Abstract
This talk will give an overview of the verb second (V2) phenomenon, as found in both main and embedded clauses in the Germanic languages, and it will also explore a particular derivation of (embedded) V2, in terms of a cP/CP-distinction.

All the Germanic languages except modern English (but including e.g. Old English) are V2, i.e. in all declarative main clauses and in all wh-questions, the finite verb is in the second position, regardless of whether the first position is occupied by the subject or by some other constituent. This can be extended to yes/no-questions, provided it is assumed that the first position in such questions is empty (and such an assumption is supported by the fact that it allows an account for Greenberg’s 1963:83 “Universal 11”, cf. Vikner 2007).

As far as embedded clauses in the Germanic languages are concerned, V2 is never obligatory, and although it is optionally possible in many embedded clauses, this is not the case for all types of embedded clauses, as e.g. embedded questions never allow V2 (Julien 2007, Vikner 2001).

I will explore a particular derivation of (embedded) V2, in terms of a cP/CP-distinction, which may be seen as a version of the CP-recursion analysis (de Haan & Weerman 1986, Vikner 1995 and many others). This analysis will be compared to a fine-grained left periphery approach (Rizzi 1997, Wiklund et al. 2007, Julien 2015, and many others).

The idea is that because embedded V2 clauses do not allow extraction, whereas other types of CP-recursion clauses do (Christensen et al. 2013a,b), CP-recursion in embedded V2 is assumed to be fundamentally different from other kinds of CP-recursion, in that main clause V2 and embedded V2 involve a CP (“big CP”), whereas other clausal projections above IP are instances of cP (“little cP”).
1. Verb second (V2)

1.1 V2 in main clauses in general

All Germanic languages (with the single exception of Modern English) are "verb second" (V2), in that the finite verb always occupies the second position in the main clause (and in some embedded clauses too). In other words, in main clauses, the subject position may be preceded both by the finite verb and by some maximal projection.

(1) \text{Verb second} = V2

\begin{center}
\begin{array}{ccc}
1 & \text{one constituent} & - \\
2 & \text{the finite verb} & - \\
3 & \text{the rest of the clause} & \\
\end{array}
\end{center}

Den Besten (1977) was the first to suggest an analysis that found its canonical form in Platzack (1985) and Chomsky (1986:6), as double movement of some XP into CP-spec and of the finite verb into C°:

(2)

\begin{center}
\begin{tikzpicture}[level distance=1.5cm,level 1/.style={sibling distance=3cm}]% This is a tree diagram
  \node {XP} % Root node
    child {node {IP} % Child node
      child {node {DP} % Grandchild node
        child {node {I°} % Great-grandchild node
          child {node {VP} % Great-great-grandchild node
            child {node {V°} % Great-great-great-grandchild node
              child {node {V2}}}}}}
    child {node {CP}}
\end{tikzpicture}
\end{center}

In order to find out whether a language is V2, we have to examine main clauses, but not subject-initial ones, because here even English and French might appear to be V2:

(3) a. Da. Peter har sandsynligvis læst den her bog.
b. Ic. Pétur hefur sennilega lesið þessa bók.
c. Ge. Peter hat wahrscheinlich dieses Buch gelesen.
d. En. Peter has probably read this book.
e. Fr. Il a probablement lu ce livre.

This is an illusion, however. Only in (3)a,b,c, does the subject occupy CP-Spec and the finite verb C°, whereas in (3)d,e, the subject presumably occupies IP-Spec and the finite verb I°.

We also cannot rely on wh-initial-clauses (clauses that begin with a question element) when you test for V2, as even English and French have V2 in main clause questions, as seen in (4).

(4) a. Da. Hvad for en bog har Peter læst ?
b. Ic. Hvaða bók hefur Pétur lesið ?
c. Ge. Welches Buch hat Peter gelesen?
d. En. Which book has Peter read ?
e. Fr. Quel livre a-t-il lu ?
We need to consider non-subject-initial and non-wh-initial clauses, as in (5) & (6). Here it is clear that only the Germanic languages (with the exception of modern English) are "real" V2 languages.

Rizzi (1996:64) refers to modern English and modern French as languages with "residual V2", because "real" V2 was fairly widespread in Old English, (7)a, and Old French, (8), less so in Middle English, (9), and Middle French, (10), and it is fairly limited in modern English and modern French (where it mainly occurs in main clause questions like (4)). For more detail on the loss of V2 in English, see Fischer et al. (2000:104-137).

<table>
<thead>
<tr>
<th>CP-Spec</th>
<th>C°</th>
<th>IP</th>
</tr>
</thead>
<tbody>
<tr>
<td>(7) a.</td>
<td>OE</td>
<td>Hine</td>
</tr>
<tr>
<td>b.</td>
<td>En. *</td>
<td>This man</td>
</tr>
<tr>
<td>c.</td>
<td>En.</td>
<td>This man</td>
</tr>
<tr>
<td>d.</td>
<td>Ge.</td>
<td>Ihn</td>
</tr>
<tr>
<td>e.</td>
<td>Ge. *</td>
<td>Ihn</td>
</tr>
<tr>
<td>f.</td>
<td>Da.</td>
<td>Ham</td>
</tr>
<tr>
<td>g.</td>
<td>Da. *</td>
<td>Ham</td>
</tr>
<tr>
<td>j.</td>
<td>Ic.</td>
<td>Hana</td>
</tr>
<tr>
<td>i.</td>
<td>Ic. *</td>
<td>Hana</td>
</tr>
<tr>
<td>(8)</td>
<td>OF.</td>
<td>Longuement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long</td>
</tr>
<tr>
<td>(9)</td>
<td>ME.</td>
<td>Thanne</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Then</td>
</tr>
<tr>
<td>(10)</td>
<td>MF.</td>
<td>Si</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thus</td>
</tr>
</tbody>
</table>

