6   Finite verb movement in Scandinavian embedded clauses

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1 Introduction

In this paper, I want to discuss movements of the finite verb in the Scandinavian languages, and especially in embedded clauses.[1]

Assuming a basic structure where IP is the complement of C and VP is the complement of I, two movements are possible: V-to-I movement (1) and V-to-I-to-C movement (2):

(1) $[_{CP}$ Spec $[_{C'}$ C $[_{IP}$ Spec $[_{I'}$ I $[_{VP}$ Spec $[_{V'}$ V ...

(2) $[_{CP}$ Spec $[_{C'}$ C $[_{IP}$ Spec $[_{I'}$ I $[_{VP}$ Spec $[_{V'}$ V ...

Before discussing the two movements in detail, I would like to mention some problems connected with telling them apart. There are thus, at least in theory, three different positions in (1) and (2) that the finite verb may occupy: C, I, or V. Whether the finite verb is in V or not can be determined from its position relative to a sentence-medial adverbial (i.e. an adverbial which follows the subject but precedes the complement of the verb), as demonstrated for verb movement in French and English by Emonds (1978) and Pollock (1989). The medial adverbial is adjoined to the VP, which means that if the verb precedes the adverbial, it has left the VP, whereas if the verb follows the adverbial, it must still be in V. One can thus tell that main verbs stay in V in English, whereas they leave VP in French:

(3)   a. Marie often goes to Paris
      b. *Marie goes often to Paris

(4)   a. *Marie souvent va à Paris
      b. Marie va souvent à Paris

When the finite verb leaves VP, it moves to I, from where it may move on to C. Whereas it can be determined whether the movement from V to I takes place, this is not always the case for the movement from I to C, depending on the position of the subject. If the subject occurs in the normal subject position, Spec of IP, the finite verb must be in C if it precedes the subject, and in I if it follows the subject (as long as it still precedes a medial adverbial). It is however also possible that the subject itself moves, from Spec of IP to Spec of CP, and so we cannot tell for any "subject-verb-…" sequence, whether the subject is in Spec of IP and the verb in I or the subject has moved to Spec of CP and the verb to C:

(5) a. Marie va souvent à Paris
     b. Marie tager ofte til Paris (Danish)
        'Marie goes often to Paris'

If on the other hand the verb precedes the subject, there is no doubt that the verb has moved to C. We can take the possibility of such a sequence as an indication of whether the verb has moved from I to C in a subject-verb sequence:

(6) a. Heureusement Marie va souvent à Paris
     b. *Heureusement va Marie souvent à Paris
     c. *Heldigvis Marie tager ofte til Paris
     d. Heldigvis tager Marie ofte til Paris
        'Luckily (goes) Marie (goes) often to Paris'

(6) thus supports the analysis that the French finite verb only moves to I and cannot move to C (it has undergone "independent" V-to-I movement in (5a)) and that the Danish finite verb moves all the way to C (it has undergone V2 in (5b)).

In section 2, I will discuss V-to-I movement, before I turn to V2 in section 3. I will argue that independent V-to-I movement (1), as opposed to V-to-I movement as part of V2 (2), does not occur in the Scandinavian languages, except in Icelandic embedded questions.

2 V-to-I movement

2.1 Verbal inflection

Kosmeijer (1986), Holmberg & Platzack (1991, in press), Platzack (1988), and others observe that a correlation seems to hold between the inflection of the finite verb and the apparent occurrence of V-to-I movement. They propose to analyze V-to-I movement as a movement motivated by the presence of inflectional morphology in I. In this section I will argue that the predictions yielded by this view are essentially correct, provided it is interpreted in the following fashion: rather than say that V-to-I movement only takes place if inflectional morphology is present in I, I would like to interpret the above suggestions to say that the verb may only stay in V if there is no inflectional morphology in I. The reason for this is that V2 also takes place in languages with no inflectional verbal morphology (i.e. Danish, Norwegian, and Swedish), and taking V2 to be V-to-I-to-C movement means that the verb may move to (and through) I even in languages without inflectional morphology in I. As an indication of whether a language has inflectional morphology generated in I (which should then make V-to-I movement of finite verbs obligatory), one may consider standard verb paradigms like the following:

(7) *throw*, infinitive and present indicative:

		Icelandic	Faroese	Danish
	Inf.	kasta	kasta	kaste
Sg.	1	ég kasta	eg kasti	jeg kaster
	2	þú kastar	tú kastar	du kaster
	3	hann kastar	hann kastar	han kaster
Pl.	1	við köstum	vit kasta	vi kaster
	2	þið kastið	tit kasta	I kaster
	3	þeir kasta	tey kasta	de kaster
	Total	4	3	1

One might expect I to have content if the language distinguishes between the various persons and numbers. This, which essentially is what is suggested in Holmberg & Platzack (1991:98), would however predict the only languages to allow the finite verb to stay in V to be Danish, Norwegian, and Swedish, a prediction which does not hold, as this is also possible in Faroese (and in English). V-to-I movement would be expected to have to take place if I had any content at all, and I would be expected to have content if any distinctions were made between different combinations of person and number, as is the case in Faroese (and in English).

A solution could be to say that a *substantial* number of distinctions are needed for V-to-I movement to have to take place. This raises the question of how finite verbs in English and Faroese are united with

their inflectional endings (-s in English 3sg, -i in Faroese 1sg, -r in Faroese 2sg & 3sg). I will assume that these inflectional elements are actually base-generated in I, but subsequently moved downward to merge with the verb in V. This idea can be found in Emonds (1976, 1978), Pollock (1989), Chomsky (1991), Rizzi (1990b:22-24), among others, and it is ultimately derived from the affix hopping analysis of Chomsky (1957).

One particular version of the idea of "substantial number of distinctions" is given by Platzack & Holmberg (1989:70), who suggest that (obligatory) V-to-I movement is triggered by the existence of distinctions between different persons. This is done in order to account for the difference between two Scandinavian dialects: in the Swedish dialect Älvdalsmålet (spoken in Dalecarlia, eastern central Sweden) there are both number and person distinctions, whereas in the Norwegian dialect of Hallingdalen (central southern Norway) the verb is only inflected for number, not for person:

(8) *throw*, infinitive and present indicative:

		Älvdalsmålet	Hallingdalen	
	Inf.	kasta	kastæ	
Sg.	1	kast*ar*	kast*a*	
	2	kast*ar*	kast*a*	
	3	kast*ar*	kast*a*	
Pl.	1	kast*um*	kastæ	(Älvdalsmålet from Levander
	2	kast*er*	kastæ	(1909), Trosterud (1989:97-98),
	3	kast*a*	kastæ	Hallingdalen from Trosterud
	Total	4	2	(1989:88-89)

Only Älvdalsmålet may have V-to-I movement:[2,3]

(9) ba fo dye at uir *uildum* int fy om (Älvdalsmålet)
     just because that we would (1pl) not follow him
                    (from Levander (1909), cited in Platzack & Holmberg (1989:70))

(10) a. … at me ikkje kjøpæ bokje (Hallingdalen)
     b. *… at me kjøpæ ikkje bokje
         … that we (buy(pl)) not (buy(pl)) book-the
                                      (from Trosterud (1989:91, (4g,h)))

This account would, however, predict incorrectly that Faroese should have (obligatory) V-to-I movement: whereas Hallingdalen makes no distinctions between different persons, Faroese distinguishes between first person singular and second/third person singular.

A refinement of Platzack & Holmberg's suggestion is made by Roberts (1993), who suggests that (obligatory) V-to-I movement is triggered by the existence of inflectional endings both in the singular and in the plural ("if there is overt, equipollent marking for number," Roberts (1993:267). In Älvdalsmålet, there are endings which are marked plural, -*um* ,-*er*, and also one which is marked singular, -*ar*, which is sufficient to show the language learner that lexical material is generated in I which requires the verb to move there. In Hallingdalen, on the other hand, there is an ending marked singular, -*a*, but no plural ending at all (the plural form is identical to the infinitive and (presumably) also to the imperative singular).[4]

Applying this analysis to various Germanic languages (and French), we obtain the correct predictions that German, Icelandic, Yiddish, and French (like Älvdalsmålet) all have obligatory V-to-I movement and that English, Danish, and Faroese (like Hallingdalen), on the other hand, do not have it.

