

V2 and cP/CP

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Abstract

As in Nyvad, Christensen & Vikner (2016), 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 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, 2014), 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").

Keywords

CP-recursion, embedded verb second (V2), extraction, islands, complementiser stacking

1. Introduction

Verb second (V2) has long been and continues to be a fascinating topic, as witnessed by articles and books all the way back to Wackernagel (1892) and Fourquet (1938) and up to Holmberg (2015).

This paper will briefly present an analysis of the CP-level in embedded clauses, including what is often seen as CP-recursion in

cases of embedded V2. The analysis is discussed in much more detail in Nyvad, Christensen & Vikner (2016).

We follow the suggestion in Chomsky (2000) that syntactic derivation proceeds in phases and that the syntactic categories νP and CP are phases. We also follow Chomsky (2005, 2006) in taking Internal Merge operations such as A-bar movement to be 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). Below, 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 in the present paper 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, Walkden 2016, 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:

(1)

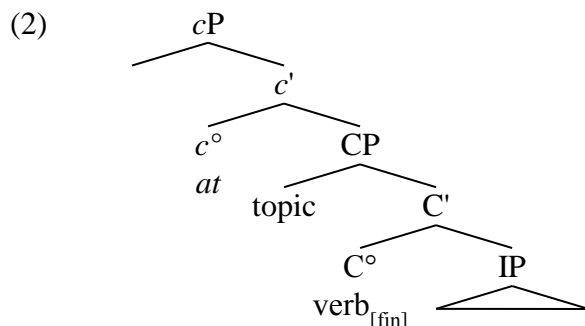
- a. a CP with V2 (headed by a finite verb) = **CP** ("big CP")
- b. a CP without V2 (headed by a functional element) = **cP** ("little cP")

The idea is to attempt a distinction parallel to the νP -VP distinction (Chomsky 1995:347), with cP being above CP (cf. Koizumi 1995:148 who posits a CP-PolP corresponding to our cP -CP, and de Cuba's 2007 independent proposal that non-factive verbs select a non-recursive cP headed by a semantic operator removing the responsibility for the truth of the embedded clause from the speaker).

c° like ν° 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

2. C°



Although CP-spec is the specifier position that attracts topics, also in embedded clauses, its associated head, C°, does not have a topic-feature "in the ordinary way", because verb movement into C° would then erase that feature. The fact that C°'s topic feature is thus different from e.g. the way c° can have a feature like *wh* should be 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 (maybe not being selected is what allows verb movement into C°, whereas being selected prevents movement into c°_[WH]). The closest we get are verbs that allow embedded topicalisations, but even such verbs never require them, e.g. *vide* 'know', *tro* 'think', etc.

Where we thus say that the C° associated with the specifier that attracts topics is deficient/unusual in not really having a topic-feature, e.g. Julien (2015:146) argues that the topic head is a normal head that may contain other things than finite verbs, e.g. *så* 'then' in contrastive left dislocations, (3)a:

(3) Danish

- a. [_{Topic-sp} Hvis man ikke kan sige noget pænt,] [_{Topic°} så] [_{ForceP} [_{Force°} skal] man tie stille.]]
 b. [_{cP-spec} Hvis man ikke kan sige noget pænt,] [_{CP} så [_{C°} skal] man tie stille.]]
If one not can say smth. nice (then) (then) shall one keep quiet

We take it that the fact that *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 perfectly possible in non-V2 embedded clauses (although we have no account for why this is strongly degraded in Swedish and Norwegian, cf. Johannesen 2014:407):

(4) Danish

Det er en skam at den her artikel den aldrig er blevet udgivet.

It is a shame that this here article it never is been published

As topicalisations are never selected for, it follows that a topicalisation-CP (i.e. with a topic in CP-spec and with a verb moving into C°) cannot be the highest level of an embedded clause (in most Germanic languages, e.g. Danish or English). Another level is necessary above CP, viz. a cP with *at/that* in c° (though see the discussion at the end of section 4 below). It is this higher *at/that* which prevents extraction from CP-spec (as a kind of *that*-trace violation, perhaps derived in terms of anti-locality as in Douglas 2015), i.e. (5)d:

(5) Danish

- | | | | |
|------------------|-----------------|-------------|----------------------------|
| a. * | Sagde Andrea | Lego-filmen | havde Kaj allerede set __? |
| b. | Sagde Andrea at | Lego-filmen | havde Kaj allerede set __? |
| c. * Lego-filmen | sagde Andrea | _____ | havde Kaj allerede set __. |
| d. * Lego-filmen | sagde Andrea at | _____ | havde Kaj allerede set __. |
- (Lego-film-the) said Andrea (that) (Lego-film-the) had Kaj already seen*

(Notice that (5)c is ungrammatical for the same reason as (5)a: topicalisations cannot be selected, they must be inside a cP.)