(7)a = ca. 1140, *the Peterborough Chronicles*, Shores (1971:91)
The single CP-analysis of V2, (2), is thus that the finite verb in V2 main clauses occupies the same position that the complementiser (e.g. *that, if, because*) occupies in an embedded clause, namely C°:

<table>
<thead>
<tr>
<th>CP-Spec</th>
<th>C°</th>
<th>IP</th>
</tr>
</thead>
<tbody>
<tr>
<td>(11) En. a. ...</td>
<td>that</td>
<td>the children have not seen this film.</td>
</tr>
<tr>
<td>b. Only this film</td>
<td>have</td>
<td>the children ____ not seen _________.</td>
</tr>
<tr>
<td>(12) Da. a. ...</td>
<td>at</td>
<td>børnene har set den her film.</td>
</tr>
<tr>
<td>b. Denne film</td>
<td>har</td>
<td>børnene __ set ___________.</td>
</tr>
<tr>
<td>(13) Ic. a. ...</td>
<td>að</td>
<td>börnin hafa séð þessa mynd.</td>
</tr>
<tr>
<td>b. Pessa mynd</td>
<td>hafa</td>
<td>börnin ___ séð _________.</td>
</tr>
<tr>
<td>(14) Ge. a. ...</td>
<td>dass</td>
<td>die Kinder diesen Film gesehen haben.</td>
</tr>
<tr>
<td>b. Diesen Film</td>
<td>haben</td>
<td>die Kinder ________ gesehen ______.</td>
</tr>
</tbody>
</table>

A further indication that the finite verb in main clauses occupies the same position as the complementiser does in embedded clauses may be found in conditional clauses, where the subject is preceded **either** by a complementiser (e.g. *if*) **or** by the finite verb (e.g. *had*), but **not** by both:

<table>
<thead>
<tr>
<th>C°</th>
</tr>
</thead>
<tbody>
<tr>
<td>(15) En. a. If</td>
</tr>
<tr>
<td>Da. b. Hvis</td>
</tr>
<tr>
<td>Ic. c. Ef</td>
</tr>
<tr>
<td>Ge. d. Wenn</td>
</tr>
<tr>
<td>(16) En. a. Had</td>
</tr>
<tr>
<td>Da. b. Havde</td>
</tr>
<tr>
<td>Ic. c. Hefði</td>
</tr>
<tr>
<td>Ge. d. Hätte</td>
</tr>
<tr>
<td>(17) En. a. * Had if</td>
</tr>
<tr>
<td>Da. b. * Havde hvis</td>
</tr>
<tr>
<td>Ic. c. * Hefði ef</td>
</tr>
<tr>
<td>Ge. d. * Hätte wenn</td>
</tr>
<tr>
<td>(18) En. a. * If had</td>
</tr>
<tr>
<td>Da. b. * Hvis havde</td>
</tr>
<tr>
<td>Ic. c. * Ef hefði</td>
</tr>
<tr>
<td>Ge. d. * Wenn hätte</td>
</tr>
</tbody>
</table>

En. ... I would have made an even longer hand-out.  
Da. ... ville jeg have lavet et endnu længere hand-out.  
Ic. ... myndi ég hafa gert ennþá lengri úthendu.  
Ge. ... hätte ich ein noch längeres Thesenpapier gemacht.
Here is how V2 works in three Danish main clauses under the single CP-analysis of V2 in (2) (with the added assumption of the subject being base-generated in VP-spec):

(19) Da. a.

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(19) a. = 
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b.

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(19) b. = 
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c. 

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(19) c. = 
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a. = *Erik* eats *never* *cheese*
b. = *Cheese* eats *Erik* *never*
c. = *Maybe* eats *Erik* *never* *cheese*
1.2 V2 in English main clauses

As some of the examples above show, English has to have V2 in main clause questions, even though it is the only Germanic language not to have V2 in all main clauses:

(20) a. En. Which book has Peter ___ read _____ _____ ?
    b. En. * Which book has Peter ___ læst _____ _____ ?
    c. Da. Hvad for en bog har Peter ___ læst _____ _____ ?
    d. Ic. Hvaða bók hefur Pétur ___ lesið _____ _____ ?
    e. Ge. Welches Buch hat Peter _____ _____ gelesen ___ ?

(21) a. En. Why has Peter ___ read this book ?
    b. En. * Why has Peter ___ læst den her bog ?
    c. Da. Hvorfor har Peter ___ læst den her bog ?
    d. Ic. Af hverju hefur Pétur ___ lesið þessa bók ?
    e. Ge. Warum hat Peter dieses Buch gelesen ___ ?