English and Faroese are very much like Hallingdalen, in that they have endings which are marked singular, English -*s* (3sg), Faroese -*i* (1sg) and -*ar* (2sg, 3sg), but no endings in the plural at all; the plural form is identical to the infinitive and to the imperative (in Faroese to the imperative singular).

In Danish (along with Norwegian and Swedish), the situation is slightly different, as there are endings present and the present tense form, Da. *kaster*, is distinct from both the infinitive, *kaste*, and the imperative, *kast*. But although there are endings, they can be analyzed as endings of tense, and not of number, as they are the same in both singular and plural. Historically, what happened was that Middle Danish had a system like Hallingdalen, an ending in the singular, -*r*, but no ending in the plural. When the singular ending generalized to the plural (a process starting in the west of Denmark around or before 1400, though the plural forms only disappeared completely in print around 1900), it lost its meaning as a marker of number and became a marker of tense only.

The conclusion is then that what is necessary to lose obligatory V-to-I movement is the absence of endings in either singular or plural. The actual transition between two stages is influenced by the number of "forward compatible" constructions, i.e. acceptable word orders from before the change (i.e. with V-to-I movement) that are compatible with the new analysis (i.e. without V-to-I movement). For the Scandinavian languages such word orders not only include all V2 structures, where the finite verb is in C and therefore cannot be seen

in I or in V, but also non-V2 structures without medial adverbials or negations and also the so-called stylistic fronting structures, cf. Vikner (1991).

Having discussed the status of verbal inflection and its possible connection with V-to-I movement, I will now go on to consider the evidence concerning V-to-I movement in the different Scandinavian languages.

2.2 Languages without V-to-I movement

The data provide direct evidence whether or not V-to-I movement has taken place. It has taken place if the finite verb precedes a medial adverbial (taken to be adjoined to VP) or a negation, and it has not taken place if the finite verb occurs right of such elements. The languages without obligatory V-to-I movement are English and Danish (and Norwegian, Swedish, and also the Norwegian dialect from Hallingdalen, as discussed in section 2.1). In the following subsection, 2.3, I will argue that Faroese also belongs in this group. None of these languages has inflectional morphology both in the singular and in the plural (cf. the discussion in 2.1 above): English, Hallingdalen, and Faroese have endings marked singular, but no endings in the plural at all. Danish, Norwegian, and Swedish have endings both in the singular and in the plural, but as they are the same in singular and plural, they can be taken to be tense morphology rather than inflectional morphology.

Consider first the data from English. Here we see the absence of V-to-I movement both in main clauses (11a,b), in embedded complement clauses (11c,d) and in relative clauses (11e,f).

(11) a. *Marie *smokes* often these cigars
     b. Marie often *smokes* these cigars
     c. *Peter doubts that Marie *smokes* often these cigars
     d. Peter doubts that Marie often *smokes* these cigars
     e. *The cigars that Marie *smokes* often are expensive
     f. The cigars that Marie often *smokes* are expensive

Let us then turn to Danish. Here V-to-I movement takes place in the main clause (12a,b) but not in the embedded complement clause (12c,d), nor in the relative clause (12e,f):

(12) a. Marie *ryger* ofte disse cigarer
     b. *Marie ofte *ryger* disse cigarer

Marie (smokes) often (smokes) these cigars
     c. *Peter tvivler på at Marie *ryger* ofte disse cigarer
     d. Peter tvivler på at Marie ofte *ryger* disse cigarer
     Peter doubts on that Marie (smokes) often (smokes) these cigars
     e.*De cigarer som Marie *ryger* ofte er dyre
     f. De cigarer som Marie ofte *ryger* er dyre
     The cigars which Marie (smokes) often (smokes) are expensive

The question is whether what we see in (12a,b) is independent V-to-I movement or only V-to-I movement as part of V-to-I-to-C movement (i.e. as part of V2). If we consider topicalization, i.e. non-subject initial clauses (6c,d), it is clear that the verb in main clauses moves to C in Danish, and so I take it that V2 also takes place in subject-initial main clauses. Consequently, (12a,b) is not independent V-to-I movement and then Danish and English are alike, in that neither has independent V-to-I movement.[5]

2.3 Faroese

I will argue in this section that modern spoken Faroese is like Danish, Norwegian, and Swedish, and also English and Hallingdalen in that it does not have independent V-to-I movement. As this is not an uncontroversial statement, I will discuss a number of examples in detail. First a main clause:

(13) a. Dreingirnir *vóru* als ikki   ósamdir
     b. *Dreingirnir   als ikki   *vóru*   ósamdir
        Boys-the (were) at-all not   (were) disagreed
     c. I gjàr   *vóru* dreingirnir   als ikki   ósamdir
     d. I gjàr   dreingirnir *vóru* als ikki   ósamdir
     e. *I gjàr   dreingirnir   als ikki *vóru* ósamdir
        Yesterday (were) boys-the (were) at-all not (were) disagreed

(13a,b) shows that the verb cannot be left in V in a main clause. The verb in (13a) could then be either in C or in I. When we look at a topicalization (13c,d,e), it is clear that here the finite verb is in C and not in I nor in V. This amounts to saying that Faroese has V2 in main clauses, so I will take it that (13a) is also a V2 clause, and that the verb is in C.

Consider now a situation where embedded V2 is possible.

(14) Tróndur segði, at ...
     Tróndur said that ...

a. ... dreingirnir *vóru*   als   ikki ósamdir
b. ...   dreingirnir als ikki *vóru* ósamdir
   ... (boys-the) (were) (boys-the) at-all not (w.) disagreed
c. ... í gjár *vóru* dreingirnir   als ikki   ósamdir
d. *...í gjár   dreingirnir *vóru* als ikki   ósamdir
  *... í gjár   dreingirnir   als ikki *vóru* ósamdir
  ... yesterday (were) boys-the (were) at-all not (w.) disagreed

(14a,b) shows that the verb can either be left in V in a subject-initial clause or moved out of V. The verb in (14a) could then be either in C or in I. From the fact that an embedded topicalization is possible here (14c), and only with V2 (14d,e), I conclude that both V2 with the verb in C (14a,c) and non-V2 with the verb in V (14b), are possible in this context. The fact that embedded V2 is possible in spite of the presence of an overt complementizer, *at*, in (14a,c) might be a problem for the analysis of V2 as movement of the finite verb to C. As discussed below in section 3.2.1, I suggest that sentences like (14a,c) contain two CPs inside each other. Consider now a situation where embedded V2 is not possible:

(15) Tað var óvæntað, at ...
    It was unexpected that ...

a. *... dreingirnir *vóru*   als ikki   ósamdir
b. ...   dreingirnir als ikki *vóru* ósamdir
  ... (boys-the) (were) (boys-the) at-all not (w.) disagreed
c. *... í gjár *vóru*   dreingirnir   als ikki   ósamdir
d. *... í gjár   dreingirnir *vóru* als ikki   ósamdir
e. *... í gjár   dreingirnir   als ikki *vóru* ósamdir
  ... yesterday (were) boys-the (were) at-all not (w.) disagreed

According to my informants, the only possibility here is a subject-initial embedded sentence with the verb after the sentence adverb (15b), i.e. with the verb in V. (15a) shows that the verb can neither be in C nor in I.

