

V-to-I and V2 in subordinate clauses: an investigation of Faroese in relation to Icelandic and Danish

Caroline Heycock · Antonella Sorace · Zakaris Svabo Hansen

Received: date / Accepted: date

Abstract In this article we investigate the status of two different types of movement in subordinate clauses in Faroese: the movement of the finite verb to a position below the subject but above negation and medial adverbs (V-to-I), and the movement of some XP and the finite verb to positions above the subject (V2). The exact status of these phenomena in contemporary Faroese, a language that has been argued to be undergoing syntactic change, is a matter of dispute; we attempt to clarify this using the methodology of Magnitude Estimation (ME). We extend what is known by presenting the results of a systematic comparison of judgment data from Icelandic (where the finite verb obligatorily moves to a high position within the clause, and embedded V2 has been claimed to be possible quite generally), Danish (where the finite verb obligatorily remains in a low position, and embedded V2 has been claimed to be restricted), and Faroese (where the status of verb movement is precisely at issue, and the availability of embedded V2 has been little explored).

Keywords Danish · Faroese · Icelandic · verb-movement · verb-second

Caroline Heycock & Antonella Sorace
Linguistics & English Language, School of Philosophy, Psychology and Language Sciences, University of Edinburgh, Edinburgh, EH8 9AD, Scotland, UK
Tel.: +44 131 650 3961
Fax: +44 131 650 6883
E-mail: C.Heycock@ed.ac.uk

Zakaris Svabo Hansen
Fróðskaparsetur Føroya, Føroyamálsdeildin, V. U. Hammershaimbs gøta, P.O. Box 272, FO-110 Tórshavn, Faroe Islands
Tel.: +298 352520
Fax: +298 352521
E-mail: zhansen@setur.fo

1 Introduction

Faroese, the national language of the Faroe Islands¹, has attracted far less attention from syntacticians than its close relative Icelandic. However, there is one aspect of the syntax of Faroese that has been much discussed: the variability in word order in certain subordinate clauses. In particular, it appears that Faroese has been undergoing a change from a system like modern Icelandic, in which the finite verb in a (typical) subordinate clause precedes negation and sentence-medial adverbs, to a system like the modern standard Mainland Scandinavian languages, in which the finite verb follows such elements. According to the much-cited description of Jonas 1996, the contemporary situation is one in which, while some speakers have a grammar that is in the relevant respects like that of standard Mainland Scandinavian (Jonas’s *Faroese 2*), others allow both orders (Jonas’s *Faroese 1*):²

- (1) a. *Þetta er bréfið sem Elín (hefur) ekki (*hefur) lesið. Icelandic*
 that is letter-DEF that Elín (has) not (*has) read.
 That is the letter that Elín has not read
- b. *Dette er brevet, som Tove (*har) ikke (har) læst. Danish*
 That is letter-DEF that Tove (*has) not (has) read.
 That is the letter that Tove has not read.
- c. *Hetta er brævið, sum Elin (%hefur) ikki (hefur) lisið. Faroese*
 That is letter-DEF that Elin (%has) not (has) read.
 That is the letter that Elin has not read.

For convenience, we will refer to a grammar that requires a high placement of the verb, as in Icelandic, as a grammar with “V-to-I” (Verb movement to Inflection); we will use this for the moment as a purely descriptive term.

The situation in Faroese is of interest for two related reasons. First, this particular type of change in the placement of finite verbs—the loss of V-to-I—is well-known in the history of Germanic, having taken place not only in the mainland Scandinavian languages but also in English (with the complication in the latter case of the rise of *do*-support). Our understanding of the course of these changes and the nature of the intermediate stages, however, relies on the necessarily very incomplete record left in historical texts. Thus, Faroese potentially offers a chance to study this type of change in progress.