English also has to have V2 with topicalised negative elements:

(22) a. En. Never have the children ___ seen such a bad film.
    b. En. * Never have the children seen such a bad film.
    d. Ic. Aldrei hafa börnin ___ séð svona slæma mynd.
    e. Ge. Nie haben die Kinder so einen schlechten Film gesehen _.

(23) a. En. Only in America could such a thing happen.
    b. En. * Only in America such a thing could happen.
    d. Ic. Aðeins í Bandaríkjunum geti eitt hvað svona gerst.
    e. Ge. Nur in Amerika könnte so etwas passieren ___.

Two things indicate that only-expressions like only in America are negative:

I. The interpretation of only in America is "nowhere except in America", cf. also how this is expressed in e.g. French by means of a negative particle and but:

(24) Fr. Des histoires comme la mienne n’ arrivent qu’ en Amérique.
    Stories like the mine not arrive but in America

II. Like negative expressions, expressions like only in America may trigger so-called "negative polarity items" like anybody, ever, at all, ...

(25) En. a. Only in America might such a thing happen at all.
    b. * In America such a thing might happen at all.
    c. In America such a thing might not happen at all.
1.3 V2 in embedded clauses

The standard form of an embedded clause is an IP inside a CP:

(26) Da.

However, sometimes it is also possible to have what has been called "embedded main clauses".

These are embedded clauses with main clause word order, i.e. with V2. Vikner (1995:80-87) and many others analyse such clauses as cases of a CP inside another CP.

(27)a is embedded subject-initial V2, whereas (27)b is embedded non-subject-initial V2, cf. (19)a,b above.

That (27)a is embedded V2 rather than e.g. V°-to-I°-movement can be seen from the fact that exactly those contexts that allow (27)a also allow (27)b (and vice versa). This is explained if (27)a and (27)b are the same phenomenon: embedded V2.
(27) Da.

a. Knows Bo that Erik eats never cheese?

b. Knows Bo that cheese eats Erik never?
Embedded V2 is realised in different ways in Danish, English and German.

Embedded V2 in English is only possible with a negative element in CP-spec (cf. section 1.2 above), whereas in Danish and German, there is no such restriction.

(28) En. I think ...

<table>
<thead>
<tr>
<th>C°</th>
<th>C°</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ...</td>
<td>that Max would never read papers on the train. -V2</td>
</tr>
<tr>
<td>b. * ... that papers would Max _____ never read on the train. V2</td>
<td></td>
</tr>
<tr>
<td>c. * ... papers would Max _____ never read on the train. V2</td>
<td></td>
</tr>
<tr>
<td>d. ... that under no circumstances would Max _____ ever read papers on the train. V2</td>
<td></td>
</tr>
<tr>
<td>e. * ... under no circumstances would Max _____ ever read papers on the train. V2</td>
<td></td>
</tr>
</tbody>
</table>

In English and Danish, the complementiser that/at, which is optional in normal embedded clauses, is **obligatory** with embedded V2.

(29) Da. a. Jeg tror (at) Max aldrig læser aviser i toget. -V2

<table>
<thead>
<tr>
<th>C°</th>
<th>C°</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Jeg tror (at) Max never reads papers in train-the</td>
<td></td>
</tr>
<tr>
<td>b. Jeg tror at i toget læser Max aldrig ____ aviser. V2</td>
<td></td>
</tr>
<tr>
<td>c. * Jeg tror at i toget læser Max aldrig ____ aviser. V2</td>
<td></td>
</tr>
</tbody>
</table>

(30) Da. Jeg tror ...

<table>
<thead>
<tr>
<th>C°</th>
</tr>
</thead>
</table>
| a. Jeg tror ...
| b. * ...
| c. ...

In German, the complementiser dass 'that', which is obligatory in normal embedded clauses, is **impossible** with embedded V2.

(31) Ge. a. Ich glaube dass Max nie im Zug Zeitungen liest. -V2

<table>
<thead>
<tr>
<th>C°</th>
<th>C°</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Ich glaube dass Max never in-the train papers reads</td>
<td></td>
</tr>
<tr>
<td>b. * Ich glaube dass im Zug liest Max nie Zeitungen ____. V2</td>
<td></td>
</tr>
<tr>
<td>c. Ich glaube dass im Zug liest Max nie Zeitungen ____. V2</td>
<td></td>
</tr>
</tbody>
</table>

(32) Ge. Ich glaube ...

<table>
<thead>
<tr>
<th>C°</th>
<th>C°</th>
</tr>
</thead>
</table>
| a. Ich glaube ...
| b. * ...
| c. ...

In German, the complementiser dass 'that', which is obligatory in normal embedded clauses, is **impossible** with embedded V2.
Some kind of recursive CP-analysis, (27)a-b, is therefore only necessary for embedded V2 in English and Danish:

One major difference between main clause V2 and embedded V2 is that embedded V2 is never obligatory, but always optional.

Three conditions seem to be necessary for embedded V2 to be possible (e.g. Vikner 2001:226) - whereas the non-V2 option is always possible, even when these conditions are not observed, as shown below:

(34)

a. An embedded V2 clause requires certain matrix verbs (verbs of saying and believing, or ...).
b. An embedded V2 clause requires the matrix verb not to be negated.
c. An embedded V2 clause has to occur in object position.