This is supported by German, which for some reason allows embedded topicalisation without this higher *that*, (6)a, and which allows extraction via CP-spec, (6)c:

(6) German

- | | | | |
|--------------------|-------------------------|--------------------|---------------------------------|
| a. | Hat Andrea gesagt, | den Lego-Film | hat Kai schon __ gesehen? |
| b. * | Hat Andrea gesagt, dass | den Lego-Film | hat Kai schon __ gesehen? |
| c. | Den Lego-Film | hat Andrea gesagt, | _____ hat Kai schon __ gesehen. |
| d. * Den Lego-Film | hat Andrea gesagt, dass | _____ | hat Kai schon __ gesehen. |
- (The Lego-film) has Andrea said (that) (the Lego-film) has Kai already seen*

CP may thus be a phase in German, and in Danish and English (where extractions via spec-CP are *that*-trace violations). From this, it would follow that CPs are strong islands (cf. Holmberg 1986:111, Müller & Sternefeld 1993: 493ff, Sheehan & Hinzen 2011), provided there is no

OCC escape hatch in CP, like the one suggested for cP in section 3 below:

(7) Danish

- 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)

(8) German

- 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

A different approach that might explain the absence of an escape hatch could be 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 (7)b/(8)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 (9)a and (9)b:

(9) Danish

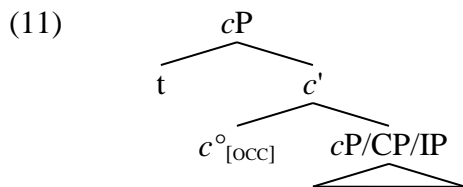
- a. *Han₁ sagde at [_{CP} den her bog ville Lars₁ aldrig læse.]
 b. Hans₁ mor sagde at [_{CP} den her bog ville Lars₁ aldrig læse.]
He/His mum said that this here book would Lars never read

Both (9)a,b would be expected to be just as impossible as such links across a main clause boundary:

(10) Danish

- a. *I går mødte jeg ham₁ i bussen. [_{CP} Lars₁ var lige blevet forfremmet.]
 *I går mødte jeg hans₁ mor i bussen. [_{CP} Lars₁ var lige blevet forfremmet.]
Yesterday met I him/his mum in bus-the Lars had just been promoted

3. c° with OCC

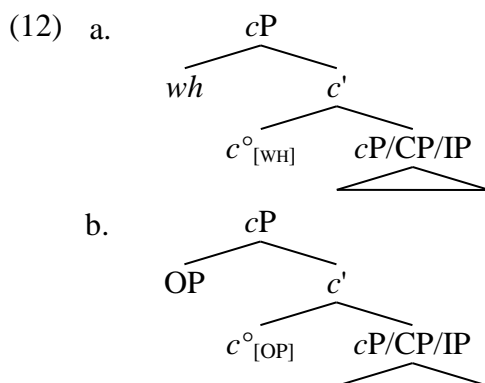


c° can have a feature that may cause movement to cP -spec, and such a feature can either be a so-called occurrence-feature or a slightly more standard type feature as e.g. a *wh*-feature. (As mentioned above, for some reason C° cannot have an OCC-feature.)

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 specifier of $c^\circ_{[occ]}$ without itself having an OCC-feature. A $c^\circ_{[occ]}$ thus offers an escape hatch which allows an XP to escape an embedded clause. In fact only those XPs that move into a cP -spec because of OCC will be able to move on, because they are the only XPs whose feature make up has not been altered/valued/checked as a result of the movement into cP -spec.

$c^\circ_{[occ]}$ may be above another cP , and 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). However, $c^\circ_{[occ]}$ may also be inside another cP , in which case nothing further needs to be said.

