CP-Recursion in Danish: A *c*P/CP-Analysis

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pre-publication version of

Nyvad, Anne Mette, Ken Ramshøj Christensen & Sten Vikner. 2017. "**CP-Recursion in Danish: A *c*P/CP-Analysis**". *The Linguistic Review*. 34.3, 449-478. https://doi.org/10.1515/tlr-2017-0008

Abstract
Based on data from extraction, embedded V2, and complementizer stacking, this paper proposes a *c*P/CP-analysis of CP-recursion in Danish. Because extraction can be shown to be possible from relative clauses, *wh*-islands, and adverbial clauses, and given that long extraction is successive-cyclic, an extra specifier position has to be available as an escape hatch. Consequently, such extractions require a CP-recursion analysis, as has been argued for embedded V2 and for complementizer stacking.

Given that CP-recursion in embedded V2 clauses does not allow extraction, whereas other types of CP-recursion do, we suggest that embedded V2 is fundamentally different, in that main clause V2 and embedded V2 involve a CP ("big CP"), whereas all other clausal projections above IP are instances of *c*P ("little *c*P"). The topmost "little" *c*° has an occurrence feature that enables extraction but bars spell-out of its specifier.

Key words:
CP-recursion, embedded verb second (V2), extraction, islands, complementizer stacking

1 Introduction

Scandinavian linguists have discussed long-distance extractions for more than a century under such evocative terms as *sætningsknude* (Danish for "sentence knot"), *satsfläta* (Swedish for "sentence braid") and *knutesætning* (Norwegian for "knot sentence"), all referring to the intertwining nature of long extractions (e.g. Mikkelsen 1911: 670; Allwood 1976, 1982, Engdahl 1982, 1997; Poulsen 2005, 2008). This type of structure has typically been viewed as strictly belonging to colloquial speech by prescriptive grammarians, and Hansen (1967:110) characterized variations of the phenomenon as being associated with "clumsiness, carelessness, or linguistic audacity."[1]

For decades, syntacticians, generative as well as others, have sought to characterize the constraints placed on extractions in natural languages. It is standardly assumed that movement operations such as the one in (1) occur successive-cyclically in the sense that the *wh*-element "stops over" at the left edge of the embedded clause:[2]

(1) What$_1$ did the professor say [__$_1$ that Susan forgot __$_1$]?

Ross (1967) coined the term "island" for constructions out of which extraction is blocked. A number of his island constraints were subsumed under Chomsky's (1973, 1977) Subjacency Condition, which has been considered key in understanding the phenomenon. However, Subjacency cannot fully account for the pattern of acceptable and unacceptable extractions in the Scandinavian languages, given that relative clauses and embedded interrogative clauses do not appear to be extraction islands, as we will see below. Since the 1970s, the Scandinavian languages have played an important role in the formulation of syntactic theories of extraction phenomena in general and island constraints in particular (Erteschik-Shir 1973; Engdahl & Ejerhed 1982; Taraldsen 1981; Maling & Zaenen 1982; Engdahl 1997; Poulsen 2005, 2008; Szabolcsi 2006).

In this paper, we want to propose a particular version of a CP-recursion analysis, which allows more material above IP[3] than just a single CP (see also Rizzi & Roberts 1989; Culicover 1992; Roberts 1993; Rizzi 1997; Müller & Sternefeld 1993; among others). In the literature on embedded verb-second (V2) in Scandinavian, CP-recursion analyses are often assumed either implicitly (e.g. Julien 2007; Bentzen et al. 2007) or explicitly (e.g. Iatridou & Kroch 1992; Vikner 1995; Brandtler 2008). If CP-recursion is allowed by Universal Grammar, such structures may be generated freely, and the data from Danish presented here suggest that CP-recursive structures are far more widespread than previously assumed, occurring not only in the context of embedded V2 and in complementizer stacking, but also in a range of long-distance extraction phenomena (from both so-called weak and strong islands). Nevertheless, under the analysis presented below, CP-recursion is a uniform phenomenon and its generation falls into two distinct types: one involving *c*P, employed in complementizer

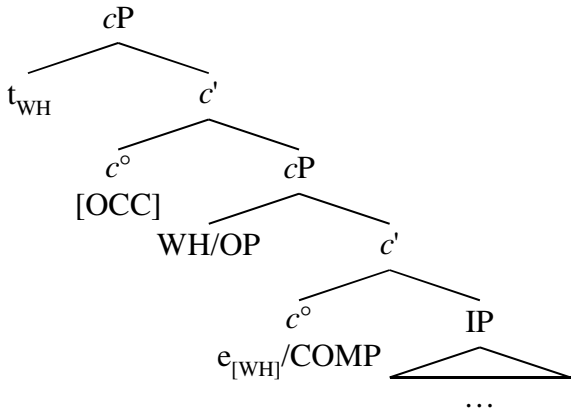
[1] "ubehjælpsomhed, skødesløshed eller sproglig frækhed" (Hansen, 1967:110)

[2] In the examples, we use underscores in gap positions in order to remain neutral with respect to traces versus copies.

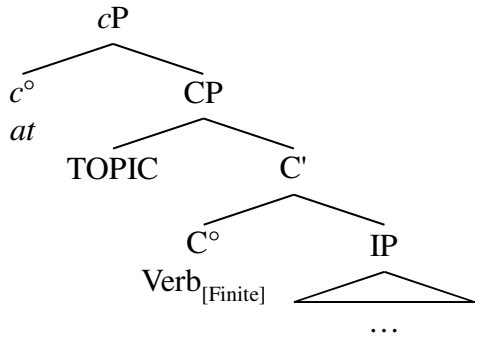
[3] We remain agnostic with respect to IP versus TP and employ the somewhat theory-neutral IP.

stacking and extraction contexts, and one involving CP, which exclusively contains V2 and disallows extraction.[4]

(2) a.



b.



The empirical goal of this paper is to argue in favor of the CP-recursion analysis by unifying the evidence from embedded V2 and complementizer stacking with the evidence from extraction in Danish (reaffirming the exceptional status of the Scandinavian languages in relation to supposedly universal constraints on extraction). The line of argumentation adopts the standard assumptions of strict cyclicity and the existence of edge features (or occurrence features [OCC]), required for independent empirical reasons, as discussed in section 2 below. The theoretical objective is to give a unified account of the data in terms of the differentiated CP-recursion analysis in (2) and to show how previous accounts of the extraction phenomena, including the minimalist multiple-specifier proposal (Chomsky 1995:286), come up short with respect to data from Danish.