(Even though the following three have no CP-recursion, the conditions in (34) also hold
  1 for embedded V2 in German,
  2 for embedded non-V2 topicalisation in English, and
  3 for optional at/that in English and Danish.)

Summary so far

- V2 is the double movement of an XP into CP-Spec and of the finite verb into C°.
- V2 takes place in main clauses, obligatorily.
- In modern English, V2 requires that CP-spec contains either a negative element or a wh-element.
- In the other Germanic languages, V2 is not constrained in any such way.
- V2 takes place in certain types of embedded clauses as well, but only optionally.
- Embedded V2 requires that/at in English and Danish, but does not allow dass in German.
1.4 Main clause yes/no-questions: V1 or V2?

In all the Germanic languages, main clause yes/no-questions are V1 ("verb first"), i.e. they have a finite verb in clause-initial position. If we assume that the empty CP-Spec contains an invisible wh-element (an empty operator), these examples are parallel to the examples in the previous section, i.e. they are really "V2" rather than "V1":

<table>
<thead>
<tr>
<th>CP-Spec</th>
<th>C°</th>
</tr>
</thead>
<tbody>
<tr>
<td>En.</td>
<td>[wh __] Has Peter ___ read this book ?</td>
</tr>
<tr>
<td>Da.</td>
<td>[wh __] Har Peter ___ læst den her bog ?</td>
</tr>
<tr>
<td>Ic.</td>
<td>[wh __] Hefur Pétur ___ lesið þessa bók ?</td>
</tr>
<tr>
<td>Ge.</td>
<td>[wh __] Hat Peter ___ dieses Buch gelesen ___ ?</td>
</tr>
</tbody>
</table>

Assuming an empty wh-element in CP-spec in (35) might seem to be just a trick (an ad hoc assumption) to save the analysis of the previous sections that all main clauses in the Germanic languages (except English) are V2. However, if the assumption of an empty wh-element in CP-spec in (35) has other consequences, then it is not ad hoc. Here are three reasons why it is not ad hoc:

(36)  
a. It correctly predicts that verb-initial main clauses are interpreted as yes/no-questions.  
b. It correctly predicts that verb-initial main clauses trigger do-support.  
c. It accounts for the link between inversion in yes/no-questions and clause-initial wh-elements in wh-questions noted in part b of Greenberg's (1963:83) "Universal 11".

As for (36)a, the strings of words in (35) may clearly only be interpreted as questions.

As for (36)b, given that an initial wh-element (or an initial negative topic) is needed to trigger subject-auxiliary inversion and do-support, (37)b, assuming an empty wh-element in the first position of a main clause yes/no-questions will correctly predict subject-auxiliary inversion and do-support in (38)b:

(37)  
a. Yesterday Joe bought three books.  
b. When **did** Joe buy three books ?

(38)  
a. Joe bought three books.  
b. [wh ___] **did** Joe buy three books ?

As for (36)c, let us have a closer look at the link between inversion in yes/no-questions and clause-initial wh-elements in wh-questions noted in the second half of Greenberg's (1963:83) "Universal 11".

(39) **Universal 11** (Greenberg 1963:83)  
a. Inversion of statement order [in interrogative word questions] so that verb precedes subject occurs only in languages where the question word or phrase is normally initial.  
b. This same inversion occurs in yes-no questions only if it also occurs in interrogative word questions.

(40) "Translation":  
a. Subject-verb inversion occurs in wh-questions only if the language has clause-initial wh-elements.  
b. Subject-verb inversion occurs in yes/no-questions only if it occurs in wh-questions.
Inference: Subject-verb inversion occurs in yes/no-questions only if the language has clause-initial wh-elements.

To see what exactly Greenberg means, let us take a step back (cf. also Vikner 2007:471-474). He presupposes that languages may differ with respect to the following two things:

I. Languages may or may not have clause-initial wh-elements (e.g. English does, Turkish does not):

(42) a. English What had Harry read ?
   b. Turkish Hasan ne oku -du ?

(42)a + (43)a  =  e.g. English
(42)b + (43)b  =  e.g. Turkish
(42)a + (43)b  not attested
(42)b + (43)a  not attested

This is not the case, however. As Greenberg (1963:83) observed, a language has subject-verb inversion in yes/no-questions, (43)a, only if it has clause-initial wh-elements, (42)a.

II. Languages may or may not have subject-verb inversion in yes/no-questions (e.g. English does, Turkish does not):

(43) a. English Has Alfred gone to the cinema ?
   b. Turkish Ahmet cinema-ya git -ti mi ?

(43)a + (43)a  =  e.g. English
(43)b + (43)b  =  e.g. Turkish
(43)a + (43)b  not attested
(43)b + (43)a  not attested

If we assume that there is an empty wh-element in the initial position of main clause yes/no-questions in e.g. English, then yes/no-questions with subject-verb inversion as in (43)a are parallel to questions with clause-initial wh-elements, (42)a, in that in both types, the initial element is a wh-element. The observation that (43)a only occurs in languages that also have (42)a is thus explained, as both are examples of the same structure, clause-initial wh-elements. It is therefore also to be expected that a language which does not have initial wh-elements, like Turkish in (42)b, will not have subject-verb inversion in yes/no-questions either, (43)b.

