

# Predictable and unpredictable sources of variable verb and adverb placement in Scandinavian

Höskuldur Thráinsson\*

*Department of Icelandic, University of Iceland, IS-101 Reykjavík, Iceland*

Received 15 October 2007; received in revised form 22 May 2008; accepted 7 April 2009

Available online 18 June 2009

## Abstract

Recent research has shown that there is more variation in the placement of verbs and adverbs in Scandinavian than previously thought. This paper argues that the theory of verb movement originally proposed by Bobaljik and Thráinsson [Bobaljik, J.D., Thráinsson, H., 1998. Two heads aren't always better than one. *Syntax* 1, 37–71] does in fact predict much of the observed variation, despite recent claims to the contrary. According to this theory, this variation is intimately related to morphological differences between the languages (or dialects): Languages with clearly separable agreement and tense morphology (Icelandic, for instance) have separate agreement and tense projections and this makes verb movement (of the V-to-I type) obligatory because of the nature of checking operations. This does not mean, however, that V-to-I can only occur in languages with rich verbal morphology. The theory also predicts that a certain kind of adverbial modification can trigger V-to-I, but this has typically been overlooked in the literature: If adverbs are specifiers of separate functional projections, then V-to-I is necessary, whereas it is not if adverbs are adjuncts. This means that adverbial adjunction must be the rule in Scandinavian and adverbs in separate functional projections an exception (optionally available for some sentence adverbs but not all in Regional Northern Norwegian, for instance).

© 2009 Published by Elsevier B.V.

*Keywords:* Verb movement; Functional structure; Checking; Adverbial modification; Scandinavian

## 1. Introduction

The main purpose of this paper is to demonstrate that a formal theory of verb movement which makes fairly conservative assumptions about clausal architecture does in fact predict much of the recently observed variation in verb placement in Scandinavian, whereas less restrictive approaches typically fail to make such predictions.<sup>1</sup> In the

\* Tel.: +354 862 8694.

E-mail address: [hoski@hi.is](mailto:hoski@hi.is).

<sup>1</sup> Classic verb movement accounts obviously depend on the assumption that head movement is a part of the theoretical arsenal available. Chomsky has argued (2001) that head movement is not compatible with certain recent assumptions about the nature of syntactic derivation and subsequently Mahajan (2003), Müller (2004), Koopman and Szabolcsi (2000) and others have shown that it is possible to derive certain “verb movement structures” by assuming some sort of remnant movement instead (see also Bentzen et al., 2007a,b). Although remnant movement accounts tend to become quite complex and their predictions less than obvious at times, I do not want to maintain that they should be ruled out in general. Nevertheless, the present paper can be seen as a demonstration of what a fairly straightforward head movement account can accomplish. If head movement is ruled out on theoretical grounds, then one will simply have to hope that the positive results of the present account can also be obtained by accounts that rule out head movement. If not, then the other obvious alternative is that a theory ruling out head movement is on the wrong track.

process I shall show that the orders Vfin-Adv (finite verb preceding a sentence adverb) and Adv-Vfin can arise in different ways in Scandinavian and they will have different properties depending on the derivation and resulting structure. In particular, the order Adv-Vfin does not necessarily mean that the finite verb has remained in situ, as often erroneously assumed in the discussion of such orders in Icelandic, for instance.

The structure of this paper is as follows. After a brief review of the basic facts I shall review the theory of verb movement proposed by Bobaljik and Thráinsson (1998, henceforth B&T) and draw attention to certain properties of this theory that have typically gone unnoticed. I will then show that these properties do in fact predict more types of variation in verb placement than usually assumed. I shall discuss to what extent these types can be distinguished, both by the linguist analyzing a particular language and the child acquiring it. I shall then argue that certain basic properties of variable verb placement in Scandinavian are in fact predicted by B&T's theory. But I shall also maintain that certain aspects of the observed variation are not predicted under any present theory, in particular apparent cross-linguistic differences in adverbial modification and adverb placement, and hence I shall argue that more research is needed on this topic.

To set the stage for the following discussion, the main predictions and claims of the analysis advocated here are listed in (1):

- (1) a. Verb movement of the V-to-I type is obligatory in languages<sup>2</sup> that have a split agreement and tense morphology. This follows from B&T's theory of verb movement. In such languages V-to-I will apply across all sentence adverbs, i.e. medial adverbs like 'never', 'always', 'not', etc. Hence the order Vfin-Adv will be the default order in all embedded clauses in such languages, regardless of the type of sentence adverb involved.<sup>3</sup>
- b. Apparent exceptions to V-to-I in languages with rich verbal morphology of the appropriate kind are just that, apparent. The appearance is the result of exceptional adverb placement above the finite verb. It follows from this that the Adv-Vfin order will not be the default order in languages of this kind but only acceptable under special circumstances, depending on the type of adverb and the type of embedded clause involved.
- c. V-to-I is not only triggered by rich verbal morphology (more precisely, by a "split IP" under B&T's theory). It can also be triggered by a special type of adverbial modification which makes verb movement necessary in languages with "poor verbal morphology". Although this has typically been overlooked, it also follows B&T's theory of verb movement.
- d. Finally, the Vfin-Adv order can also result from a V-to-C-type movement in embedded clauses that have main-clause properties (e.g. bridge verb complements, certain types of adverbial clauses, etc.), as is well known and extensively reviewed by Vikner (1995a) and Rohrbacher (1999), for instance. Since main-clause properties are not typical properties of embedded clauses, it follows that a Vfin-Adv order resulting from V-to-C will be exceptional in embedded clauses in all languages (pace Bentzen et al., 2007a,b, for instance).

Since some of the predictions and claims in (1) may seem unexpected or controversial, the reader should now be very excited to read the following discussion and argumentation.

## 2. The basic facts and some background assumptions

### 2.1. The standard analysis of verb placement variation in Scandinavian

Examples like the following have standardly been taken to show that there is V-to-I movement in Icelandic:

- (2) a. Þetta er myndin [CP sem María hafði ekki [VP sýnt Harald]].  
 this is picture-the that Mary had not shown Harold  
 'This is the picture that Mary had not shown to Harold.'
- b. Þetta er myndin [CP sem María sýndi ekki [VP — Harald]].  
 This is picture-the that Mary showed not Harold  
 'This is the picture that Mary did not show to Harold.'

<sup>2</sup> Note that the word *language* can, of course, mean 'dialect' in this context—and elsewhere in this paper.

<sup>3</sup> Word order differences between main clauses and embedded clauses will be discussed below, as will the special properties of certain non-finite clauses. I am limiting the discussion to finite embedded clauses for the moment in order to simplify the presentation.

In (2a) the non-finite main verb *sýnt* ‘shown’ follows the sentential negation *ekki* ‘not’ and is thus arguably in situ inside the VP.<sup>4</sup> In (2b) the main verb is finite and precedes the negation and because the embedded clause is of the kind that is known not to have main-clause like properties, i.e. a relative clause, it has standardly been assumed that this movement is to the I-position (or to some I-position, if one assumes a split IP as originally suggested by Pollock, 1989) rather than to the C-position (as it could be in the case of embedded clauses known to have main-clause like properties, such as bridge verb complements). Conversely, facts of the following sort have been taken to show that V-to-I movement does not occur in Danish, and comparable facts from standard Norwegian and Swedish have been presented (for extensive reviews see, e.g. Vikner, 1995a, 131ff.; Vikner, 1995b; Holmberg and Platzack, 1995; Thráinsson, 2007, 27ff., 58ff. and references cited there):

- (3) Jeg spurgte [ hvorfor Jens \*læste ikke/ikke læste bogen ].  
 I asked what-for Jens \*read not/not read book-the  
 'I asked why Jens didn't read the book.'

So the standard belief has been that Icelandic has V-to-I movement whereas Mainland Scandinavian (MSc) does not. This, of course, raises the question what could be the reason for this variation or what it could be related to. That is obviously a part of a more general problem: To what extent can languages vary and why do they? Before we look at variable verb placement in more detail, it is useful to review some basic ideas about variation.

## 2.2. Sources of variation, cues and triggers

It is probably fair to say that much recent work on syntactic variation does not consider in any detail the basic question of what could be the source of the observed cross-linguistic or cross-dialectal differences. If we believe that a major source of variation is the different “choices” that children make during the acquisition period, then one must think seriously about the question what could trigger these different choices. Some years ago, Chomsky proposed the following answer to this question (1995, 169)—and I shall refer to this proposal as **The Trigger Condition**:

- (4) Variation must be determined by what is “visible” to the child acquiring language, that is by the PLD [Primary Linguistic Data].

What may vary is then standardly taken to be determined by UG. One question, for instance, is whether or to what extent the make-up of functional categories can vary from one language or dialect to another. While some linguists believe that the functional skeleton of sentences must be identical in all languages and dialects, with variation limited to the so-called “strength” of individual projections or heads, a somewhat different way of thinking about this is outlined in **The Limited Diversity Hypothesis** proposed by Thráinsson (1996, 257):

- (5) a. UG defines a set of possible functional projections.  
 b. The languages of the world “select” elements from this set, just like they select from the set of possible phonological features.  
 c. Hence it is not the case that all functional projections occur in all languages.

This obviously raises the question how children acquiring a particular language know which functional projections occur in the language they are acquiring. According to Thráinsson (1996, 261), children follow **The Real Minimalist Principle** when trying to figure out which functional projections play a role in their language:

- (6) Only assume the functional projections that you have evidence for.

If one assumes the Trigger Condition described in (4), this means, then, that variations in the functional make-up of dialects and languages would be limited by what can be triggered during acquisition by visible differences.

<sup>4</sup> Here and elsewhere in this paper I will just use the traditional label VP rather than, say, vP, as nothing in my argumentation will depend on the detailed structure of the VP-domain.

This emphasis on the importance of visible evidence during the acquisition period can be found in a number of other works. It can, for instance, be related to Lightfoot's concept of **cues**, described, e.g. as follows by him (2006, 78):

- (7) A cue is a piece of structure, an element of I-language, which is derived from the input, but it is not a sentence [. . .]. A sentence expresses a cue if the cue is unambiguously required for the analysis of the sentence.

As Lightfoot points out, the concept of **triggers** is a similar one, albeit not always defined in a formal fashion, and he refers in this connection to Janet Fodor's concept of triggers as pieces of structure or "treelets", where a treelet is "a small piece of tree structure. . . that is made available by UG and is adopted into a learner's grammar if it proves essential for parsing input sentences" (Fodor, 1998, 6).

We will have reason to come back to some of these ideas about the nature and possible extent of variation in the following sections, concentrating on variation in the relative placement of verbs and adverbs. But it should be pointed out that the approach advocated here is very different from various popular "radical universalist" approaches to syntactic structure which assume that all languages and dialects share the same basic clausal skeleton, e.g. the so-called cartography approach initiated by Rizzi (1997, see also Rizzi, 2004, for instance).<sup>5</sup>

### 3. Relating verb placement variation to variation in functional structure

#### 3.1. The relevance of "rich verbal morphology"

Given this background, we can now ask what it could mean to "have evidence for" a particular functional projection (cf. (6) above). The answer to this question will obviously depend on one's concept of functional projections and their nature, in particular their relationship to the interfaces between syntax and other components of the grammar. But if one takes morphology seriously and if one takes the proposed labels of functional projections like Agreement Phrase (AgrP) and Tense Phrase (TP) seriously too, then one might think that there is some relationship between these projections and the structure of verbal morphology. This is the central idea behind Thráinsson's **Split IP Parameter** (SIP, cf. Thráinsson, 1996, 262)<sup>6</sup>:

- (8) Languages that have a positive value for the SIP have AgrSP and TP as separate functional projections. Languages with a negative value of SIP are characterized by an unsplit (pre-Pollockian) IP.

Crucial evidence triggering the positive value of this parameter was supposed to be "independent tense and agreement morphology" (Thráinsson, 1996, 269). No such trigger is available to the child acquiring standard Mainland Scandinavian, e.g. Danish, whereas it should be quite obvious in the morphology of regular verbs in Icelandic. This is illustrated below:

(9)		Da.	Ice.		Da.	Ice.
	1sg.pres.	høre-r	heyr-i	1sg.past	hør-te	heyr-ð-i
	2. –	høre-r	heyr-ir	2. –	hør-te	heyr-ð-ir
	3. –	høre-r	heyr-ir	3. –	hør-te	heyr-ð-i
	1pl.pres.	høre-r	heyr-um	1pl.past	hør-te	heyr-ð-um
	2. –	høre-r	heyr-ið	2. –	hør-te	heyr-ð-uð
	3. –	høre-r	heyr-a	3. –	hør-te	heyr-ð-u

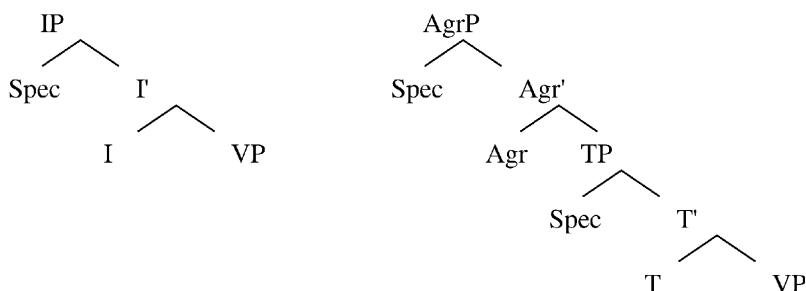
As shown here, Icelandic has a regular past tense marker (a dental obstruent, here represented by /ð/, which alternates with /d/ and /t/ as a past tense marker in Icelandic) easily separable from the agreement markers, which vary from one person and number to another. In Danish there is just one form for the present tense and another for the past

<sup>5</sup> As is well known, the cartography approach assumes a very close relationship between syntactic and semantic structure. Thus it assumes, for instance, that categories like topic, focus, force, etc. project separate hierarchically ordered phrases in the "CP domain" and that SpecTopP, SpecFocP and SpecForceP are then designated positions for elements having the semantic/discourse roles of topic, focus and force, respectively. The present account is more in line with approaches that assume the "autonomy of syntax". This should become clear below.