2 CP-recursion and the difference between CP and *c*P

That the syntactic environments of embedded V2 and complementizer stacking form a natural class in that they allow CP-recursion in the embedded clause was suggested in e.g. Rizzi & Roberts (1989), Vikner & Schwartz (1996), Hoekstra (1993), and Watanabe (1993). The central claim in this article is that long-distance extraction belongs in the same group, as first sketched out in Christensen, Kizach & Nyvad (2013a: 247-248) for *wh*-islands. Our analysis is based 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 (see 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). As

[4] See Koizumi (1995) who posited a CP/PolP structure in parallel syntactic environments, and de Cuba's (2007) independent proposal that non-factive verbs select a non-recursive *c*P headed by a semantic operator removing the responsibility for the truth of the embedded clause from the speaker.

Rizzi (1997:281-283) points out, the CP-domain is the interface between the superordinate clause and the propositional content expressed by IP. Hence, it has two functions, one linking to the outside (possibly dependent on a higher selecting head that controls the specification of Force), and another determining the finiteness of the clause. Chomsky (2000) argues that syntactic derivation proceeds in phases and that the syntactic categories *v*P 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 (2001) Phase Impenetrability Condition (PIC) is equivalent to a return to strong Subjacency because it states that only occurrences on the edge of a phase and the phase head are accessible to e.g. movement once a phase is completed and the complement domain is transferred to the interfaces (see e.g. Legate 2003; Boeckx & Grohmann 2007; Kandybowicz 2008; for discussion). In other words, 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 generalized 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, while at the same time preventing it from staying and being spelled out in that position. The introduction 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 before transfer to the interfaces, and so island effects should not exist (as also observed by Boeckx 2012:60-61). In other words, the problem is a lack of restriction, and without the introduction of further assumptions, the minimalist system is not restrictive enough to account for the island phenomena: The PIC alone undergenerates as it does not provide an escape hatch, but the introduction of the all-purpose edge feature allows for considerable overgeneration.

If instead of multiple specifiers, CP-recursion is possible, the Danish data presented below are captured in a uniform manner. There seem to be two basic types of CP-recursion that occur independently in Danish: CP-recursion in extraction environments and in embedded V2, which will be examined in detail below. In order to reduce terminological confusion, a CP with V2 (i.e. a CP headed by a lexical predicate in its head position, Holmberg 1986:135ff and Branigan 1996) will be referred to as CP ("big CP"), whereas a CP without V2 (i.e. CP headed by a non-lexical element) will be referred to as *c*P ("little *c*P") (see also the structures in (2) above):

(3) a. $[_{cP}\ c^{\circ}\ _{[-\text{LEXICAL}]}]$ ("little *c*P")
b. $[_{CP}\ C^{\circ}\ _{[+\text{LEXICAL}]}]$ ("big CP")

One of the clear advantages of this partition is that V2 in main clauses and embedded clauses receive a unified analysis within the functional category of CP. The *c*P, on the other hand, hosts elements that are unequivocally subordinating in nature, namely, the complementizers. Complementizer stacking is here assumed to be a recursion of *c*P; it is optional and may co-occur either with the type of CP-recursion that takes place in long-distance extraction or with that in embedded V2. Extraction and embedded V2, on the other hand, are mutually exclusive. The role of *c*P is reminiscent of Larson's (1988, 1990) VP-shell analysis and the more recent addition of *v*P as the topmost layer in the VP-domain (Chomsky 1995:347). This basic distinction allows us to capture e.g. extraction from relative clauses (section 3), *wh*-islands (section 4) and adverbial clauses (section 5), while offering a structural account of embedded V2 (sections 6 and 8) and stacked complementizers (sections 7 and 8).

3 Extraction from relative clauses

As first noted in the 1970s, extraction from certain relative clauses is possible in the Scandinavian languages:

(4) De blommorna$_1$ känner jag en man som säljer __$_1$. (Swedish)
Those flowers know I a man who sells
(Engdahl 1997:5, (4))

(5) Sådan en hund$_1$ har Pia engang mødt en pensionist der havde __$_1$. (Danish)
Such a dog has pia once met a pensioner who had
(Christensen & Nyvad 2014:35, (13d))

One of the solutions proposed to salvage the supposedly universal Complex NP Constraint (CNPC, Ross 1967) was to analyze examples like (4) and (5) as instances of resumption (often referred to as the "resumptive pronoun strategy", cf. Chomsky 1982:11; Engdahl 1997:5; see also Boeckx 2012: 74ff for a discussion of island repair strategies). In other words, the underlined positions in (4) and (5) would not be trace positions, or copies under Chomsky's (1995) copy theory of movement, but instead resumptive pronouns without phonetic content.[5] However, as pointed out by Engdahl (1997:6), this assumption is not independently motivated, as Swedish and Danish do not allow empty pronouns in other contexts. Furthermore, *overt* resumptive pronouns in the underlined trace positions of (4) and (5) are ungrammatical.

Kush & Lindahl (2011) offer a structural explanation for apparent violations of the CNPC, claiming that extraction from subject relative clauses in Swedish is only possible in a subset of the relevant cases, namely those where the matrix verb selects a small-clause (SC) complement (see also Kush, Omaki & Hornstein 2013). They argue that SC-selecting verbs

[5] Extraction from relative clauses is also a possible long-distance dependency in French, according to Korzen (1977:13). She argues that the CNPC is not active in French, but given that the possibility of extracting out of relative clauses seems to be restricted to certain expressions (e.g. a semantically empty existential construction), she agrees that Ross' (1967) observation is a step in the right direction.

like *se* 'see' only *appear* to allow so-called "escapable islands", but that the seemingly problematic structure in fact does not involve extraction from an island at all. Instead, they suggest that the matrix verb selects a SC (in the form of a Predication Phrase, PredP) and not a CP, whereas verbs such as *träffa* 'meet' allegedly do not select a SC (but a CP) and hence incur an island violation (examples (6) and (7) are based on Kush & Lindahl 2011:3, (8)):

(6) a. Kalle såg en skateboardåkare som lyckades med det tricket i parken. (Sw.)
Kalle saw a skateboarder that succeeded with that trick in park.the

b. Det tricket$_1$ såg Kalle en skateboardåkare som lyckades med __$_1$ i parken.
That trick saw Kalle a skateboarder that succeeded with in park.the

(7) a. Kalle träffade en skateboardåkare som lyckades med det tricket i parken. (Sw.)
Kalle met a skateboarder that succeeded with that trick in park.the

b. *Det tricket$_1$ träffade Kalle en skateboardåkare som lyckades med __$_1$ i parken.
That trick met Kalle a skateboarder that succeeded with in park.the