The conclusion is therefore that the assumption of an empty wh-element in the first position of a main clause yes/no-questions is not ad hoc, and that the V1 order in main clause yes/no-questions in Germanic is really another set of cases of V2.
2. CP and cP

2.1 Introduction

The analysis below is based on data from extraction and on the standard theoretical assumption that long-distance extraction applies successive-cyclically via intermediate CP-Specs (Poole 2011; Chomsky 1973; 1986). Data supporting this assumption come from both cross-linguistic studies (e.g. Kayne & Pollock 1978 for French; Torrego 1984 for Spanish; Chung & McCloskey 1987 for Modern Irish; Henry 1995 for Belfast English), language acquisition studies (Felser 2004; Crain & Thornton 1998) and psycholinguistic studies (e.g. Gibson & Warren 2004; Marinis et al. 2005).

Chomsky (2000) suggests that syntactic derivation proceeds in phases and that the syntactic categories vP and CP are phases. A phase has two parts: A phase edge, which consists of the head and the specifier(s), and the phase domain, which is the complement of the phase head. Chomsky’s (2000) Phase Impenetrability Condition (PIC) says that only the edge of a phase is syntactically transparent, whereas the phase domain is opaque to further syntactic operations, and the only way an element can be extracted from a phase is via an intermediate phase edge position. In this way, long extraction proceeds successive-cyclically from phase edge to phase edge – from escape hatch to escape hatch.

According to Chomsky (2005, 2006), Internal Merge operations such as A-bar movement are triggered by an edge feature on the phase head (in Chomsky 2000, this feature is called a P(eripheral)-feature, in Chomsky 2001 a generalised EPP-feature), argued to be an irreducible primitive of UG. In what follows, this feature will be referred to as an OCC (“occurrence”) feature (following Chomsky 2005:18), which provides an extra specifier position that does not require feature matching. OCC offers an escape hatch allowing an element to escape an embedded clause.

The availability of this generic edge feature OCC together with the availability of multiple specifier positions, however, in principle permits any element from within the phase domain to move across a phase edge, and so island effects should not exist (as also observed by Boeckx 2012:60-61).

If instead of multiple specifiers, CP-recursion is possible, the Danish data presented below may be captured in a uniform manner. We will explore a particular derivation of (embedded) V2, in terms of a cP/CP-distinction, which may be seen as a version of the CP-recursion analysis (de Haan & Weerman 1986, Vikner 1995, Bayer 2002, and many others). Because embedded V2 clauses do not allow extraction, whereas other types of CP-recursion clauses do (Christensen et al. 2013a,b, 2014), CP-recursion in embedded V2 is assumed to be fundamentally different from other kinds of CP-recursion. The analysis below will follow the suggestions in Nyvad, Christensen & Vikner (2016):

(44) a. a CP with V2 (headed by a finite verb) = CP ("big cP")
    b. a CP without V2 (headed by a functional element) = cP ("little CP")

The idea is to attempt a distinction parallel to the vP-VP distinction (Chomsky 1995:347), with cP being above CP (cf. Koizumi 1995:148 who posits a CP-PolP corresponding to our cP-CP):

c° like v° is a functional head, whereas C° like V° should be a lexical head. The latter admittedly only works partially, in that C° is only lexical to the extent that it must be occupied by a lexical category, i.e. a finite verb (including auxiliaries, which are often taken to be functional).
2.2 $C^°$

Although CP-spec is the position that attracts topics, also in embedded clauses, its sister $C^°$ does not have a topic-feature inherently, but only acquires such a feature through verb movement (cf. Rizzi’s 1996 suggestions for V2 in e.g. main clause questions and negative topicalisations in English and Bayer's 2002 suggestions for illocutionary force). The fact that $C^°$ (or $c^°$) does not inherently have a topic feature (which is very different from e.g. the way $c^°$ may have a wh-feature) is surely related to the fact that topicalisations are never selected for, i.e. there are verbs that select only embedded questions, but there are no verbs that that select only embedded topicalisations. This assumption, that $C^°$ only acquires a topic feature through verb movement, also accounts for why topics only occur in CP-spec if there is a verb in $C^°$.

Where we thus say that the $C^°$ associated with the CP-spec that attracts topics only acquires its topic feature through verb movement, e.g. Julien (2015:146) argues that the topic $C^°$ is a normal $C^°$ that may also contain first-merged elements like så ‘then’ in contrastive left dislocations, (46)a:

$$\text{(46) Da. a. } \begin{array}{l}
\text{[TopicP Hvis } \underline{\text{__________}}, \text{[Topic } c^° \text{ så } ] \text{[ForceP } \text{[Force } c^° \text{ skal } ] \text{man tie stille.]} \end{array}$$

We think that the fact that e.g. så also occurs in the first position in V2 clauses with no dislocation means that it is a rather unlikely head element. We also hesitate to draw conclusions about the syntax of embedded V2 from contrastive left dislocations, as they are also possible in non-V2 embedded clauses (although we have no account for why this is strongly degraded in Swedish and Norwegian):

$$\text{(47) Da. } \text{Det er en skam at den her artikel den aldrig er blevet udgivet.}
\text{\hspace{1cm}It is a shame that this here article it never is been published}$$