For the sake of comparison with Icelandic in section 2.4 below, the following should be noticed about (14) and (15): the only difference between them is the matrix predicate, *to say X* vs. *for X to be unexpected*, and only with the former, but not with the latter, is embedded V2 possible. Furthermore, even in the context where embedded V2 is possible (14), it is also possible for the verb to stay in V (14b). Notice also that the corresponding situation in Danish, Norwegian, and Swedish is exactly parallel. The following pair of examples supports the above

analysis:

(16) a. Maria *vil*   gjarna   í biograf
    b. *Maria   gjarna *vil*   í biograf
      Maria (will)   gladly (will) in cinema

(17) a. *Eg vil vedda uppá, at Maria *vil*   gjarna   í biograf
    b. Eg vil vedda uppá, at Maria   gjarna *vil* í biograf
      I will bet on   that Maria (will) gladly (will) in cinema

In main clauses, V2 is obligatory, and therefore the finite verb precedes the sentence adverb in (16a) (if the subject had not been moved to Spec of CP here, then the finite verb would also have preceded the subject). In some embedded clauses like (17), V2 is impossible, and then we can clearly see that V-to-I movement is also impossible, leaving the verb in V (17b). The same analysis will also account for the situation with respect to relative clauses. V2 is not possible, making it possible to see that V-to-I movement also is impossible:

(18) a. *Har vóru nógv fólk,   Fríðrikur *kendi* ikki
    b. Har vóru nógv fólk,   Fríðrikur   ikki *kendi*
      There were many people Fríðrikur (knew) not (knew)

             (adapted from Lockwood (1955:156) and Barnes (1987:15, (30)))

The judgments in examples of the type (15a) and (17a) are somewhat controversial. According to my informants, they deserve a *, but according to (the informants of) Michael Barnes (p.c.), examples of the same type are not all that unacceptable, or in some cases even acceptable.

To account for this relatively blurred picture, it would seem reasonable to assume that a change is taking place at the moment, as suggested by Barnes (1986:44,1987:17, 1989): Faroese is in the process of losing or has just lost V-to-I movement. This would also explain why examples like (15a) and (17a) (with the verb before the adverbial) seem to be as common in Faroese newspapers as examples like (15b) and (17b). Written language frequently shows a certain lag behind spoken language.[6] Hence my formulation that *modern spoken* Faroese seems to have lost V-to-I movement.

2.4 Languages with V-to-I movement

V-to-I movement must have taken place if the finite verb precedes a medial adverbial or a negation (i.e. an element which occurs left of

VP), and it could not have taken place if the finite verb occurs right of such an element. The languages with V-to-I movement include French, Icelandic, and Yiddish (and also the dialects of Swedish spoken in Älvdalen and in Kronoby, as discussed in section 2.1). With the exception of the Kronoby dialect, these languages all have inflectional endings both in the singular and in the plural. Let us examine Icelandic more closely:

(19) a. Helgi   *hefur*   oft   lesið þessa bók
     b. *Helgi   oft   *hefur* lesið þessa bók
        Helgi   (has)   often (has) read this book
     c. þessa bók *hefur* Helgi   oft   lesið
     d. *þessa bók   Helgi *hefur* oft   lesið
     e. *þessa bók   Helgi   oft   *hefur* lesið
        This book (has) Helgi (has) often (has) read

As for main clauses, Icelandic is completely parallel to Danish and Faroese. (19a,b) shows that the verb cannot be left in V in a main clause. The verb in (19a) could then be either in C or in I. It is clear from the topicalization data (19c,d,e) that here the finite verb is in C and neither in I nor in V. This means that Icelandic has V2 in main clauses, and so I will take it that (19a) is also a V2 clause and that the verb is in C. Consider now embedded V2 in Icelandic:

(20) það var óvænt,   að ...
     It   was unexpected that ...
     a. ...Helgi *skyldi*   oft   hafa lesið þessa bók
     b. *...   Helgi oft *skyldi* hafa lesið þessa bók
        ...(Helgi)(should) (Helgi) often (should) have read this book
     c. ... þessa bók *skyldi* Helgi   oft   hafa lesið
     d. *... þessa bók   Helgi *skyldi* oft   hafa lesið
     e. *... þessa bók   Helgi   oft *skyldi* hafa lesið
        ... this book (should) Helgi (should) often (should) have read

This example points to two important peculiarities of Icelandic: unlike the other Scandinavian languages, where it depends on the lexical items of the matrix clause, embedded V2 is possible in all embedded declarative clauses in Icelandic (the same lexical items do not allow embedded V2 in Faroese (15)). Second, the finite verb can never stay in V, not even in embedded clauses. The former suggests that CP-recursion (one C contains *að*, the other the finite verb, cf. section 3.2.1 below) is general in Icelandic and lexically restricted in the other Scandinavian languages. The latter shows that Icelandic has obligatory

V-to-I movement. The following examples will show that Icelandic also has independent V-to-I movement:

(21) Ég spurði
     I asked ...
     a. *... af hverju *hefði* Helgi   oft   lesið þessa bók
     b. ... af hverju   Helgi *hefði* oft   lesið þessa bók
     c. *... af hverju   Helgi   oft *hefði* lesið þessa bók
        ... why (had)   Helgi (had) often (had) read this book

     d. ??... af hverju þessa bók *hefði* Helgi   oft lesið
     e. *... af hverju þessa bók   Helgi *hefði* oft lesið
     f. *... af hverju þessa bók   Helgi   oft *hefði* lesið
     ... why this book (had) Helgi (had) often (had) read

(21b) on its own might be an example of either V2 or independent V-to-I movement. The impossibility of (21d) shows the latter to be the case. Although embedded V2 is much more general in Icelandic than in the other Scandinavian languages, (21) is an example of a construction where embedded V2 is not possible, and it thus shows that Icelandic has both independent (21b) and obligatory (21c) V-to-I movement.

We have seen that of the five Scandinavian languages, only Icelandic (and the Älvdalen dialect in Sweden) has (independent and/or obligatory) V-to-I movement. In the other four, the verb only moves to I on its way to C, and it may stay in V when no movement to C takes place.

3 Verb second

3.1 Verb second is movement of the finite verb into C

I will follow most of the generative literature on V2 (starting with den Besten (1983) and Thiersch (1978) and going up to e.g. Holmberg (1986), Platzack (1986), Taraldsen (1986), Tomaselli (1990)) in assuming that the finite verb (in sentences with no complementizer) occurs in the position C, in which the complementizer would otherwise have occurred.

If one assumes Chomsky's (1986b) extension of the X' system to include the heads C and I and their maximal projections CP and IP, it is possible to account for some of the properties of V2. These include that there are only two positions (a maximal projection and the finite

verb) in front of the subject, that these two elements differ in projection level, and that their order is XP before X rather than the other way around. All this follows from the structure of CP, which again follows the X' schema: [$_{CP}$ Specifier [$_{C'}$ C Complement]]. The very straightforward explanation that these properties receive thus turns into one kind of a supporting argument for this analysis of V2.

The basic assumption that **V2** is movement of the finite verb into the position otherwise occupied by the complementizer, i.e. C, is based on various kinds of evidence. One kind consists of examples which simply show that both the verb (in verb second position) and the complementizer (in (most) embedded clauses) occupy the position immediately left of the subject:

(22) a. Er sagt, *daß* die Kinder diesen Film gesehen haben (German)
     He says that the children this film seen have

   b. Diesen Film *haben* die Kinder gesehen
      This film have the children seen

(23) a. Han siger *at* børnene har set denne film (Danish)
     He says that children-the have seen this film

   b. Denne film *har* børnene set
      This film have children-the seen

Another kind of supporting evidence (this time also valid for English) comes from conditional clauses, where the two versions are in free variation, one with a complementizer (24) and one with a verb in front of the subject (25):

(24) a. *Wenn* ich mehr Zeit gehabt hätte, ... (German)
   b. *Hvis* jeg havde haft mere tid, ... (Danish)
   c. *If* I had had more time, ...

(25) a. *Hätte* ich mehr Zeit gehabt, ...
   b. *Havde* jeg haft mere tid, ...
   c. *Had* I had more time, ...