Kush & Lindahl (2011) performed an acceptability judgment study on these types of constructions (with and without preceding context), and found that there was an interaction effect between extraction and matrix verb (*se* 'see' vs. *träffa* 'meet'), such that sentences of the type in (6b) were less acceptable than (7b), and not significantly different from ungrammatical fillers. According to Kush & Lindahl (2011), the reason why the Scandinavian languages have the option of escaping from subject relative clauses is due to "a lexical accident" (Kush & Lindahl 2011:9).[6]

Christensen & Nyvad (2014) investigated whether this claim would hold for data in Danish, and looked at structures such as the ones in (8), which involve an SC-selecting matrix verb in constructions with and without extraction, and (9), containing a non-SC-selecting matrix verb in the same circumstances (examples from Christensen & Nyvad 2014:35, (13)):

(8) a. Pia har engang set en pensionist der havde sådan en hund. (Danish)
Pia has once seen a pensioner who had such a dog

b. Sådan en hund$_1$ har Pia engang set en pensionist der havde __$_1$.
Such a dog has Pia once seen a pensioner who had

[6] Phillips (2011:18) claims that the amelioration effect of island constructions is a non-argument for processing accounts, because it typically "relies on the assumption that superficially similar sentences have the same syntactic structure" (Phillips 2011:13). He cites the following paradigm (also quoted in Boeckx 2012:40):

(i) Den teorin känner jag ingen som tror på. (Swedish)
That theory know I nobody who believes in

(ii) *Den här teori, finns det ingen som tror på.
This here theory exist there nobody who believes in

Although the jury may still be out on the question of whether a structural analysis can explain the "escapability" of island constructions in Scandinavian, the alleged contrast in (i)-(ii) does not exist; both (i) and (ii) are in fact grammatical (cf. Kush et al. 2013:242 and Heinat & Wiklund 2015:41).

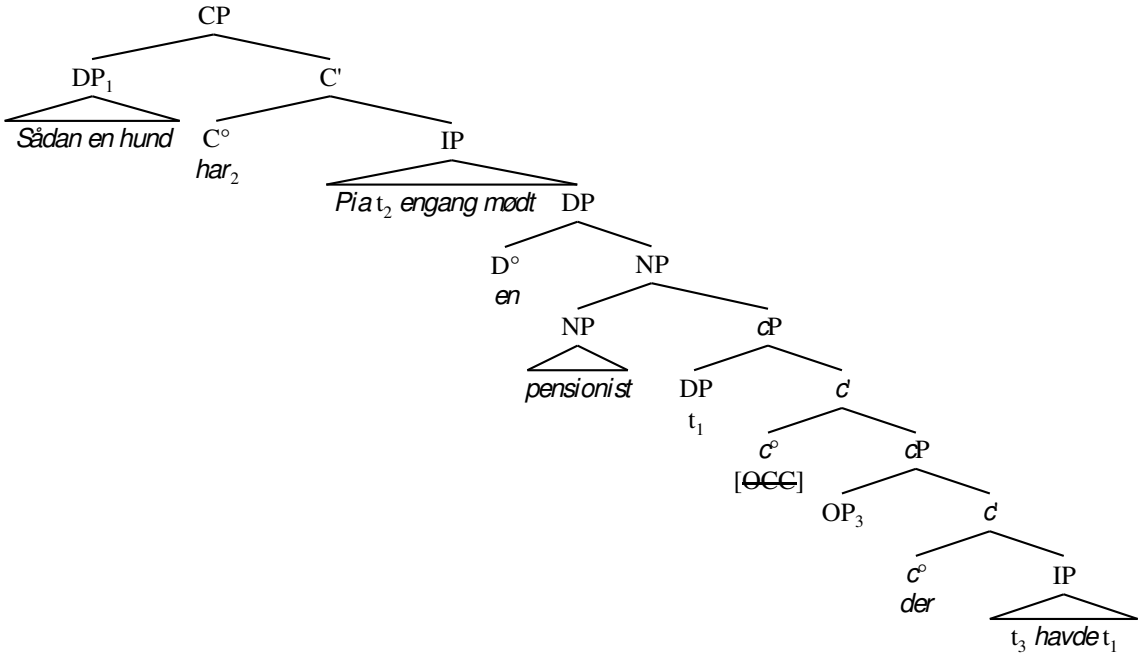
(9) a. Pia har engang mødt en pensionist der havde sådan en hund. (Danish)
Pia has once met a pensioner who had such a dog

b. Sådan en hund$_1$ har Pia engang mødt en pensionist der havde __$_1$.
Such a dog has Pia once met a pensioner who had

The difference in acceptability between SC-selecting verbs (8b) and non-SC-selecting (9b) did not reach significance in the extraction condition (remarkably, out of a total of 16 verbs, the non-SC-selecting *møde* 'meet' was the verb that received the highest acceptability ratings in the extraction condition), and hence the distinction between these two types of verbs does not seem to be crucial to understanding this extraction phenomenon in Danish.

The *c*P/CP-analysis proposed here will simply treat the possibility of this type of long-distance extraction as an instance of *c*P-recursion, as shown in the structure for (9b) in (10):

(10)



The topicalized constituent *sådan en hund* ("such a dog") is able to move out of the relative clause because *c*P is recursive, and the [OCC]-feature provides an escape hatch in its specifier.

4 Extraction from *wh*-islands

4.1 Argument/adjunct asymmetry

In the syntax literature, there is a 'standard pattern' of *wh*-extraction from *wh*-islands which involves an asymmetry. Object extraction is more acceptable than adjunct and subject extraction:

(11) a. ??[What$_1$ do you wonder [how$_2$ John could fix __$_1$ __$_2$]] (Object)
b. *[How$_2$ do you wonder [what$_1$ John could fix __$_1$ __$_2$]] (Adjunct)
c. *[Who$_1$ do you wonder [how$_2$ __$_1$ could fix the car __$_2$]] (Subject)
(Sabel 2002:272, (1))

In each of the examples in (11), there are two *wh*-extractions, both from positions within the embedded clause, but to different CP-Specs: One *wh*-element occupies the CP-Spec of the matrix clause and the other is in the CP-Spec of the embedded clause. However, if we assume that only one CP-Spec position is available in the embedded clause and that syntactic movement is successive-cyclic, this CP-Spec cannot both function as the final landing site for one *wh*-element and as an escape hatch for the other *wh*-element which undergoes long-distance *wh*-movement. This Subjacency violation accounts for why none of the sentences in (11) are grammatical.

As far as we can see, this minimalist analysis has two problems: On the one hand, islands should not exist (due to the availability of multiple specifiers, as discussed in section 2). On the other hand, none of the examples in (11) should be derivable: The [+wh]-features on *wh*-phrases are [+interpretable] and hence continue to be accessible for the computational system after they have been checked, allowing for the possibility of successive-cyclic movement. The embedded C° in (11a) contains a [+wh]-feature that needs to be checked, and therefore the closest *wh*-phrase *what* is moved to the embedded CP-Spec for feature-checking. The [+wh]-feature of the matrix C° subsequently attracts the *wh*-phrase *what* in the embedded CP-spec, and the resultant structure converges with all the relevant features checked, leaving *how* in situ:

(12) * [What$_1$ do you wonder [__$_1$ John could fix __$_1$ how]]?