In most Germanic languages (e.g. Danish or English, see also section 2.4 below), embedded V2 is only possible if there is another level above CP, viz. a $cP$ with $at/that$ in $c^°$. It is this higher $at/that$ which prevents extraction from CP-spec (as a kind of that-trace violation), i.e. (48)d:

$$\text{(48) Da. a. } \text{* Sagde Andrea Lego-filmen havde Kaj allerede set } \underline{\text{___}} ?$$
$$\text{b. } \text{Sagde Andrea at Lego-filmen havde Kaj allerede set } \underline{\text{___}} ?$$
$$\text{c. } \text{Lego-filmen sagde Andrea } \underline{\text{________}} \text{ havde Kaj allerede set } \underline{\text{___}} .$$
$$\text{d. } \text{Lego-filmen sagde Andrea at } \underline{\text{________}} \text{ havde Kaj allerede set } \underline{\text{___}} .$$

$$(\text{Lego-film-the}) \text{ said Andrea (that) (Lego-film-the) had Kaj already seen}$$

This is supported by German, which for some reason allows embedded topicalisation without this higher $that$, and which allows extraction via CP-spec, i.e. (49)c:

$$\text{(49) Ge. a. } \text{Hat Andrea gesagt, den Lego-Film hat Kai schon } \underline{\text{___}} \text{ gesehen?}$$
$$\text{b } \text{* Hat Andrea gesagt, dass den Lego-Film hat Kai schon } \underline{\text{___}} \text{ gesehen?}$$
$$\text{c. } \text{Den Lego-Film hat Andrea gesagt, } \underline{\text{________}} \text{ hat Kai schon } \underline{\text{___}} \text{ gesehen.}$$
$$\text{d. } \text{* Den Lego-Film hat Andrea gesagt, dass } \underline{\text{________}} \text{ hat Kai schon } \underline{\text{___}} \text{ gesehen.}$$

$$(\text{The Lego-film}) \text{ has Andrea said (that) (the Lego-film) has Kai already seen}$$
If CP is its own phase, irrespective of whether or not it is inside a cP, it would follow that CPs are strong islands (cf. Holmberg 1986:111, Müller & Sternefeld 1993: 493ff, Sheehan & Hinzen 2011:444), provided there is no OCC escape hatch for CP, as opposed to the escape hatch to be suggested for cP in section 2.3 below:

(50) Da. a. Sagde Andrea at måske havde Kaj allerede set Lego-filmen?
    b. *Lego-filmen sagde Andrea at måske havde Kaj allerede set __________?
       (Lego-film-the) said Andrea that maybe had Kaj already seen (Lego-film-the)

(51) Ge. a. Hat Andrea gesagt, vielleicht hat Kai den Lego-Film schon gesehen?
    b. *Den Lego-Film hat Andrea gesagt, vielleicht hat Kai __________ schon gesehen.
       (The Lego-film) has Andrea said maybe has Kai (the Lego-film) already seen

One approach that might explain the absence of an escape hatch is to say that embedded V2 clauses are not really embedded at all, but instead there is a radical break/restart at the beginning of an embedded V2 clause, similar to what happens at the beginning of a new main clause (as argued e.g. by Petersson 2014). Then extraction out of an embedded V2 clause like (50)b/(51)b would correctly be ruled out, but this would also incorrectly rule out all other potential links across the edge of embedded V2 clauses (see also Julien 2015:157-159), so that e.g. the following c-command difference should not exist, as co-reference should (incorrectly) be ruled out in both (52)a and (52)b:

(52) Da. a. *Han1 sagde [CP den her bog ville Lars1 aldrig læse.]
    b. Hans1 mor sagde [CP den her bog ville Lars1 aldrig læse.]  
       He/His mum said that this here book would Lars never read

Both (52)a,b would be expected to be just as impossible as such links across a main clause boundary:

(53) Da. a. *I går mødte jeg ham1 i bussen. [CP Lars1 havde lige købt en paraply.]
    *I går mødte jeg hans1 mor i bussen. [CP Lars1 havde lige købt en paraply.]
       Yesterday met I him/his mum in bus-the Lars had just bought an umbrella

2.3 c° with OCC

(54)  
    \[ \begin{array}{c}
    \text{c°} \\
    \text{cP/CP/IP}
    \end{array} \]

$c°$ may have a feature that may cause movement to cP-spec, and such a feature can either be a so-called occurrence-feature or a slightly more standard type feature as e.g. a $wh$-feature.

Chomsky (2005:18-19) suggests an OCC (“occurrence”) feature, which provides an extra specifier position "without feature matching", i.e. the XP moves into the spec of $c°_{[occ]}$ without itself having an OCC-feature. A $c°_{[occ]}$ thus offers an escape hatch which allows an XP to escape an embedded clause. (As mentioned above, for some reason, C° cannot have an OCC-feature.)