<sup>6</sup> A similar idea about the relationship between morphology and functional structure had been proposed independently by Johnson in an unpublished paper 1990.

tense. This, then, was taken as an argument for the claim that children acquiring Danish would develop a grammar containing a fused IP of the sort illustrated in (10a) (unless they were exposed to other types of visible triggers for a split IP) whereas children acquiring Icelandic would have evidence for the more complex functional structure of (10b)<sup>7</sup>:

- (10) a. MSc functional structure:      b. Icelandic functional structure:



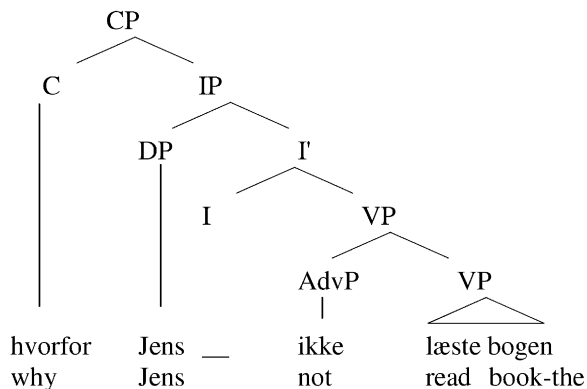
One obvious difference between these structures is the fact that the Split IP structure of Icelandic makes two potential subject positions available in the “IP-domain” (i.e. SpecAgrP and SpecTP) while there is only one in MSc (namely SpecIP). As pointed out by Thráinsson (1996, 273, *passim*; see also B&T, 1998, 52ff.), this would provide an explanation for the claim made by Jonas and Bobaljik (1993) and Bobaljik and Jonas (1996) that MSc does not seem to have SpecTP “available” as a subject position whereas Icelandic does. We will return to this issue in section 4.2 below.

While the Split IP parameter was not originally suggested as a way of accounting for variation in verb placement, B&T (1998) showed that given fairly standard assumptions about feature checking, the SIP did in fact make interesting and testable predictions about verb placement variation and these predictions were borne out by the observed MSc facts. The assumptions are as follows (B&T, 1998, 39):

- (11) a. The features of a projection are those of its head.  
 b. Movement occurs solely for the purposes of feature checking.  
 c. Features are checked in all and only local relations to a head (*viz.*, head-specifier, head-complement, head-head (adjoined heads)).

Given these assumptions, B&T predict the observed differences between Danish and Icelandic. First, let us consider the reasons for the lack of V-to-I in standard MSc, as illustrated by an example from Danish above:

- (12) Unsplit IP and no V-to-I, as in Danish:



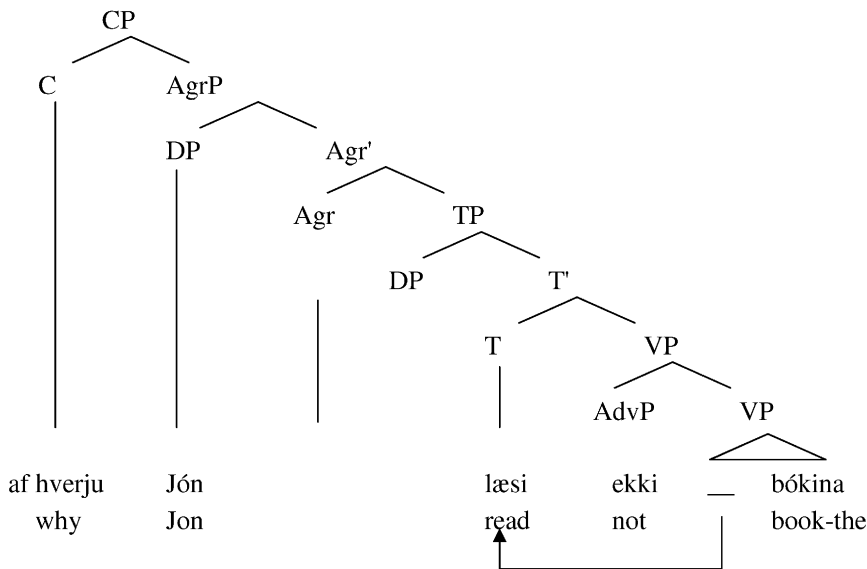
<sup>7</sup> The idea is that this parameter is set “once and for all” for each language and does not, say, depend on the morphological make-up of a particular verb in a given sentence. Thus clauses containing irregular verbs will have split IP although irregular verbs themselves do not provide any morphological cue that could help the child set the parameter. Similarly, nothing should rule out the existence of a split IP in a non-finite clause, although it is not clear that all non-finite clauses contain a full functional structure. We shall return to this issue in section 5.1.

- VP contains all the inflectional features of *læste* ‘read’ (cf. (11a)).
- VP is in the local domain of I (it is the complement of I).
- Hence it is not necessary to move *læste* out of the VP to check the verbal features against I.
- Hence there is no V-to-I in Danish (cf. (3) above, possibly for reasons of economy).

Note, however, that it is crucial for this account of the lack of V-to-I in MSc that sentence adverbs like the negation are adjoined to VP and are not dominated by a (functional) projection different from VP. Otherwise the verb inside the VP would not be in the local domain of I, since a projection different from VP would be intervening between I and VP, and hence the verb would have to move out of the VP to check its features against I. This property of the analysis will figure prominently in the discussion below, but it has gone relatively unnoticed in recent discussion of verb placement in Scandinavian.

In Icelandic, on the other hand, the split IP forces the verb to move out of the VP as illustrated in (13):

(13) Split IP and forced V-to-I, as in Icelandic:



- VP contains all the inflectional features of *læsi* ‘read’.
- VP is **not** in the local domain of Agr (it is not the complement of Agr, TP is).
- Hence *læsi* has to move out of the VP to make feature checking against Agr possible.
- Thus we have V-to-I (more specifically, V-to-T) in Icelandic in all types of embedded clauses (cf. (2) above).<sup>8</sup>

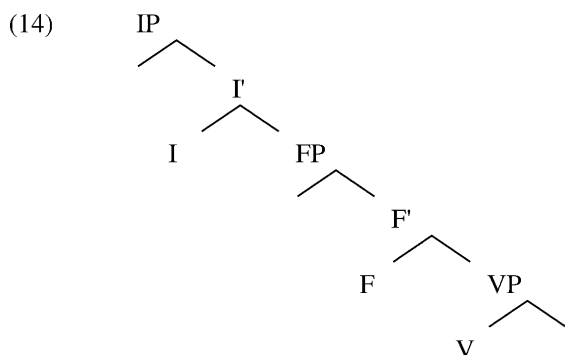
It is important to note in this connection that the relationship of the B&T account of V-to-I to the so-called Rich Morphology Hypothesis (RMH) is rather indirect. The B&T theory does not, as most variants of the RMH, rely on the (typically circular) notion of “strong features” nor on some ad hoc way of defining the notion of “rich morphology” in terms of the number of morphological distinctions in the verbal paradigm. The morphological aspect of B&T’s theory simply says that if the verbal morphology has “split” tense and agreement morphemes, then that constitutes evidence for split tense and agreement projections in the functional structure, i.e. triggering evidence, or a cue, for the SIP. The split IP in turn forces the verb to move out of the VP if it has to check features against AgrS because otherwise the verb will not be in the local domain of AgrS, which is necessary for feature checking to take place. Thus it is the number and nature of functional projections that forces the verb movement, not feature strength somehow related to morphological richness. The clear separation of tense and agreement morphemes is the only relevant notion of morphological

<sup>8</sup> Note that this theory implies that the verb need not move all the way to Agr to check Agr-features. As we shall see in section 4.5, this makes interesting predictions about possible variation in Icelandic word order (see also B&T, 1998, 62ff.; Thráinsson, 2003, 181ff.)—it should be noted here, however, that B&T assumed that an intervening AgrO-projection played a role in verb movement in Icelandic (see, e.g. B&T, 1998, 63), but as shown in the present article, this is not a necessary assumption.

“richness” for B&T’s theory of functional projections and the reason is that it is this separation that functions as a trigger for a positive setting of the SIP.<sup>9</sup>

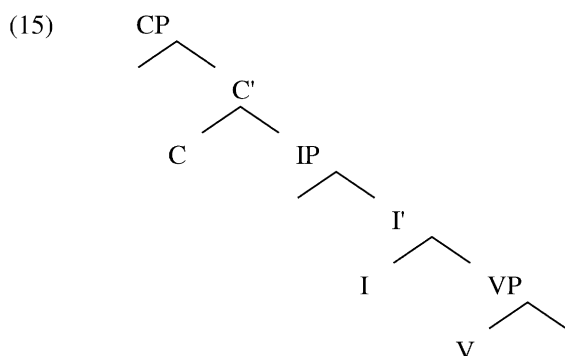
### 3.2. Other structural sources of verb movement out of the VP

As shown above, the most important property of B&T’s theory is its claim that verb movement is movement of the verb into the local domain of the head that it needs to check features against. Thus the verb needs to move out of the VP in a language with a split IP if it needs to check features against Agr. This is the source of “V-to-I” in Icelandic, according to B&T. But contrary to common assumptions, B&T do not maintain that “V-to-I” can only occur in languages with a split IP. They just say that it will not occur unless a functional head intervenes between the relevant I-head and the V. In languages with a split IP this “intervening” functional head will be the T-head of the TP and hence the V will have to move out of the VP if it needs to check features against Agr (see the illustration in (13) above). But in a language with an unsplit (or fused) IP the V would have to move out of the VP if some other functional head intervened and the V had to check features against the I. This is illustrated in (14), where FP is the (for now arbitrary) functional projection headed by the functional head F (see also B&T, 1998, 42):



In a structure like this, the V could not check features against I without moving out of the VP since otherwise it would not be in the local domain of I. As we shall see below, there is some evidence that this kind of V-movement is found in Scandinavian dialects that would be expected to have an unsplit (or fused) IP.

Similarly, B&T’s theory also predicts that if the V has features to check against C, it will have to move out of the VP in languages with an unsplit IP because otherwise it would not be in the local domain of C. This is shown in (15):



While this may seem trivial at the moment, we shall see below that some very robust and interesting evidence for this prediction can be found in the Scandinavian languages.

<sup>9</sup> This obviously raises the question of whether or not other kinds of “separated” inflectional verbal morphology might constitute evidence for a split IP and hence “force” V-movement under B&T’s theory. The prediction would be that if morphological categories of this kind are mirrored by functional projections above the VP in syntactic structure, then that should trigger V-movement. As pointed out by Alexiadou and Fanselow (2002, 230), Greek tense and aspect morphology might be such a case: Greek has separate tense and aspect morphemes and it arguably has verb movement of the relevant kind too.



#### 4. Some relatively well known facts supporting B&T's theory

##### 4.1. Historical evidence for the relevance of split tense and agreement morphology

The diachronic development of the Scandinavian languages is consistent with the claim that split tense and agreement morphology is an important trigger for a positive setting of the SIP: Old Norse and the old Scandinavian languages all had similar tense and agreement morphology as Modern Icelandic and they all seem to have had V-to-I of the Icelandic kind (e.g. movement across negation in all sorts of embedded clauses, cf. Platzack, 1988a,b; Falk, 1993; Vikner, 1995a; Rohrbacher, 1999; Thráinsson, 2003; Thráinsson et al., 2004, etc.). Some relevant examples are given below:

- (16) a. ef hann **kæmi eigi** heim áðr  
if he came not home earlier  
(Egil's saga 1932, 33, ms. from approx. 1350)
- b. than thær Gusz ræslæ ... **ma æi** lokkæ til goz  
he that God's fear may not entice to good  
(Haugen, 1976, 230, from Old Dan. laws, approx. 1240)
- c. Nu æf ther **skilz ægi** til fullz þæsse ræde  
now if you(D) understand not to full this speech  
(Haugen, 1976, 238, from Old Norw. "Speculum Regale", approx. 1250)
- d. æn han **sivungær ægh** thigianda messu  
if he sings not silent mass  
(Platzack, 1988a, his ex. (29b), Old Sw. laws, approx. 1290)
- e. Enn ef hann **uill æigi** læigu taca  
but if he wants not rent take  
(Thráinsson et al., 2004, 439, their ex. (137b), from Old Far. Law, approx. 1300)

The standard claim is that in the development of the Scandinavian languages simplification of verbal morphology typically precedes loss of V-to-I by approximately 200 years (see especially the discussion in Platzack, 1988a,b; Falk, 1993; Vikner, 1995a, 132ff.) whereas Icelandic has kept its split agreement and tense morphology and verb movement. These historical facts constituted an important part of the original arguments linking "rich verbal morphology" and V-to-I in Scandinavian, probably first in Kosmeijer's work (1986). Although this work typically operated with the notion of "strong inflection" related somehow to rich verbal morphology, the facts are actually consistent with B&T's claim that what matters is the presence vs. absence of split tense and agreement morphology and not some sort of counting of inflectional distinctions. For reasons of space, the reader is referred to the sources listed above for relevant paradigms.