Chomsky concedes that structures such as the one in (12) are "deviant" (Chomsky 1995:295) and as such they are problematic for his account. Thus, this account of *wh*-islands fails on two fundamental counts: First of all, the tools available cannot derive the relevant structures. Second, the argument/adjunct asymmetry that has been reported for a wide range of languages is not explained.

To solve these problems, Sabel (2002) argues that traces become *-marked if they violate a locality constraint (an idea based on Chomsky & Lasnik 1993). In addition, CP may have an infinite number of specifiers (cf. Reinhart 1981; Chomsky 1995:286; see also Koizumi 1995:152). Following an idea by Koizumi (1995), Sabel claims that an embedded C° in an indirect question, such as (11), can bear hierarchically ordered [+wh]-features ([wh1] > [wh2]), which each have to be checked in their own specifier. In this way both *wh*-phrases move in accordance with the Minimal Link Condition (MLC)[7]. Under this approach, the classic weak Subjacency effects found in *wh*-islands, (11a), are due to *-marking during the derivation when there is movement to matrix CP-Spec, and the equivalent of a classic ECP-

[7] The Minimal Link Condition: K attracts α only if there is no β, β closer to K than α, such that K attracts β (Chomsky 1995:311, (110)). Closeness is defined in terms of c-command, such that β is closer to the target K than α if β c-commands α.

violation, (11b) and (11c), is the result of a *-marked trace that is present at LF: The complement/non-complement asymmetry in the examples in (11) is thus argued to be the result of the impossibility for the *-marked subject and adjunct traces to delete at LF (unlike the *-marked object trace). However, as we will show below, although Sabel's (2002) analysis employs several assumptions that go beyond standard minimalist theory, it is not able to capture the data in Danish.

4.2 Absence of argument/adjunct asymmetry in Danish

The Scandinavian languages seem to allow extraction from *wh*-islands more freely than the other Germanic languages. Engdahl (1985:6) argues that the following example involving *wh*-movement from a *wh*-island is completely grammatical in Swedish. The corresponding example in Danish is also completely well-formed:

(13) Vilken film$_1$ var det du gärna ville veta vem$_2$ som __$_2$ hade regisserat __$_1$? (Swedish)
Which film was it you like would know who that had directed

(14) Hvilken film$_1$ var det du gerne ville vide hvem$_2$ der __$_2$ havde instrueret __$_1$? (Danish)
Which film was it you like would know who that had directed

Christensen, Kizach & Nyvad (2013a,b) examined *wh*-island constructions of the types in (15), comparing object and adjunct *wh*-movement across another *wh*-element, parallel to (11a,b) above.

(15) a. [Hvad$_1$ ved hun [hvor$_2$ man kan leje __$_1$ __$_2$]]? (Danish)
What knows she where you can buy

b. [Hvor$_2$ ved hun [hvad$_1$ man kan leje __$_1$ __$_2$]]?
Where knows she what you can buy

The results were surprising in that no argument/adjunct asymmetry was found, contrary to what was expected based on the 'standard pattern' in (11) above. In addition, Christensen et al. (2013a) found a repetition effect on the structures in (15) in the sense that participants found them more acceptable, the more such examples they had been exposed to (as opposed to the unambiguously ungrammatical fillers included in the stimuli). This effect was taken to suggest that *wh*-islands are in fact grammatical in Danish, based on the following line of reasoning in Sprouse (2007:124):

> *[O]nly grammatical constructions have a full, hierarchical representation, i.e. are able to be generated by a given grammar. Therefore, only grammatical sentences ought to show a priming/training effect (i.e. acceptability rating improving over time).*

The possibility of extracting a *wh*-element across another *wh*-element in Danish is perhaps not so unexpected in view of Engdahl's (1985) observation for Swedish, cf. (13) above. However,

the argument/adjunct symmetry found in the behavioral data in Christensen et al. (2013a,b) not only questions the status of embedded *wh*-clauses as *islands* (because the repetition effect suggests that they are grammatical), but also their traditional classification as *weak islands*, because complement/non-complement asymmetry is a defining characteristic of weak islands (see Szabolcsi 2006 for an overview).

A derivational account based on the Minimal Link Condition faces the same problems as described above in connection with data from English: The embedded [+wh] C° always attracts the closest *wh*-phrase and when this feature is checked, it should not be able to attract any other *wh*-element. Since *wh*-movement is successive-cyclic, then either C° should project two CP-Specs (cf. Reinhart 1981; Sabel 2002) or the embedded CP should be recursive (cf. e.g. Iatridou & Kroch 1992; Vikner 1995:119ff). As we do not find any argument/adjunct asymmetry, Sabel's (2002) *-marking analysis cannot account for the Danish data without further stipulations. Furthermore, as we shall see below, an analysis involving a single C° in the embedded clause cannot account for the distributional properties of Danish (and Scandinavian) embedded clauses. The *c*P/CP-division, on the other hand, allows the extraction of the *wh*-elements from non-V2-clauses:

(16) Hvad$_1$ ved hun [$_{cP}$ __$_1$ *c*° [$_{cP}$ hvor$_2$ *c*° man kan købe __$_1$ __$_2$]]? (Danish)
What knows she where you can buy

The absence of an argument/adjunct asymmetry in *wh*-islands in Danish poses a problem for the MLC approach because the lower *c*° should only be able to attract the *wh*-element that is closest to it; therefore we would only expect (15a)/(16) to be possible, and not (15b) where the extracted *wh*-element is an adjunct.[8]

5 Extraction from adverbial clauses

Another serious challenge to the island constraints proposed within the tradition of generative grammar is the possibility of extracting from adjunct clauses. Since Ross (1967), these have been treated as island environments. Huang (1982:505) proposed the Condition on Extraction Domains (CED), which states that a phrase can only be extracted out of a domain if the latter is properly governed.[9] Hence, extraction from a complement clause should be grammatical, while subjects and adjuncts constitute strong island environments, cf. (17a) which contains *wh*-movement out of an adverbial clause.

(17) a. *Who$_1$ did Mary cry after John hit __$_1$?
b. Who cried after John hit Mary?
(Huang 1982:503, (116))

[8] Perhaps one might assume a feature hierarchy along the lines of Koizumi (1995) and Sabel (2002), so that the lower *c*° will attract the right *wh*-element, and the [OCC]-feature will naturally attract the other.