Second, the Scandinavian languages have provided the evidence for a purported causal relation between “rich” agreement morphology and V-to-I (Holmberg and Platzack 1991, Jonas 1996, Vikner 1997, Rohrbacher 1999, Roberts 1999, Bobaljik

¹ Faroese is the first language for the vast majority of the approximately 49,000 inhabitants of the Faroe Islands. There are also estimated to be approximately 21,000 Faroese living in Denmark, as well as a much smaller number in other countries. Faroese children learn Danish as a second language at school, and there is also significant exposure to Danish (as well as, increasingly, to English) via broadcasting and other aspects of popular culture. For a summary overview of the language, see Barnes and Weyhe 1994; for a comprehensive grammar see Thráinsson et al. 2004; for discussion of the contact situation with Danish, see Kühl and Petersen 2009.

² The judgment of ungrammaticality for the Negation-Verb order in the Icelandic example is an oversimplification; some speakers also allow the reverse order in particular discourse contexts (Angantýsson 2001, Thráinsson 2003, Angantýsson 2007).

and Thráinsson 1998, Bobaljik 2002, Thráinsson 2003, among others). This evidence is both synchronic and diachronic. Synchronically, Icelandic contrasts with the standard Mainland Scandinavian languages in having a high placement of the verb and in having retained an extensive paradigm of agreement on finite verbs that has been entirely lost in the other languages—at least in their standard varieties. Diachronically, the loss of the high position for the finite verb in the history of Swedish and Danish has been argued to track the loss of agreement morphology (Platzack 1988, Platzack and Holmberg 1989, Falk 1993, Holmberg and Platzack 1995), although see comments on the historical data, and in particular on the lag in timing for Danish in Bobaljik 2002, Sundquist 2002, 2003. Faroese, with an agreement paradigm that is intermediate between the two extremes of “rich” and absent agreement morphology, furnishes an important additional data point against which the predictions of the various theories about the relation between morphology and syntax can be tested.

A fundamental problem for understanding the course of this type of change, and for evaluating the success of competing theories in correctly predicting the nature of verb placement in Faroese, however, is that there is considerable disagreement concerning the current status of V-to-I in the language. In Lockwood’s 1977 grammar, he states that it is usual for the adverb to be placed in front of the verb in subordinate clauses, but that the order in which the verb precedes the adverb is possible unless the adverb is stressed (Lockwood 1977, pp. 156–157). It is not entirely clear what types of subordinate clauses are included; the one example of V-Neg order in a subordinate clause that he cites is embedded under the verb *sigja* ‘say,’ which as will be discussed below is known to allow root phenomena in its complement in all the Germanic languages. A previous separate discussion of relative clauses implies that the V-Neg order may be possible, but the discussion is brief and its scope unclear (pp. 155–156).

Barnes 1992, reprinted in Barnes 2001, cites both orders as occurring in both spoken and written language but indicates that the order with the verb preceding negation is not common in either. He further states that when it occurs in contexts where it is not possible in Mainland Scandinavian, it is associated with an archaizing style (Barnes 2001, p.195, and see also Thráinsson 2003 for further discussion).

As mentioned above, Jonas 1996 concludes that there are two dialects of Faroese, one without V-to-I, and the other with variable placement of the verb but a preference for V-to-I (p. 95). These dialects correlate with age but also, it is suggested, with geography, with the more “conservative” variable variety being more common in the islands south of the capital, Tórshavn (Jonas 1996, pp. 86, 103). This suggestion is however questioned in Thráinsson et al. 2004, pp. 359–363.

Vikner 1994, 1995, basing his conclusions mainly on work with Faroese speakers resident in Denmark, reports that V-to-I is no longer part of spoken Faroese; he suggests that the “relatively blurred picture” may be due to the lag frequently observed between spoken and written language (Vikner 1994, p. 125). Petersen 2000 concurs, on the basis of his questionnaire studies, at least for younger speakers (“it is safe to conclude that Faroese has in general lost V-to-I movement at least when we are talking about speakers [...] born around 1980” p. 83). Thráinsson 2003, however, disputes Petersen’s interpretation of his own data, noting that around a third of Petersen’s subjects fully accept the V-to-I order in the complements of “non-bridge verbs” (verbs

that do not allow root phenomena, in particular Verb Second (V2), in their complements), and that this is “presumably very different from what we would find, say, in a comparable survey among Danish high school students” (p. 101). Thráinsson himself conducts a further study from which (taken together with data from texts) he concludes that although the V-to-I order is in general not preferred by the younger speakers of Faroese, and the variation in word order may be coming to an end, children are still acquiring both orders (pp. 180–181).³ The articles by Petersen 2000 and Thráinsson 2003 will be discussed in more detail below.