##### 4.2. The number of available subject positions

As pointed out in the discussion below (10) above, the split IP structure makes more potential subject positions available than the unsplit one. Interestingly, there is some evidence that Icelandic does in fact have more subject positions available than MSc (see, e.g. Vangsnes, 1995, 1999, 2002a; Bobaljik and Jonas, 1996; Thráinsson, 1996, 2003, 2007; B&T, 1998; Bobaljik, 2002). First, observe the expletive constructions in (17) (based on examples in Vangsnes, 1995, for instance):

- (17) a. af hverju það hafa **einhverjir kettir** verið þar (Ic)  
for what there have some cats been there
- b. af hverju það hafa verið **einhverjir kettir** þar  
'why there have been some cats there.'
- c. \*hvorför det har **en katt** vore der. (No)  
why there has a cat been there
- d. hvorför det har vore **en katt** der  
'why there has been a cat there.'



It has been claimed (see, e.g. Bobaljik and Jonas, 1996; Thráinsson, 1996; B&T, 1998; Thráinsson, 1996, 2007, etc.) that facts of this sort show that there are two “subject positions” above the VP in Icelandic, namely SpecAgrP and SpecTP. The first one can be filled by the expletive element *það*, the other by the associate of the expletive (the logical subject), cf. (17a). If the main verb of an expletive construction is intransitive, then the object position in the VP is also available for the associate of the expletive, cf. (17b). In a language with an unsplit IP on the other hand, like Norwegian, there is only one subject position available above the VP, i.e. SpecIP. Hence (17c) is impossible but (17d) is acceptable, where the associate of the expletive is presumably in some sort of an object position, which is available to it since the verb is an intransitive one.

Second, this approach also (correctly) predicts that transitive expletives should be possible in SplitIP-languages like Icelandic but not in languages with a fused IP, like MSc, for instance, since with a transitive verb the object position will not be available for the associate of the expletive. This prediction is borne out by examples like the ones in (18), for instance (based on Vikner, 1995a, 189):

- |         |       |       |          |       |           |      |
|---------|-------|-------|----------|-------|-----------|------|
| (18) a. | Það   | hefur | einhver  | étið  | eplið.    | (Ic) |
|         | there | has   | somebody | eaten | apple-the |      |
| b.      | *Der  | har   | nogen    | spist | æblet.    | (Da) |
|         | there | has   | somebody | eaten | apple-the |      |

Thus B&T’s theory makes an interesting and testable prediction about the relationship between verb movement and available subject positions in expletive constructions—and there is some evidence that this prediction is correct (for a related discussion of the availability of different subject positions see Alexiadou and Anagnostopoulou, 1998; for a different account of the availability of transitive expletives see, e.g. Richards, 2006). We shall return to this issue below.<sup>10</sup>

#### 4.3. Acquisition of V-to-C and inflection

If main clauses in Germanic V2 languages are characterized by the need of the (finite) verb to check some features against C, then B&T’s theory predicts that the verb should only move out of the VP to check these features if some functional projection intervenes between CP and VP, as explained above. In the adult language there is presumably always such a projection, namely some sort of an IP. Hence B&T do not predict any cross-linguistic variation with respect to this. But if the acquisition of IP is somehow conditioned by, or correlated with, the acquisition of verbal inflection, then B&T’s theory predicts that there should be a connection between the acquisition of verb movement in main clauses (the so-called V-to-C) and the acquisition of verbal morphology.

Although the relevant facts have been known for a long time, they are rarely if ever mentioned in this connection. Yet it was pointed out by Platzack many years ago (1990, 1992) that there is no evidence for V-to-C in early child Swedish until there is evidence for inflection. He interpreted this as showing that early child Swedish has no IP and he gave examples like the following to illustrate this connection<sup>11</sup>:

<sup>10</sup> B&T (1998) also argue that the availability of Object Shift of the Icelandic kind should be restricted to languages with Split IP, assuming that Object Shift is movement to the specifier position of an object agreement projection (AgrOP) and that there cannot be an object agreement projection unless there is a subject agreement projection. While there is an intriguing correlation here, I have decided to leave Object Shift out of the discussion, mainly because it is too complex and controversial (for an extensive overview of the issues see Thráinsson, 2001a)—note also that it may very well be that split IP is a necessary but not a sufficient condition for transitive expletives. Evidence cited by Alexiadou and Fanselow (2002, 229–230) suggests that this may be the case. Thus French and Italian, for instance, appear to have rich verbal morphology of the relevant kind, but they do not have transitive expletives (nor object shift)—and the same may be true of Greek (cf. fn. 9 above).

<sup>11</sup> The nature of clause structure in early child language was hotly debated in the 1990s and the contributions to Meisel (ed. 1992a,b) give a good idea of the issues involved, especially the useful summary in Meisel’s introduction to the volume (Meisel, 1992a,b). The idea that early clauses in child language have no functional categories was first made famous by Radford (1986) and he argues for a similar position in his contribution to the Meisel-volume (Radford, 1992, see also Radford, 1990). Other contributors to that volume arguing for at least some “functional deficiency” of clauses in early child languages include Platzack (1992), Meisel and Müller (1992), and Clahsen and Penke (1992), whereas Hyams (1992), for instance, takes a different view. There is neither room nor reason to go into this controversy here.

- (19) a. Dom **inte** **fá** göra det. (Sw, Freja)  
 they not may(inf) do it (Platzack, 1990, 23n)  
 b. Så **åker** man **inte**. (ibid.)  
 so drives(fin.) one not [self-corrected by Freja (3;2) from  
*Så man inte åker.*]

Similarly, as Sigrjónsdóttir has discussed in a number of publications (1999, 2005a, 644, 2005b), so-called root infinitives occur in Icelandic child language and here too there is an extremely clear connection between (apparent) verb movement and finiteness. Some examples are given in (20) and (21):

- (20) a. Maður **stundum** **kokka**. (Eva 1;4:22)  
 man sometimes cook(inf.)  
 b. Þau **ekki** **koma**. (Eva 1;7:10)  
 they not come(inf.)  
 c. Kisa **ekki** **finna**. (Birna 2;0:19)  
 kitty not find(inf.)  
 d. Hún **ekki** **bíta** fuglana. (Birna 2;1:7)  
 she not bite(inf.) birds-the
- (21) a. Mamma **tekur** **ekki** pillu. (Eva 1;6:8)  
 mom takes(3sg.pres.) not pill  
 b. Mamma **hitti** **ekki**. (Eva 1;6:12)  
 mom hit(3sg.pret.) not  
 c. Skotta **fer** **ekki**. (Eva 1;6:13)  
 Skotta goes(3sg.pres.) not  
 d. Ég **get** **ekki**. (Birna 2;1:7)  
 I can(1sg.pres.) not

As shown here, this data is from the period when the two girls Eva and Birna are in the process of acquiring verbal inflection. Hence they sometimes use finite forms and sometimes they do not, but the positioning of the verb is virtually always appropriate for the finite verb. This is shown in the overview in (22):

(22)	Vinf.		Vfin.	
	Adv-Vinf	Vinf-Adv	Adv-Vfin	Vfin-Adv
Eva (1;1–2;4:16)	66 (87%)	10 (13%)	4 (2%)	226 (98%)
Birna (2;0–2;6:13)	25 (100%)	0 (0%)	4 (1%)	373 (99%)

It is important to note here that it does not matter for B&T's theory in this connection whether the children are acquiring a split IP or a fused one. In either case they predict that the verb should have to move out of the VP if it has to check features against C because the VP will not be in the local domain of C. Under B&T's account, this movement has nothing to do with "strength" of the inflectional features nor the structural make-up of the IP nor with the nature of the sentence adverbs. All that matters is the fact that the intervening IP will prevent the VP from being in the local domain of C and hence force the verb to move out of it if it has to check features against C. The so-called Regional Northern Norwegian (ReNN) is an interesting test case in this connection. In this dialect the finite verb never moves across the negation in embedded clauses although it may move across other kinds of adverbs as will be discussed in more detail below. This is illustrated in (23) (see, e.g. Hróarsdóttir et al., 2006, 6 passim; Bentzen et al., 2007a; Hrafnbjargarson et al., 2007):

- (23) a. \*...ettersom nán studenta **leverte** **ikke** oppgaven  
 as some students handed-in not assignment-the  
 b. ... ettersom nán studenta **ikke** **leverte** oppgaven  
 not handed-in

As predicted by B&T's theory, however, we find the same kind of correlation in ReNN child language as in Icelandic between finiteness and verb movement across the negation in main clauses in child language. This has been shown by Westergaard (2005, 139ff.), who gives examples like the following:

- (24) a. **ikkje legge** (Ina 1;11:22)  
not lay(inf.)  
b. **ikkje ha** den! (Ann 1;9:18)  
not have(inf.) it  
c. **ikke være** sånn (Ole 1;10:0)  
not be(inf.) such
- (25) a. æ **gjør ikke** (Ina 2;2:12)  
I do(pres.) not  
b. æ **vet ikkje** (Ann 1;9:18)  
I know(pres.) not  
c. ho **er ikke** på jobb (Ole 1;10:0)  
DET mom is(pres.) not at work

According to Westergaard, the correlation for Ina is as follows:

(26)	Vinf.		Vfin.	
	Neg-Vinf	Vinf-Neg	Neg-Vfin	Vfin-Neg
Ina (1;8:20–2;10:22)	21 (91%)	2 (9%)	5 (1%)	432 (99%)

Facts from child language are rarely much clearer than this.<sup>12</sup>

#### 4.4. Subject-initial V2 clauses

Although some sort of V-to-C analysis has figured prominently in the account of word order in the Germanic V2 languages since den Besten's original proposal (1983), the (implicit) claim that all main-clause subjects must raise to a position otherwise reserved for topics, namely SpecCP (or some such), has always seemed a bit puzzling. One of the obvious problems is that main-clause subjects do not have to be topical whereas preposed objects have to be. This was pointed out by Travis (1984), for instance, who showed that weak pronouns can occur as subjects but not as preposed objects of German main clauses:

<sup>12</sup> Interestingly, this close correlation between finiteness and movement does not appear to be found main clauses in the language of Icelandic agrammatical aphasics (cf. Albertsdóttir, 2000; Magnúsdóttir, 2005, 662) as shown in (i):

- (i) a. það **standa bara** á vatninu Vinf-Adv  
it stand(inf.) only on water-the  
'It is just standing in the water.'  
b. hún **fatta ekki** fyrst Vinf-Adv  
she realize(inf) not first  
'She does not realize at first.'  
c. ég **aldrei sofa** Adv-Vinf  
I never sleep(inf.)

As these examples indicate, this agrammatical patient occasionally uses the non-finite form of the verb. In contrast with child language, however, this non-finite form often precedes sentence adverbs like the negation. The reason is presumably that the patient is using the non-finite form as a default form and this has to do with morphology (or retrieval of morphological forms) and not with syntax (cf. e.g. Magnúsdóttir and Thráinsson, 1990; Magnúsdóttir, 2005).

- (27) a. Er hat es gegessen.  
 he has it eaten  
 ‘He has eaten it.’  
 b. \*Es hat er gegessen.  
 it has he eaten  
 c. Das hat er gegessen.  
 that he has eaten  
 ‘That he has eaten.’

The strong (demonstrative) object pronoun *das* ‘that’ in the c-example can be fronted but the weak personal pronoun *es* ‘it’ in the b-example cannot, although the personal pronoun *er* ‘he’ can occur in main-clause subject position in the a-example. Hence Travis (1984) argued that Germanic subject-initial main clauses had the subject in SpecIP (and not SpecCP) and the finite verb in I (and not C—different arguments for a similar conclusion about Dutch have also been presented by Zwart, 1993, for instance).