[9] In the Principles and Parameters framework, the CED accounted for adjunct islands as a structural phenomenon and the minimalist approach (e.g. Uriagereka's 1999 multiple Spell-out account) is analogous in spirit.

However, Danish and the other Scandinavian languages provide numerous counterexamples to this. The following examples illustrate topicalization out of adverbial clauses of causation, (18a), condition, (18b), and time, (18c)[10]:

(18) a. Det$_1$ blev hun smaddersur [$_{cP}$ __$_1$ $c°$ [$_{cP}$ fordi jeg sagde __$_1$]]. (Danish)
That became she very.upset because I said
'She was extremely upset that I said that'
(Jensen 1998:17; Jensen 2001:57)

b. Det$_1$ vil jeg blive glad [$_{cP}$ __$_1$ $c°$ [$_{cP}$ hvis du vil gøre __$_1$]].
That will I become happy if you will do
'I would be happy if you would do that'
(Hansen 1967:110)

Jensen (2001) argues that the common denominator in examples like (18) is that the matrix predicate (copula or intransitive) encodes physiological or psychological states that the embedded clause provides an explanation for, allowing for so-called "semantic cohesion" between matrix and embedded clause. The latter notion is based on Van Valin & LaPolla (1997:478), who define it as "the extent to which a given construction expresses facets of a single event, action or state of affairs or discrete events, actions or states of affairs" (see Allwood 1976, 1982 and Erteschik-Shir 1973 for early accounts).

6 Embedded V2

Since work by den Besten (1977), the standard analysis of V2 has involved movement of the finite verb to C° (in current terms), immediately following the constituent in CP-Spec, (19).

(19) [$_{CP}$ De gamle sko$_1$ [$_{C°}$ har$_2$] han ___$_2$ glemt ___$_1$ på kontoret]. (Danish)
The old shoes has he forgotten at office.the

As regards the analysis of embedded V2 phenomena, there are two opposing views: One approach treats this type of data as movement of the finite verb to I° rather than to C° and movement of the fronted element to IP-Spec (Diesing, 1990; Thráinsson 1985), (20a), whereas de Haan & Weerman (1985) and Vikner (1995) have argued that the structure in

[10] Note that extraction out of adjunct clauses is not limited to topicalization. The examples in (18) are also acceptable as *wh*-questions:

(i) Hvad$_1$ blev hun smaddersur fordi jeg sagde __$_1$? (Danish)
What became she really.upset because I said
'What was she extremely upset that I said?'

(ii) Hvad$_1$ ville du blive glad hvis jeg gjorde __$_1$
What would you become happy if I did
'What would it make you happy if I did?

question involves CP-recursion in the sense that the subordinating conjunction occupies the upper C° and the finite verb the lower one, (20b).[11]

(20) Han sagde… (Danish)
He said

a. … [CP [C° at] [IP de gamle sko1 [I° har [VP han glemt__1 på kontoret]]]]]

b. … [*c*P [*c*° at] [CP de gamle sko1 [C° har] [IP han [VP glemt __1 på kontoret]]]]]]
that the old shoes has he forgotten at office.the
"He said that he has forgotten the old shoes at the office"

The general consensus in the literature is that licensing of embedded V2 is determined by properties of the lexical verb and the matrix clause (see Brandtler 2010 for an overview). This is challenged by Danish embedded V2 in e.g. adverbial clauses of reason, which are not selected by a matrix verb (the following examples are all from the online corpus *Korpus.dk*, July 26, 2013):

(21) a. …så der er en vis afbalancering, fordi **danskerne er ikke** stemt (Danish)
til yderpunkterne i det politiske billede.
…then there is a certain balancing, because Danes.the are not attracted to extremities.the in the political landscape

b. Jeg skal ikke gå meget ind i diskussionen her, fordi **processen er jo ikke** færdig.
I shall not go very in.to discussion-the here, because process.the is of.course not done

c. Det bliver en meget privat sag, fordi **jeg vil ikke** have, vi skal skifte fortov, når vi mødes.
It becomes a very private matter, because I will not have we must change sidewalk when we meet

[11] Andersson (1975) argued that the availability of embedded V2 is related to the semantic status of the proposition in the matrix clause. He showed that strong assertives (e.g. *say, claim*), weak assertives (e.g. *believe*) and semi-factives (e.g. *know, realize*) are able to embed V2 complements in Swedish, whereas non-assertives (e.g. *doubt, deny*) and emotive factives (e.g. *regret*) cannot (cf. the verb classes in Hooper & Thompson 1973). In addition, Andersson (1975) pointed out that negated strong assertives disallow embedded V2, while non-negated non-assertives allow V2. These overall divisions were replicated in Wiklund, Bentzen, Hrafnbjargarson & Hróarsdóttir (2009), who on this basis argue that the availability of embedded V2 observed in the Scandinavian languages correlates with illocutionary force, and suggest that assertive and semi-factive verbs select a ForceP, whereas non-assertive and truly factive verbs select a smaller clause. Their findings, however, reveal that V2 may occur independently of assertion: A major problem for the assertion-based theories to embedded V2 licensing is the fact that semi-factive verbs allow it. It is difficult to reconcile the presupposed nature of semi-factive complements with their being asserted (as would be required if embedded V2 depended on assertion).

Note, however, that even though the combination of *fordi* 'because' plus embedded V2, as in (21), is quite prevalent in Danish, it is difficult to find equivalent examples with other types of subordinating conjunctions. Vandergriff (2005) argues that a similar phenomenon with German *weil* 'because' is attributable to it acquiring a more coordinating function (but see Antomo & Steinbach 2010; for an analysis regarding *for* 'because' in Danish, see Nyvad 2016).

Given that the data in (21) involve an adverbial clause, it goes against Iatridou & Kroch's (1992) suggestion that embedded V2 can only be licensed by a lexical head. In addition, the fact that the subordinating conjunction, e.g. *fordi* 'because', is obligatory in (21) constitutes a counterexample to de Haan & Weerman's (1985) suggestion that the lexical verb in question must allow the deletion of the overt complementizer. In sum, the licensing of embedded V2 may not always be dependent on the matrix verb, and data from Danish involving embedded V2 suggest the need for a CP-recursion analysis.

