)	43	(6%)
Adverbial CP	6	(2%)	1	(0%)	0	(0%)	7	(1%)
Object	7	(3%)	36	(14%)	20	(8%)	63	(8%)
Object-*wh*	1	(0%)	5	(2%)	1	(0%)	7	(1%)
Null	4	(2%)	16	(6%)	5	(2%)	25	(3%)
VP-anaphoric *det*	0	(0%)	1	(0%)	13	(5%)	14	(2%)
Object of preposition	2	(1%)	2	(1%)	2	(1%)	6	(1%)
Other	6	(2%)	2	(1%)	0	(0%)	8	(1%)

Table 4
Distribution of initial elements in Danish V2 clauses by genre.

VPA CLAUSES. The proportions of initial elements reported for VPA clauses represent a database of 414 instances of VP-anaphoric *det* gathered from corpora, newspapers, magazines, fiction, radio, and conversation. Seven of these were not contained in a V2 clause, but instead occurred in a fragment of some kind. These are not included in the counts below. The 407 tabulated examples include cases where *det* occurs as the predicate of the V2 clause itself, as well as cases where it is the predicate of a non-V2 clause embedded in a V2 clause. In cases where *det* occurs as the predicate of a V2 clause embedded in another V2 clause, the constituent in the initial position of the (most deeply) embedded V2 clause is counted. Table 5 shows the counts for the initial position, using just four broad categories.

Table 6 gives counts for initial position differentiating the categories further.

All VPA examples were further annotated as to whether fronting was obligatory, impossible, or optional, based on judgments from native speakers. If speakers disagreed or reported uncertainty, the example was annotated as 'fronting status unclear'. The result of this annotation is given in Table 7.

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INITIAL	VPA CLAUSES	
Subject	93	(23%)
Adverbial	67	(16%)
Object	3	(1%)
Other	244	(60%)

Table 5
Distribution of initial elements in Danish V2 clauses with VP anaphora.

INITIAL	VPA CLAUSES	
Subject	82	(20%)
Subject-*wh*	11	(3%)
Adverb	27	(7%)
Adverb-*wh*	25	(6%)
Adverbial PP	3	(1%)
Adverbial CP	12	(3%)
Object	3	(1%)
Object-*wh*	0	(0%)
Null	28	(7%)
VP-anaphoric *det*	216	(53%)
Object of preposition	0	(0%)
Other	0	(0%)

Table 6
Distribution of initial elements in Danish V2 clauses with VP anaphora.

FRONTING STATUS	VPA CLAUSES	
Fronting obligatory	152	(37%)
Fronting impossible	153	(38%)
Fronting optional	57	(14%)
Fronting status unclear	45	(11%)

Table 7
Speaker judgments on fronting of VP-anaphoric det in Danish V2 clauses.

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REFERENCES

Aissen, Judith. 1992. Topic and focus in Mayan. *Language* 68.1, 43–80.

Andréasson, Maia. 2008. Not all objects are born alike – accessibility as a key to pronominal object shift in Swedish and Danish. In Miriam Butt & Tracy Holloway King (eds.), *LFG08*, 26–45. Stanford, CA: CSLI.

Andréasson, Maia. 2009. Pronominal object shift – not just a matter of shifting or not. *Working Papers in Scandinavian Syntax* 84, 1–20.

Asher, Nicholas & Laure Vieu. 2005. Subordinating and coordinating discourse relations. *Lingua* 115.4, 591–610.

Bach, Emond. 1962. The order of elements in a transformational grammar of German. *Language* 38.3, 263–269.

Baker, C. L. 1970. Notes on the description of English questions: The role of an abstract questions morpheme. *Foundations of Language* 6, 197–219.

Baker, Mark C. 2008. *The syntax of agreement and concord*. Cambridge: Cambridge University Press.

Baltin, Mark R. 1995. Floating quantifiers, PRO, and predication. *Linguistic Inquiry* 26.2, 199–248.