If $c°_{[occ]}$ is above another cP, then the cP-layer headed by a $c°$ carrying an OCC-feature is transparent to selection in the same way as e.g. NegP is in constituent negation (e.g., she ate not the bread but the cake) or quantificational layers (as in she ate all/half the cake), cf. the notion of extended projections, Grimshaw (2005). (If, however, it should turn out that $c°_{[occ]}$ could occur inside another cP, then nothing further would need to be said.)
2.4 $c^\circ$ with other features, e.g. wh

We take the basic distinction between CP and $cP$ to be whether or not there is verb movement into the head, but we want this to go hand in hand with other basic distinctions between the two, e.g. that C° is the potential host of the topic feature, whereas $c^\circ$ is the relevant/necessary head for the outside context, e.g. as the highest head of embedded questions or of relative clauses (= in the terms of Rizzi 1997:283, cP is 'facing the outside' whereas CP is 'facing the inside').

In other words, we want to link the difference $c^\circ$/C° not just to individual features (much like the difference between different heads in the C-domain is linked to features in the cartographic approach, Rizzi 1997, Wiklund et al. 2007, Julien 2015, Holmberg 2015 ...) – but we also want to link the difference to whether or not the head is the landing site of verb movement.

Spec-$cP_{wh}$ in (55)a is where the wh-phrase in an embedded question occurs, and spec-$cP_{OP}$ in (55)b is where we find the empty operator that may occur in e.g. som-relative clauses in Danish (and in that-relative clauses in English).

It appears that a wh-element that has moved into such a spec cannot move on from here:

This may be because the embedded clause in (56)b with an empty spec and an empty $c^\circ$ can no longer identified as a wh-clause, as is required of an object clause of the verb ask (cf. clausal typing, Cheng 1991).

Following Rizzi & Roberts (1989:20), Vikner (1995:50), Grimshaw (1997:412), the reason why there can be no verb movement into $c^\circ_{wh}$ is that this would change the properties of the selected head (i.e. $c^\circ_{wh}$), and therefore this head would no longer satisfy the requirements of the selecting matrix expression. In fact, according to McCloskey (2006:103), a head modified in this way (by movement into it) is not an item that could possibly be selected by a higher lexical head (it is not part of the "syntactic lexicon"), which would lead to the prediction that there could not be movement into heads of complements of lexical heads (which may very well be to strong, cf. that it would have consequences for many other cases, e.g. N°-to-D° movement in the Scandinavian languages).

If on the other hand, there is a $cP$ (with the declarative complementizer at in $c^\circ$) above the CP in which V2 takes place, then this problem does not arise. The selected clause is a $cP$, its head is a $c^\circ$ containing a complementiser, and the C° into which there is verb movement is situated lower down inside the $cP$.

(Embedded topicalisations in German, embedded questions in Afrikaans, and embedded questions in some variants of English might be exceptions to the above in that they seem to have embedded V2 into the highest selected complementiser head. In such cases, an "invisible" $cP$ above the embedded V2 CP have been suggested, e.g. in McCloskey 2006: 101 and in Biberauer 2015:12-13.)
2.5 \( \text{c}^\circ \) without features

(57) \[ \begin{array}{c} \text{cP} \\ \downarrow \text{c}^\circ \\ \downarrow \text{at} \\ \text{CP/IP} \end{array} \]

It is also possible for a \( \text{c}^\circ \) not to have any features, in which case no movement will take place into spec-cP.

This is possible both when such a \( \text{c}^\circ \) is the sister of an IP and when it is the sister of a CP - see also (48)b and (26)-(27) above:

(58) Da.
   a. Sagde Andrea at Kaj allerede havde set Lego-filmen?
   b. Sagde Andrea at Lego-filmen havde Kaj allerede set?

Said Andrea that (Lego-film-the) (had) Kaj already (had) seen (Lego-film-the)

Because such an \( at/that \) has no special features, it may also occur below other complementisers, when these are selected from above, e.g. below a \text{wh}- or a relative \( cP \)-layer. As an extra complementiser, \( at \) is preferred over other complementisers, which have more content:

(59) Da. ... hvis \( at \) det ikke havde været så sorgeligt.

if that it not had been so sad

(Tom Kristensen, 1921, cited in Hansen 1967, III: 388, in Vikner 1995:122, (149c), and in Nyvad 2016:368, (10))

2.6 Predictions concerning extraction

The above suggestions (especially the OCC escape hatch in \( cP \) discussed in section 2.3 above) make the prediction that extraction is possible almost everywhere (i.e. except topic islands), which is much more general than usually assumed (including in Vikner 1995). However, it turns out that such unexpectedly acceptable examples include extractions from relative clauses:

(60) Da.
   a. Pia har engang mødt en pensionist som havde sådan en hund.
   b. Sådan en hund har Pia engang mødt ...

   [\text{DP en} [\text{NP pensionist }] [\text{cP} \_1 \text{c}^\circ_{\text{OCC}}] [\text{cP} \text{OP} \_2 [\text{c}^\circ \text{som} [\text{IP} \_2 \text{havde} \_1.]]]]
   \text{a pensioner that had such a dog}

   [\text{DP en} [\text{NP pensionist }] [\text{cP} \_1 \text{c}^\circ_{\text{OCC}}] [\text{cP} \text{OP} \_2 [\text{c}^\circ \text{som} [\text{IP} \_2 \text{havde} \_1.]]]]
   \text{Pi a once met a pensioner that had such a dog}

   (Christensen & Nyvad 2014:35, (13c,d))

... and extractions from embedded questions (\text{wh}-islands):

(61) Da.
   a. Hvilken båd foreslog naboen ...
   b. Hvor billigt foreslog naboen ...

