

The Tromsø guide to the Force behind V2*

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Abstract

This paper investigates the distribution of embedded verb second in Faroese, Icelandic, Norwegian, and Swedish. Mainly two conclusions can be drawn from the study. First, none of the Scandinavian languages can be said to display generalized embedded verb second. Contrary to standard belief, Icelandic displays restrictions of the kind found in the other Scandinavian languages. Second, there is no clear definition of *assertion* that discerns V2. Clauses that support verb second are clauses that form a potential *main point of utterance*, a notion related to the illocutionary force of *assertion*. However, V2 may occur independently of such a reading of the clause and vice versa.

1 Introduction

The common view of the Scandinavian languages has long been that the Mainland Scandinavian languages and Faroese have limited embedded verb second (henceforth V2), while Icelandic has generalized embedded V2, in the sense that the V>Neg word order and non-subject-topicalization is possible under all kinds of predicates, see e.g. Vikner (1995). On this view thus, Icelandic constitutes an exception to the pattern observed in the other Scandinavian languages, where the applicability of V2 seems to correlate with illocutionary force. We will demonstrate that Icelandic conforms to the general pattern. Clauses that are generally not compatible with root phenomena display restrictions on V2 also in Icelandic; topicalization is either impossible or marked in these environments.

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- (1) None of the Scandinavian languages display generalized embedded V2.

Since Hooper and Thompson (1973), it has been known that there is a connection between the application of root phenomena in embedded clauses and *assertion*. This has been discussed extensively for V2 in the Germanic languages, see e.g. Andersson (1975), Green (1976), den Besten (1977/1983), Wechsler (1991), Holmberg and Platzack (1995), Heycock (2006), and Julien (2006). The relevant hypothesis may be loosely formulated as in (2).¹

- (2) *The Assertion Hypothesis:*

The more asserted (the less presupposed) the complement is, the more compatible it is with V2 (and other root phenomena).

The notion of *assertion* has been left vague in much of the relevant literature but may roughly be described as that illocutionary force which has the effect of making the addressee accept the content of an utterance and take it as part of the “common ground”. In this connection, two notions have been referred to in attempts to define contexts that support root phenomena: (i) *proposition* (content of the assertion that may be questioned or denied) and (ii) *main assertion* (the proposition whose truth is at stake in the discourse), see e.g. Hooper and Thompson (1973). We will show that only (a variant of) the latter appears to correlate with the option of applying V2 in Faroese, Icelandic, Norwegian, and Swedish; clauses that may serve as the main point of utterance (Simons 2007) are clauses where V2 is unrestricted in all four of the languages investigated.

- (3) Possibility of being main point of utterance \leftrightarrow Possibility of displaying unrestricted V2

¹The availability of embedded verb second has also been linked to *bridge verbs*, originally referring to verbs that allow extraction from their complement. At least for Scandinavian, this description is incorrect on the original definition, cf. Vikner 1995: fn.7 and Julien 2006; many verbs that allow extraction do not allow V2. “Bridgeness” and its relation to V2 will therefore not be discussed here.

However, V2 may occur independently of such a reading of the clause and vice versa. One important contribution of the present paper is thus the conclusion that there is no clear definition of *assertion* that discerns V2.

2 Embedded verb second

We apply two tests to identify embedded V2: Availability of the word order *verb_{finite} > negation* in subject-initial clauses, as in (4a), and availability of non-subject-topicalization, as in (4b). A corpus based application of the first test has been carried out for Norwegian and Swedish *that*-clauses, see Julien (2006). The two options are illustrated by Swedish in (5) under the verb *säga* ‘say’.

- (4) a. He said that [Subject **V_{Fin} Neg**] (Subject-initial V2)
 b. He said that [**Non-Subject** V_{Fin} Subject (Neg) _] (Non-subject-initial V2)
- (5) a. Han sa att Lisa **hade inte** läst boken. (Sw.)
he said that Lisa had not read book-the
 b. Han sa att **den här boken** hade Lisa läst.
he said that this here book-the had Lisa read

Example (6) shows the corresponding (standard) non-V2 word order in Swedish, where the finite verb follows sentential negation in embedded clauses.

- (6) Han sa att Lisa **inte hade** läst boken. (non-V2)
he said that Lisa not had read book-the

In Icelandic, the word order V>Neg is found also in contexts where the same word order is impossible in the Mainland Scandinavian languages, e.g. in embedded *wh*-questions, see (7). Faroese has been noted to display variation in this respect (Jonas 1996, Petersen 2000, Thráinsson 2001, and Thráinsson et al. 2004).

- (7) a. Ég veit [af hverju Hedda {les} **ekki** {*les} bækur]. (Ic.)
I know why Hedda reads not reads books

- b. Jeg vet [hvorfør Hedda {*leser} **ikke** {leser} bøker]. (No.)
I know why Hedda reads not reads books

Since topicalization is impossible in these clauses (therefore called non-V2 clauses) across Scandinavian, Icelandic and varieties of Faroese have been claimed to display independent verb movement to the IP domain of the clause (see e.g. Holmberg and Platzack 1995 and Vikner 1995). This conclusion rests on the assumption that verb movement targets the CP domain of the clause only in clauses where non-subject-topicalization is a possibility. Thus, on this view, the V>Neg word order is not necessarily a diagnostic for verb movement to the CP domain of the clause in Icelandic and Faroese (since this word order is found also in non-V2 clauses), consequently not necessarily a candidate for embedded root phenomena.