In this paper we report on an initial attempt to clarify the status of the syntax of verb movement in modern Faroese through a comparison of judgment data from Faroese, Icelandic and Danish speakers, elicited using the methodology of Magnitude Estimation (Bard et al. 1996, Keller 2000, Featherston 2005, Sprouse 2007, Sorace to appear). In this we could be seen as taking up and developing Thráinsson’s suggestion that the results he obtained from his questionnaire studies would have been different with Danish subjects. We adopt Magnitude Estimation as a methodology with the aim of being able to make a more reliable quantitative comparison between the languages investigated than has been possible so far. We view this as particularly important because of the difficulty in interpreting the kind of “intermediate” judgments that have been reported for Faroese (see Section 2.2 for discussion).

Our results indicate that Faroese is indeed at a very late stage in the process of losing V-to-I, but that there is some evidence for an intermediate system allowing a type of “short” verb movement. Contra the suggestion in Jonas 1996, we did not find any regional differentiation between “northern” and “southern” speakers of Faroese in this respect. An investigation of the acceptability of embedded Verb Second (a potential confound for the investigation of V-to-I in subordinate clauses) reveals that Faroese here patterns together with Icelandic, which contrasts with Danish in allowing non-subject-initial V2 in a wider range of embedded clauses, as argued originally in Rögnvaldsson and Thráinsson 1990. Danish alone exhibits a pattern which is like that described for the mainland Scandinavian languages Swedish and Norwegian in Wiklund et al. 2009 or Julien 2007, but which is somewhat different from that originally proposed in Vikner 1995.

2 Difficulties in investigating V-to-I in Faroese

How can it be that despite a number of investigations specifically into the possibility of V-to-I in contemporary Faroese, there is still room for disagreement as to the status of this aspect of the grammar? There are two principal sources of indeterminacy or disagreement: the possible confound of embedded verb second, and the interpretation of intermediate judgments of grammaticality.

³ Thráinsson adopts the Double Base Hypothesis of Kroch 1989, 2001 and proposes that children learn that there are two possible structures in the language that they are acquiring, one which requires V-to-I and one which does not allow it.

2.1 V-to-I, embedded Verb Second, and structural ambiguity

Faroese, like all the other Scandinavian languages, has a basic SVO order. Thus in both main and subordinate clauses the finite verb precedes the object and other material in the VP (unlike for example German and Dutch).

- (2) a. Karin hevur føðingardag í ovurmorgin.
 Karin has birthday on the day after tomorrow
 Karin has her birthday the day after tomorrow.
- b. Karin sigur, at hon hevur føðingardag í ovurmorgin.
 Karin says that she has birthday on the day after tomorrow
 Karin say that she has her birthday the day after tomorrow.

In main clauses the subject need not precede the verb even in a declarative. If another constituent occupies first position in a declarative the finite verb occurs immediately after it rather than after the subject; that is, Faroese is a V2 / Verb Second language:

- (3) Í ovurmorgin hevur Karin føðingardag.
 on the day after tomorrow has Karin birthday
 The day after tomorrow, Karin has her birthday.

For the moment at least we adopt the analysis due originally to den Besten 1983 in assuming that this order arises from movement of the finite verb to Comp and of some XP to Spec,CP. We also follow him in assuming that both of these movements take place even in subject-initial main clauses: that is, in subject-initial main clauses the subject is the XP in Spec,CP (Schwartz and Vikner 1990). Taken together, these two assumptions explain why in the Mainland Scandinavian languages the finite verb precedes negation in main clauses but not in subordinate clauses: these languages have V-to-Comp (V2) in main clauses, but in subordinate clauses where V2 is not licensed the verb remains below negation because of the lack of V-to-I. In Icelandic, on the other hand, the finite verb precedes negation in all types of clause, since it has both V2 and V-to-I.⁴