Clauses of the *as if*-type also support this point. The complementizer has the same position (26a) and (27a) as the finite verb does when the complementizer is absent (26b) and (27b):

(26) Sie schaute ihn an, ... (German)
     She looked him at ...
   a. ... als *ob* er ein großes Verbrechen begangen *hätte*
   b. ... als *hätte* er ein großes Verbrechen begangen

... as if/had he a big crime committed (had)

(27) Hun så på ham, (Danish)
     ... She looked at him ...
   a. ... som *om* han *havde* begået en stor forbrydelse
   b. ... som *havde* han begået en stor forbrydelse
      ... as if/had he (had) committed a big crime

More support has been claimed to exist with respect to certain phenomena which concern the finite verb in main clauses and the complementizer in embedded clauses, e.g. the adjacency requirement between C and pronominal subjects in Swedish and other languages. In V2 structures (28) only non-pronominal subjects may be separated from the verb to their left. Similarly, in embedded clauses (29) only non-pronominal subjects may be separated from the complementizer to their left:

(28) a. Har han verkligen gjort det här? (Swedish)
   b. *Har *verkligen* han gjort det här?
      Has (really) he (really) done this?
   c. Har Kalle verkligen gjort det här?
   d. Har *verkligen* Kalle gjort det här?
      Has (really) Kalle (really) done this?

(adapted from Platzack (1986:45, (44a)))

(29) a. ... att han verkligen har gjort det här
   b. *... att *verkligen* han har gjort det här
      ... that (really) he (really) has done this
   c. ... att Kalle verkligen har gjort det här
   d. ... att *verkligen* Kalle har gjort det här
      ... that (really) Kalle (really) has done this

3.2 Verb second in embedded clauses

3.2.1 Introduction

The analysis that **V2** is the movement of the finite verb into C would seem to predict that **V2** should only occur in main clauses, as C in embedded clauses already is filled, viz. by a complementizer. Although this makes exactly the right predictions for German, where embedded V2 only occurs without any complementizer, embedded V2 in some of the other Germanic languages is much more problematic. Two groups of languages are relevant here, Danish, Faroese,

Norwegian, and Swedish on one hand, and Icelandic and Yiddish on the other. In both of these two groups, embedded V2 only occurs with a complementizer present (cf. (30) below). The difference between the two groups is that in Icelandic and Yiddish V2 occurs in all embedded clauses (as discussed in section 2.4), whereas in Danish, Faroese, Norwegian, and Swedish embedded clauses may only be V2 if they are embedded under certain matrix verbs (as is also the case in German). Embedded V2 with a complementizer (30a,b) contrasts with an embedded non-V2 clause (30c) in the following way:

(30) Vi ved ... (Danish)

　　We know ...

　　a. ... [$_{CP}$ *at* [$_{CP}$ denne bog$_i$ *har$_j$* [$_{IP}$ Bo ikke t$_j$ læst t$_i$]]]
　　　　... that this book has Bo not read

　　b. ... [$_{CP}$ *at* [$_{CP}$ Bo$_i$ *har$_j$* [$_{IP}$ t$_i$ ikke t$_j$ læst denne bog]]]

　　c. ... [$_{CP}$ *at* [$_{IP}$ Bo ikke har læst denne bog]]

In embedded V2, there are two CPs, and thus two Cs: the higher C contains the complementizer, the lower one contains the finite verb.

Below I will discuss general embedded V2 in Icelandic in order to see whether it should lead to a revision of the above analysis of V2, as has been claimed by Rögnvaldsson & Thráinsson (1990). I will conclude that this is not the case and that the analysis that V2 is movement of the finite verb to C should be retained, even if it means that embedded V2 clauses may often consist of two CPs.

3.2.2 Embedded clauses in Icelandic

Icelandic embedded clauses can be divided into two groups: in one group the finite verb precedes the subject and these are clearly V2, e.g. (31a) and (32a) below.

In the other group, it is impossible to tell whether V2 has applied or not: the subject precedes the finite verb, which again precedes a sentence adverbial, as in (31b) and (32b) below. This order could be derived in two different ways. It could be a result of V2 (i.e. the subject is in Spec of CP, the finite verb is in C), but it could also occur inside IP (i.e. the subject is in Spec of IP, the finite verb is in I), if Icelandic has V-to-I movement and if I precedes the VP.

Recall that it is precisely because one or the other of these two conditions (V-to-I movement and I-VP order) does not hold that we can tell whether a subject-initial embedded clause in the other Germanic

languages is or is not V2. In Danish, Faroese, Norwegian, or Swedish, non-V2 subject-initial embedded clauses would have the form of (31c) and (32c) below: the sentence adverbial would precede the finite verb because of the lack of V-to-I movement. In German, non-V2 subject-initial embedded clauses would have the form of (31d) and (32d) below: the VP would precede the finite verb due to the VP-I order.

(31) a. ... *that* topic *verb* $_{fin}$ subject adverbial VP

　　b. ... *that* subject *verb* $_{fin}$ adverbial VP

　　c. ... *that* subject adverbial *verb* $_{fin}$ VP

　　d. ... *that* subject adverbial VP *verb* $_{fin}$

(32) a. ... að Maríu hefur Helgi aldrei kysst (Icelandic)
　　　　... that Maria has Helgi never kissed

　　b. ... að Helgi hefur aldrei kysst Maríu

　　c. *... að Helgi aldrei hefur kysst Maríu

　　d. *... að Helgi aldrei kysst Maríu hefur

　　　　... that Helgi (has) never (has) kissed Maria (has)

In other words, the word order of any given subject-initial embedded clause in Icelandic is compatible both with general embedded V2 or with Icelandic having both V-to-I movement and I-VP order. I assume that the main problem that the child acquiring Icelandic faces is that there are no differences between embedded and main clauses. Consequently the child will analyze subject-initial embedded clauses as V2 (subject in Spec of CP, finite verb in C), as this is what she does for the main clauses, given that main clause topicalizations give sufficient evidence that the V2 mechanism is warranted, and that V-to-I movement and I-VP order will not suffice (as an account of (31a) and (32a)).

That embedded V2 clauses are indeed possible in more contexts in (Yiddish and) Icelandic than in other Germanic languages can of course only be shown with respect to embedded clauses which necessarily are V2: embedded non-subject-initial clauses, i.e. embedded topicalizations, as I shall refer to them below. General embedded V2 will be illustrated and discussed in connection with two phenomena in the following two subsections on expletive subjects and on topicalizations under non-bridge verbs, which will give examples of V2 being possible in (Yiddish and) Icelandic but not in the other Germanic languages.

3.2.2.1 Expletive subjects in embedded clauses

The Icelandic expletive subject *það* behaves much like the German expletive subject *es*. It may occur in the topic position (Spec of CP) (33a) and (34a) but it may not occur in the subject position (Spec of IP) (33c,e) and (34c,e).[7]

(33) a. Es ist ein Junge gekommen (German)
   b. *pro ist ein Junge gekommen
      (There) is a boy come
   c. *Gestern ist es ein Junge gekommen
   d. Gestern ist pro ein Junge gekommen
      Yesterday is (there) a boy come
   e. *Warum ist es ein Junge gekommen?
   f. Warum ist pro ein Junge gekommen?
      Why is (there) a boy come ?

(34) a. það hefur komið strákur (Icelandic)
   b. *pro hefur komið strákur
      (There) has come (a) boy
   c. *I gær hefur það komið strákur
   d. I gær hefur pro komið strákur
      Yesterday has (there) come (a) boy
   e. *Af hverju hefur það komið strákur?
   f. Af hverju hefur pro komið strákur?
      Why has (there) come (a) boy ?

The situation in Icelandic may thus be taken to be completely parallel to the one in German: *es/það* is impossible in Spec of IP, but possible in Spec of CP.