Recently, we have questioned this background assumption and provided arguments against the traditional analysis of Icelandic non-V2 verb movement as being to the IP domain, see Wiklund et al. (to appear). A strong argument against the verb-to-IP analysis concerns ECM-clauses. In these, verb movement is impossible in Icelandic, even though an inflectional domain is present (evidenced by the possibility of inserting adverbs):

- (8) Verb_{matrix} [ECM-infinitival (*verb) NEG (*verb) ADV **verb**] (Ic.)

In this sense, ECM infinitives contrast with control infinitives where verb movement is obligatory. If control but not ECM infinitives contain the CP domain of the clause, we capture the data by assuming that Icelandic verb movement always targets the CP domain of the clause:

- (9) Verb_{matrix} [Control infinitival **verb** NEG (*verb) ADV (*verb)] (Ic.)

Likewise in finite non-V2 clauses, the verb can never intervene between negation and sentential adverbs. Thus, there is an adjacency requirement between the subject and the verb in non-V2 clauses with verb movement:²

²On the possibility of leaving the verb low/in situ in Icelandic non-V2 environments, see Wiklund et al. to appear.

- (10) Verb_{matrix} [non-V2 clause subject (*XP) verb] (Ic.)

These are therefore suspiciously similar to subject-initial V2 clauses. The latter have convincingly been argued to involve verb displacement to the CP domain rather than the IP domain of the clause, see van Craenenbroeck and Haegeman (2007):

- (11) Verb_{matrix} [V2 clause subject (*XP) verb]

Summing up, whenever there is verb movement in Icelandic, the verb must move to a position above all elements in the IP domain. Evidence for verb movement targeting the IP domain of the clause is therefore missing. On the basis of the above facts, we take the V>Neg word order to be a diagnostic for displacement of the verb to the CP domain of the clause, also in Icelandic. We assume that this word order is a diagnostic for subject-initial V2 in Scandinavian in general, in main as well as in embedded clauses.³

3 The distribution of embedded V2

Following many of our predecessors (Andersson 1975, Meinunger 2004, 2006, Julien 2006), we will make use of the verb classification put forth in Hooper and Thompson (1973) for the purpose of studying the distribution of embedded V2 (see also Hooper 1975). The predicate classes are five and will be introduced in turn below: Class A (strongly assertive – *say*), Class B (weakly assertive – *believe*), Class C (non-assertive – *deny*), Class D (factive – *regret*), and Class E (semi-factive – *discover*). The relevant classes are defined mainly in terms of the semantic notions of *assertion* and *presupposition*, which we will discuss in some detail as we proceed. We have tested at least two predicates from each class for each language with regard to compatibility with embedded V2. For reasons of space, only

³In the spirit of Wiklund et al. to appear, *non-V2* clause is a misnomer for e.g. embedded *wh*-questions in Icelandic. These are clauses that do not support topicalization across Scandinavian, however, they are compatible with subject-initial V2 in Icelandic and varieties of Faroese.

one of these is used in the examples:⁴

(12) *Predicate classes*

Class A	Class B	Class C	Class D	Class E
<i>say</i>	<i>believe</i>	<i>doubt</i>	<i>regret</i>	<i>discover</i>
<i>claim</i>	<i>think</i>	<i>deny</i>	<i>be sad about</i>	<i>understand</i>

3.1 Class A: Strongly assertive predicates

Class A predicates embed complements that are cited or reported assertions in the discourse (*indirect assertions* in Hooper and Thompson 1973). These have been noted to allow root phenomena, including V2. The class includes *say*, *claim*, *report*, and *assert*. The (a)-examples below show compatibility with V>Neg word order, the (b)-examples compatibility with non-subject-topicalization:

- (13) a. Hann segði at hann **fekk ekki** sungið hetta lagið. (Fa.)
he said that he could not sung in this song-the
 b. Hann segði at **hetta lagið** fekk hann ekki sungið.
he said that this song-the could he not sung
- (14) a. Hann sagði að hann **gæti ekki** sungið í brúðkaupinu. (Ic.)
he said that he could not sung in wedding-the
 b. Hann sagði að **þetta lag** gæti hann ekki sungið í brúðkaupinu.
he said that this song could he not sung in wedding-the
- (15) a. Han sa at han **kunne ikke** synge i bryllupet. (No.)
he said that he could not sing in wedding-the
 b. Han sa at **denne sangen** kunne han synge i bryllupet.
he said that this song-the could he sing in wedding-the
- (16) a. Han sa att han **kunde inte** sjunga på bröllopet. (Sw.)
he said that he could not sing on wedding-the

⁴Two of the authors of this paper are native speakers of Icelandic (GHH and PH), one a native speaker of Northern Norwegian (KB), and one a native speaker of Swedish (A-LW). The data presented here are mainly based on the judgments of these speakers and on the judgments of Victoria Absalonsen, Kirsti Hansen, and Zakaris Hansen for Faroese. In the more controversial case concerning topicalization of non-subjects in Class C and D in Icelandic, we have consulted additional speakers (§4).