Bentzen, Kristine, Jason Merchant & Peter Svenonius. 2013. Deep properties of surface pronouns: Pronominal predicate anaphors in Norwegian and German. *Journal of Comparative Germanic Linguistics* 16.2, 97–125.

den Besten, Hans. 1983. On the interaction of root transformations and lexical deletive rules. In Werner Abraham (ed.), *On the formal syntax of the Westgermania*, 47–131. Amsterdam: John Benjamins.

Birner, Betty. 1994. Information status and word order: An analysis of English inversion. *Language* 70.2, 233–259.

Birner, Betty. 1996. *The discourse function of inversion in English*. New York: Garland.

Birner, Betty & Gregory Ward. 1996. A crosslinguistic study of postposing in discourse. *Language and Speech* 39.2–3, 113–142.

Birner, Betty & Gregory Ward. 1998. *Information status and noncanonical word order in English*. Amsterdam: John Benjamins.

Bohnacker, Ute & Christina Rosén. 2008. The clause-initial position in L2 German declaratives. Transfer of information structure. *Studies of Second Language Acquisition* 30.4, 511–538.

Brandner, Ellen. 2004. Head-movement in minimalism, and V/2 as Force-marking. In Horst Lohnstein & Susanne Trissler (eds.), *Syntax and semantics of the left periphery*, 97–138. Berlin: de Gruyter.

Branigan, Philip. 1996. Verb-Second and the A-bar syntax of subjects. *Studia Linguistica* 50.1, 50–79.

Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.

Chomsky, Noam. 1993. A minimalist program for linguistic theory. In Kenneth Hale & Samuel Keyser (eds.), *The view from building 20*, 1–52. Cambridge, MA: MIT Press.

Chomsky, Noam. 2008. On phases. In Robert Friedin, Carlos P. Otero & Maria Luisa Zubizarreta (eds.), *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*, 133–166. Cambridge, MA: MIT Press.

van Craenenbroeck, Jeroen. 2004. *Ellipsis in Dutch dialects*. Ph.D. dissertation, Universiteit of Leiden.

van Craenenbroeck, Jeroen & Liliane Haegeman. 2007. The derivation of subject-initial V2. *Linguistic Inquiry* 38.1, 167–178.

Dewey, Tonya. 2006. *The origins and development of Germanic V2: Evidence from alliterative verse*. Ph.D. dissertation, University of California.

Diderichsen, Paul. 1966. Logische und topische gliederung des germanischen Satzes. In Paul Diderichsen (ed.), *Helhed og struktur*, 364–379. Copenhagen: G.E.C. Gads Forlag. [First published 1953.]

Diderichsen, Paul. 1968. *Elementær dansk grammatik*, 3rd edn. København: Gyldendal.

Diesing, Molly. 1990. Verb movement and the subject position in Yiddish. *Natural Language and Linguistic Theory* 8.1, 41–79.

Erteschik-Shir, Nomi. 1973. *On the nature of island constraints*. Ph.D. dissertation, MIT. [Distributed by Indiana University Linguistics Club, 1977.]

Eythorsson, Thorhallur. 1995. *Verbal syntax in the early Germanic languages*. Ph.D. dissertation, Cornell University.

Fanselow, Gisbert & Denisa Lenertová. 2011. Left peripheral focus: Mismatches between syntax and information structure. *Natural Language & Linguistic Theory* 29.1, 169–209.

https://doi.org/10.1017/S0022226715000055 Published online by Cambridge University Press