4. c° 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° 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°/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 (12)a is where the *wh*-phrase in an embedded question occurs, and spec-cP_[OP] in (12)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 specifier cannot move on from here:

(13) Danish

- a. Spurgte Andrea [_{CP} hvilken film $c^\circ_{[WH]}$ Kaj allerede havde set]?
- b. * Hvilken film spurgte Andrea [_{CP} _____ $c^\circ_{[WH]}$ Kaj allerede havde set]?
- (Which film) asked Andrea (which film) Kaj already had seen

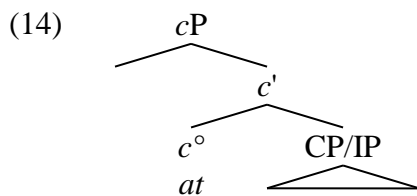
This may be because the embedded clause in (13)b with an empty specifier and an empty c° can no longer be identified as a *wh*-clause, as is required of an object clause of the verb *ask* (cf. clausal typing, Cheng 1991).

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 too strong, cf. that it would have consequences for many other cases, e.g. N° -to- D° movement in Scandinavian would have to be something like N° -to- Num° movement).

If on the other hand, there is a cP (with the declarative complementizer *at* in c°) 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° 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. In fact, being inside such an "invisible" cP might even be a possible analysis for those Danish examples with embedded V2 but not preceded by *at*, which do occur sometimes, e.g. (ii) in Jensen & Christensen 2013:55, although we find such examples ungrammatical.)

5. c° without features



It is also possible for a c° not to have any features, in which case no movement will take place into spec- cP . This is possible both when such a c° is the sister of an IP and the sister of a CP

(15) Danish

- 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 *wh*- or a relative cP -layer. As an extra complementiser, *at* is preferred over other complementisers, which have more content :

(16) Danish

... hvis at det ikke havde været så sørgeligt.

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))

6. Predictions concerning extraction

The above suggestions (especially the OCC escape hatch in cP) 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 are fairly widespread, including extractions from relative clauses:

(17) Danish

- a. Pia har engang mødt en pensionist som havde sådan en hund.
Pia has once met a pensioner that had such a dog
- b. Sådan en hund₁ har Pia engang mødt [_{DP} en [_{NP} pensionist] [_{cP} —₁ c°_[OCC] [_{cP} OP₂ [_{c°} som] [_{IP} —₂ havde —₁.]]]]
Such a dog has Pia once met a pensioner that had
(Christensen & Nyvad 2014:35, (13c,d))

... and extractions from embedded questions (*wh*-islands):

(18) Danish

- a. Hvilken båd₁ foreslog naboen [_{cP} —₁ c°_[OCC] [_{cP} hvor billigt₂ c°_[WH] [_{IP} vi skulle sælge —₁ —₂.]]]]
Which boat suggested neighbour -the how cheaply we should sell
- b. Hvor billigt₂ foreslog naboen [_{cP} —₂ c°_[OCC] [_{cP} hvilken båd₁ c°_[WH] [_{IP} vi skulle sælge —₁ —₂.]]]]
How cheaply suggested neighbour -the which boat we should sell
(Christensen, Kizach & Nyvad 2013a:63)

(19) Danish

Om morgenen skulle jeg give dem medicinen, noget brunt stads, [_{cP} OP₁ som [_{IP} jeg ikke ved [_{cP} —₁ c°_[OCC] [_{cP} hvad₂ c°_[WH] [_{IP} —₁ var —₂.]]]]]]
In morning-the should I give them medicine-the, some brown stuff, that I not know what was
<<http://ordnet.dk/ddo/ordbog?query=stads>>, Hjorth & Kristensen
(2003-2005).

... as well as extractions from adverbial clauses:

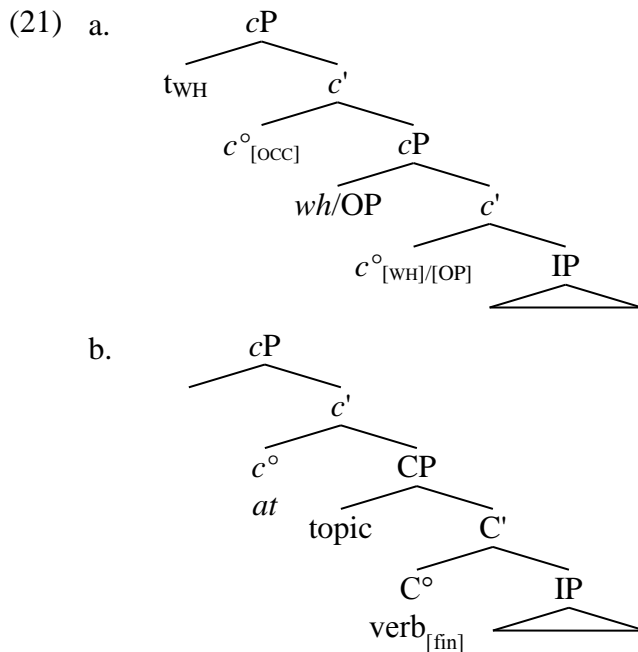
(20) Danish

- ... men det₁ bliver han så vred [_{cP} —₁ c°_[OCC] [_{cP} OP [_{c°} når] [_{IP} man siger —₁.]]]
but that becomes he so angry when one says
(Knud Poulsen, 1918, cited in Hansen 1967, I: 110)

7. Conclusion

We have presented an analysis of the CP-level in embedded clauses, including what is often seen as CP-recursion in cases of embedded V2. The analysis, which is discussed in much more detail in Nyvad, Christensen & Vikner (2016), attempts 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.

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 propose a *cP*/CP distinction: The CP-recursion found in complementiser stacking and long extractions requiring an OCC-feature involves a recursion of *cP*, (21)a, whereas the syntactic island constituted by embedded V2 involves the presence of a CP, (21)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, (6)c), and 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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References

- Bayer, Josef. 2002. Decomposing the left periphery: dialectal and cross-linguistic evidence. *Israeli Association of Theoretical Linguistics* 18. <<http://linguistics.huji.ac.il/IATL/18/Bayer.pdf>>
- Boeckx, Cedric. 2012. *Syntactic Islands*. Cambridge: Cambridge University Press.
- Branigan, Philip. 1996. Verb-Second and the A-Bar Syntax of Subjects. *Studia Linguistica* 50. 50-79.
- Cheng, Lisa Lai-Shen. 1991. *On the typology of wh-questions*. Cambridge, MA: MIT (doctoral dissertation).
- Chomsky, Noam. 1986. *Barriers*. Cambridge, MA: MIT Press.
- Chomsky, Noam. 1995. *The minimalist program*. Cambridge, MA: MIT Press.

- Chomsky, Noam. 2000. Minimalist inquiries. In Roger Martin, David Michaels, & Juan Uriagereka (eds.), *Step by step*, 89-155. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by Phase. In Michael Kenstowicz (ed.), *Ken Hale: A Life in Language*, 1-50. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2005. Three Factors in Language design. *Linguistic Inquiry* 36(1). 1-22.
- Chomsky, Noam. 2006. Approaching UG from Below. Ms, MIT.
- Christensen, Ken Ramshøj, Johannes Kizach & Anne Mette Nyvad. 2013a. Escape from the island: Grammaticality and (reduced) acceptability of *wh*-island violations in Danish. *Journal of Psycholinguistic Research* 42. 51-70.
- Christensen, Ken Ramshøj, Johannes Kizach & Anne Mette Nyvad. 2013b. The processing of syntactic islands – an fMRI study. *Journal of Neurolinguistics* 26(2). 239-251.
- Christensen, Ken Ramshøj & Anne Mette Nyvad. 2014. On the nature of escapable relative islands. *Nordic Journal of Linguistics* 37(1). 29-45.
- de Cuba, Carlos. 2007. *On (non)factivity, clausal complementation and the CP-field*. Stony Brook: Stony Brook University (doctoral dissertation).
- deHaan, Germen & Fred Weerman. 1986. Finiteness and Verb Fronting in Frisian. In Hubert Haider & Martin Prinzhorn (eds.), *Verb Second Phenomena in Germanic Languages*, 77-110. Dordrecht: Foris.
- Douglas, Jamie. 2015. The *that*-trace and anti-*that*-trace effects: unification and theoretical implications. Hand-out from a talk at NELS 46, Concordia University, Montréal, 16.-18.10.2015.
<http://linguistics.concordia.ca/nels46/wp-content/uploads/2015/10/nels_2015_talk_douglas.pdf>
- Fourquet, Jean. 1938. *L'Ordre des éléments de la phrase germanique ancien - Etudes de syntaxe de position* [The order of the elements in the Old Germanic clause - Studies in positional syntax]. Paris: Les Belles Lettres.
- Grimshaw, Jane. 1997. Projections, heads, and optimality. *Linguistic Inquiry* 28. 373-422.
- Grimshaw, Jane. 2005. *Words and Structure*. Stanford: CSLI Publications.
- Hansen, Aage. 1967. *Moderne Dansk* [Modern Danish], Vols. 1-3. Copenhagen: Grafisk Forlag.
- Hjorth, Ebba & Kjeld Kristensen. 2003-2005. *Den danske ordbog* [The Danish dictionary], vol. 1-6, Copenhagen: Gyldendal.
<<http://ordnet.dk/ddo/>>
- Holmberg, Anders. 1986. *Word Order and Syntactic Features in the Scandinavian Languages and English*. Stockholm: University of Stockholm.
- Holmberg, Anders. 2015. Verb second. In Tibor Kiss and Artemis Alexiadou (eds.) *Syntax – Theory and Analysis: An International Handbook*, 342–382. Berlin: de Gruyter.