- b. Han sa att **den här sången** kunde han sjunga på bröllopet.
he said that this here song-the could he sing on wedding-the

As can be seen from the examples, there are no restrictions on V2 under Class A predicates. The relevant varieties of Faroese, Icelandic, Norwegian, and Swedish all allow both the V>Neg word order and topicalization of non-subjects under these verbs. Note that in German, Dutch, Frisian, and Afrikaans, embedded V2 and overt complementizers tend to be in complementary distribution (see e.g. de Haan 2001 and Biberauer 2002). In contrast, the Scandinavian languages allow V2 to cooccur with a lexical complementizer (cf. the study of Teleman 1967, summarized in Andersson 1975). In fact, the complementizer is obligatory in non-subject-initial V2 clauses and preferred in subject-initial V2 clauses (disregarding cited assertions).

3.2 Class B: Weakly assertive predicates

Class B verbs include *believe*, *think*, and *mean*. Like Class A predicates, these embed assertions and have been noted to be compatible with root phenomena in the embedded clause. They can be said to differ from Class A predicates in that they indicate a weaker commitment to the truth of the embedded statement on the part of the speaker:⁵

- (17) a. Hann heldur at hann **syngur ekki** væl. (Fa.)
he believes that he sings not well
 b. Hann heldur at **hetta lagið** syngur hann væl.
he believes that this song-the sings he well
- (18) a. Hann hélt að við **hefðum ekki** séð þessa mynd. (Ic.)
he believed that we had not seen this film

⁵As noted by Simons 2007, it is not clear that an embedded clause is ever asserted. With a few exceptions, the function of the matrix verb is to indicate the weakness of the speaker's commitment to the truth of the complement. Also Class A predicates may be used to qualify assertions in this sense. For our purpose, Class A and B could just as well be collapsed into one class of assertive predicates, but see Hooper and Thompson 1973 and Hooper 1975 for further differences between the two.

- b. Hann hélt að þessa mynd hefðum við ekki séð.
he believed that this film had we not seen
- (19) a. Han trodde at vi **hadde ikke** sett denne filmen. (No.)
he believed that we had not seen this film-the
- b. Han trodde at **denne filmen** hadde vi ikke sett.
he believed that this film-the had we not seen
- (20) a. Han trodde att vi **hade inte** sett den här filmen. (Sw.)
he believed that we had not seen the here film-the
- b. Han trodde att **den där filmen** hade vi inte sett.
he believed that that there film-the had we not seen

We may conclude that Class B behaves like Class A with regard to V2; V2 is unrestricted in all four languages under predicates of this class.

3.3 Class C: Non-assertive predicates

Class C predicates embed complements that are neither asserted nor pre-supposed. Some of these predicates serve to deny the truth of the complement. Root phenomena are normally not possible in complements of these verbs:

- (21) a. Hann ivast um at hon **hefur ekki** sungið væl onkuntíð. (Fa.)
he doubts about that she has not sung well ever
- b. *Hann ivast um at **hetta lagið** hefur hon ekki sungið væl onkuntíð.
he doubts about that this song-the has she not sung well ever
- (22) a. Hann efast um að hún **hafi ekki** hitt þennan mann. (Ic.)
he doubts about that she has not met this man
- b. *Hann efast um að **þennan mann** hafi hún ekki hitt.
he doubts about that this man has she not met
- (23) a. *Han tvilte på at hun **hadde ikke** møtt denne mannen. (No.)
he doubted on that she had not met this man-the
- b. *Han tvilte på at **denne mannen** hadde hun ikke møtt.
he doubted on that this man-the had she not met
- (24) a. *Han tvivlar på att hon **har inte** träffat den här mannen. (Sw.)
he doubts on that she has not met this here man-the
- b. *Han tvivlar på att **den här mannen** har hon inte träffat.
he doubts on that this here man-the has she not met

As can be seen from the above examples, Swedish and Norwegian disallow both the V>Neg word order and topicalization of non-subjects under Class C predicates. Icelandic and Faroese allow V>Neg, as expected. What is surprising is that topicalization of non-subjects under predicates of this class is either disallowed or marked in Icelandic, as well as in Faroese. As we will see below, this is true also for the next class.