However, Icelandic differs from German when we look at embedded clauses. Here *það* is not only possible after the complementizer, it is obligatory:

(35) a. *Ich weiß, daß es ein Junge gekommen ist (German)
   b. Ich weiß, daß pro ein Junge gekommen ist
      I know that (there) a boy come is
(36) a. Ég veit að *það* hefur komið strákur (Icelandic)
   b. *Ég veit að pro hefur komið strákur
      I know that (there) has come (a) boy

This is a clear indication that there is a fundamental difference between German embedded clauses with *daß* and Icelandic ones with *að*: the latter behave as if they were V2 (i.e. they are like main clauses);

the former do not.

3.2.2.2 Topicalizations embedded under "non-bridge verbs"

As will be discussed further below, in German and Danish embedded V2 only occurs when the embedded clause is the complement of a certain kind of verb. These verbs are often referred to as bridge verbs. (41) and (42) show two brief and non-exhaustive lists of German and Danish verbs which allow V2 in their sentential complements and of verbs which do not.

Here are first two examples of what the lists are supposed to illustrate. The verbs on the list in (41) allow embedded clauses both without V2, as in (37), and with V2, as in (38):

(37) a. Watson påstod at Moriarty kun havde stjålet pengene (Danish)
      Watson claimed that Moriarty only had stolen money-the
   b. Watson behauptete, daß Moriarty nur das Geld gestohlen hatte (German)
      Watson claimed that Moriarty only the money stolen had

(38) a. Watson påstod at disse penge havde Moriarty stjålet (Danish)
   b. Watson behauptete, dieses Geld hatte Moriarty gestohlen (German)
      Watson claimed (that) this money had Moriarty stolen

The verbs on the list in (42) only allow embedded clauses without V2 (39) and not embedded clauses with V2 (40):

(39) a. Holmes beviste at Moriarty kun havde stjålet pen gene
      Holmes proved that Moriarty only had stolen money-the
   b. Holmes bewies, daß Moriarty nur das Geld gestohlen hatte
      Holmes proved that Moriarty only the money stolen had

(40) a. ??Holmes beviste at disse penge havde Moriarty stjålet
   b. *Holmes bewies, dieses Geld hatte Moriarty gestohlen
      Holmes proved (that) this money had Moriarty stolen

(41) *Verbs which allow sentential complements with and without V2*
Ge. andeuten, angeben, antworten, behaupten, berichten, betonen,
Da. antyde, angive, svare, påstå, berette, betone,
    hint, indicate, answer, claim, report, emphasize,

entscheiden, erfahren, sich erinnern, feststellen, finden, glauben,

beslutte,	erfare,	huske,	slå fast,	synes,	tro,
decide,	*learn,*	*remember,*	*ascertain*	*think,*	*think,*

hoffen,	meinen,	sagen,	sehen,	spüren,	vermuten,	wissen.
håbe,	mene,	sige,	se,	fole,	formode,	vide.
hope,	*mean,*	*say,*	*see,*	*feel,*	*assume,*	*know.*

(42) *Verbs which allow sentential complements, but only without V2*
Ge. bedauern, bestätigen, bereuen, beweisen, bezweiflen,
Da. beklage, bekræfte, fortryde, bevise, tvivle på,
be sorry, *confirm,* *regret,* *prove,* *doubt,*

darum bitten,	daran denken,	erklären,	erlauben,	geheim halten,
bede om,	tænke på,	forklare,	tillade,	holde hemmeligt,
ask for,	*think of,*	*explain,*	*permit,*	*keep secret,*

gern haben,	hassen,	übersehen,	überzeugen,	vergeben,
være glad for,	hade,	overse,	overbevise om,	tilgive,
be happy,	*hate,*	*overlook,*	*convince,*	*forgive,*

verlangen,	verschweigen,	zeigen,	zugeben.
forlange,	fortie,	vise,	indrømme.
demand,	*conceal,*	*show,*	*admit.*

The point of this subsection is that in Icelandic, topicalization takes place in clauses embedded under any verb which allows a sentential complement, including the verbs in (42) above. Consider as examples *doubt* and *regret*, as given for Icelandic by Rögnvaldsson & Thráinsson (1990:23, (32)):

(43) a. Jón efast um að á morgun fari María snemma á fætur
(Icelandic)
b. *Jón ivast í um í morgin fer Maria tíðliga á føtur (Faroese)
c. *Johan tvivler på at i morgen står Maria tidligt op (Danish)
d. John tsveyfelt az morgen vet Miriam fri oyfshteyn (Yiddish)
e. *Johann bezweifelt, morgen wird Maria früh aufstehen
(German)
John doubts (that) tomorrow will Mary get up early

(44) a. Jón harmar að þessa bók skuli ég hafa lesið
b. *Jón er keddur av at hesa bók havi eg lisið
c. *Johan beklager at denne bog har jeg læst

d. John bedoyert az das bukh hob ikh geleyent
e. *Johann bedauert, dieses Buch habe ich gelesen
John regrets (that) this book have I read

Summing up, embedded V2 exists in Danish, Faroese and German as well as in Icelandic and Yiddish. There are nevertheless considerable differences. In Danish, Faroese, and German, embedded V2 only occurs with certain main clause verbs, i.e. only a subset of those taking sentential complements. In Icelandic and Yiddish, embedded V2 does not appear to be selected by the main clause verb, as it may occur with all verbs that take sentential complements.

3.2.3 Three alternative analyses of general embedded V2

So far, I have been assuming that V2 always arises through the finite verb moving to C, and that embedded V2 in Icelandic and Danish therefore needs two CPs: the complementizer is in the higher C, and the finite verb is in the lower C. I shall continue to defend this analysis, through comparing it with alternative ones.

It has been suggested that V2 may arise in embedded clauses through movement of non-subjects to Spec of IP rather than to Spec of CP, by Diesing (1988, 1990) and Santorini (1988a,b, 1989, 1992b) for Yiddish, by Rögnvaldsson & Thráinsson (1990) for Icelandic, and by Reinholtz (1989) for Danish. In other words, what I have been assuming to take place at the CP-level (V2: the finite verb in C, the preverbal XP in Spec of CP) is analyzed as taking place at the IP-level (V2: the finite verb in I, the preverbal XP in Spec of IP).

A third possible analysis is that there is a projection level, ZP, between CP and IP (V2: the finite verb in Z, the preverbal XP in Spec of ZP). The advantage of this approach, (46), is that recursion of CP is avoided and Spec of IP is retained as reserved for the subject (i.e. as an A-position).

These three alternative analyses can be illustrated as follows:

(45) The CP-recursion analysis

	C°	CP-spec	C°		IP-spec
a. ...	*-that* -	subject -	finite verb -		-adverbial
b. ... -	*that* -	topic -	finite verb -	subject	-adverbial

(e.g. Holmberg (1986:110) and Vikner (1991))

(46) The ZP analysis

$\quad\quad\quad$ C° $\quad$ ZP-spec $\;$ Z° $\quad\quad\quad\quad$ IP-spec

a. ... - *that* - subject - finite verb - $\quad\quad\quad$ -adverbial

b. ... - *that* - topic - $\;$ finite verb - $\;$ subject -adverbial

(Roberts (1991)/Cardinaletti & Roberts (1991): Z° = Agr1°; Tsimpli (1990): Z° = F°)

(47) The topicalization to Spec of IP analysis

$\quad\quad\quad$ C° $\quad$ IP-spec $\quad$ I° $\quad\quad\quad$ TP-spec/VP-spec

a. ... -*that* - subject - $\;$ finite verb - $\quad\quad\quad\quad$ -adverbial

b. ... - *that* - topic - $\quad$ finite verb - $\;$ subject $\quad\quad$ -adverbial

$\quad\quad$ Diesing (1988, 1990), Santorini (1988a,b, 1989, 1991), Reinholtz (1989), and

$\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad$ Rögnvaldsson & Thráinsson (1990))

The various versions of the topicalization to Spec of IP analysis differ with respect to the status of Spec of IP. Whereas Santorini (1988a,b, 1989) and Reinholtz (1989) assume that Spec of IP always is the topic position, i.e. always is an A' position, Diesing (1988, 1990) takes Spec of IP to be an A-position when filled by the subject and an A'-position when filled by a non-subject. Rögnvaldsson & Thráinsson (1990) do not actually commit themselves as to the A- or A'-status of Spec of IP. Below I will very often treat these different approaches as one, as they all crucially differ from the approach I am defending in allowing Spec of IP to be the landing site for topicalization, and in taking I to be the position of the finite verb in a V2 structure. However, the general arguments against this approach may not always apply to Santorini (1988a,b, 1989) and Reinholtz (1989), as in some respects their analysis may be considered a notational variant of the CP-recursion one: it could be argued that what I call the lower CP has merely been re-labelled IP, and my IP is re-labelled TP.