   [\text{cP} \_1 \text{c}^\circ_{\text{OCC}}] [\text{cP} \text{OP} \_2 [\text{c}^\circ \text{hvilk en båd} \_1 \text{c}^\circ_{\text{WH}} [\text{IP} vi skulle sælge \_1 \_2?]]] \text{how cheaply we should sell}

   [\text{cP} \_2 \text{c}^\circ_{\text{OCC}}] [\text{cP} \text{OP} \_1 [\text{c}^\circ \text{hvilk en båd} \_1 \text{c}^\circ_{\text{WH}} [\text{IP} vi skulle sælge \_1 \_2?]]] \text{which boat we should sell}

   (Christensen, Kizach & Nyvad 2013a:63)
(62) Da. Om morgenen skulle jeg give dem medicinen, noget brunt stads, ...
In morning-the should I give them medicine-the, some brown stuff,

\[
\begin{align*}
[cP \text{OP}_1 \text{som} [IP \text{jeg ikke ved} & [cP \quad \_1 \quad e^c_{\text{[OCC]} \quad [cP \quad \text{hvad}_2 \quad e^c_{\text{[WH]} \quad [IP \quad \text{var} \quad \_2.]]]}])]
\end{align*}
\]


... as well as extractions from adverbial clauses:

(63) Da. ... men det_1 bliver han så vred 
but that becomes he so angry

\[
\begin{align*}
[cP \quad \_1 \quad e^c_{\text{[OCC]} \quad [cP \quad \text{når}_1 \quad [IP \quad \text{man siger} \quad \_1.]]}]
\end{align*}
\]

(Knud Poulsen, 1918, cited in Hansen 1967, I: 110)

3. Conclusions

Where section 1 described V2 in its many different forms, section 2 attempted to derive the properties of the left periphery, based on a simplified cP-CP version of the whole CP-complex. In this way, we attempted to unify a whole range of different phenomena related to extraction and embedding, while acknowledging that extraction in Danish is considerably less restricted than has often been assumed.

Firstly, concerning the status of certain extraction domains as islands: Adverbial clauses and relative clauses have typically been viewed as strong islands, seeing as any extraction from these syntactic environments is thought to lead to absolute ungrammaticality. Wh-islands, on the other hand, have been demonstrated to show graded acceptability, and are thus typically referred to as weak islands. Boeckx (2012:55) takes the phenomenon of strong islands to reduce to a restriction in the grammar that disallows extraction from adjoined and non-complement domains. The data sketched out in section 2.6 suggest that the distinction between weak and strong islands is much less clear-cut than previously assumed: Relative clauses seem to be weak rather than strong islands (if they are islands at all). The lack of argument/adjunct asymmetry in Danish embedded wh-questions strongly suggests that they may in fact not even be weak islands. Finally, this also seems to be the case for extraction from adjunct clauses.

Let us return to the unified account of a wide range of phenomena in Danish on the basis of the idea of CP-recursion, including embedded V2 and island phenomena in the form of relative clauses, wh-islands and adverbial clauses. As pointed out by Johnson & Vikner (1994), a CP-recursion analysis does not differ crucially from analyses where there is another functional projection between the CP-layer and the IP-layer. Based on the data presented here, one or more functional projections are needed between the topmost XP and IP in the embedded clause, because the two alternatives, having multiple specifiers or abandoning the notion of successive-cyclic movement, are empirically problematic: Assuming multiple specifiers (to the exclusion of CP-recursion) would not provide targets for the movement of the subject/topic and the finite verb in embedded V2 structures in Danish, and without the assumption of CP-recursion, the positions of the base-generated heads in complementiser stacking would remain unaccounted for. Also, note that even a theory without the OCC-feature and without successive-cyclic movement would still require one or more head positions between the topmost XP and IP, due to the option of stacking complementisers, (59), and of having embedded V2 under a complementiser, (48)b.

The CP-recursion that takes place in syntactic environments involving movement out of certain types of embedded clauses seems to be fundamentally different from that occurring in embedded V2 contexts, and hence, we proposed a cP/CP distinction: The CP-recursion found e.g. in complementiser stacking and in long extractions requiring an OCC-feature involves a recursion of cP, (64)a, whereas the syntactic island constituted by embedded V2 involves the presence of a CP, (64)b.
The exact structure of CP-recursion may be subject to parametric variation: German does not seem to allow CP-recursion given that extraction from embedded \(wh\)-questions is ungrammatical irrespective of which function the extracted element has (unless it moves via spec-CP, (49)c'), and given that embedded V2 is in complementary distribution with the presence of an overt complementiser in \(C°\).

Whether a cartographic approach to the structure of the CP-domain in the Scandinavian languages will turn out to be more appropriate than a CP-recursion analysis (Rizzi 1997, Wiklund et al. 2007, Julien 2015, Holmberg 2015 ...), we will leave for future research to decide. Until we have data that support a fine-grained left periphery in the relevant structures in Danish, the version of CP-recursion as argued for here would appear promising, as it captures the data presented here while making perhaps slightly less stipulations than e.g. the cartographic approach or the multiple specifier analysis.

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