3.4 Class D: Factives

Class D predicates embed facts. They express some emotion or subjective attitude about an event, the existence of which is presupposed. The class includes *be proud of*, *be ashamed*, *be annoyed*, and *regret*. Root phenomena are normally not possible in complements of these verbs:⁶

- (25) a. Hann angraði at hann **hevði ekki** sungið. (Fa.)
 he regretted that he had not sung
 b. *Hann angraði at **henda sangin** hevði hann ekki sungið.
 he regretted that this song-the had he not sung
- (26) a. Hann sá eftir að hann **hafði ekki** sungið. (Ic.)
 he regretted that he had not sung
 b. *Hann sá eftir að **þetta lag** hafði hann ekki sungið.
 he regretted that this song had he not sung
- (27) a. *Han angret på at han **hadde ikke** sunget bursdagssangen til henne.
 he regretted on that he had not sung birthday.song-the to her
 (No.)
 b. *Han angret på at **denne sangen** hadde han ikke sunget til henne.
 he regretted on that this song-the had he not sung to her
- (28) a. *Han ångrade att han **hade inte** sjungit. (Sw.)
 he regretted that he had not sung
 b. *Han ångrade att **den här sången** hade han inte sjungit.
 he regretted that this here song-the had he not sung

⁶Finite clauses embedded under *sjá eftir* ‘regret’ are not accepted by all speakers of Icelandic. For those who allow this, non-subject-topicalization is not possible. On the problematic aspects of Icelandic *harma* ‘regret’, see §4 below.

By and large, Class D patterns with Class C. In all four languages, Class C and D contrast with A and B in displaying restrictions on V2; in Norwegian and Swedish on both V2 word orders; in Faroese and Icelandic on non-subject-topicalization.

3.5 Class E: Semi-factives

Class E predicates are verbs of perception and knowledge and include *discover*, *understand*, *realize*, and *know*. These pattern with the D predicates just described in embedding complements that are facts. However, they differ from truly factive predicates in that they may lose their factivity in questions, if embedded in the antecedent of a conditional, and under certain modals (Karttunen 1971). This class has been noted to pattern with Class A and B in more than one respect. We will return to this shortly. Noteworthy here is the fact that root phenomena, including V2, have been observed to be possible under these predicates:

- (29) a. Eg uppdagaði at eg **hevði ikki** lisið hana. (Fa.)
I discovered that I had not read it
 b. Eg uppdagaði at **hesa bókina** hevði eg ikki lisið.
I discovered that this book-the had I not read
- (30) a. Ég uppgötvaði að ég **hafði ekki** lesið hana. (Ic.)
I discovered that I had not read it
 b. Ég uppgötvaði að **þessa bók** hafði ég ekki lesið.
I discovered that this book had I not read
- (31) a. Jeg oppdaget at jeg **hadde ikke** lest den. (No.)
I discovered that I had not read it
 b. Jeg oppdaget at **denne boka** hadde jeg ikke lest.
I discovered that this book-the had I not read
- (32) a. Jag upptäckte att jag **hade inte** läst den. (Sw.)
I discovered that I had not read it
 b. Jag upptäckte att **den här boken** hade jag inte läst.
I discovered that this here book-the had I not read

As can be seen from the above examples, this is also true for the languages investigated here. All four languages allow both V>Neg and topicalization of non-subjects under Class E predicates. Class E thus patterns with Class A and B.

3.6 Summary

Summing up, all four languages conform to the well-known pattern: V2 is unrestricted under assertive predicates and semi-factives (Class A, B, and E) but restricted under non-assertive and truly factive predicates (Class C and D). Nevertheless, our data yield two classes of languages, dividing with regard to restrictions on V2 word orders under Class C and D predicates. Norwegian and Swedish, on the one hand, disallow both V>Neg and non-subject-topicalization under these predicates. Faroese and Icelandic, on the other hand, allow the V>Neg word order under these predicates but crucially disprefer non-subject-topicalization, just like Norwegian and Swedish.

(33) *The distribution of embedded V2:*

		Swedish	Norwegian	Faroese	Icelandic
Class A	V>Neg	✓	✓	✓	✓
	Top	✓	✓	✓	✓
Class B	V>Neg	✓	✓	✓	✓
	Top	✓	✓	✓	✓
Class C	V>Neg	*	*	✓	✓
	Top	*	*	*	*
Class D	V>Neg	*	*	✓	✓
	Top	*	*	*	*
Class E	V>Neg	✓	✓	✓	✓
	Top	✓	✓	✓	✓

4 No generalized embedded V2

Our investigation reveals that Icelandic is subject to restrictions on V2 word order of the kind seen in the other Scandinavian languages. None of the Scandinavian languages can therefore be said to display generalized embedded V2 in the sense that V>Neg word order and non-subject-topicalization are possible across the relevant environments in any of the varieties examined. Our observations, therefore, expose a pattern quite different from that reported in Rögnvaldsson and Thráinsson (1990), Vikner (1995), and subsequent works on Icelandic, where it is claimed that topicalization is possible under both Class C and Class D predicates. The examples below are from Rögnvaldsson and Thráinsson (1990: 23), their example (32):

- (34) a. Jón efast um að á morgun fari María snemma á fætur. (Ic.)
 John doubts that tomorrow get Mary early up
 b. Jón harmar að þessa bók skuli ég hafa lesið.
 John regrets that this book shall I have read