Fischer, Olga, Ans van Kemenade, Willem Koopman & Wim van der Wurff. 2000. *The syntax of early English*. Cambridge: Cambridge University Press.
Haeberli, Eric. 1999. On the word order 'XP-subject' in the Germanic languages. *The Journal of Comparative Germanic Linguistics* 3.1, 1–36.
Haeberli, Eric. 2002. Inflectional morphology and the loss of verb second in English. In David Lightfoot (ed.), *Syntactic effects of morphological change*, 88–106. Oxford: Oxford University Press.
Haider, Hubert & Martin Prinzhorn (eds.). 1986. *Verb second phenomena in Germanic languages*. Dordrecht: Foris.
Hankamer, Jorge & Line Mikkelsen. 2009. The structure of definite complex nominals (in Danish). Presented at the 83rd Annual Meeting of the Linguistic Society of America, San Francisco, 11 January, 2009.
Hankamer, Jorge & Ivan A. Sag. 1976. Deep and surface anaphora. *Linguistic Inquiry* 7.3, 391–428.
Hansen, Erik. 1970. Sætningsskema og verbalskemaer. *Nydanske Studier og Almen kommunikationsteori (NyS)* 2, 116–137.
Hansen, Erik. 1984. *Dæmonernes port*, 3rd edn. København: Reitzel.
Heltoft, Lars. 1986. Topologi og syntaks. En revision af Paul Diderichsens sætningsskema. *Nydanske Studier og Almen Kommunikationsteori (NyS)* 16/17, 105–130.
Heltoft, Lars. 1992a. Typologiens plads i en sprogteori. *Sprogvidenskabelige Arbejdspapirer fra Københavns Universitet* 2, 67–98.
Heltoft, Lars. 1992b. The typology of verb second and SVO languages: A study in the sign functions of word order. *Copenhagen Studies in Language* 15, 13–64.
Herold, Jenny Ström. 2009. *Proformen und Ellipsen. Zur syntax und diskurspragmatik prädikativer anaphern im Deutschen und im Schwedischen* (Lunder germanistische Forschungen 70). Lund: Lunds universitet.
Heycock, Caroline. 2005. Embedded root phenomena. In Martin Everaert & Henk van Riemsdijk (eds.), *The Blackwell companion to syntax,* vol. II, 174–209. Malden, MA: Blackwell.
Heycock, Caroline, Antonella Sorace & Zakaris Svabo Hansen. 2010. V-to-I and V2 in subordinate clauses: An investigation of Faroese in relation to Icelandic and Danish. *Journal of Comparative Germanic Linguistics* 13.1, 61–97.
Holmberg, Anders. 1986. *Word order and syntactic features in the Scandinavian languages*. Ph.D. dissertation, University of Stockholm.
Holmberg, Anders & Christer Platzack. 1995. *The role of inflection in Scandinavian syntax*. Oxford: Oxford University Press.
Houser, Michael J. 2010. *The syntax and semantics of* do so *anaphora*. Ph.D. dissertation, University of California.
Houser, Michael J., Line Mikkelsen & Maziar Toosarvandani. 2007. Verb phrase pronominalization in Danish: Deep or surface anaphora? In Erin Brainbridge & Brian Agbayani (eds.), *The Thirty-Fourth Western Conference on Linguistics*, 183–195.
Houser, Michael J., Line Mikkelsen & Maziar Toosarvandani. 2011. A defective auxiliary in Danish. *Journal of Germanic Linguistics* 23.3, 245–298.
Huang, Yan. 2000. *Anaphora: A cross-linguistics study* (Oxford Studies in Typology and Linguistic Theory). Oxford: Oxford University Press.
Jakobsen, Lisbeth Falster. 1996. Sentence intertwining in Danish, seen from a Functional Grammar perspective. In Betty Devriendt, Louis Goossens & Johan van der Auwera (eds.), *Complex structures: A functionalist perspective*, 61–92. Berlin: Mouton de Gruyter.
Jakobsen, Lisbeth Falster. 1998. Funktionel forståelse af fundamentfeltet. *Selskab for nordisk filologi, årsberetning 96–97*, 45–56. Copenhagen: Selskab for Nordisk Filologi.
Jensen, Britta. 2007. In favour of a truncated imperative clause structure: Evidence from adverbs. *Working Papers in Scandinavian Syntax* 80, 163–185.
Jørgensen, Henrik. 2000a. *Indføring i dansk syntaks*. Kompendium, Århus Universitet.
Jørgensen, Henrik. 2000b. Placement and scope of Mainland Scandinavian modal adverbs. In Carl-Erik Lindberg & Steffen Nordahl Lund (eds.), *17th Scandinavian Congress of Linguistics,* vol. 1 (Odense Working Papers in Language and Communication 19), 203–221.
Jouitteau, Mélanie. 2008. The Brythonic reconciliation. In Jeroen van Craenenbroeck (ed.), *Linguistic variation yearbook 2007*, 163–200. Amsterdam: John Benjamins.