What complicates this picture of course is that there is ample evidence that V2 is not in fact restricted to main clauses, but is possible also in some embedded clauses, like other “root phenomena” (for a detailed discussion of the phenomenon in Swedish, see Andersson 1975, for a more general overview and references to some of the literature on embedded root phenomena since the seminal work of Hooper and Thompson 1973, see Heycock 2006). There are various different environments where optional embedded verb second (EV2) has been observed; one salient case is the complement to a subset of the verbs that take declarative complements. This subset is typically referred to in the literature on Germanic syntax as the class of “bridge verbs.”⁵

⁴ There are analyses in which all finite clauses in all languages in Scandinavian involve movement outside the IP domain (e.g. Wiklund et al. 2007, Hróarsdóttir et al. 2007). If these analyses are correct, the discussion in the current paper should be translated as being about the distribution of subject-initial and non-subject initial V2.

⁵ The name “bridge verb” is no longer appropriate as it derives from the hypothesis that the class of verbs allowing root phenomena in their complements is the same as that allowing extraction, a hypothesis

In an SOV, Infl-final language like German, the effects of V-to-I and of V2 are generally easily distinguished, even in a subject-initial clause: ambiguity only arises for clauses with intransitive verbs and no auxiliaries (assuming that potential cases of extraposition are controlled for). Further, V2 in German declaratives is in complementary distribution with overt complementisers, hence the original proposal that in a V2 clause the finite verb occupies C^0 . In the SVO, Infl-medial languages of Scandinavia, on the other hand, the only evidence for V2 in a subject-initial clause is the placement of the verb to the left of negation or a medial adverb; an order also derivable via V-to-I alone.⁶ Further, in contrast to German, embedded V2 in Scandinavian is not in complementary distribution with overt complementisers, so the presence of absence of the complementizer cannot be used to diagnose the structure.

In the modern standard varieties of Mainland Scandinavian, the absence of V-to-I is not disputed, so that no ambiguity between V2 and V-to-I arises—at least, not for the linguist, although it may do so for children (Håkansson and Dooley-Collberg 1994, Westergaard and Bentzen 2007, Waldmann 2008, Heycock et al. 2009). Accordingly V-Neg order is standardly used as a diagnostic for V2, as for example in the investigation of EV2 in Swedish and Norwegian in Julien 2007. In Icelandic, on the other hand, it is widely—although not uncontroversially—assumed that the V-Neg order observed in relative clauses and indirect questions is the result of V-to-I. This is because the ungrammaticality of non-subject-initial orders in those clause types suggests that a derivation involving V2 is excluded in these contexts (see for example the discussion in Vikner 1995). In the kind of subordinate clauses that in the other Scandinavian languages allow the V-Neg order, however, subject-initial clauses in Icelandic are structurally ambiguous between IPs with V-to-I and CPs with V-to-Comp (EV2).

Since the status of the V-Neg order in Faroese is precisely in question, we would naturally want to isolate cases where there is no possible structural ambiguity. As just discussed, none of the other Scandinavian languages allow non-subject-initial orders in relative clauses or indirect questions, and the standard Mainland Scandinavian languages further disallow V-Neg orders in these two contexts. So we could restrict ourselves to those cases.⁷ However, particularly if we want to consider naturally occurring data, this severely restricts the cases that can be included. A further environment that is typically considered is the declarative complement to verbs that fall outside the class of bridge verbs. Deciding on the exact boundaries of the class of bridge verbs is, however, a longstanding controversy in Germanic syntax. Vikner

that is now generally considered to have been disproved (see for example Vikner 1995, de Haan 2001). However we will continue to use it in this paper, partly for consistency with cited work, and partly for lack of a concise agreed alternative. It should also be noted that the interaction with negation and modalisation of the higher clause suggests strongly that the EV2 phenomenon cannot simply be reduced to syntactic selectional requirements lexically associated with the embedding predicate (Andersson 1975, Meinunger 2004, 2006, Julien 2007, Wiklund et al. 2009)

⁶ Many adverbs in Scandinavian, as in English, can appear either at the left periphery of the VP or in a clause-final position; additional VP-internal material is then required to determine whether a V-Adv order is the result of verb movement to the left, above an adverb in the “medial” position, or of underlying clause-final placement of the adverb. This is one reason why the negative marker is typically used as an indicator of the position of the verb, as it does not have the option of clause-final attachment.