There are two options. Either there is variation among speakers of Icelandic in this respect or independent factors are involved in the judgments of the relevant examples. Starting with the latter possibility, it is worth noting that the factive verb *harma* ‘regret’, often cited as evidence that Icelandic has generalized V2, differs from the corresponding Swedish and Norwegian versions of *regret* (*ångra* and *angre*, respectively). For the Icelandic authors of the present paper, the embedded clause in (34b) above need not be presupposed in the strict sense, even though factive; the content may be new information to the addressee, indicating a weaker kind of presupposition. In this sense, *harma* shares at least this property with semi-factive verbs (Class E), which we have just confirmed support V2 in the embedded clause. Our observation of *harma* appears to be in line with that of Thráinsson (forthcoming), who notes that this verb is about to lose its factivity.⁷

⁷Thráinsson forthcoming: 299, fn. 2 provides the following example:

Turning to the possibility of language variation, we decided to consult additional Icelandic informants and add a couple of predicates from Class D. The facts still hold. For all speakers consulted, non-subject-topicalization is marked or disallowed under most verbs from Class C and D:⁸

(35) *Topicalization of non-subjects in Icelandic*

		1	2	3	4
Class A	<i>segja</i> ‘say’	✓	✓	✓	✓
Class B	<i>halda</i> ‘believe’	✓	✓	✓	✓
Class C	<i>efast um</i> ‘doubt’	*	??	?	??
	<i>neita</i> ‘deny’	?	??	✓	✓
Class D	<i>sjá eftir</i> ‘regret’	*	??	*	??
	<i>pirra sig</i> ‘be irritated’	*	??	?/✓	✓
	<i>furða sig</i> ‘be surprised’	*	??	?/✓	✓
	<i>vera stoltur yfir</i> ‘be proud of’	??	✓	✓	✓
	<i>skammast sín</i> ‘be ashamed’	??	?	?	?
	<i>vera ánægður með</i> ‘be content with’	??	✓	?	?
	<i>vera leiður yfir</i> ‘be sad about’	*	?	?	?
Class E	<i>uppgötva</i> ‘discover’	✓	✓	✓	✓

If we disregard the evident language variation that we find with some of the verbs, there is a rather clear contrast between Class A, B, E, predicates on the one hand, and Class C and D predicates, on the other, also in Icelandic. The latter display restrictions on non-subject-topicalization. The correct description of Icelandic verb movement thus seems to be that Icelandic has generalized subject-initial V2, rather than generalized V2. Subject-initial

- (i) Forsætisráðherrann harmaði að fólkið skyldi hafa farist. (Ic.)
Prime.minister-the expressed.regret that people-the should.subj have perished
 ‘The prime minister expressed regret that the people had perished.’

For the authors of the present paper, the factive implication is not absent. The crucial factor is that the embedded clause need not be presupposed in the sense of being known to or taken for granted by both speaker and hearer.

⁸The Icelandic authors of the present paper (PH and GHH) are informants 1 and 4, respectively. For one of the other informants consulted, topicalization is generally marked or ungrammatical in clauses embedded under all five predicate types. We therefore do not include the judgments of this informant in the table.

V2 is possible or obligatory across embedded clauses that contain a CP domain, non-subject-topicalization is not. Thus, while the V>Neg word order is a root phenomenon in Norwegian and Swedish, it is not necessarily so in Faroese and Icelandic.

5 Assertion and V2

Consider the Assertion Hypothesis again, repeated below:

(36) *The Assertion Hypothesis:*

The more asserted (the less presupposed) the complement is, the more compatible it is with V2 (and other root phenomena).

Looking at the first four classes of predicates, the hypothesis seems to be supported by our data. Complements under Class A and B predicates are asserted and allow both the V>Neg word order and topicalization of non-subjects in the four varieties of Scandinavian investigated here. Complements under Class C and D predicates are not asserted and although V>Neg is allowed in Faroese and Icelandic, topicalization of non-subjects is impossible or marked in all four varieties.

Complements under semi-factives (Class E), however, appear problematic. These are well-known for sharing properties both with asserted complements (Class A and B) and with complements of factive predicates (Class D), which are presupposed (e.g. Hooper and Thompson 1973, Hooper 1975). If the existence of the event referred to by the complement is presupposed, it should not be possible that it is also asserted. We have seen that – despite this – V2 is unrestricted under semi-factive verbs, a fact noted also by our predecessors. In all four languages, the V>Neg word order and topicalization of non-subjects is unproblematic under predicates of Class E, in line with Class A and Class B complements.

Recall that one characteristic of semi-factives is that they may lose their factivity in certain contexts. In questions, under certain modals, and if embedded in the antecedent of a conditional, semi-factives are ambiguous

between a factive and non-factive reading. One important thing to investigate is thus whether or not these predicates are indeed used factively in the contexts where V2 is a possibility. For this purpose, we adopt the entailment preservation under negation test from Kiparsky and Kiparsky (1970).⁹ Consider the Swedish sentences in (37). (37a) exemplifies a clause with non-V2 word order embedded under semi-factive *discover*, (37b) a V2 clause (non-subject-topicalization) under the same verb. Both sentences entail (37c).

- (37) a. Vi upptäckte att han inte läste den boken varje dag.
we discovered that he not read that book-the every day
 b. Vi upptäckte att den boken läste han inte varje dag.
we discovered that that book-the read he not every day
 c. Han läste inte den boken varje dag.
he read not that book-the every day

If the matrix predicate presupposes the existence of the event in the embedded clause, the entailment relations above should not be altered by the presence of sentential negation in the matrix clause. And they are not. (38a) and (38b) below both entail (37c), repeated in (38c).