As Branigan (1996) shows, there are certain problems with the analysis of subject-initial V2 clauses proposed by Travis (1984). Most importantly, perhaps, he demonstrates that embedded subject-initial V2 clauses are extraction islands in German, just like object-initial V2 clauses are. This similarity would be expected under standard assumptions about extraction if the object was in SpecCP (of the lower CP in a CP-recursion structure, that is) in embedded object-initial V2 clauses and the subject in SpecCP in embedded subject-initial V2 clauses. Extraction facts of this sort have also been discussed in a Scandinavian context, most recently by Bentzen et al. (2007b—see also Vikner, 1995a, 108ff.; Holmberg, 1986, 109ff.). The point can be illustrated by examples like (28) from Swedish, for instance, where the c-example shows that this islandhood also holds for expletive-initial embedded V2 clauses in Swedish (I owe example (28c) to an anonymous reviewer and the judgments of (28a,b) to Anders Holmberg p.c.—Bentzen et al., 2007b offer slightly different examples):

- (28) a. \*Vem<sub>i</sub> sa han [att han hade inte gett  $t_i$  den här boken]?  
 whom said he that he had not given this here book  
 ‘Who did he say that he had not given this book to?’  
 b. \*Vem<sub>i</sub> sa han [att [den här boken]<sub>j</sub> hade han inte gett  $t_i$   $t_j$ ]?  
 whom said he that this here book had he not given  
 c. \*[I det köket]<sub>i</sub> tror jag [att det hade inte varit någon  $t_i$  ]  
 in that kitchen-the believe I that there had not been anybody

Under the standard assumptions about embedded V2 order in MSc, namely that it is the result of V-to-C, whether the clauses are subject-initial or not, this is the expected result. But as Vikner (1995a) pointed out, subject-initial V2 (or Vfin-Adv) clauses in Icelandic are NOT extraction islands, nor are expletive-initial embedded clauses, but object-initial V2 clauses typically are, as shown by the contrasts in (29) (see also the discussion in Thráinsson, 2007, 329)<sup>13</sup>:

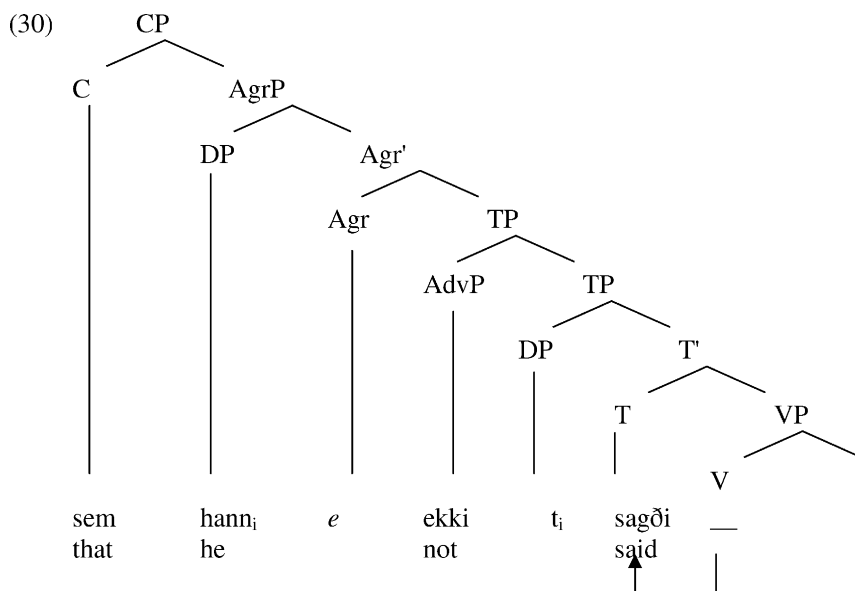
- (29) a. Hverjum<sub>i</sub> heldur þú [að María gefi ekki  $t_i$  svona bækur ]?  
 whom think you that Mary gives not such books  
 ‘Who do you think that Mary does not give such books to?’  
 b. ?\*Hverjum<sub>i</sub> heldur þú [að [svona bækur]<sub>j</sub> gefi María ekki  $t_i$   $t_j$ ]?  
 whom think you that such books gives Mary not  
 c. [Í þessu eldhúsi]<sub>i</sub> held ég [að það hafi ekki verið neinn  $t_i$  ].  
 in this kitchen believe I that there has not been anybody  
 ‘In this kitchen I don’t think anybody has been.’

<sup>13</sup> Iatridou and Kroch (1992) give some examples of extraction out of object-initial clauses that are passable for some speakers, at least, but the contrasts in (29) are quite clear (cf. also Thráinsson, 2007, 329n).

This difference between MSc and Icelandic is predicted if the Icelandic embedded Vfin-Adv order is the result of V-to-I, as argued by B&T, but embedded V2 order in MSc is the result of V-to-C, as standardly assumed.<sup>14</sup> Since Bentzen et al. (2007b) want to argue that Icelandic embedded V2 is also the result of V-to-C, they need to maintain that the observed difference in islandhood does not follow from a V-to-I vs. V-to-C difference but rather from what they call non-root vs. root differences, where being a “root phenomenon” does not correlate with being “a CP-phenomenon” but is semantically defined. In section 5 we will return to the differences in embedded clause word order between Icelandic, MSc and Faroese, as the facts are more complex than discussed so far.<sup>15</sup>

#### 4.5. V3 and “apparent MSc word order” in Icelandic

As pointed out in the discussion around (13) above, B&T maintain that verbs only need to move into the local domain of their checker for checking purposes and not to the actual projection that contains the relevant head. Now if we assume an adjunction analysis of sentence adverbs, as illustrated in (12) and (13) above for instance, this opens up the possibility that a sentence adverb could be adjoined below the subject but above a verb that has moved out of the VP.<sup>16</sup> More specifically, the verb could be in T and the adverb adjoined to TP, below the subject in SpecAgrP. This possibility is described in some detail in B&T’s original paper and has since been discussed more extensively by Angantýsson (2001, 2007a,b) and Thráinsson (2003). Consider the structure in (30):



<sup>14</sup> Branigan (1996) wants to argue that subject-initial (presumably including expletive-initial) V2-clauses, embedded and non-embedded, involve V-to-C, but he maintains that the subject is fronted to a lower SpecCP than the object would be. Hence an initial subject in a V2 clause does not have to be a topic. This is meant to eliminate the topicality problem discussed by Travis (1984) while explaining why extraction is blocked out of a subject-initial V2 clause in German, for instance. Now Icelandic subjects of V2 clauses do not block extraction, as shown above, and under the B&T theory the obvious reason would be that they are not in SpecCP but in the specifier position of a split IP. Since German clearly has separate tense and agreement markers like Icelandic, B&T predict that it should have a split IP and V-to-I. The fact that subject-initial embedded clauses in German are islands, however, suggests that the German IP is head-final, contra Travis (1984), for instance, and hence the verb always leaves the IP in German V2 constructions. For arguments for a similar conclusion based on Flemish dialects see van Craenenbroeck and Haegeman (2007).

<sup>15</sup> The extraction facts are not entirely straightforward either, as there seems to be a difference between argument extraction and adjunct extraction in some languages or dialects (see e.g. Vikner, 1995a, 109–116; Bentzen et al., 2007b). Besides, extractions from object-initial V2-clauses are typically worse than from subject-initial clauses, even in the languages/dialects where both are ungrammatical. In addition, German differs from Scandinavian, for instance, in not allowing true expletives in embedded clauses (see, e.g. Vikner, 1995a, 70, passim). I have nothing revealing to say about these complications at present.

<sup>16</sup> Adverbial syntax is a notoriously controversial area and alternatives to an adjunction analysis will be considered in section 5.1. Many of the issues are reviewed by Alexiadou (2004) and other contributions to a special issue of *Lingua*. For specific arguments for an adjunction analysis of adverbs, as assumed here, see, e.g. Ernst (2002, 2004); Jónsson (2002); Svenonius (2002); Haider (2004).



Now it is well known that it is also possible to find instances of V3 in main clauses in Icelandic, but the class of possible “intervening adverbs” (or V3 adverbs) in main clauses is not identical to the V3 adverbs found in embedded clauses (for some discussion see Maling, 1980; Thráinsson, 1986; Sigurðsson, 1986, 1989; Bobaljik and Thráinsson, 1998, 64; Angantýsson, 2001, 2007a,b). Rather, the V3 adverbs found in main clauses are a subset of those found in embedded clauses. In addition, the main-clause V3 adverbs do not interfere with V-to-I across sentence adverbs in their default lower position, neither in main clauses nor in embedded clauses. Thus most of the following examples show V3 and V-to-I, some of them even Object Shift, Topicalization or expletives too:

- (32) a. Jón **bara** las **ekki** bókina.  
Jon just read not book-the  
'Jon just didn't read the book.'
- b. Jón **einfaldlega** las **ekki** bókina.  
J. read just not book-the  
'Jón just didn't read the book.'
- c. Það **náttúrulega** hefur **aldrei** verið lax í þessari á.  
there naturally has never been salmon in this river  
'There naturally has never been salmon in this river.'
- d. Ég held, að Jón **bara** lesi bækurnar **ekki**.  
I think that John just reads books-the not  
'I think that John just doesn't read the books.'
- e. Þennan mann **bara** þekki ég **ekki**.  
this man(A) just know I not  
'I just don't know this man.'
- (33) a. Það er ein Íslendingasaga sem ég **bara** hef **aldrei** lesið.  
there is one Icel. saga that I just have never read  
'There is one Icelandic saga that I just have never read.'
- b. Þetta gerðist þegar nemandinn **einfaldlega** las **ekki** bókina.  
this happened when student-the simply read not book-the  
'This happened when the student simply didn't read the book.'
- c. Þetta er bók sem það **náttúrulega** hefur enginn lesið.  
this is book that there naturally has nobody read  
'This is a book that naturally nobody has read.'

Interestingly, this higher adverbial position is entirely natural for adverbs like ‘just, simply, naturally’ and the like and the clause type is irrelevant, as indicated by the variety of examples listed above. These V3 adverbs can even intervene between a topicalized object and the finite verb (cf. (32e)). Despite this, they can also occur quite low and even allow object shift around them:

- (34) a. Nemandinn náði **bara** **ekki** prófinu.  
student-the passed just not exam-the  
'The student just didn't pass the exam.'
- b. Nemandinn náði prófinu **bara** **ekki**. OS around *ekki* and *bara*  
student-the passed exam-the just not

Facts of this sort might be difficult to reconcile with a Cinque-type analysis of adverbs (1999) as specifiers of functional projections with a fixed order.<sup>20</sup>

<sup>20</sup> The same semantic class of adverbs can also intervene between main clause subjects and the finite verb in Swedish and Norwegian, as discussed, for instance, by Egerland (1998) and Nilsen (2003). In both languages these adverbs can also intervene between a topicalized object and the finite verb (Egerland and Nilsen p.c.):



More importantly for the problem at hand, if sentence adverbs like *ekki* ‘not’, *aldrei* ‘never’, *alltaf* ‘always’, *loksins* ‘finally’, etc. mainly occur in this high position in those embedded clauses that are the least main-clause like of all, then we might not expect them to be able to precede the finite verb in main clauses. As shown in (35), where the contrast is quite clear, this prediction is borne out:

- (35) a. \*Nemandinn **ekki/aldrei/loksins** náði prófinu.  
 student-the not/never/finally passed exam-the  
 b. Þetta er prófið [sem hann **ekki/aldrei/loksins** náði].  
 this is exam-the that he not/never/finally passed  
 ‘This is the exam that he did not pass/that he never/finally passed.’

While I cannot claim to have a clean and neat analysis of the V3 possibilities in Icelandic, the facts reviewed in this section show that adverbial placement in Icelandic is more complex than often assumed and the order Adv-V<sub>fin</sub> does not necessarily mean that the verb has not moved out of the VP although the order V<sub>fin</sub>-Adv with the same adverb shows that it has. This, together with the fact that the acceptance of V3 orders in Icelandic embedded clauses not only depends on the type of clause involved but sometimes also on stress and intonation or the type of subject involved (cf. Angantýsson, 2001, 2007a,b), suggests that the instances of V3 order found in embedded clauses in Icelandic are “apparent” rather than “real” examples of MSc order.

## 5. Accounting for more recently discovered variation

### 5.1. Differences between MSc and Icelandic V-Adv order in embedded clauses

While linguists have for a long time known of sporadic V<sub>fin</sub>-Adv examples from MSc dialects with “poor” verbal morphology, in particular from the Tromsø dialect of Northern Norwegian and the Kronoby dialect of Finland Swedish (see, e.g. Vikner, 1997–1998; Rohrbacher, 1999; Platzack and Holmberg, 1989; Thráinsson, 2003, 2007), this phenomenon has only recently been studied in detail. I am here referring to the pioneering research on Regional Northern Norwegian (ReNN) by Bentzen (2003) and by Bentzen and her associates in various permutations (see, e.g. Hróarsdóttir et al., 2006, 6, passim; Bentzen et al., 2007a; Hrafnbjargarson et al., 2007).<sup>21</sup> They have discovered that the finite verb in ReNN can either precede or follow some sentence adverbs in embedded clauses such as the following (cf., e.g. Hróarsdóttir et al., 2006, 7):

- (36) a. Æ vet koffer ho Hedda **kjøpe ofte/ofte kjøpe** sko.  
 I know why she Hedda buys often/often buys shoes  
 ‘I know why Hedda often buys shoes.’  
 b. Dem som **regelmessig går/går regelmessig** på kino treng ikke TV.  
 those that regularly go/go regularly on theater need not TV  
 ‘Those who regularly go to the cinema don’t need a TV.’  
 c. ... ettersom nån studenta **levere sannsynligvis/sannsynligvis levere** oppgaven.  
 as some students hand-in probably/probably hand-in assignment-the  
 ‘... as some students probably hand in the assignment.’