⁷ A further possible context that could be considered is conditionals.

1995, after a detailed discussion of a range of Germanic languages, concludes that there is no generalisation to be had, and that there is idiosyncratic variation between the languages, so that children must learn this on a case-by-case basis. For two recent discussions see Julien 2007 and Wiklund et al. 2009, discussed further below. In addition, even if we allow for a certain vagueness in the boundaries of the class of bridge verbs in, say, German, Dutch, and Mainland Scandinavian, there is an unresolved debate as to whether Icelandic is distinguished from Mainland Scandinavian languages in allowing V2 after *all* types of matrix predicates that take a declarative complement: what Vikner 1995 refers to as “general embedded V2.”

The implication for the investigation of Faroese is that if we are going to include declarative complement clauses in our analyses of the status of V-to-I, we first have to be sure of the extent to which the particular complement clauses we include disallow V2.

2.2 Variability and intermediate acceptability

The second source of difficulty in drawing conclusions about the current status of V-to-I in Faroese is that the judgments given by at least a large subset of native speakers consultants appear to be *intermediate*: that is, sentences exhibiting V-to-I are judged somewhere between the extremes of completely acceptable and completely unacceptable. Consider for example the disagreement between Petersen 2000 and Thráinsson 2003 concerning the status of the V-to-I option for young speakers. Both of the authors conducted questionnaire studies in which Faroese high school students were asked to give their responses on a three point scale. We summarise the results of the two studies in Table 1,⁸ for each case where the same construction was tested by the two authors the percentages of responses falling into that category are given, on one line the data from Thráinsson 2003 in regular type, and on the next, in italics, the data from Petersen 2000.⁹

Looking at the table overall, it is notable that a major difference between the two sets of responses is that the subjects in Petersen’s studies appear much more polar in their judgments than those in Thráinsson’s study, as Thráinsson himself notes. The percentage in the “intermediate” column ranges from 0% to 7% in Petersen’s data; in Thráinsson’s it ranges from 14% to 41%. A question that arises immediately is what the “intermediate” column represents. Thráinsson’s subjects were instructed that this choice represented “a questionable sentence, a sentence I would hardly use.” Petersen reports the “?” in his data as representing cases where the subject is “not sure” (potentially a different status), but does not give the exact instructions that the subjects had.

⁸ Both Thráinsson and Petersen refer to the relative order of verb and adverb, but it is not entirely clear what adverbs other than the negator *ikki* were used. All the examples that they cite from their questionnaires use *ikki* except for two in Thráinsson’s study which use instead *ongantið* ‘never’.

⁹ Thráinsson’s data come from 14 subjects; the figures from Petersen we have aggregated from his two questionnaire studies, one with 10 and one with 18 subjects. In both studies, the number of examples for the different constructions varied. Our presentation of the results follows Thráinsson 2003: each judgment is recorded separately and the percentages given are over judgments, rather than over subjects.

Clause type	V-Adv			Adv-V		
	OK	?	*	OK	?	*
+bridge complement	34%	33%	33%	75%	21%	4%
	66%	7%	26%	92%	0%	8%
-bridge complement	14%	41%	45%	82%	14%	4%
	25%	6%	69%	98%	0%	2%
relative clause	5%	31%	64%	81%	17%	2%
	3%	0%	97%	100%	0%	0%
indirect question	5%	32%	63%	74%	21%	5%
	0%	0%	100%	100%	0%	0%
adverbial clause	39%	37%	24%	81%	17%	2%

Table 1 Acceptability of V-Adv and Adv-V orders in Thráinsson 2003 and Petersen 2000

Understanding the status of these intermediate cases is actually crucial to interpreting the data. The cases that are most important for determining the status of V-to-I in Faroese are the examples involving relative clauses and indirect questions.¹⁰ It is easy to see why Petersen could conclude from his data that his subjects do not have a V-to-I option in their grammar. 97% of the responses for relative clauses with the verb preceding negation are that it is unacceptable, and 100% of the responses for that order in indirect questions; conversely the other order is consistently judged fully acceptable. And in fact Thráinsson's subjects are barely more likely to consider the V-Neg order fully acceptable in relatives and indirect questions (5% in both cases, against Petersen's 3% and 0%). But the percentage of "completely unacceptable" responses for the V-Neg order is very different: as Thráinsson notes (p. 174), in his study only about two-thirds of the examples are classified as ungrammatical (64% and 63%, against Petersen's 97% and 100%). The remaining third fall in the "questionable" intermediate category.