7 Stacked complementizers

Danish allows complementizer stacking in constructions involving subject extraction from complement and relative clauses in colloquial speech, a phenomenon that Vikner (1991) argues is an instance of CP-recursion with each of the complementizers in (22) residing in their own C°. The combination of *som at der* is only possible in one specific order, namely the one in (22a) from Vikner (1991:132, (59)). Furthermore, the sentence in (22b) is not uncommon in informal contexts, suggesting that *som,* 'that', may not require an empty operator in its CP-Spec, contra Vikner (1991):

(22) a. Vi kender de lingvister… (Danish)
We know the linguists
…[$_{cP}$ OP$_1$ [$_{c°}$ som] [$_{cP}$ [$_{c°}$ at] [$_{cP}$ [$_{c°}$ der] [$_{IP}$ __$_1$ vil læse den her bog]]]].
that$_{REL}$ that$_{COMP}$ that$_{REL}$ will read this here book

b. Jeg ved ikke… (Danish)
I know not
…[$_{cP}$ hvem$_1$ [$_{c°}$ som] [$_{cP}$ [$_{c°}$ at] [$_{cP}$ [$_{c°}$ der] [$_{IP}$ __$_1$ vil læse den her bog]]]].
who that$_{REL}$ that$_{COMP}$ that$_{REL}$ will read this here book

In addition to complementizer stacking in complement and relative clauses, colloquial Danish also allows *at* 'that' to follow an element that is undoubtedly in C°, such as *skønt* 'though' or *hvis* 'if', (23), a feature also found in e.g. Middle English and West Flemish (see Vikner 1995:121-122 for further details and examples). Notice that the possibility of stacking complementizers seems to occur independently of long extraction, (24b). In addition, stacked complementizers may even co-occur with embedded V2 in adjunct clauses such as (25):

(23) **Hvis at** det ikke havde været så sørgeligt… (Danish)
If that it not had been so sad…
(Tom Kristensen, 1921, cited in Hansen 1967, III:388)

(24) a. Jeg ved ikke, **hvem** (**som**) ((**at**) **der**) burde tage opvasken. (Danish)
I know not who that that that should take dishes-the

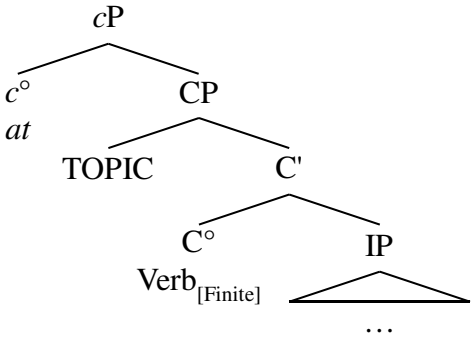
b. Hvem$_1$ tror du [$_{cP}$ __$_1$ c° [$_{cP}$ [$_{c^{\circ}}$ **at**] [$_{cP}$ [$_{c^{\circ}}$ **der**] __$_1$ vinder VM]]]?
Who think you that wins the.world.cup
(Formspring.dk, October 11, 2013)

(25) Chris rører ikke alkohol **fordi at** han vil ikke ende som sin far. (Danish)
Chris touches not alcohol because that he will not end like his father
(Studieportalen.dk, July 4, 2013)

According to Hansen & Heltoft (2011:1651-1672), the combination of a conjunction (e.g. *mens* 'while' and *når* 'when') and *at* 'that' is very prevalent in spoken Danish and dates back to the 16th century.

When complementizer stacking co-occurs with embedded V2, the CP-recursive structure is as follows:

(26) a. (Danish)



b. Han sagde forleden [$_{cP}$ [$_{c^{\circ}}$ at] [$_{CP}$ om morgenen$_1$ [$_{C^{\circ}}$ drikker] han altid kaffe __$_1$]].
He said the-other-day that in morning.the drinks he always coffee

c. Peter påstod [$_{cP}$ [$_{c^{\circ}}$ at] [$_{CP}$ det her$_1$ [$_{C^{\circ}}$ kunne] han gøre __$_1$ meget bedre]].
Peter claimed that this here could he do much better

d. Jeg er nem at finde [$_{cP}$ [$_{c^{\circ}}$ fordi] [$_{cP}$ [$_{c^{\circ}}$ at] [$_{CP}$ jeg [$_{C^{\circ}}$ gemmer] mig aldrig]]].
I am easy to find because that I hide me never

8 The islandhood of embedded V2 clauses

In Danish, there is a 'freezing effect' in embedded V2 clauses in that extraction is impossible, (27a). Furthermore, the embedded clause is itself incapable of undergoing any sort of movement, (27b):

(27) a. *Hvad/Kaffe$_1$ sagde han forleden at om morgenen drikker __$_1$ han altid? (Da.)
What/Coffee said he recently that in morning-the drinks he always

b. *At om morgenen$_1$ drikker han altid kaffe sagde han forleden __$_1$.
That in morning-the drinks he always coffee said he recently

This shows that an embedded CP containing V2 is opaque to any type of syntactic operation across its boundary, but semantic relations such as binding are upheld. Hence, *hans* 'his' in (28a) can be co-referent with *Lars* and satisfy Principle C (which requires the lack of c-command in such environments), whereas the example in (28b) is ungrammatical because *han* 'he' is able to bind *Lars* across the embedded V2 clause.

(28) a. Hans$_2$ mor sagde at den her bog$_1$ ville Lars$_2$ aldrig læse __$_1$. (Danish)
His mother said that this here book would Lars never read

b. *Han$_2$ sagde at den her bog$_1$ ville Lars$_2$ aldrig læse __$_1$.
He said that this here book would Lars never read

Embedded V2 clauses in Danish are islands because the overt realization of a CP-Spec (as opposed to *c*P-Spec) blocks any syntactic operations across it, (29a). Interestingly, movement operations applying across embedded V2 are also not permitted when the embedded clause is an adjunct, (29b). In other words, the status of the embedded clause as impenetrable does not seem to depend on the properties of the matrix verb. In addition, embedded V2 does not occur in indirect questions, (30a), or embedded *yes/no* questions, (30b):

(29) a. *Hvilken bog$_1$ sagde Sofie at i forvejen$_2$ havde vejlederen læst __$_1$ __$_2$? (Danish)
Which book said Sofie that in advance had advisor-DEF read

b. *Hvilken bog$_1$ blev Sofie sur fordi hun kunne ikke finde __$_1$?
Which book became Sofie upset because she could not find

(30) a. *Han vidste hvilken film$_1$ havde børnene aldrig set __$_1$. (Danish)
He knew which movie have children-the never seen

b. *Han spurgte om børnene$_1$ havde __ $_1$ aldrig set filmen.
He asked if children-the have never seen movie-the

Hrafnbjargarson et al. (2010) examined *wh*-extraction from V2-clauses in Danish, Faroese, Icelandic and Swedish and confirmed the conclusions reached in part by Holmberg (1986) and Vikner (1995): Extraction out of embedded clauses is generally possible, but it is subject to restrictions when the embedded clause is V2. More specifically, when the embedded V2 clause has a fronted non-subject, the resulting structure is ungrammatical across the board (suggesting that topic islands are strong, cf. Müller & Sternefeld 1993:493ff), but extraction from subject-initial V2 clauses is possible to varying degrees in the languages investigated: Danish and Swedish allow neither *wh*-argument nor *wh*-adjunct extraction out of embedded V2 clauses, Faroese and Icelandic allow both, whereas only *wh*-argument extraction is allowed in Norwegian. Hrafnbjargarson et al. (2010) view this variation as possible support for the idea that there is no single V2 position in the clause but rather an articulated left periphery along the lines of Rizzi (1997).