https://doi.org/10.1017/S0022226715000055 Published online by Cambridge University Press

Kaiser, Elsi. 2000. The discourse functions and syntax of OSV word order in Finnish. In Arika Okrent & John Boyle (eds.), *CLS 36*, 179–194. Chicago: Chicago Linguistics Society.
Kaiser, Elsi. 2002. The syntax-pragmatics interface and Finnish ditransitive verbs. In Marjo van Koppen, Erica Thrift, Erik Jan van der Torre & Malte Zimmermann (eds.), *ConSOLE IX*. Leiden, Holland: Leiden University.
Källgren, Gunnell & Ellen Prince. 1989. Swedish VP-topicalization and Yiddish verb-topicalization. *Nordic Journal of Linguistics* 12, 47–58.
Kehler, Andrew. 2000. Coherence and the resolution of ellipsis. *Linguistics and Philosophy* 23.6, 533–575.
Kehler, Andrew. 2002. *Coherence, reference, and the theory of grammar*. Stanford, CA: CSLI Publications.
Kehler, Andrew & Gregory Ward. 2004. Constraints on ellipsis and event reference. In Laurence R. Horn & Gregory Ward (eds.), *The handbook of pragmatics*, 383–403. Oxford: Blackwell.
Kiefer, Ferenc. 1980. Yes-no questions as wh-questions. In John R. Searle, Ferenc Kiefer & Manfred Bierwish (eds.), *Speech act theory and pragmatics*, 97–119. Dordrecht: D. Reidel.
Kiss, Katalin É. 1998. Identificational focus versus information focus. *Language* 74.2, 245–273.
Koopman, Hilda. 1984. *The syntax of verbs*. Dordrecht: Foris.
Koster, Jan. 1975. Dutch as an SOV language. *Linguistic Analysis* 1, 111–136.
Lakoff, George. 1966. *Stative adjectives and verbs in English* (Tech. Rep.). Harvard University. In Mathematical linguistics and automatic translation, a report to the National Science Foundation.
Lødrup, Helge. 1994. 'Surface proforms' in Norwegian and the definiteness effect. In Mcree Gonzalez (ed.), *NELS 24*, 303–315. Amherst, MA: GLSA.
López, L. 2009. *A derivational syntax for information structure*. Oxford: Oxford University Press.
López, Luis & Susanne Winkler. 2000. Focus and topic in VP-anaphora constructions. *Linguistics* 38.4, 623–664.
Mikkelsen, Kr. 1911. *Dansk ordföjningslære*. København: Lehmann & Stages Forlag.
Mikkelsen, Line. 2002. Reanalyzing the definiteness effect: Evidence from Danish. *Working Papers in Scandinavian Syntax* 69, 1–75.
Miller, Philip. 2001. Discourse constraints on (non-)extraposition from subject in English. *Linguistics* 39.4, 683–701.
Milsark, Gary L. 1979. *Existential sentences in english*. New York: Garland. [Originally presented as the author's MIT dissertation 1974.]
Molnár, Valéria. 2003. 'C'. In Lars-Oluf Delsing, Cecilia Falk, Gunlög Josefsson & Halldór Á. Sigurdsson (eds.), *Grammatik i fokus: Festskrift till Christer Platzack den 18 november 2003,* vol. 2, 235–248. Lund: Institutionen för nordiska språk, Lunds universitet.
Molnár, Valéria. 2006. On different kinds of contrast. In Valéria Molnár & Susanne Winkler (eds.), *The architecture of focus* (Studies in Generative Grammar 82), 197–233. Berlin: Mouton de Gryuter.
Ørsnes, Bjarne. 2010. Non-finite *do*-support in Danish. In Olivier Bonami & Patricia Cabredo Hofherr (eds.), *Empirial issues in syntax and semantics* 8, 1–25.
Ørsnes, Bjarne. 2013. VP anaphors and object shift: What do VP anaphors reveal about the licensing conditions for object shift in Danish? *Nordic Journal of Linguistics* 36.2, 245–274.
Platzack, Christer. 1986a. COMP, INLF, and Germanic word order. In Lars Hellan & Kersti Koch Christensen (eds.), *Topics in Scandinavian syntax*, 185–234. Dordrecht: Reidel.
Platzack, Christer. 1986b. The position of the finite verb in Swedish. In Haider & Prinzhorn (eds.), 27–47.
Platzack, Christer. 2012. Cross Germanic variation in the realm of support verbs. In Peter Ackema, Rhona Alcorn, Caroline Heycock, Dany Jaspers, Jeroen van Craenenbroeck & Guido Vanden Wyngaerd (eds.), *Comparative Germanic syntax: The state of the art* (Linguistik Aktuell/Linguistics Today 191), 279–310. Amsterdam: John Benjamins.
Potsdam, Eric. 2007. Analysing word order in the English imperative. In Wim van der Wurff (ed.), *Imperative clauses in generative grammar*, 251–272. Amsterdam: John Benjamins.
Prince, Ellen. 1981. Toward a taxonomy of given-new information. In Peter Cole (ed.), *Radical pragmatics*, 223–256. New York: Academic Press.
Prince, Ellen. 1997. On the functions of left-dislocation in English discourse. In Akio Kamio (ed.), *Directions in functional linguistics*, 117–143. Philadelphia: Benjamins.