- (i) a. Detta bara begriper jag inte. (Sw)  
 b. Dette bare forstår jeg ikke. (No)  
 this just understand I not  
 ‘I just don’t understand this.’

Nilsen (2003) takes the existence of these V3 adverbs to provide an important argument against a head movement analysis of the V2 phenomenon, whereas Egerland (1998) opts for a clitic analysis of them and refers to them as “focus particles” (since *bara* ‘just’, for instance, can be reduced to ‘*ba*’ in Swedish).

<sup>21</sup> For the sake of simplification I will occasionally refer to the work of Bentzen and her associates Gunnar Hrafn Hrafnbjargarson, Thorbjörg Hróarsdóttir and Anna-Lena Wiklund as “Bentzen et al.” when it is not necessary to single out individual papers and presentations listed in the references below under the names of the authors in various orders.

Bentzen et al. have also argued that examples like the following show that this kind of variation is also found in control infinitives and ECM-infinitives in ReNN (see Hróarsdóttir et al., 2006, 8):

- (37) a. Ho prøvde á **oftere komme/komme oftere** tidsnok på skolen.  
 she tried to often-er come(inf.)/come(inf.) often-er on time to school-the  
 'She tried to be on time for school more often.'  
 b. Æ mistenkte han før á **ha allerede/allerede ha** sett den filmen.  
 I suspected him for to have(inf.) already/already have(inf.) seen that film-the  
 'I suspected that he might already have seen that movie.'

Bentzen et al. take this to show that ReNN has “optional independent V-to-I movement” as they call it (Hróarsdóttir et al., 2006, 9).

While space does not permit a detailed overview of the analysis of verb placement in ReNN provided by Bentzen et al., two things should be pointed out here. First, instead of the more traditional head movement analysis, Bentzen et al. propose a remnant movement analysis to account for verb placement in ReNN and Icelandic, with different amount of material being pied-piped with the constituent that moves (actually, they argue that in ReNN it is only the verbal head that moves so what they are assuming is a kind of a head movement in disguise). Second, Bentzen et al. show that the verb always follows the negation in embedded clauses in Modern ReNN, be they finite or non-finite (see, e.g. Hróarsdóttir et al., 2006, 7–8):

- (38) a. ...ettersom nán studenta **\*leverte ikke/ikke levte** oppgaven  
 as some students turned-in not/not turned-in assignment-the  
 '... as some students didn't turn in the assignment.'  
 b. Ho prøvde á **\*komme ikke/ikke komme** før seint på skolen.  
 she tried to come(inf.) not/not come(inf.) too late to school-the  
 'She tried not to be too late for school.'  
 c. Æ mistenkte han før á **\*ha ikke/ikke ha** sett den filmen.  
 I suspected him for to have(inf.) not/not have(inf.) seen that film-the  
 'I suspected that he might not have seen that movie.'

Under any theory, then, it is clear that the negation *ikke* ‘not’ in ReNN is somehow different from the sentence adverbs *ofte* ‘often’, *regelmessig* ‘regularly’ and *sannsynligvis* ‘probably’ exemplified in (38). Bentzen et al. propose that the difference is one of relative placement, namely that negation is located higher in the structure than the other adverbs and hence verb movement across it would involve movement “to the CP domain of the clause” (Hróarsdóttir et al., 2006, 9; Wiklund et al., 2007) and that is not, according to them, the kind of movement responsible for verb placement in ReNN.<sup>22</sup> Similarly, Bentzen (2007, 55–56) argues that in the Kronoby dialect of Finland Swedish does not allow V-to-I across the negation although it does have V-movement across other kinds of adverbs in unambiguous “non-V2 contexts” (i.e. embedded clauses that do not allow typical V2 constructions like Topicalization). She gives examples like the following, for instance (2007, 55–56, 132n; see also Wiklund et al., 2007, 216n)<sup>23</sup>:

<sup>22</sup> Interestingly, the most frequently cited example of V-Adv order from Northern Norwegian used to be the following, taken from an early 20th century grammar (Iversen, 1918, see, e.g. Vikner, 1997–1998; Rohrbacher, 1999; Platzack and Holmberg, 1989; Thráinsson, 2003, 2007):

(i) Han kom så seint at dørvakta **vilde ikkje** slæppe han inn.  
 he came so late that door-man-the would not let him in

(Tromsø dialect, cf. e.g. Vikner, 1997–98, 126, from Iversen 1918)

Here the finite verb *vilde* ‘would’ precedes the negation *ikkje* ‘not’. As Bentzen points out (2007, 2–3, see also Bentzen, 2003), this example is inconclusive since the embedded clause in (i) is probably not a “non-V2 context” as Topicalization is still allowed in this context in the Tromsø dialect.

<sup>23</sup> Again, it is interesting to note that the standardly cited example of verb movement in the Kronoby dialect does in fact involve verb movement across the negation (see e.g. Platzack and Holmberg, 1989; Vikner, 1997–1998; Rohrbacher, 1999; Platzack and Holmberg, 1989; Alexiadou and Fanselow, 2002; Thráinsson, 2003, 2007), as Bentzen (ibid.) points out:

(i) He va bra at an **tsöfft int** bootsen.  
 it was good that he bought not book-the  
 'It was good that he didn't buy the book.'

Bentzen (2007) and Wiklund et al. (2007) maintain that this example is inconclusive since the embedded *that*-clause may be a V2 environment, as indicated by the fact that verb movement across the negation in a less ambiguous non-V2 environment as in (39b,c) is ungrammatical in the Kronoby dialect as it is in ReNN.

- (39) a. Ja minns fövaa on **har aldri** drotsi mjöltsen.  
 I remember for-what she has never drunk milk-the  
 ‘I remember why she has never drunk milk.’
- b. \*Ja veit fövaa Göran **itär int** korv.  
 I know for-what Göran eats not hotdogs
- c. \*On föstoo int fövaa an **vila int** tjööp nyy biil.  
 she understood not for-what he would not buy new car

To account for verb placement in ReNN and the Kronoby dialect, then, Bentzen et al. need to make two assumptions (see, e.g. Bentzen, 2007, 56–57):

- (40) a. The negation is either very high (and thus above the position targeted by V-to-I in ReNN and the Kronoby dialect) or it has a special blocking effect (which only holds for V-to-I and not for V-to-C).
- b. V-to-I in ReNN (and Kronoby) is optional.

Under the B&T theory, on the other hand, the variable (or “optional”) V-to-I movement found in ReNN would have to be the result of variable analysis of the adverbs involved. Recall that the B&T theory predicts that if a functional projection intervenes between IP and VP, then the verb would have to move out of the VP in order to check features against the I-head. Under the standard adjunction analysis of sentence adverbs assumed by B&T, no such functional projection intervenes in MSc and hence MSc should not have V-to-I under this analysis. The fact that “most of the time” it does not suggest that the adjunction analysis of adverbs is basically correct for MSc. But the fact that ReNN appears to have V-to-I “some of the time” for some adverbs suggests that a different analysis is possible for some sentence adverbs, namely a functional projection analysis along the lines argued for by Alexiadou (1997) and Cinque (1999) in different contexts. The two possibilities are illustrated in (41), with Modern ReNN *ofte* ‘often’ and *ikke* ‘not’:

- (41) a. Adjunction analysis:
- 
- IP  
 / \  
 DP I'  
   / \  
   I VP  
    / \  
    AdvP VP  
    ofte / \  
    ikke V
- b. Functional projection analysis:
- 
- IP  
 / \  
 DP I'  
   / \  
   I AdvP  
    / \  
    AdvP VP  
    ofte / \  
    V

The claim would then be that Modern ReNN *ofte* ‘often’ could either be adjoined as in the a-structure or project a “functional” AdvP as in the b-structure. The a-structure does not trigger verb movement (the V is in the local domain of I) whereas the b-structure does (V is not in the local domain of I), under B&T’s analysis. The negation can apparently not occur in the b-type of structure if B&T are right.

But how could ReNN and the Kronoby dialect develop the b-structure as an alternative for certain adverbs whereas most of MSc did not? A possible scenario is the following: As already mentioned, Norwegian and Swedish both had rich verbal morphology in earlier stages and hence the “Icelandic” type of V-to-I. When the verbal morphology was simplified, there were still some examples of Vfin-Adv orders around (see the discussion in section 4.1 above). Some of these could be interpreted as the result of V-to-C and examples of that kind still remain in all dialects of MSc. Other types of Vfin-Adv orders typically died out, since complex verbal morphology no longer suggested a split IP. But for some reason speakers of ReNN and the Kronoby dialect analyzed certain examples of Vfin-Adv as visible evidence for the (marked) structure of adverbial modification illustrated in (41b).

While the scenario just described leaves certain questions unanswered, there is some evidence that this analysis is on the right track. There are some intriguing differences between the (optional) V-to-I in ReNN and the (general) V-to-I in Icelandic and I shall argue below that these differences are expected under the analysis advocated here since it

maintains that the source of V-to-I is not the same in the two languages. In Icelandic V-to-I is triggered obligatorily by the split IP, regardless of the choice of sentence adverb, in ReNN it is dependent on the type of adverb involved. Some adverbs allow it but do not require it, as they are structurally ambiguous, triggering verb movement in one structure but not in the other (cf. (41)), but the negation *ikke* does not allow it at all.

There are at least three sets of facts that suggest that support this kind of analysis. We have already discussed one of them, namely the fact that the order Vfin-Adv is the default order in all types of embedded clauses in Icelandic and the order Adv-Vfin is only exceptionally possible and subject to various restrictions as outlined above and most extensively described by Angantýsson (2001, 2007a,b). Hence it was argued that whenever embedded Adv-Vfin order is found in Icelandic, it indicates that the Adv is adjoined higher than sentence adverbs typically are. But there is also another difference between V-to-I in ReNN and Icelandic as Bentzen et al. have pointed out: Given a “stack” of sentence adverbs as in the following examples, ReNN allows the verb to move just across one of the sentence adverbs whereas in Icelandic it has to move across the whole “stack” (see, e.g. the discussion in Hróarsdóttir et al., 2006, 9–11)<sup>24</sup>:

- (42) a. ... ettersom dem **sannsynligvis** **ofte** **levere** oppgava. (ReNN)  
           as they probably often hand-in assignments  
       b. ... ettersom dem **sannsynligvis** **levere** **ofte** oppgava.  
                                   probably hand-in often  
       c. ... ettersom dem **levere** **sannsynligvis** **ofte** oppgava.  
                                   hand-in probably often  
           '... as they probably often hand in assignments.'
- (43) a. \*Hann segir að María **ekki** **oft** **hafi** sungið falskt. (Ic)  
           he says that Mary not often has sung out-of-tune  
       b. \*Hann segir að María **ekki** **hafi** **oft** sungið falskt  
                                   not has often  
       c. Hann segir að María **hafi** **ekki** **oft** sungið falskt.  
                                   has not often  
           'He says that Mary has not often sung out of tune.'

This difference is consistent with B&T's analysis as presented here: In ReNN it is the (optionally) intervening AdvP-projection that triggers verb movement as the verb needs to move out of the VP in order to enter the local domain I (cf. (38)). But since the structure of the adverbial cluster is ambiguous, the verb can either stay inside the VP or move up one notch or two notches in order to be in the local domain of I. In Icelandic, on the other hand, the structure of the adverbial cluster does not play any role at all because the verb will have to move to T at least in order to enter the local domain of Agr in the split IP structure.

Now the reader might object that the examples in (43) are not fair because there the higher adverb, namely the negation, is not one that is allowed to precede the finite verb in this type of embedded clause (a *that*-clause). But this is exactly the point. If we have the type of embedded clause that allows a sentence adverb in a higher position preceding the finite verb, e.g. a relative clause, then the verb can easily intervene between such an adverb and a lower sentence adverb, contrary to what is implied by Hróarsdóttir et al. (2006, 11). This was already demonstrated above (see the examples in (32) and (33)) and additional examples are given in (44) (the latter is an “actual example” found on the Internet):

- (44) a. Hún fór ekki heim, sem hún **sennilega** **hefði** átt að gera.  
           she went not home which she probably had should to do  
           'She didn't go home, which she probably should have done.'  
       b. Hún fór heim, sem hún **sennilega** **hefði** **ekki** átt að gera.  
           she went home which she probably had not should to do  
           'She went home, which she probably shouldn't have done.'

As the a-example shows, the sentence adverb *sennilega* ‘probably’ can intervene between the subject and the finite verb in a relative clause with a pronominal subject, the type of embedded clause where V3 is most commonly found in

<sup>24</sup> The Icelandic examples are modified a bit here since one of the Icelandic examples offered by Hróarsdóttir et al. (2006, their example (18d)), is unacceptable, but this does not affect the argumentation made here as will become clear below.

Icelandic, as Angantýsson has shown (2001, 2007a,b). As the b-example indicates, the finite verb can easily intervene between the higher adverb and the lower one in such instances.