At least in theory, all three analyses in (45)-(47) are compatible with a CP-analysis of V2 in main clauses, though the advocates of (47) all assume that main clause V2 in Yiddish and Icelandic have the same analysis as embedded V2, i.e. that in both main and embedded clauses topicalization is a movement to Spec of IP (Diesing (1988:127), Santorini (1988b:167), Rögnvaldsson & Thráinsson (1990:10, (10))).

At this point one could either reject the topicalization to Spec of CP analysis for all the V2 languages (and keep the parallelism between all the languages intact) or say that there is a difference with respect to main clauses between Icelandic (and Yiddish) and the other V2 languages similar to the one seen above for embedded clauses.

As for the former, it would mean rejecting the argumentation in section 3.1 above, and also losing the explanation for the main/em-

bedded asymmetry in the V2 languages (apart from Icelandic (and Yiddish)). Presumably for these reasons, none of the analyses of Icelandic (and Yiddish) cited above entertain this possibility.

If, on the other hand, main clause V2 is topicalization to Spec of IP in Icelandic (and Yiddish) but to Spec of CP in the other V2 languages, the question is whether such a difference is motivated, given that there would seem to be no structural differences between the two groups at all with respect to main clauses (as opposed to embedded clauses in the two groups; cf. 3.2.2 above). In other words, although it is true that the topicalization to Spec of IP analysis avoids postulating a difference which is not motivated by the evidence (i.e. between main and embedded clauses in Icelandic (and Yiddish)), as claimed e.g. by Rögnvaldsson & Thráinsson (1990:4), this analysis necessitates postulating another difference which is not motivated by the evidence either, namely one between main clauses in Icelandic (and Yiddish) and main clauses in the other V2 languages.

Although Rögnvaldsson & Thráinsson (1990:9) actually do assume the existence of Spec of CP in main clauses in Icelandic, they claim that it is only filled by left-dislocated elements.

In the following two sections, I will argue that the evidence concerning the relative positions of the subject and the sentential adverbial (3.2.4) and concerning subject-verb agreement (3.2.5) may be used as arguments against the topicalization to Spec of IP analysis.

3.2.4 The relative positions of the subject and the sentential adverbial

In this section I will show how the data concerning adverbials which occur to the right of the subject in embedded V2 clauses in Icelandic provide an argument against the claim of the topicalization to Spec of IP analysis that in non-subject-initial V2 clauses the subject is in Spec of VP. The data only argue directly against the subject being in Spec of VP in such clauses and only indirectly against the initial element (i.e. the topic) being in Spec of IP, as this presupposes that there is only one functional head between C and V, namely I.

In Icelandic embedded non-subject-initial V2 clauses, the subject always precedes the sentential adverbial:[8]

(48) a. $\quad$ Hann veit að kannski las Jón *aldrei* bókina

$\quad\;$ b. $\quad$ *Hann veit að kannski las *aldrei* Jón bókina

$\quad\quad\quad$ He knows that maybe read (Jón) never (Jón) book-the

c. Hann veit að kannski hefur Jón *ekki* lesið bókina
d. *Hann veit að kannski hefur *ekki* Jón lesið bókina
   He knows that maybe has (Jón) never (Jón) read book-the

Following the logic of the topicalization to Spec of IP analysis (which I am trying to argue against), if the finite verb is in I (and there is no IP-recursion), then the subject must either be in Spec of VP or in the specifier of some intermediate projection, e.g. Spec of TP. As Rögnvaldsson & Thráinsson (1990) (and also Diesing (1988, 1990)) explicitly take the subject to be in Spec of VP in topicalizations, I will mainly argue against this, and only by extension also against the Spec of TP possibility.

The first argument is an argument against either of the two possibilities in that the adverbial between the subject and the participle, the negative sentence adverb *aldrei* 'never' in (48a) or the negation *ekki* 'not' in (48c), like other sentential adverbials, should only occur adjoined to, or in the specifier position of, an XP relatively high in the tree for reasons of scope. Furthermore, the fact that both induce negative islands points towards their position in Spec of TP.

(49) a. *Hversu margar bækur* hefur Jón lesið t?
     How many books has Jón read?
   b. *Hversu margar bækur* hefur Jón *ekki* lesið t?
     How many books has Jón not read?
(50) a. *Hvað* hefur Jón lesið [t margar bækur]?
     What has Jón read many books ?
     (=How many books has Jón read?)
   b. *Hvað* hefur Jón ekki lesið [t margar bækur]?
     What has Jón not read many books ?

Asking for the number of books that Jón has read can take two forms, either *How many books* .... (49a) or *What .... many books* ... (50a).[9] If, however, you want to know the number of books that he has not read, only the former strategy works (49b), the latter does not (50b). Following Rizzi (1990b:15-22), this may be accounted for by assuming the negation to be in Spec of TP, blocking the A' movement of non-arguments across it (i.e. of elements which do not have a referential index): the whole object can be moved to Spec of CP (49b) but just a part of the object cannot (50b), as it does not have a referential index and the negation blocks antecedent government of the trace, leaving the trace without any link to its antecedent.

If the negation in (48a,c) is in Spec of TP, then the subject, which is to

the left of the negation, can neither be in Spec of VP nor in Spec of TP.

The second argument only goes against the subject occurring in Spec of VP. The adverbial *örugglega* 'surely,' like its English counterpart, has two different interpretations, which depend on its position in the sentence:

(51) a. Vilhjálmur mun *örugglega* hitta eplið
   b. Vilhjálmur mun hitta eplið *örugglega*
     Vilhjámur will (surely) hit apple-the (surely)

In (51a) *örugglega* is a sentence-adverbial, with the meaning 'definitely/certainly/absolutely.' In (51b) *örugglega* is a VP-adverbial, with the meaning 'in a sure manner.' Let us now consider what happens in embedded clauses:

(52) Ég held að í gær hafi ...
   I believe that yesterday has ...
   a. ??... *örugglega* Vilhjálmur hitt eplið
   b. ... Vilhjálmur *örugglega* hitt eplið
   c. ... Vilhjálmur hitt eplið *örugglega*
     ... (surely) Vilhjálmur (surely) hit apple-the (surely)

The subject cannot occur to the right of the adverbial (52a) parallel to (48b) and (48d) (insofar as (52a) is interpretable, the adverbial would not be a sentence adverbial, but only modify *Vilhjálmur*, 'at least Vilhjálmur' or 'certainly Vilhjálmur,' as opposed to anybody else). If the subject is in Spec of VP, as claimed by Rögnvaldsson & Thráinsson (1990), the adverbial in (52b), which only has the sentence-adverbial interpretation, is adjoined to V'. The adverbial in (52c), which only has the VP-adverbial interpretation, can either be adjoined to V' or to some larger constituent, e.g. VP or TP. If the adverbial in (52c) is adjoined to V', then the adverbials in (52b) and (52c) are adjoined to the same constituent, i.e. have the same scope, and we would expect them to have the identical interpretations or scope properties. If the adverbial in (52c) is adjoined to VP or higher, we would expect it to have wider scope than the one in (52b), contrary to fact.