https://doi.org/10.1017/S0022226715000055 Published online by Cambridge University Press

Prince, Ellen F. 1992. The ZPG letter: Subjects, definiteness, and information-status. In William C. Mann & Sandra A. Thompson (eds.), *Discourse description: Diverse linguistic analyses of a fund-raising text*. Amsterdam: John Benjamins.
Reinholtz, Charlotte. 1989. V-2 in Mainland Scandinavian: Finite verb movement to AGR. *Working Papers in Scandinavian Syntax* 44, 101–117.
Reinholtz, Charlotte. 1990. Verb-second in Mainland Scandinavian: A reanalysis. In Aaron Halpern (ed.), *WCCFL 9*, 459–475. Stanford, CA: CSLI.
Rizzi, Luigi. 1994. Early null subjects and root null subjects. In Teun Hoekstra & Bonnie D. Schwartz (eds.), *Language acquisition studies in generative grammar*, 151–177. Amsterdam: John Benjamins.
Rizzi, Luigi. 1997. The fine structure of the left periphery. In Liliane Haegeman (ed.), *Elements of grammar: Handbook of generative syntax*, 281–337. Dordrecht: Kluwer.
Rögnvaldsson, Eiríkur & Höskuldur Thráinsson. 1990. On Icelandic word order once more. In Joan Maling & Annie Zaenen (eds.), *Modern Icelandic syntax*, 3–40. San Diego, CA: Academic Press.
Santelmann, Lynn. 1999. The acquisition of verb movement and spec-head relationships in child Swedish. In David Adger (ed.), *Specifiers: Minimalist perspectives*, 271–298. New York: Oxford University Press.
Schwartz, Bonnie D. & Sten Vikner. 1989. All verb second clauses are CPs. *Working Papers in Scandinavian Syntax* 43, 27–49.
Schwartz, Bonnie D. & Sten Vikner. 1996. The verb always leaves IP in V2 clauses. In Adriana Belletti & Luigi Rizzi (eds.), *Parameters and functional heads*, 11–62. Oxford: Oxford University Press.
Sells, Peter. 2001. *Structure, alignment, and optimality in Swedish*. Stanford, CA: CSLI.
Taraldsen, Tarald. 1986. On verb second and the functional content of syntactic categories. In Haider & Prinzhorn (eds.), 7–25.
Thomsen, Ole Nedergaard. 1996. Pronouns, word order, and prosody. *Acta Linguistica Hafniensia* 28, 131–138.
Tiersch, Craig L. 1978. *Topics in German Syntax*. Ph.D. dissertation, MIT.
Tomaselli, Alessandra. 1990. $COMP^0$ as a licensing head: An argument based on clitization. *Grammar in progress. GLOW essays for Henk van Riemsdijk*, 433–445. Dordercht: Foris.
Travis, Lisa. 1984. *Parameters and effects of word order variation*. Ph.D. dissertation, MIT.
Travis, Lisa. 1991. Parameters of phrase structure and verb second phenomena. In Robert Freidin (ed.), *Principles and parameters in comparative grammar*, 339–364. Cambridge, MA: MIT Press.