Finally, observe that under this account of V-to-I in ReNN, the exact featural content of the IP should not play any role w.r.t. the applicability of V-to-I. The movement of the verb is just triggered by the appropriate adverbial projection. Hence the fact that this “optional” V-to-I is found both in finite complements, control complements and ECM-complements in ReNN, as illustrated in (36)–(38), is to be expected under B&T’s theory. In Icelandic, on the other hand, there might be a difference between control complements and ECM complements w.r.t. verb movement if there is “more functional structure” in the CP-complements as often suggested (see, e.g. Thráinsson, 1993). There is some evidence that this is the case, although the facts are a bit more complex than Hróarsdóttir et al. (2006, 11–13) make them out to be. Consider the following (for some discussion and references see Thráinsson, 2007, sections 8.2.2 and 8.2.6; see also Vangsnes, 2002b):

- (45) a. Ég hafði aldrei lofað Maríu [að \*ekki lesa/lesa ekki ástarsögur].  
 I had never promised Mary to not read/read not love stories  
 'I had never promised Mary not to read love stories.'
- b. Éghafði aldrei talið [Maríu ?ekki lesa/?lesa ekki ástarsögur].  
 I had never believed Mary not read/read not love stories  
 'I had never believed Mary not to read love stories.'

As indicated here, there is no controversy as to the obligatoriness of verb movement in control complements like (45a), i.e. that the non-finite verb has to precede the negation, the judgments are not at all as clear when ECM complements like (45b) are concerned. Many speakers find neither variant completely natural and they tend to disagree as to which one is more acceptable. But while there is some evidence that control complements may be CPs, facts of the sort illustrated in (45) cannot be taken as an evidence for the claim that verb movement in Icelandic is some sort of a remnant movement to a specifier position “in the CP domain”, as there is no independent evidence for such a position following the infinitival *að* in control complements. Note, for instance, that Topicalization is impossible in such complements in Icelandic (see, e.g. Thráinsson, 1993):

- (46) a. Ég lofaði [að lesa bókina].  
 I promised to read(inf.) book-the  
 'I promised to read the book.'
- b. \*Ég lofaði [að bókina lesa].  
 I promised to book-the read

Thus it seems that, contrary to arguments presented by Bentzen et al., the B&T theory of verb movement does in fact present a fairly simple account of the observed differences between V-to-I in Icelandic and ReNN.

## 5.2. Differences between Faroese and Icelandic V<sub>fin</sub>-Adv order in embedded clauses

Although there has been a considerable controversy for a while about the extent and nature of the V<sub>fin</sub>-Adv order in embedded clauses in Faroese, it has become clear in recent years that many speakers of Faroese use and accept this order in a variety of embedded clauses (see, e.g. Barnes, 1987, 1992; Barnes and Weyhe, 1994; Henriksen, 2000; Thráinsson, 2001b, 2003, 2007; Thráinsson et al., 2004). The following are examples from a Faroese syntax written by a native speaker of Faroese (Henriksen, 2000, 120):

- (47) a. Hann spurdi, hví hon segði altíð tað sama.  
 he asked why she said always the same
- b. Hann spurdi, hví hon altíð segði tað sama.  
 always said
- 'He asked why she always said the same thing.'

Since the V<sub>fin</sub>-Adv example in (47a) involves a typical non-V2 clause (an indirect question), it does not seem likely a priori that all instances of verb movement in Faroese could involve some sort of a V-to-C. Yet there is some evidence

that this may in fact be the case for some speakers of Faroese at least. A study of a number of 20th century texts reveals, for instance, that the Vfin-Adv order is by far most common in the main-clause like bridge-verb complements. The results of this study are tabulated in (48) (cf. especially Thráinsson, 2003, 176):

(48)	compl. of +bridge vbs.	compl. of –bridge vbs.	adverbial clauses	indir. questions	relative clauses
Vfin-Adv:	80%	37%	49%	40%	24%

Similarly, judgment tasks presented to some 100 high school students and two Faroese linguists in Tórshavn (test administered by Zakaris Hansen in 1996, cf. Thráinsson, 2003, 2007) gave a comparable result for the acceptance of the Vfin-Adv order in different types of embedded clauses as shown in (49):

(49)	compl. of +bridge vbs.	compl. of –bridge vbs.	adverbial clauses	indir. questions	relative clauses
students:	34%	14%	39%	5%	5%
linguists:	67%	50%	50%	37%	0%

Finally, a judgment task presented to some 180 speakers in a pilot study of variation in Faroese syntax (4 different age groups, 6 different places, test administered by Victoria Absalonsen and Helena á Løgmansbø in 2006) gave the following acceptability rates of the Vfin-Adv order in the complements of bridge verbs vs. non-bridge verbs<sup>25</sup>:

(50)	compl. of +bridge vbs.	compl. of –bridge vbs.
	58%	37%

All this indicates that speakers (and writers) of Faroese accept, and use, Vfin-Adv order most frequently in those types of embedded clauses where main-clause order (including Topicalization) is known to be most acceptable. The situation in Icelandic is very different, as noted above, in that there the Vfin-Adv order is the default variant and completely acceptable by all speakers in all types of embedded clauses. There would be no reason to expect this difference if there was no connection between verbal morphology and verb placement.

Despite this, we cannot claim that we understand the Faroese situation completely yet. It is possible, for instance, that the Faroese verbal morphology is not entirely unambiguous for all speakers. In particular, there might be speakers that interpret it as “rich” in the relevant sense (separate tense and agreement morphemes) and hence have “true V-to-I” of the Icelandic kind, triggered by split IP. A typical case of regular verbal inflection in Faroese is given in (51) (and note that unstressed /i,u/ are not distinguished by all speakers of Faroese, cf., e.g. Thráinsson et al., 2004, 349ff.):

(51)	1sg.pres.	hojr-i	1sg.pret.	hojr-di
	2 -	hojr-ir	2 -	hojr-di
	3 -	hojr-ir	3 -	hojr-di
	1pl.pres.	hojr-a	1pl.pret.	hojr-du
	2 -	hojr-a	2 -	hojr-du
	3 -	hojr-a	3 -	hojr-du

Now if some speakers of Faroese were to interpret the verbal morphology as involving separate markers of tense and agreement, they should have split IP in their grammar and then the B&T hypothesis predicts that there should be some correlation between the acceptance of Vfin-Adv order (in non-V2 contexts) and the acceptance of transitive expletives in Faroese, the latter not being universally accepted by speakers of Faroese

<sup>25</sup> These data are from a study using written questionnaires where the subjects were asked to judge the sentences as acceptable (“yes”), questionable (“?”) and unacceptable (“no”). It is of some interest to note here that in their preliminary investigation of verb placement in embedded clauses in Faroese, Caroline Heycock and Zakaris Hansen have found a similar difference between clause types w.r.t. the acceptability rating of Vfin-Adv order using the magnitude estimation technique.



(see Thráinsson et al., 2004, 282, cf. the discussion in section 4.2 above). This is obviously something worth investigating further.<sup>26</sup>

Secondly, while most subjects accepted the V<sub>fin</sub>-Adv order in a variety of embedded clauses, with considerable variation from speaker to speaker, the Adv-V<sub>fin</sub> order is apparently the default order in embedded clauses in Modern Faroese for most speakers (see also Petersen, 2000). This is very different from the situation in Modern Icelandic, where the V<sub>fin</sub>-Adv order is the default variant, as discussed above, and the Adv-V<sub>fin</sub> order exceptional. Once the verbal morphology is no longer an unambiguous trigger for a split IP, the close relationship of Faroese to Danish might perhaps influence the parameter setting (for a different account of the (gradual) loss of V-to-I in Scandinavian see Alexiadou and Fanselow, 2002:23ff.).

### 5.3. Examples of embedded Adv-V<sub>fin</sub> order in Älvdalsmålet

Word order facts from the conservative variant of Swedish commonly known as Älvdalsmålet (or Övdalian, Elfdalian, spoken in the Älvdalen district in Dalarna in the western part of central Sweden) have frequently been cited as strong support for the claim that there is a relationship between rich verbal morphology and V-to-I. Examples like the following from an early 20th century description of this dialect (Levander, 1909, 123) suggested that it had V-to-I and the verbal morphology appeared to be similar to that of, say, Old Swedish in the relevant respects (see, e.g. the discussion in Platzack, 1988a; Platzack and Holmberg, 1989; Vikner, 1997–1998, 93–95):

- (52) Ba fo dye at ig **uild** **int** fy om.  
 just for it that I would not follow him  
 'Just because I would not follow him.'

But as Vikner (1997–1998, 94n) points out, Rosenkvist (1994) discovered some exceptions to the V<sub>fin</sub>-Adv order as the general rule in embedded clauses in Älvdalsmålet. Similar facts were also reported by Wiklund (2002). While Rosenkvist suggested that this variation might be related to the presence vs. absence of lexical subjects (cf. also Rosenkvist, 2006), later work has indicated that the choice of adverb might play a more important role (see, e.g. Garbacz, 2007a,b). Despite considerable field work in recent years, the picture is still quite murky, but judgments like the following suggest that the Adv-V<sub>fin</sub> order is becoming the default order in embedded clauses in Älvdalsmålet (Angantýsson, 2007c—the numbers indicate the percentages of speakers (out of a total of 44) giving each judgment for these particular sentences):

- (53)
- |    |                                                              |     |     |     |  | yes | ? | no |
|----|--------------------------------------------------------------|-----|-----|-----|--|-----|---|----|
| a. | Dier werd fel lie'ssner um Alfrið <b>kumb</b> <b>older</b> . | 21% | 23% | 56% |  |     |   |    |
|    | he becomes prt. sad if Alfred comes never                    |     |     |     |  |     |   |    |
|    | 'He will be sad if Alfred never comes.'                      |     |     |     |  |     |   |    |
| b. | Ittað-jär ir ie buok so Alfrið <b>ar</b> <b>older</b> lesið. | 33% | 17% | 50% |  |     |   |    |
|    | this-here is a book that Alfred has never read               |     |     |     |  |     |   |    |
|    | 'This is a book that Alfred has never read.'                 |     |     |     |  |     |   |    |

As shown here, the minority of the speakers find the V<sub>fin</sub>-Adv order natural in these sentences and about half of them reject it. This is obviously very different from both Icelandic (where all speakers would accept the V<sub>fin</sub>-Adv order) and standard Swedish (where speakers should reject the V<sub>fin</sub>-Adv order). It is even different from Faroese, where the V<sub>fin</sub>-Adv order is more commonly rejected in relative clauses, for instance (see, e.g. (48) above). Under the B&T theory, two possible solutions need to be investigated in detail: Either the verbal morphology of Älvdalsmålet is no longer an unambiguous trigger for a positive setting of the split IP parameter or else the “exceptionally high” placement of sentence adverbs found in certain clause types in Icelandic (adjunction of sentence adverbs to TP rather than VP) is becoming the default option. I do not know of any clear indication of a fusion of tense and agreement

<sup>26</sup> Note also that in their study of extraction out of V2-constructions in Scandinavian, Bentzen et al. (2007b) report that the judgments of their Faroese informant pattern with those of Icelandic speakers, i.e. their Faroese informant allowed extraction out of subject-initial V2-clauses, whereas Vikner (1995a, 112) states that his informants rejected examples of that kind:

(i) \*Hvussu; sigur hon [at børnini hava altíð lært søgu t<sub>i</sub>]  
 how says she that children-the have always learned history

Interestingly, Vikner's informants also rejected the transitive expletive construction (1995a, 189), which is what B&T's theory would predict.



markers in Älvdalsmålet, but in addition to a detailed investigation of the verbal morphology itself the B&T theory calls for a study of expletive constructions in this connection in an attempt to determine the number of available subject positions (see the discussion around (17) and (18) above). But it is possible that constant influence from the standard Swedish Adv-Vfin order in embedded clauses might influence the preferred positioning of adverbs in Älvdalsmålet. Facts like the following are suggestive in this connection (Angantýsson, 2007c):

- (54)
- |    |      |         |      |           |    |        |            |              |     |        |
|----|------|---------|------|-----------|----|--------|------------|--------------|-----|--------|
|    |      |         |      |           |    |        |            | yes          |     |        |
| a. | Dier | werd    | fel  | lie'ssner | um | Alfrið | <b>int</b> | <b>kumb.</b> | 89% | (N 44) |
|    | he   | becomes | prt. | sad       | if | Alfred | not        | comes        |     |        |
| b. | Dier | werd    | fel  | lie'ssner | um | Alfrið | <b>it</b>  | <b>kumb.</b> | 41% | (N 44) |
|    | he   | becomes | prt. | sad       | if | Alfred | not        | comes        |     |        |
- 'He will be sad if Alfred doesn't come.'

The words *int* and *it* are two versions of the negation 'not' in Älvdalsmålet. As shown here, most speakers find the order *int*-Vfin natural whereas less than half the speakers accept the order *it*-Vfin. The reason might be that *int* is virtually identical to the standard Swedish negation *inte* 'not' and hence presumably even more likely than the variant *it* to be influenced by the Standard Swedish order *inte*-Vfin in embedded clauses.