If, on the other hand, the subject is in Spec of IP, then the adverbial in (52b) can be adjoined to TP, and the one in (52c) to VP. If we assume that the negation is in Spec of TP, following the argumentation concerning (49)-(50), then the following data support the analysis that when *örugglega* occurs right of the subject and left of the participle, it is adjoined to TP:

(53) Ég held að á morgun muni Vilhjálmur ...

I believe that tomorrow will Vilhjálmur ...

a. ... *örugglega* ekki hitta eplið

b. *... ekki *örugglega* hitta eplið

    ... (surely) not (surely) hit apple-the

Another argument of a closely related nature concerns the scope interactions between adverbials and quantified objects:

(54) Helgi sagði ...

Helgi said ...

a. ... að þess vegna hafði Jón *oft* lesið *margar* bækur

b. ... að þess vegna hafði Jón lesið *margar* bækur *oft*

    ... that therefore has Jón (often) read many books (often)

The interpretations of (54a,b) differ in exactly the same way as those of their English counterparts: (54a) means that Jón often reads many books (for some particular reason), whereas (54b) means that there are many books which (for some particular reason) Jón often reads. This again clearly shows that when the adverbial occurs between the subject and the participle it has higher scope than when it occurs sentence-finally. As the sentence-final adverbial in (54b) cannot possibly have a position in the tree lower than adjoined to V' (as it is preceded by the object), the adverbial in (54a) must occur in a higher position, which means that it in turn cannot be lower than in Spec of VP or adjoined to VP. Both of these in turn exclude the subject being in Spec of VP in (54a).

The fourth argument is a conceptual argument against the subject being in Spec of VP, based on X' theory. If the subject is in Spec of VP in (48a,c), then the fact that the adverbial would have to occur between Spec of VP and the complement of V implies a particular D-structure representation. This structure (before the verb leaves VP) would have to be the following, as is in fact explicitly assumed by Rögnvaldsson & Thráinsson (1990:10, (10), (11)):

(55) [$_{VP}$ Subject [$_{V'}$ Adverbial [$_{V'}$ V Complement]]]

I take a structure like (55) to be explicitly ruled out in the X'-system of Chomsky (1986b), as adjunction to an X' is impossible. This point is also made for Danish in Reinholtz (1989:107).

A closely related argument may be made on the basis of data concerning object shift in Icelandic (cf. Holmberg (1986:218) and Vikner (1989)):

(56) Hann veit ...

He knows ...

a. ... að þess vegna las$_v$ Jón bókina$_i$ ekki t$_v$ t$_i$

b. *... að þess vegna las$_v$ bókina$_i$ Jón ekki t$_v$ t$_i$

    ... that therefore read (book-the) Jón (book-the) not

We know from the fact that *bókina* precedes the negation that it has left its base position (which is to the right of the verb trace which again is to the right of the negation). The question is now what position the object has moved to in (56a). If the subject, *Jón*, were in Spec of VP, then *bókina* must have adjoined to V', something I also take to be excluded by X'-theory. If on the other hand *Jón* is in Spec of IP, then it is possible that *bókina* has adjoined to VP, which is perfectly compatible with X'-theory.

So far we have seen five reasons why the subject in (48a,c) cannot be in Spec of VP, only one of which also argues against it being in Spec of TP. There is another argument to be made against the subject being in Spec of TP, and that is that Spec of TP is an A' position. This assumption is made by Roberts (1993:22), and it is supported by the relativized minimality analysis of negative islands (cf. (49)-(50) above) and of the so-called "pseudo-opacity" phenomena (cf. Rizzi (1990b: 12-15), which is based on Obenauer (1976, 1984)).

Summing up, if the subject in (48a,c) can neither occur in Spec of TP nor in Spec of VP, as has been argued above, then it is not possible to analyze these well-formed examples as having the finite verb in I.

If, however, the finite verb is in C, then a third possibility for the position of the subject in (48a,c) may be taken into consideration: the subject could be in Spec of IP. This analysis suffers from none of the defaults discussed above, and as the subject being in Spec of IP excludes Spec of IP as the landing site of topicalization, I shall take this to be an argument against the topicalization to Spec of IP analysis.

3.2.5 Subject-verb agreement

In Icelandic, the finite verb agrees in number and person with the subject. This is a realization of Spec-X agreement inside IP (or inside AGRP, if IP is split into AGRP and TP). If topicalization was to Spec of IP (or to Spec of AGRP), the finite verb should agree with the topic.

Below are two paradigms showing that the finite verb in Icelandic always agrees with the subject, and never with the topicalized element.

In (57) the topicalized element is the object, which is singular in all cases. It is clear from the grammaticality of (57a) and the ungrammaticality of (57b) that agreement is with the subject, not with the topic:

(57) a. ... að bókina *hafa börnin* lesið í gær
    ... that book-the have children-the read yesterday
b. *... að bókina hefur bömin lesið í gær
    ... that book-the has children-the read yesterday
c. *... að bókina hafa strákurinn lesið í gær
    ... that book-the have boy-the read yesterday
d. ... að bókina *hefur strákurinn* lesið í gær
    ... that book-the has boy-the read yesterday

In (58) the topicalized element is the time adverbial *yesterday*. It is clear from the way the number of the verb must vary with the number of the subject that agreement is with the subject:

(58) a. ... að í gær *hafa börnin* lesið bókina
    ... that yesterday have children-the read book-the
b. *... að í gær hefur bömin lesið bókina
    ... that yesterday has children-the read book-the
c. *...að í gær hafa strákurinn lesið bókina
    ... that yesterday have boy-the read book-the
d. ... að í gær *hefur strákurinn* lesið bókina
    ... that yesterday has boy-the read book-the

In the following diagram, I have pointed out which position the elements in (57a,b) are claimed to occupy, both according to the CP-recursion analysis and according to the topicalization to Spec of IP analysis:

(59) CP-recursion: CP-Spec C° IP-Spec ...
    Top. to IP-spec: IP-Spec I° VP-Spec ...
    a. ... að   bókina *hafa börnin*   lesið í gær
       ... that   the book have the children read yesterday
    b. *... að   *bókina hefur* bómin   lesið í gær
       ... that   the book has   the children read yesterday

In the CP-recursion analysis, the subject-verb agreement is a realization of Spec-X agreement inside IP: the subject in Spec of IP agrees with the verbal inflection generated in I. That the verbal inflection then has to move to C along with the verb stem does not alter this.

In the topicalization to Spec of IP analysis, the subject-verb agreement seems to be more difficult to account for. If the subject is in Spec

of VP, we would expect that the only head which could show agreement with the subject would be the verb stem, which is generated in V. This may not be a problem, as the verb stem does not show any agreement at all, and so the idea of agreement between subject and verb stem cannot be empirically rejected. However, if the object is in Spec of IP, we would expect the verbal inflection, which (I assume) is generated in I, to show agreement with the object and not the subject. This is clearly not the case, as it would predict that (59a) was ungrammatical and that (59b) was grammatical, which is exactly the wrong prediction. The only way for the topicalization to Spec of IP analysis to avoid this problem would seem to be to give up the idea that morphological agreement is a manifestation of a head-specifier relationship, something which can be retained in the CP-recursion analysis.[10]

Summing up, if we want to retain the idea that agreement between the subject and the finite verb is a manifestation of Spec-X agreement, and if we want to keep either the structure [IP VP] or the structure [AGRP TP], the subject will have to be in Spec of IP (or AGRP) or at least to have passed through it.

A potential problem for this analysis is that Icelandic has agreement between finite verbs and nominative objects, which might be taken to show that trying to analyze agreement with the finite verb as Spec-X agreement inside IP is a lost cause. This, however, presupposes that the two kinds of agreement, finite verb and nominative subject and finite verb and nominative object, are the same kind of process. I will argue that this is not the case, as agreement with nominative objects never takes place outside the third person, and also, at least in many cases, seems to be optional, two properties neither of which ever hold for agreement with nominative subjects:

(60) a. Mér þykir their skemmtilegir
b. Mér *þykja their* skemmtilegir
    Me(D) think(3sg/3pl) they(N) amusing (N.pl.M.)