- Jensen, Torben Juel & Tanya Karoli Christensen. 2013. Promoting the demoted: The distribution and semantics of "main clause word order" in spoken Danish complement clauses. *Lingua* 137. 38–58.
- Johannesen, Janne Bondi. 2014. Left dislocation in main and subordinate clauses. *Nordic Atlas of Language Structures Journal* 1. 406–414.
- Julien, Marit. 2015. The force of V2 revisited. *Journal of Comparative Germanic Linguistics* 18. 139–181.
- Koizumi, Masatoshi. 1995. *Phrase Structure in Minimalist Syntax*. Cambridge, MA: MIT (doctoral dissertation).
- Müller, Gereon & Wolfgang Sternefeld. 1993. Improper Movement and Unambiguous Binding, *Linguistic Inquiry* 24(3). 461–507.
- Nyvad, Anne Mette. 2016. Multiple complementizers in Modern Danish and Middle English. In Sten Vikner, Henrik Jørgensen & Elly van Gelderen (eds.), *Let us have articles betwixt us - Papers in Historical and Comparative Linguistics in Honour of Johanna L. Wood*, 361–378. Aarhus: Dept. of English, Aarhus University.
<www.hum.au.dk/engelsk/engsv/papers/vikn16a.pdf>
- Nyvad, Anne Mette, Ken Ramshøj Christensen & Sten Vikner. 2016. CP-Recursion in Danish: A cP/CP-Analysis. Unpublished ms, forthcoming in *The Linguistic Review*.
- Petersson, David. 2014. *The Highest Force Hypothesis - Subordination in Swedish*. Lund: University of Lund (doctoral dissertation).
- Rizzi, Luigi. 1997. The fine structure of the left periphery. In Liliane Haegeman (ed.), *Elements of Grammar*, 281–337. Dordrecht: Kluwer.
- Rizzi, Luigi & Ian Roberts. 1996. Complex Inversion in French" in Adriana Belletti & Luigi Rizzi (eds.), *Parameters and Functional Heads*, 91–116. New York: Oxford University Press. (Reprinted from 1989, *Probus* 1(1), 1–30.)
- Sheehan, Michelle & Wolfgang Hinzen. 2011. Moving towards the edge: the grammar of reference. *Linguistic Analysis* 37. 405–458.
- Vikner, Sten: 1995, *Verb Movement and Expletive Subjects in the Germanic Languages*. New York: Oxford University Press.
- Wackernagel, Jacob. 1892. Über ein Gesetz der indogermanischen Wortstellung [About a law for word order in Indoeuropean]. *Indogermanische Forschungen* 1. 333–436.
- Walkden, George. 2016. Language contact and V3 in Germanic varieties new and old. Unpublished ms, <<http://ling.auf.net/lingbuzz/003070>>, forthcoming in *Journal of Comparative Germanic Linguistics*.
- Wiklund, Anna-Lena, Gunnar Hrafn Hrafnbjargarsson, Þorbjörg Hróarsdóttir & Kristine Bentzen. 2007. Rethinking Scandinavian verb movement. *Journal of Comparative Germanic Linguistics* 10. 203–233.