Vikner, Sten. 1988. Modals in Danish and event expressions. *Working Papers in Scandinavian Syntax* 39, 3–33.
Vikner, Sten. 1991. Relative *der* and other C^0 elements in Danish. *Lingua* 84, 109–136.
Vikner, Sten. 1995. *Verb movement and expletive subjects in the germanic languages*. Oxford: Oxford University Press.
Vikner, Sten. 2005. Immobile complex verbs in Germanic. *Journal of Comparative Germanic Linguistics* 8.1–2, 83–115.
Ward, Gregory & Betty Birner. 1995. Definiteness and the English existential. *Language* 71.4, 722–742.
Weerman, Fred. 1989. *The V2 conspiracy: A synchronic and a diachronic analysis of verbal positions in Germanic languages*. Dordrecht: Foris.
Westergaard, Marit. 2009. Microvariation as diachrony: A view from acquisition. *Journal of Comparative Germanic Linguistics* 12.1, 49–79.
Westergaard, Marit R. & Øystein A. Vangsnes. 2005. Wh-questions, V2, and the left periphery of three Norwegian dialect types. *Journal of Comparative Germanic Linguistics* 8.1–2, 119–160.
Wexler, Kenneth. 2013. A new theory of null-subjects of finite verbs in young children: Information structure meets phasal computation. In Misha Becker, John Grinstead & Jason Rothman (eds.), *Generative linguistics and acquisition. Studies in honor of Nina M. Hyams*, 325–356. Amsterdam: John Benjamins.
Williams, Edwin. 1997. Review of Jan-Wouter Zwart (1997), *The morphosyntax of verb movement: A minimalist approach to Dutch syntax*. Dordrecht: Kluwer. *Journal of Comparative Germanic Linguistics* 1.3, 263–272.
Winkler, Susanne. 2005. *Ellipsis and focus in generative grammar*. Berlin: Mouton de Gruyter.

https://doi.org/10.1017/S0022226715000055 Published online by Cambridge University Press

Yadugiri, M. A. 1986. Some pragmatic implications of the use of *yes* and *no* in response to *yes–no* questions. *Journal of Pragmatics* 10, 199–210.
Zwart, C. Jan-Wouter. 1997. *Morphosyntax of verb movement: A minimalist approach to the syntax of dutch*. Dordrecht: Kluwer.
Zwart, Jan-Wouter. 1991. Clitics in Dutch: Evidence for the position of INFL. *Groninger Arbeiten zur Germanistischen Linguistik* 33, 71–92.
Zwart, Jan-Wouter. 2005. Verb second as a function of Merge. In Marcel den Dikken & Christina Tortora (eds.), *The function of function words and functional categories*, 11–40. Amsterdam: John Benjamins.

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