To conclude, it is clear that the verb placement facts in Älvdalsmålet are much more complex and messy than previously believed and it is not at all clear yet what is required to account for them in a satisfactory manner. But if the evidence for separate tense and agreement markers is still clear, then B&T maintain that Älvdalsmålet should have split IP and more "subject positions" than standard MSc and hence allow transitive expletives. If that is true, then instances of Adv-Vfin order in embedded clauses in Älvdalsmålet have to be attributed to "exceptional" placement of sentence adverbs, which is then possibly becoming less exceptional than it is in Icelandic because of influence from Standard Swedish.<sup>27</sup>

## 6. Concluding remarks

The main points of this paper can be summarized as follows:

- (55)
- There is more variation in the relative placement of sentence adverbs and verbs in Scandinavian than often assumed.
  - While the order Vfin-Adv can be taken as an indication of verb movement out of the VP (if the adverb is one that cannot follow the VP), the order Adv-Vfin does not necessarily mean that the verb has not moved out of the VP, as has often been assumed. This is so because certain adverbs can be attached to the syntactic structure above the landing site of verb movement out of the VP.
  - The relative positioning of adverbs and verbs in variants of Scandinavian also suggests that there is more flexibility in the ordering of adverbs than often assumed. Thus one cannot simply divide them a priori into "high", "medial" and "low" adverbs. More research is needed before we can claim that we understand the interaction of adverbial modification (and scope) with various phenomena, including clause types, stress, focus, etc.
  - Under the theory of verb movement proposed by Bobaljik and Thráinsson (1998, the B&T theory) the connection between verb movement and "rich verbal morphology" in the form of separate tense and agreement markers is only indirect. The most important property of this theory is the way it relates movement and syntactic (or functional) structure: The verb needs to move into the local domain of the head that it needs to check features against. Hence the B&T theory does not only predict that V-to-I (or V-to-T, rather) will be necessary in a language with split IP whenever the verb needs to check features against I (or Agr, rather). It also predicts that if the verb needs to check features against C it will have to move out of the VP if IP intervenes between C and VP. This may account for the frequently observed robust relationship between the acquisition of verbal inflection (i.e. features related to IP) and the acquisition of main-clause word order.

<sup>27</sup> Interestingly, some (older) speakers of Icelandic have pointed out that Adv-Vfin order in embedded clauses in Icelandic used to be attributed to Danish influence. This was presumably mainly true when Danish was more influential in the Icelandic speech community than English, i.e. before the middle of the 20th century.

- e. Similarly, the B&T theory predicts that if some “non-verbal” functional category intervenes between IP and VP, the verb will have to move out of the VP if it needs to check features against I, even if the IP is unsplit. Recently discovered facts from ReNN suggest that certain adverbs may be analyzed as projecting functional categories of this sort, but they also suggest that this kind of structure cannot be the rule for sentence adverbs (pace Cinque, 1999, for instance) since otherwise all of MSc should have embedded V-to-I all the time. Instead, sentence adverbs must typically enter into adjunction structures (cf. Ernst, 2002, 2004; Jónsson, 2002; Svenonius, 2002, for instance).<sup>28</sup>

While the so-called Rich Morphology Hypothesis (RMH) has been severely criticized recently (see, e.g. Sundquist, 2002; Hróarsdóttir et al., 2006; Bentzen et al., 2007a; Garbacz, 2007a; Hrafnbjargarson et al., 2007; see also Garbacz et al., 2007), this criticism has rarely if ever considered in any detail the variant of the RMH proposed by B&T and described above. As I hope to have shown in the present paper, this variant makes various interesting predictions about syntactic variation and it attempts to relate this variation to observable cues in a particular way. As we have seen, many of these predictions are borne out by some recently and other not so recently discovered facts about variation in Scandinavian word order. In other instances, however, we seem to have variation in Scandinavian word order that we do not understand yet and appear rather unpredictable. In some cases the B&T theory tells you where to look for further evidence. As long as we have such guidelines we can continue our work in a productive fashion.

### Acknowledgements

Much of the work presented in this paper was supported by a grant of excellence from the Icelandic Research Fund to the project Variation in Icelandic Syntax (principal investigator Höskuldur Thráinsson). This is hereby gratefully acknowledged. Thanks are due to my collaborators in this project, as well as to other members of the research network on Scandinavian Dialect Syntax (ScanDiaSyn), especially those who have disagreed with my analysis of the facts presented here and thus forced me to work harder. I have also benefited from useful comments by members of the audiences that I have presented some of this material to, especially at the conference Formal Approaches to Variation in Syntax at York, England (May 2007), the Grand Meeting of the ScanDiaSyn project at Mývatn, Iceland (August 2007), and the Syntax and Semantics seminar at UCLA (March 2008)—and last but not least to Ásgrímur Angantýsson, my co-presenter at the Mývatn meeting. Finally, thanks to two anonymous reviewers for useful and constructive comments.

### References

- Albertsdóttir, M., 2000. Málstol í íslensku, ásamt samanburði á stöðu sagna hjá sjúklingum með málfræðistól og börnum á máltökustigi [Aphasia in Icelandic, with a comparison of verb placement in the language of aphasics and children]. B.A.-thesis. University of Iceland, Reykjavík.
- Alexiadou, A., 1997. Adverb placement. A Case Study in Antisymmetric Syntax. *Linguistics Today*, vol. 18. John Benjamins, Amsterdam.
- Alexiadou, A., 2004. Adverbs across frameworks [An editorial to a special volume on adverbial syntax]. *Lingua* 114, 677–682.
- Alexiadou, A., Anagnostopoulou, E., 1998. Parametrizing AGR: word order, V-movement and EPP-checking. *Natural Language and Linguistic Theory* 16, 491–539.
- Alexiadou, A., Fanselow, G., 2002. On the correlation between morphology and syntax. The case of V-to-I. In: Zwart, C.J.-W., Abraham, W. (Eds.), *Studies in Comparative Germanic Syntax. Proceedings from the 15th Workshop on Comparative Germanic Syntax*. John Benjamins, Amsterdam, pp. 219–242.
- Angantýsson, Á., 2001. Skandinavísk orðaröð í íslenskum aukasetningum [Scandinavian word order in Icelandic embedded clauses]. *Íslenskt mál* 23, 95–122.
- Angantýsson, Á., 2007a. Embedded fronting constructions in Icelandic. Unpublished Master’s thesis. Department of Linguistics, Cornell University, Ithaca.
- Angantýsson, Á., 2007b. Verb-third in embedded clauses in Icelandic. *Studia Linguistica* 61, 237–260.
- Angantýsson, Á., 2007c. Results from a **Sprákttest** during fieldwork in Álvadalen in June 2007.
- Barnes, M.P., 1987. Some remarks on subordinate clause word order in Faroese. *Scripta Islandica* 38, 3–85 (also in Barnes 2001).
- Barnes, M.P., 1992. Faroese syntax—achievements, goals and problems. In: Louis-Jensen, J., Poulsen, J.H.W. (Eds.), *The Nordic Languages and Modern Linguistics*, vol. 7. Føroya Fróðskaparfelag, Tórshavn, pp. 17–37 (also in Barnes 2001).

<sup>28</sup> It should be noted here that the present analysis is not the first one to suggest a non-uniform analysis of adverbial structure. While Alexiadou (1997) assumes a Cinque-type specifier analysis of most adverbs, she suggests that some adverbs are better analyzed as complements. In the present analysis it is necessary, on the other hand, to assume that the specifier analysis is a marked option in Scandinavian, only available for some adverbs in some Scandinavian dialects.

- Barnes, M.P., 2001. Faroese Language Studies, vol. 5. Studia Nordica, Novus, Oslo.
- Barnes, M.P., Weyhe, E., 1994. Faroese. In: König, E., van der Auwera, J. (Eds.), *The Germanic Languages*. Routledge, London, pp. 190–218.
- Bentzen, K., 2003. V-to-I movement in the absence of morphological cues: evidence from Northern Norwegian. In: *Papers from the 19th Scandinavian Conference of Linguistics*. Nordlyd 31. University of Tromsø, Tromsø, pp. 573–588.
- Bentzen, K., 2007. Order and structure in embedded clauses in Norwegian. Doctoral dissertation. University of Tromsø, Tromsø.
- Bentzen, K., Hrafnbjargarson, G.H., Wiklund, A.-L., 2007a. Embedded V2 in Scandinavian: empirical observations. Paper Presented at the NORMS Verb Placement Workshop in Reykjavík, January 2007.
- Bentzen, K., Hrafnbjargarson, G.H., Hróarsdóttir, T., Wiklund, A.-L., 2007b. Extracting from V2. *Working Papers in Scandinavian Syntax* 79, 119–128.
- Bobaljik, J.D., 2002. Realizing Germanic inflection: why morphology does not drive syntax. *Journal of Comparative Germanic Linguistics* 6, 129–167.
- Bobaljik, J.D., Jonas, D., 1996. Subject positions and roles of TP. *Linguistic Inquiry* 27, 195–236.
- Bobaljik, J.D., Thráinsson, H., 1998. Two heads aren't always better than one. *Syntax* 1, 37–71.
- Branigan, P., 1996. Verb-second and the A-bar syntax of subjects. *Studia Linguistica* 50, 50–79.
- Chomsky, N., 1995. *The Minimalist Program*. The MIT Press, Cambridge.
- Chomsky, N., 2001. Derivation by phase. In: Kenstowicz, M. (Ed.), *Ken Hale: A Life in Language*. MIT Press, Cambridge, MA, (Previously Published as MIT Occasional Papers in Linguistics 18. MITWPL, Cambridge, MA, 1999), pp. 1–52.
- Cinque, G., 1999. *Adverbs and Functional Heads. A Crosslinguistic Perspective*. Oxford University Press, Oxford.
- Clahsen, H., Penke, M., 1992. The acquisition of agreement morphology and its syntactic consequences: new evidence on German child language from the Simone-corpus. In: Meisel, J. (Ed.), *The Acquisition of Verb Placement*. Kluwer, Dordrecht, pp. 181–223.
- den Besten, H., 1983. On the interaction of root transformations and lexical deletive rules. In: Abraham, W. (Ed.), *On the Formal Syntax of Westgermania*. John Benjamins, Amsterdam, (first distributed in manuscript form in 1977), pp. 47–131.
- Egerland, V., 1998. On verb-second violations in Swedish and the hierarchical ordering of adverbs. *Working Papers in Scandinavian Syntax*, 61.
- Egíls saga Skalla-Grímssonar, 1932. Hið íslenska fornritafélag, Reykjavík.
- Ernst, T., 2002. *The Syntax of Adjuncts*. Cambridge University Press, Cambridge.
- Ernst, T., 2004. Principles of adverbial distribution in the lower clause. *Lingua* 114, 755–777.
- Falk, C., 1993. Non-referential subjects in the history of Swedish. Doctoral dissertation. Lund University, Lund.
- Fodor, J.D., 1998. Unambiguous triggers. *Linguistic Inquiry* 29, 1–36.
- Garbacz, P., 2007a. Verb placement in Övdalian. Paper Presented at the NORMS Verb Placement Workshop in Reykjavík, January 2007.
- Garbacz, P., 2007b. What determines V<sup>o</sup>-to-I<sup>o</sup> movement in Oevdalian? Paper Presented at the Grand Meeting for ScanDiaSyn at Mývatn, Iceland, August 2007.
- Garbacz, P., Håkansson, D., Rosenkvist, H., 2007. Review of John Sundquist 2002: morphosyntactic change in the history of the mainland Scandinavian languages. *Nordic Journal of Linguistics* 30, 137–146.
- Haider, H., 2004. Pre- and postverbal adverbials in OV and VO. *Lingua* 114, 779–807.
- Haugen, E., 1976. *The Scandinavian Languages. An Introduction to their History*. Harvard University Press, Cambridge, MA.
- Henriksen, J., 2000. *Orðalagslæra [Syntax]*. Sprotin, Tórshavn.
- Holmberg, A., 1986. Word order and syntactic features in the Scandinavian languages and English. Doctoral dissertation. University of Stockholm, Stockholm.
- Holmberg, A., Platzack, C., 1995. *The Role of Inflection in Scandinavian Syntax*. Oxford University Press, Oxford.
- Hrafnbjargarson, G.H., Wiklund, A.-L., Hróarsdóttir, T., Bentzen, K., 2007. Verb movement in Scandinavian. Paper Presented April 12 at GLOW XXX, Tromsø.
- Hróarsdóttir, T., Hrafnbjargarson, G.H., Wiklund, A.-L., Bentzen, K., 2006. The Tromsø guide to Scandinavian verb movement. *Working Papers in Scandinavian Syntax* 78, 1–36.
- Hyams, N., 1992. The genesis of clausal structure. In: Meisel, J. (Ed.), *The Acquisition of Verb Placement*. Kluwer, Dordrecht, pp. 371–400.
- Iatridou, S., Kroch, A., 1992. The licensing of CP-recursion and its relevance to the Germanic verb-second phenomenon. *Working Papers in Scandinavian Syntax* 50, 1–24.
- Iversen, R., 1918. *Syntaksen i Tromsø Bymaal*. Bymaals-Lagets Forlag, Oslo (Kristiania).
- Johnson, K., 1990. *On the Syntax of Inflectional Paradigms*. Ms., University of Wisconsin, Madison.
- Jonas, D., Bobaljik, J.D., 1993. Specs for subjects: the role of TP in Icelandic. *MIT Working Papers in Linguistics* 19, 59–98.
- Jónsson, J.G., 2002. S-adverbs in Icelandic and the feature theory of adverbs. *Leeds Working Papers in Linguistics and Phonetics* 9, 73–89.
- Koopman, H., 2006. Agreement configurations. In defense of “Spec Head” In: Boeckx, C. (Ed.), *Agreement Systems*. John Benjamins, Amsterdam, pp. 159–199.
- Koopman, H., Szabolcsi, A., 2000. *Verbal Complexes*. The MIT Press, Cambridge, MA.
- Kosmeijer, W., 1986. The status of the finite inflection in Icelandic and Swedish. *Working Papers in Scandinavian Syntax*, 26.
- Levander, L., 1909. *Älvdalsmälet i Dalarna. Ordböjning ock syntax*. P.A. Norstedt, Stockholm.
- Lightfoot, D., 2006. *How New Languages Emerge*. Cambridge University Press, Cambridge.
- Magnúsdóttir, S., 2005. Málstol, málfræðistol og setningafræði [Aphasia, agrammatism and syntax]. In: Thráinsson, H. (Ed.), *Setningar [Syntax]*. Almenna bókafélagið, Reykjavík, pp. 656–670.
- Magnúsdóttir, S., Thráinsson, H., 1990. Agrammatism in Icelandic: two case studies. In: Menn, L., Obler, L. (Eds.), *Agrammatic Aphasia. A Cross-Language Narrative Sourcebook*. John Benjamins, Amsterdam, pp. 443–543.
- Magnússon, F., 1990. *Kjarnafærsla og það-innskot í aukasetningum í íslensku [Topicalization and það-Insertion in Embedded Clauses in Icelandic]*. Málvísindastofnun Háskóla Íslands, Reykjavík (the author's 1989 Master's thesis).