- (38) a. Vi upptäckte faktiskt **inte** att han inte läste den boken varje dag.
we discovered actually not that he not read that book-the every day
 b. Vi upptäckte faktiskt **inte** att den boken läste han inte varje dag.
we discovered actually not that that book-the read he not every day
 c. Han läste inte den boken varje dag.
he read not that book-the every day

In this sense, *upptäcka* ‘discover’ (Class E) behaves like *ångra* ‘regret’ (Class D) for which the same pattern can be replicated. Both presuppose the existence of the event referred to by the embedded clause. The difference between them is that the latter predicates do so under all conditions, whereas the former are ambiguous under certain conditions (Karttunen 1971). What is relevant to us is the fact that Class E predicates may

⁹The conclusions drawn in this and the following section are based on the Scandinavian varieties spoken by the authors of this paper. Examples are limited to Norwegian and Swedish for reasons of space.

select V2 clauses when they are used factively, as shown above. Thus, factivity is irrelevant to V2. For this reason, the assertion hypothesis seems to need some qualification.

Note that an old observation is that matrix negation blocks V2 in the embedded clause (Blümel 1914, see also Meinunger 2006). Although this is true for many contexts also in Scandinavian, it is not true for semi-factives, as can be seen in (38b) above. We disregard the possibility of interpreting the matrix negation in (38) and similar examples as presupposition cancelling negation. This is a use of negation that we take to involve rejection of an utterance on any grounds, even style or phonetic realization, see Horn (2001) for discussion.

Since the selected clause is a fact under the relevant predicates, we expect it to be impossible to deny the truth of the embedded clause alone. This expectation is met. Adding the tag corresponding to English *but he did not* to sentences of the kind *They discovered that he read that book every day* yields a rather odd result:¹⁰

- (39) a. De upptäckte att han läste den boken varje dag, #men det gjorde han
they discovered that he read that book-the every day but that did he
 inte.
not
- b. De upptäckte att den boken läste han varje dag, #men det gjorde han
they discovered that that book-the read he every day but that did he
 inte.
not

In other words, something which is presupposed cannot also be asserted. Note the clear contrast between (semi-)factives and assertives such as e.g. *say* from Class A. The latter embed statements, which can be denied without producing the oddity seen above:

- (40) a. De sa att han läste den boken varje dag, men det gjorde han inte.
they said that he read that book-the every day but that did he not

¹⁰Hooper and Thompson 1973 note that there is some variation concerning the possibility to negate or question the complement of a semi-factive verb in English. The authors of this paper all agree that this is not possible in their respective varieties of Scandinavian with verbs like *discover*.

- b. De sa att den boken läste han varje dag, men det gjorde han inte.
they said that that book read he every day but that did he not

Recall from the introduction that two senses of assertion have been referred to in attempts to define contexts that support root phenomena. Hooper and Thompson (1973: 473) define the *assertion* of a sentence roughly as:

- (41) a. That part which can be questioned and denied.
 b. The core meaning or *main assertion* of a sentence.

We take (41a) to mean that an assertion must be a proposition. (41b) is usually taken to mean that proposition whose truth is at stake in the discourse. We take the strict sense of assertion to make reference to both properties. From (39), we may conclude that semi-factives do not embed assertions in the former sense and from (39b) that this sense is not relevant to V2:

- (42) V2 clause \nrightarrow Proposition

Turning to the latter sense of assertion, consider a complex sentence involving a Class A predicate:

- (43) Han sa att hon hade kommit hem.
he said that she had come home

The sentence has two readings. Either the whole sentence *He said X* is the main assertion, or the complement *She had come home* is the main assertion. The latter reading of *say* has been called a *parenthetical* reading (Urmson 1952).¹¹ Hooper and Thompson (1973) observed that semi-factives (Class E) behave like assertive predicates (Class A and B) in that they have parenthetical uses; their complement may be the main assertion of the sentence. Anticipating conclusions to be drawn shortly, it is the availability of a parenthetical reading of this kind that appears to correlate with V2.

¹¹Note that the possibility of interpreting a verb parenthetically does not always correlate with the possibility of using the verb in a syntactic parenthetical of the kind *She had come home, he said*. We refer the reader to Simons 2007 for examples showing this.