However, given that both fronted subjects and non-subjects in embedded V2 structures incur a strong island effect in Danish, there is no empirical need to differentiate the target position of the XP that precedes C°.

Vikner (1995:49), following Rizzi & Roberts (1989:20), relies on the *Wh*-Criterion (Rizzi 1997:378), requiring a Spec-X° agreement relation in the CP-domain, and the existence of a [+wh]-feature on C° in order to account for the impossibility of embedded V2 in indirect questions:

(31) a. Han ved ikke [$_{cP}$ hvilken bog$_1$ [$_{c°}$ [+wh]] pigen har læst __$_1$]. (Danish)
He knows not which book girl-the has read

b. *Han ved ikke [$_{cP}$ hvilken bog$_1$ [$_{c°}$ har] pigen læst __$_1$]. (Danish)
He knows not which book has girl-the read

The embedded CP is the complement of the [+wh]-selecting verb *ved* 'know' in (31). If a *wh*-word is part of the CP-domain in a recursive structure, it will always be in the highest *c*P-layer, because this *c*P is directly selected by the matrix verb as [+wh]. The head of *c*P cannot be filled by verb movement into it, because the selected [+wh]-feature would be deleted by such a movement.[12] The *Wh*-Criterion may interact with the CP-recursion analysis presented here if we assume that it only applies to the topmost *c*P, which is selected by a verb as [+wh].

[12] Following Grimshaw (1997:412), McCloskey (2006:103), and Rizzi & Roberts (1989:20), related considerations account for why the complementizer *at* is obligatory with V2 in declarative complement clauses (see e.g. (20)b, (26)a-c):

Like interrogative complement clauses, also declarative complement clauses are selected. If the head of a selected clause is a C° into which there is verb movement in the cause of the derivation, then this C° would have a completely different feature make-up at the beginning and at the end of the derivation, i.e. before and after the finite verb moves into C°. In other words the selected head at the beginning of the derivation would be very different from the selected head at the end of the derivation, and therefore whichever selectional requirements were satisfied at the beginning of the derivation would no longer be satisfied at the end of the derivation (and vice versa).

If on the other hand, there is a *c*P (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 *c*P, its head is a *c*° which does not change in the course of the derivation, and the C° into which there is verb movement is situated further down inside the *c*P.

This has empirical consequences: It predicts that a CP-recursion involving two *wh*-elements in the embedded clause is not possible (note that the *wh*-island constructions do not fall in this category because of the [OCC]-feature on the topmost *c*°), cf. (16). The ungrammaticality of (32b) below would, in fact, be surprising with a non-recursive CP, given that there would be agreement between *c*P-Spec and *c*°. According to the analysis presented in this section, *hvornår* 'when' in (32b) cannot stay in *c*P due to the [OCC] in *c*°:

(32) a. Jeg ved ikke [$_{cP}$ <u>hvornår</u>$_{[+wh]1}$ $c°_{[+wh]}$ han henter mig __$_1$]. (Danish)
I know not when that he fetches me

b. *Jeg ved ikke… (Danish)
I know not
[$_{cP}$ <u>hvornår</u>$_{[+wh]1}$ $c°_{[OCC]}$ [$_{cP}$ OP$_{[+wh]}$ [$_{c°}$ om$_{[+wh]}$] han henter mig __$_1$]].
when if that he fetches me

The *c*P-layer headed by a *c*° carrying an [OCC]-feature is transparent to selection in the same way as, for example, 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*). (This is also in line with the notion of extended projections, Grimshaw 2005)

The different *c*P/CP-layers argued for here are not identical: The topmost *c*P has a special status in the sense that it is selected (with the exception of adjunct clauses, of course) and it is hence obligatory, unlike the *c*Ps/CPs that follow it (probably the same basic insight that made Rizzi 1997:297 argue for ForceP as the topmost projection in the left periphery of the clause). Furthermore, the CP containing embedded V2 is fundamentally different from *c*P in that it seems to constitute a strong island in Danish (cf. Müller & Sternefeld's 1993:493ff topic islands), a noteworthy observation in view of the fact that all of the other traditional island environments under investigation here qualify as weak islands at best.

Thus, while the CP-recursion analysis argued for in this paper strives towards a unification of the data examined, it is fairly restricted: First, stacked complementizers have to occur in a specific order (Vikner 1991). Second, overt *wh*-elements must occur in the topmost *c*P-Spec as they will always be selected by a matrix verb, preventing two *wh*-elements from co-occurring in the same phase edge after Spell-Out. Third, the data point to two further constraints. (i) A *c*P with an [OCC]-feature is not possible immediately above a CP; in other words, embedded V2 is a strong island. (ii) The embedded phase edge (*c*P) may only provide one escape hatch in Danish, i.e. contain one specifier with an [OCC]-feature. Thus, while the multiple specifier analysis is both too strong and too weak, the assumption that embedded *c*P may be recursive captures the island extraction facts, the stacked complementizer system and the embedded V2 phenomenon in Danish. In long extractions, the [OCC]-feature provides the necessary specifier position.

9 Residual Issues

Erteschik-Shir (1973, 1982) offers an extra-syntactic account of extraction phenomena in Danish and argues that the notion of pragmatic dominance in discourse is essential to understanding when clause-boundary crossing is possible. She argues that assertive force, which she terms "dominance", controls extraction in Danish. In her terminology, a "dominant" clause is one from which extraction is possible and it is characterized in the following way (Erteschik-Shir 1982:176):

> *A constituent c of a sentence S is dominant in S iff the speaker intends to direct the attention of his hearer(s) to the intension of c, by uttering S.*

As suggested by Stowell (1981:404), the major assertion of a sentence is typically located in the matrix clause, but sometimes the embedded clause contains this type of information, in which case extraction is allegedly possible. Note the parallel to Wiklund et al.'s (2009:1914) Assertion Hypothesis: "the more asserted (the less presupposed) a complement is, the more compatible it is with V2" (see also Julien 2007). This suggests that extraction and embedded V2 are subject to conflicting licensing conditions (perhaps requiring focus realization in two different positions at once). Strikingly, verbs that are not semantically dominant/assertive allow extraction and embedded V2 (the so-called bridge verbs).