(61) a. þér þykir við skemmtilegir
b. *þér *þykjum við* skemmtilegir
c. ??þér *þykja* við skemmtilegir
    You(D.sg) think(3sg/1pl/3pl) we(N) amusing (N.pl.M.)

(62) a. Mér þykir þið skemmtilegir
b. *Mér *þykio* þið skemmtilegir
c. ??Mér *þykja* þið skemmtilegir
    Me(D) think(3sg/2pl/3pl) you(N.pl) amusing (N.pl.M.)

3.2.6 Conclusion

I will briefly sum up the findings of the preceding subsections of section 3.

In section 3.2.2 it was shown how Yiddish and Icelandic differ from the other V2 languages in that they have general embedded V2, whereas the other V2 languages only have embedded V2 with a subset of the verbs that take sentential complements. This was illustrated with data concerning overt expletive subjects in embedded sentences (3.2.2.1) and V2 sentences embedded under verbs that do not allow embedded V2 in the other languages (3.2.2.2).

I furthermore argued that embedded V2 is CP-recursion not only in Danish and English but also in Icelandic and Yiddish. This was based on two main facts: even in embedded topicalizations where the subject follows the finite verb, the subject cannot be lower than Spec of IP, due to facts concerning the position of sentential adverbials (3.2.4) and agreement between the subject and the finite verb (3.2.5); and it follows that if the subject is in Spec of IP (as I take it to be), the topicalized element must be in a Spec of CP (or maybe in Spec of ZP), and not in Spec of IP.

I will thus conclude that, if anything, the CP-recursion analysis is favored by the evidence, and there is thus no reason to revise the analysis of V2 suggested in section 3.1: V2 is the movement of the finite verb to C and some XP into Spec of CP.

4 Summary

In this paper I have discussed two kinds of finite verb movements which appear in the Scandinavian languages: V-to-I movement and V2.

There seems to be a connection between the occurrence of V-to-I movement and the status of I, in that the more verbal inflection a language has, the more it is likely to have V-to-I movement. It was shown that Roberts' (1993:267) analysis may be a more precise way to state this fact: V-to-I movement occurs in the languages which have inflectional endings both in the singular and in the plural.

I argued furthermore that V2 should be analyzed as the movement of the finite verb into C and some XP into Spec of CP; and that this analysis is preferable to various recent alternative analyses of embedded V2 in Icelandic (and Yiddish). This entails that embedded V2 is CP-recursion, a view which received some support from data concerning the position of the medial adverbial and concerning agreement between the subject and the finite verb.

Notes

1. This paper was presented at Rutgers University, University of Massachusetts (Amherst), Harvard University, and at the Workshop on Verb Movement, University of Maryland (College Park). Thanks to these audiences, to the Stuttgart students of my Scandinavian syntax course, and to the following friends and colleagues: Markus Bader, Michael Barnes, Christine Haag-Merz, Liliane Haegeman, Norbert Hornstein, Jóhannes Gísli Jónsson, David Lightfoot, Luigi Rizzi, Ian Roberts, Bonnie Schwartz, Halldór Armann Sigurðsson, and Rex Sprouse. I am particularly grateful for the patience and the time invested by my Faroese informants, Jóannes Kjølbro and Heðin Meitil, and by my commentator at the Workshop on Verb Movement, Höskuldur Thráinsson.

2. In all the Scandinavian languages, negation may occur in the same position as medial adverbials, and can therefore be used to make the same point: if the finite verb precedes the negation, V-to-I movement has taken place; if it follows the negation, the finite verb is still in V.

3. The verb in (9) could actually either be in I or C (my analysis in the following sections would even lead me to expect that it is in C, but that is a prediction that I unfortunately have not been able to check). What is important here is that the finite verb could not possibly be in V, unlike the situation in standard Swedish (or Danish or Norwegian):

   (i) a. *Bara för det att vi *ville* inte följa honom
       b. Bara för det att vi inte *ville* följa honom
          Just for that that we (would) not (would) follow him

4. As shown by Platzack & Holmberg (1989:73-74) and also Roberts (1993:268), the relationship between the presence of subject-verb agreement and obligatory V-to-I movement is an implication rather than an equivalence. Formulated in the terms used above, it is true that if a language has distinct endings in both singular and plural, then it also has obligatory V-to-I movement, but it does not necessarily hold that if a language has obligatory V-to-I movement, then it also has distinct endings in both singular and plural. A relevant example is the dialect of Swedish spoken in Kronoby in Finland, which has no subject-verb agreement at all (like Danish and standard Swedish), but nevertheless seems to have obligatory V-to-I movement, as the verb precedes the adverbial in an embedded clause of the type that clearly is not V2 in Danish (and standard Swedish):

   (i) a. Kb. He va bra et an tsöfft int bootsen
       b. Da. *Det var godt at han købte ikke bogen
       c. Da. Det var godt at han ikke købte bogen
          It was good that he (bought) not (bought) book-the

          (a) from Platzack & Holmberg (1989:74, (43))

5. Lightfoot (1993, fn5) argues that negation in Swedish (and by extension also in Danish and Norwegian) must be adjoined to I, because he assumes that the verb in embedded clauses in Swedish has to be in I, as Swedish is a V2 language. His underlying assumption is thus that only languages which have independent or obligatory V-to-I movement can have V2 (V-to-I-to-C movement).

(i) Sw. ... om Jan *inte* köpte boken
    ... if Jan not bought book-the

(from Holmberg & Platzack (1991, (7c)))

However, if *inte* in (i) is adjoined to I, it (and other negations or adverbials that may appear in the same position) must be an X category. That this is not so can be seen from the fact that *inte* can be exchanged with full adverbial XPs such as *without doubt, in spite of everything, in no way, in this way, off and on, honestly spoken,* etc. Furthermore, if *inte* and other adverbials could adjoin to I, we would not be able to account for why the negation or adverbial could not move along to C when the finite verb moves there, i.e. in any main clause. I therefore maintain the view that the negation or adverbial is adjoined to VP and I consequently find Danish, Norwegian, and Swedish to be counterexamples to Lightfoot's assumption that only languages which have independent V-to-I movement can have V2.

6. A similarity between 16th-17th century Danish and 20th century Faroese is that examples with V-to-I movement are found alongside examples without V-to-I movement. Parallel to the fact that V-to-I movement structures may be found in most Faroese newspapers every day is the fact that Danish structures like the following were attested as late as the 19th century, albeit in the written down version of a folk tale:

(i) Prindsessen havde faaet Vulle saa kjær,
    Princess-the had got Vulle so fond
    (=The princess had fallen so much in love with Vulle ...)
    at hun *vilde ikke* have Kongen
    that she would not have king-the

(19th century, from Skautrup (1953:233))

7. (33b) and (34b) are both possible as questions. (34b) is furthermore also possible as a "V1 declarative," a construction particularly frequent in narrative contexts (cf. e.g. Sigurðsson (1990a)).

8. It should be emphasized that what I say below does not hold for indefinite subjects in constructions with *það*. As indefinite subjects in *það* -constructions (as opposed to all other subjects) may indeed follow the adverbial, they must be able to occur in Spec of VP:

(i) *það* mundu *kannski einhverjir* bátar hafa verið keyptir
    There would (3pl) perhaps some boats(nom) have been bought

(from Sigurðsson (1991:350, (47a)))

9. This is thus a parallel to the so-called *was... für*-split in other Germanic languages, cf. e.g. den Besten(1984:34-39), Corver (1990), Vikner (1991:36-37).

10. Raffaella Zanuttini (p.c.) points out that if this argument is translated into a

framework with AGRP and TP, it becomes crucial that AGR selects TP, as is the case in the analyses suggested by Belletti (1990) or by Chomsky (1991). If T would select AGRP (as is suggested by Pollock (1989)), the subject could be in Spec of AGRP, and topicalization could be to Spec of TP, and recursion of CP would not be called for.