6 Main point of utterance and V2

The notion of *main assertion* in Hooper and Thompson (1973) seems to correspond closely to what Simons (2007) labels the *main point of utterance* (henceforth MPU). We adopt this label rather than *main assertion* for two reasons. First, complements of semi-factives may be “main assertions” but are still not assertions in the strict sense, as we have shown in the above section. For this reason, *main assertion* is a misnomer. Second, Simons (2007) uses question/response sequences as a diagnostic, which we find useful. For our purpose this means that whenever the content of an embedded clause alone can constitute the answer to a question, the embedded clause has the possibility of being the MPU. Applying this diagnostic to the five classes of predicates we have been using, we find that those classes of predicates which may embed a potential MPU in the above sense are exactly those that are compatible with V2 in the embedded clause (Class A, B, and E). Those classes of predicates which may not embed an MPU are exactly those that impose restrictions on V2 in the embedded clause (Class C and D). In other words, MPU-compatible environments correspond to environments where V2 is unrestricted in all four varieties of Scandinavian investigated here:

- (44) Possibility of being Main Point of Utterance \leftrightarrow Possibility of displaying unrestricted V2

Starting with semi-factives (Class E), the problems of which we left unsolved in the preceding section, it is possible to formulate a question such that the clause embedded under a semi-factive constitutes the answer to that question. The clause may thus contain new information to the listener.¹² The exchange below is exemplified by Norwegian:

¹²That new information may be found under Class E predicates may seem paradoxical at first. Note however that complements of semi-factives need not be presupposed in the sense of being common ground/known to both speaker and addressee. Only the speaker is committed to the truth of the embedded clause, cf. the observation of Simons 2007 that factivity and presuppositionality comes apart in semi-factives.

- (45) Q: Hvorfor kom han ikke på møtet igår? (Class E)
why came he not on meeting-the yesterday
- A₁: Vi oppdaget at **han ikke hadde fått på vinterdekkene ennå.** (non-V2)
we discovered that he not had got on winter.tires-the yet
- A₂: Vi oppdaget at **ennå hadde han ikke fått på vinterdekkene.** (V2)
we discovered that yet had he not got on winter.tires-the
- A₃: **Han hadde ikke fått på vinterdekkene ennå.**
he had not got on winter.tires-the yet

A₁, A₂, and A₃ are all possible responses to the question in (45). In A₁ and A₂, the answer is contained in the embedded clause; that is where the main information of the whole clause is (MPU). The reason he did not come to the meeting yesterday was not the fact that we discovered something, but that he had not changed to winter tires on his car yet. In this respect, Class E predicates pattern with Class A and B predicates. These may also embed complements that constitute the MPU:

- (46) Q: Hvorfor kom han ikke på festen? (Class A)
why came he not on party-the
- A₁: Hun sa at **han ikke hadde tid.**
she said that he not had time
- A₂: **Han hadde ikke tid.**
he had not time
- (47) Q: Hvorfor avbestilte hun flybilletten? (Class B)
why cancelled she flight.ticket-the
- A₁: Han trodde at **hun ikke hadde tid til å dra likevel.**
he believed that she not had time to to go after.all
- A₂: **Hun hadde ikke tid til å dra likevel.**
she had not time to to go after.all

In (46), the reason he did not come to the party was either that she said that he did not have time or that he did not have time. Likewise in (47), the reason she cancelled her flight ticket was either because of his belief that she did not have time to go or because she did not have time to go. The availability of the second readings shows that both Class A and B complements can constitute the MPU.

In contrast, complements of Class C and D predicates may not on their own constitute MPUs. The A₁ answers below are thus not appropriate ways of responding to the relevant questions:

- (48) Q: Hvorfor måtte han i fengsel? (Class C)
 why must he in jail

A₁: #Han benektet at **han ikke hadde betalt skatt.**
 he denied that he not had paid tax

A₂: **Han hadde ikke betalt skatt.**
 he had not paid tax

- (49) Q: Hvorfor kjøpte du ikke noe på salget? (Class D)
 why bought you not anything on sale-the

A₁: #Jeg angret på at **jeg hadde brukt opp alle pengene mine før jul.**
 I regretted on that I had used up all money-the my before Christmas

A₂: **Jeg hadde brukt opp alle pengene mine før jul.**
 I had used up all money-the my before Christmas

In (48), the reason he had to go to jail is that he did not pay taxes, not that he denied this. In (49) the reason I did not buy anything on the sale is that I had spent all my money before Christmas, not that I regretted this. The expected answers to the relevant questions are not accessible when constituting the content of a clause embedded under Class C and D predicates.¹³

Before drawing conclusions, it is worth noting that both V2 and MPU seem independent of mood selection in Icelandic. This is unlike e.g. Romance where there is a correlation between selection of the subjunctive mood and non-root environments, see Meinunger (2004) for discussion. In the exchange below, we see that non-subject-topicalization is possible in both indicative (A₁) and subjunctive (A₂) environments. Moreover, it is the embedded clause that constitutes the MPU in both answers. The reason noone was at work was that all Norwegians go skiing in such weather:

¹³New information can in fact be introduced under truly factive predicates via the presupposition. These cases differ from those involving semi-factives in that the speaker acts as if something is common ground with the intention of providing new information. We have disregarded special cases of this kind here. These are incompatible with V2 in our varieties.

- (50) Q: Af hverju var enginn í vinnunni í gær?
 why was noone in work yesterday
- A₁: Ég frétti að í svona veðri fara allir Norðmenn á skíði.
 I heard that in such weather go.ind all Norwegians on skis
- A₂: Ég frétti að í svona veðri fari allir Norðmenn á skíði.
 I heard that in such weather go.subj all Norwegians on skis

Having said this, we may confidently conclude that the possibility of being MPU goes hand in hand with unrestricted V2 in the environments investigated. Clauses selected by Class A, B, and E predicates may constitute the MPU and display both V2 word orders. Clauses selected by Class C and D predicates may not constitute the MPU and are incompatible with one of the two V2 word orders in Faroese and Icelandic (non-subject-topicalization) and both V2 word orders in Norwegian and Swedish.