However, Erteschik-Shir's (1973, 1982) Dominance Theory cannot fully account for weak islands, given that it does not predict that there is a difference between the extractions of direct objects, subjects and adjuncts. The studies in Christensen et al. (2013a,b) suggest that there is no significant difference in extracting objects and adjuncts from complement clauses (specifically *wh*-islands). Hence, we would predict extraction from adjunct clauses to be just as acceptable. A very informal survey with 62 native speakers in fact suggests that this is so. (33a) and (33b) are significantly better than (33c) which is judged as completely ungrammatical. (What remains to be explained is why (33b) seems to be even more acceptable than (33a).)

(33) a. ?Hvad$_1$ bliver du sur, hvis jeg begraver __$_1$ i haven? (Danish)
What become you mad if I bury in garden.the

b. Hvor$_1$ bliver du sur, hvis jeg begraver skatten __$_1$?
Where become you mad if I bury treasure.the

c. *Hvem$_1$ bliver du sur, hvis __$_1$ begraver skatten i haven?
Who become you mad if buries treasure.the in garden.the

Note that the subject extraction in (33c) may be blocked for independent reasons, cf. the *that*-trace effect (see also Nyvad, Christensen & Vikner 2014 for interesting extraction facts related to aphasia).

Numerous semantic accounts of a variety of extraction phenomena rely on a semantic bond of some sort between the extracted element and the domain from which it is extracted

(e.g. Jensen 2001; Van Valin & LaPolla 1997; Allwood 1976, 1982; Truswell 2007a,b; Brandtler 2010, to name a few). These theories may ultimately boil down to an account in terms of processing: The more intervening elements there are between an extracted element and its base-position, and the fewer semantic clues (e.g. in terms of salience or event structure), the harder it is to parse a sentence (cf. Christensen et al. 2013a,b; Hawkins 1994, 2004; Gibson 1998, 2000).

However, a processing account cannot explain the extraordinary extraction possibilities in the Scandinavian languages, because it does not expect languages to be different in this respect. Why should the Scandinavian languages differ from related Germanic languages such as English, German and Dutch in allowing extraction from a variety of embedded clauses? According to Engdahl (1997:36), the explanation may lie in a preference for an utterance structure with fronting of either contrastive or continuous topics in the Scandinavian languages. The type of clause which the element is extracted from – matrix, relative, complement, or adverbial – is not pivotal to whether the resultant structure is grammatical or not. Instead, Engdahl (1997:38) argues,

> *[a] crucial property of the acceptable examples seemed to be that the remainder of the clause was interpreted as a coherent and relevant comment on the fronted constituent in the utterance context.*

In other words, she suggests that two pragmatic factors are crucial to the acceptability status of the extraction construction, namely that fronting is motivated by context and that the information structure is in accordance with the interlocutor's background knowledge. This pragmatic approach is difficult to test and attempts at investigating whether context is crucial in extraction acceptability have led to diverging results, cf. Kush & Lindahl (2011) and Kristensen et al. (2013).

Contra Truswell (2007a,b), who argues that extraction from adjunct clauses is ungrammatical by default and that the exceptions should be explained in terms of extra-syntactic factors, what we are advocating in this paper is that the possibility of extracting out of embedded clauses is widely available in Danish due to the option of CP-recursion (which may, however, be subject to parametric variation cross-linguistically. See below). This means that ungrammatical/degraded examples may be explained for example in terms of syntactic constraints (e.g. the blocking effect of CP in embedded V2) and/or extra-syntactic factors (such as working memory limitations). *c*P/CP recursion is (presumably) typologically rare; otherwise island violations and complementizer stacking would be more widespread in the literature. A possible reason for this could be that *c*P/CP recursion is a possible solution provided by UG, but that it is a computationally costly solution. In other words, the effect is due to a third factor in the sense of Chomsky (2005) in that *c*P/CP recursion has a high processing cost (Christensen, Kizach & Nyvad 2012, 2013a,b). In other words, it is possible but improbable in the sense of Newmeyer (2005).

10 Conclusion

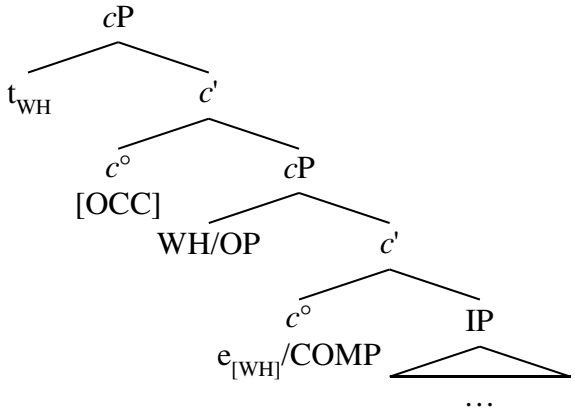
This paper has made at least two important contributions: One, the differences between types of islands are not as clear-cut as usually assumed. Two, a range of apparently different phenomena related to extraction and embedding can be unified in an elegant way.

Firstly, concerning the status of certain extraction domains as islands: Adverbial clauses and relative clauses have typically been viewed as strong islands, given that 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 laid out in this paper 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. Compatible with the processing account outlined in Christensen, Kizach & Nyvad (2013a,b), it may be that island sensitivity in the structural environments investigated here is orthogonal to the distinction between argument and adjunct.

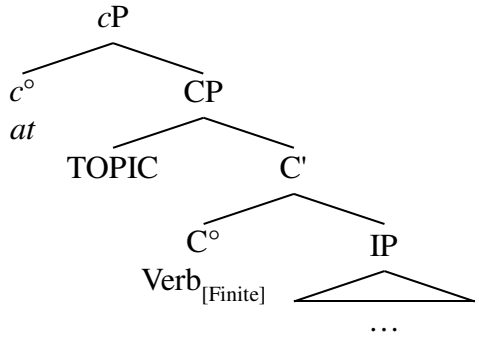
The second major contribution of this paper is the unified account of a wide range of phenomena in Danish on the basis of the idea of CP-recursion, including embedded V2 and island phenomena in the form of relative clauses, *wh*-islands and adverbial clauses. As pointed out by Johnson & Vikner (1994), 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 complementizer 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 complementizers.

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 *c*P/CP distinction: The CP-recursion found in complementizer stacking and long extractions requiring an [OCC]-feature involves a recursion of *c*P, (34a), whereas the syntactic island constituted by embedded V2 involves the presence of a CP, (34b).

(34) a.



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, and that embedded V2 is in complementary distribution with the presence of an overt complementizer in C°. In English and Icelandic, on the other hand, embedded V2 may target another functional projection than in Danish. 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, 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 assumption of CP-recursion as argued for here must be the null hypothesis, as it captures the data presented here and, crucially, it does not require making any further stipulations.

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