- Mahajan, A., 2003. Word order and (remnant) VP movement. In: Simin, K. (Ed.), *Word Order and Scrambling*. Blackwell, Oxford, pp. 217–237.
- Maling, J., 1980. Inversion in embedded clauses in Modern Icelandic. *Íslenskt mál* 2, 175–193 (also published in Maling, J., Zaenen, A. *Modern Icelandic syntax. Syntax and Semantics*, vol. 24. Academic Press, San Diego, pp. 71–91).
- Meisel, J., 1992a. Introduction: functional categories and verb placement in language development. In: Meisel, J. (Ed.), *The Acquisition of Verb Placement*. Dordrecht, Kluwer, pp. 1–21.
- Meisel, J. (Ed.), 1992b. *The Acquisition of Verb Placement: Functional Categories and V2 Phenomena in Language Acquisition*. Kluwer, Dordrecht.
- Meisel, J., Müller, N., 1992. Finiteness and verb placement in early child grammars: evidence from simultaneous acquisition of French and German in bilinguals. In: Meisel, J. (Ed.), *The Acquisition of Verb Placement*. Kluwer, Dordrecht, pp. 109–138.
- Müller, G., 2004. Verb-second as vP-first. *Journal of Comparative Germanic Linguistics* 7, 179–234 (Previously Published in *Syntax at Sunset 3: Head Movement and Syntactic Theory*. UCLA/Potsdam Working Papers in Linguistics. UCLA Department of Linguistics, Los Angeles, pp. 116–160).
- Nilsen, Ø., 2003. Eliminating positions: syntax and semantics of sentence modification. Doctoral dissertation. University of Utrecht, Utrecht. LOT, Utrecht (also available on the Internet at <http://ling.auf.net/lingBuzz>).
- Petersen, H.P., 2000. IP or TP in Modern Faroese. *Working Papers in Scandinavian Syntax* 66, 75–83.
- Platzack, C., 1988a. The emergence of a word order difference in Scandinavian subordinate clauses. *McGill Working Papers in Linguistics, Special Issue on Comparative Germanic Syntax*, 215–238.
- Platzack, C., 1988b. Den centralskandinaviske bisatsordföljdens framväxt. *Studier i svensk språkhistoria. Lundastudier i nordisk språkvetsenskap*, vol. A41. Lund University Press, Lund, pp. 241–255.
- Platzack, C., 1990. A grammar without functional categories: a syntactic study of early Swedish child language. *Working Papers in Scandinavian Syntax* 45, 13–33.
- Platzack, C., 1992. Functional categories and early Swedish. In: Meisel, J. (Ed.), *The Acquisition of Verb Placement*. Kluwer, Dordrecht, pp. 63–82.
- Platzack, C., Holmberg, A., 1989. The role of AGR and finiteness in Germanic VO languages. *Working Papers in Scandinavian Syntax* 43, 51–76.
- Pollock, J.-Y., 1989. Verb movement, universal grammar and the structure of IP. *Linguistic Inquiry* 20, 365–424.
- Radford, A., 1986. Small children's small clauses. *Research Papers in Linguistics*, vol. 1. University College of North Wales, Bangor, pp. 1–44 (later published in *Transactions of the Philological Society* 86, 1–46, 1988).
- Radford, A., 1990. *Syntactic Theory and the Acquisition of English Syntax. The Nature of Early Child Grammars of English*. Blackwell, Oxford.
- Radford, A., 1992. The acquisition of the morphosyntax of finite verbs in English. In: Meisel, J. (Ed.), *The Acquisition of Verb Placement: Functional Categories and V2 Phenomena in Language Acquisition*. Kluwer, Dordrecht, pp. 23–62.
- Richards, M., 2006. Object shift, phases, and transitive expletive constructions in Germanic. *Linguistic Variation Yearbook*, vol. 6. John Benjamins, Amsterdam, pp. 139–159.
- Rizzi, L., 1997. The fine structure of the left periphery. In: Haegeman, L. (Ed.), *Elements of Grammar*. Kluwer, Dordrecht, pp. 281–337.
- Rizzi, L., 2004. On the cartography of syntactic structures. In: Rizzi, L. (Ed.), *The Structure of CP and IP. The Cartography of Syntactic Structures*, vol. 2. Oxford University Press, Oxford, pp. 3–15.
- Rohrbacher, B., 1999. *Morphology-Driven Syntax. A Theory of V to I Raising and Pro-Drop*. John Benjamins, Amsterdam.
- Rosenkvist, H., 1994. Tecken på syntaktisk utveckling i äldvalsmålet under senare tid. Unpublished BA-thesis. University of Lund, Lund.
- Rosenkvist, H., 2006. Null subjects in Övdalian. *Working Papers in Scandinavian Syntax* 78, 141–171.
- Sigurðsson, H.Á., 1986. Verb post-second in a V2 language. In: Dahl, Ö., Holmberg, A. (Eds.), *Scandinavian Syntax*. Institute of Linguistics, University of Stockholm, Stockholm, pp. 138–149.
- Sigurðsson, H.Á., 1989. Verbal syntax and case in Icelandic. Doctoral dissertation. University of Lund, Lund (Reprinted by the Linguistic Institute of the University of Iceland 1992).
- Sigurðsson, H.Á., 2004. Agree and agreement: evidence from Germanic. In: Abraham, W. (Ed.), *Focus on Germanic Typology*. Akademie Verlag, Berlin, pp. 61–103.
- Sigurjónsdóttir, S., 1999. Root infinitives and null subjects in early Icelandic. In: Greenhill, A., Littlefield, H., Tano, C. (Eds.), *Proceedings of the 23rd Annual Boston University Conference on Language Development*. Cascadia Press, Somerville, MA, pp. 630–641.
- Sigurjónsdóttir, S., 2005a. Máltaka og setningafræði [Language acquisition and syntax]. In: Thráinsson, H. (Ed.), *Setningar [Syntax]*. Almenna bókafélagið, Reykjavík, pp. 636–655.
- Sigurjónsdóttir, S., 2005b. Different properties of root infinitives and finite verbs in the acquisition of Icelandic. In: Brugos, A.C.-C., Manuella, R., Ha, S. (Eds.), *Proceedings of the 29th Annual Boston University Conference on Language Development*. Cascadia Press, Somerville, MA, pp. 540–551.
- Sundquist, J.D., 2002. Morphosyntactic change in the history of the mainland Scandinavian languages. Doctoral dissertation. Department of Germanic Studies, Indiana University, Bloomington.
- Svenonius, P., 2002. Subject positions and the placement of adverbials. In: Svenonius, P. (Ed.), *Subjects, Expletives and the EPP*. Oxford University Press, Oxford, pp. 201–242.
- Thráinsson, H., 1986. V1, V2, V3 in Icelandic. In: Haider, H., Prinzhorn, M. (Eds.), *Verb-Second Phenomena in Germanic Languages*. Foris, Dordrecht, pp. 169–194.
- Thráinsson, H., 1993. On the structure of infinitival complements. *Harvard Working Papers in Linguistics*, vol. 3. Department of Linguistics, Harvard University, Cambridge, MA, pp. 181–213.
- Thráinsson, H., 1996. On the non-universality of functional categories. In: Abraham, W., Epstein, S.D., Thráinsson, H., Zwart, C.J.-W. (Eds.), *Minimal Ideas. Syntactic Studies in the Minimalist Framework*. John Benjamins, Amsterdam, pp. 253–281.
- Thráinsson, H., 2001a. Object shift and scrambling. In: Baltin, M., Collins, C. (Eds.), *The Handbook of Syntactic Theory*. Blackwell, Oxford, pp. 148–202.

- Thráinsson, H., 2001b. Syntactic theory for Faroese and Faroese for syntactic theory. In: Braunmüller, K., Jacobsen, J.L. (Eds.), *Moderne lingvistiske teorier og færøsk*. Novus, Oslo, pp. 89–124.
- Thráinsson, H., 2003. Syntactic variation, historical development, and minimalism. In: Hendrick, R. (Ed.), *Minimalist Syntax*. Blackwell, Oxford, pp. 152–191.
- Thráinsson, H., 2007. *The Syntax of Icelandic*. Cambridge University Press, Cambridge.
- Thráinsson, H., Petersen, H.P., Jacobsen, J.L., Hansen, Z.S., 2004. *Faroese. An Overview and Reference Grammar*, Føroya Fróðskaparfelag, Tórshavn.
- Travis, L., 1984. *Parameters and effects of word order variation*. Doctoral dissertation. MIT, Cambridge, MA.
- van Craenenbroeck, J., Haegeman, L., 2007. The derivation of subject-initial V2. *Linguistic Inquiry* 38, 167–178.
- Vangsnes, Ø.A., 1995. Referentiality and argument positions in Icelandic. *Working Papers in Scandinavian Syntax* 55, 89–109.
- Vangsnes, Ø.A., 1999. *The identification of functional architecture*. Doctoral dissertation. University of Bergen, Bergen.
- Vangsnes, Ø.A., 2002a. Icelandic expletive constructions and the distribution of subject types. In: Svenonius, P. (Ed.), *Subjects, Expletives and the EPP*. Oxford University Press, Oxford, pp. 43–70.
- Vangsnes, Ø.A., 2002b. A verb's gotta do what a verb's gotta do! On Scandinavian infinitivals and the AGR parameter. In: Zwart, C.J.W., Abraham, W. (Eds.), *Studies in Comparative Germanic Syntax*. John Benjamins, Amsterdam, pp. 205–219.
- Vikner, S., 1995a. *Verb Movement and Expletive Subjects in the Germanic Languages*. Oxford University Press, Oxford.
- Vikner, S., 1995b. V<sup>0</sup>-to-I<sup>0</sup> movement and inflection for person in all tenses. *Working Papers in Scandinavian Syntax* 55, 1–27 (also published in Haegeman, L. (Ed.), 1997. *The New Comparative Syntax*. Longman, London, pp. 189–213).
- Vikner, S., 1997–1998. V<sup>0</sup>-til-I<sup>0</sup> flytning og personfleksion i alle tempora. *Íslenskt mál* 19–20, 85–132.
- Westergaard, M.R., 2005. *The development of word order in Norwegian child language: the interaction of input and economy principles in the acquisition of V2*. Doctoral dissertation. Department of Language and Linguistics, University of Tromsø, Tromsø.
- Wiklund, A.-L., 2002. A note on correlation between verb movement and rich inflection. In: *New Data from Älvdalsmålet*, Ms., University of Tromsø.
- Wiklund, A.-L., Hrafnbjargarson, G.H., Bentzen, K., Hróarsdóttir, T., 2007. Rethinking Scandinavian verb movement. *Journal of Comparative Germanic Linguistics* 10, 203–233 (same as chapter 4 of Bentzen 2007).
- Zwart, C.J.-W., 1993. *Dutch syntax. A minimalist approach*. Doctoral dissertation. University of Groningen, Groningen (a revised version published as *Morphosyntax of Verb Movement. A Minimalist Approach to the Syntax of Dutch*. Kluwer, Dordrecht, 1997).