A natural question to ask at this point is whether V2 is a prerequisite for an MPU-reading of the clause, given its purported relation to the illocutionary force of assertion. The answer is no. The embedded clause of A₁ in the exchange given in (45) constitutes the MPU but does not display V2.

The next question is whether the property of being a MPU is a prerequisite for V2. That is, do all V2 clauses yield an unambiguous MPU-reading? Again, the answer is no. Consider the following exchange from Norwegian, the answer involving embedded V>Neg word order:

- (51) Q: Hvorfor kom han ikke på festen?
 why came he not on party-the
- A: Kristine sa at han fikk ikke lov.
 Kristine said that he got not permission

In the above answer, either the whole sentence or the embedded clause alone may constitute the MPU. That is, the reason why he did not come to the party is either because Kristine said something (that he did not have permission to go there) or because he did not have permission to go there (a piece of information that we got from Kristine). Given that the embedded clause in the answer above displays V2 and given that a non-MPU reading is available for that clause, MPU is not a necessary condition for

V2. In other words, V2 does not yield an unambiguous MPU reading of the embedded clause. Somewhat surprisingly, the same seems to be true of clauses involving non-subject-topicalization:

- (52) Q: Hvorfor kjøpte ikke Jon Store norske leksikon?
 why bought not Jon big Norwegian encyclopedia
 A: Faren hans mente at slike bøker hadde ikke Jon råd til å kjøpe.
 father-the his thought that such books had not Jon means to to buy

On one reading of the above answer, the reason why Jon did not buy the encyclopedia was because his father thought he could not afford it. Thus, the embedded clause does not necessarily constitute the MPU, despite involving topicalization. At this point we know the following:

(53) MPU \nrightarrow V2

(54) V2 \nrightarrow MPU

MPUs do not necessarily display V2. The crucial finding is that such clauses have the possibility of displaying any of the two V2 word orders. V2, in turn, does not yield an unambiguous MPU reading. The crucial finding is that a clause where both V2 word orders are possible is a clause that may constitute the MPU. Although neither of the two root phenomena imply the presence of the other, they are selected by the same set of predicates.

- (55) Possibility of being Main Point of Utterance \leftrightarrow Possibility of displaying unrestricted V2

It seems intuitive to propose that MPU and possibility of non-subject-topicalization (indicating unrestricted V2) are licensed by the same structural domain. In Hrafnbjargarson et al. (2007), we proposed that the relevant part of the structure is ForceP; Class A, B, and E predicates select Force(P), whereas Class C and D predicates select a smaller clause.

Returning to the illocutionary force of assertion, we may ask what is left of the Assertion Hypothesis in (36) given our findings. We have seen

that V2 clauses are not necessarily assertions in the strict sense of the term. We have also seen that even if we would restrict the term *assertion* to *main point of utterance* (or *main assertion*), V2 may occur independently of assertion and vice versa. The only thing unrestricted V2 and assertion *qua* MPU have in common is that both are root phenomena and therefore confined to the same environment. Semantically speaking, the environment seems to correspond to something that can constitute new information to the listener (and therefore can constitute the MPU), a conclusion that bears similarities to the conclusion drawn in Meinunger (2006). Even though we have not settled issues concerning the Force behind V2 in this paper, we have shown that there is no clear definition of assertion that identifies V2. Rather, the availability of MPU correlates with unrestricted V2.

7 Conclusion

We have investigated the distribution of embedded V2 in Faroese, Icelandic, Norwegian, and Swedish. Our findings conform to those of earlier studies of V2 and other root phenomena. There is a clear division between clauses selected by so-called assertive and semi-factive predicates on the one hand (Class A, B, and E) and clauses selected by non-assertive and factive predicates on the other (Class C and D). V2 is unrestricted in the former and restricted in the latter clauses and this holds across all four Scandinavian languages. Contrary to standard assumptions therefore, Icelandic does not display generalized embedded V2. Under most Class C and D predicates non-subject-topicalization is disallowed or marked in Icelandic, in line with the other Scandinavian languages.

The fact that the V>Neg word order is possible under all predicates in Icelandic and varieties of Faroese, but impossible under Class C and D predicates in Norwegian and Swedish, simply means that this word order is a root phenomenon in Norwegian and Swedish alone. If we are correct, there are two domains in the left periphery for verb second displacement,

only one of which licenses root phenomena. As we will show (Bentzen et al. 2007), the status of V2 as a root phenomenon correlates with island-hood in all four varieties.

In our discussion of the assertion hypothesis and its relevance for V2, we have shown that there is no clear definition of *assertion* that also discerns V2. Our conclusion is that even though one sense of *assertion* – namely *main point of utterance* – seems to be capable of picking out the set of contexts where V2 is unrestricted, V2 may occur independently of an MPU-reading and vice versa.

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