If we look at the intermediate category more closely, there is reason to believe that it may conceal some important variation. Thráinsson states that the higher use of the intermediate category "has greater effect on their judgment of the Icelandic [V-Neg] order", but in fact it is notable that a significant proportion of the responses to the Neg-V order also fall in this category for his subjects. This order is one which in all accounts of contemporary Faroese is taken to be grammatical for all speakers (even if it is only one of two options for some). So it is somewhat surprising that such a high proportion of examples with this order (from 14% to 21%) are judged "questionable." If we restrict ourselves to looking at Thráinsson's data only, this might appear at first glance to lend indirect support to his contention that his data show that V-to-I is still a grammatical option even for younger speakers, along the following lines: Given that

¹⁰ Thráinsson focusses his discussion on the acceptability of the verb-negation order in the complements of non-bridge verbs, but as mentioned above, the status of these contexts requires independent investigation. Unless we can be sure that embedded V2 is ruled out in these complements (as has been argued to be the case for Danish but not for Icelandic, for example) we cannot be sure whether this order is the result of embedded V2 rather than V-to-I. We will address this issue in more detail in Section 3.1.1. Neither Thráinsson nor Petersen give details in these articles of what verbs were classified as bridge or non-bridge. Thráinsson also notes that "some adverbial clauses are much more main-clause-like than others [...] and this was not sufficiently controlled for in the examples"; for this reason we do not discuss those results—the last line in Table 1—here.

we have every reason to believe that the Neg–V order is grammatical, the “questionable” responses here indicate that somewhere between 14% to 21% of grammatical sentences will be rated as questionable for presumably extraneous reasons. If we interpret the questionable category for the V–Neg responses in the same way, we can conclude that a non-negligible proportion of respondents actually find V-to-I grammatical.

However, the comparison with Petersen’s results suggests that the “questionable” responses for the Neg–V orders and for the V–Neg orders may not be comparable. Looking at the Neg–V orders (which we expect to be grammatical for all speakers), the sum of Thráinsson’s “questionable” and “fully acceptable” responses corresponds fairly closely to Petersen’s “fully acceptable” category. And this is also true for both the V–Neg and Neg–V orders in the complements to bridge verbs (again a context where the literature on Scandinavian would lead us to expect both orders to be grammatical regardless of the status of V-to-I). But when we look at the V–Neg order where the V2 derivation is excluded, instead there is fairly close agreement between the two authors’ studies with respect to the “fully acceptable” category (5% or below for both); it is now Petersen’s “unacceptable” category which appears to be divided between “questionable” and “unacceptable” in Thráinsson’s results.

If we assume that the underlying population is the same, there seem to be at least two possible interpretations available here to reconcile the two sets of data. One is that speakers are really making a binary choice, which is reflected directly in Petersen’s data; because Thráinsson’s subjects for some reason were more willing to make use of the intermediate category, this category both captured examples of (fundamentally ungrammatical) cases of V–Neg that were somehow felt to be less prototypical than others, and examples of (fundamentally grammatical) cases of Neg–V that were somehow infelicitous. The other interpretation is that actually speakers are making at least a four-way distinction, with fully acceptable and fully unacceptable as the poles and at least two different categories between. Because, for some reason, the respondents to Petersen’s questionnaire interpreted the task in a binary way, his “unacceptable” and “acceptable” categories each collapse two adjacent categories of judgment: “completely unacceptable” with “better than fully unacceptable”, and “completely acceptable” with “less than fully acceptable”. Thráinsson’s respondents, on the other hand, reserved “unacceptable” and “acceptable” for their extreme categories, but in their responses collapsed their two distinct “internal” judgment categories into the single intermediate category made available by the questionnaire.

Under the first of these two interpretations, all the judgment data reported in Thráinsson 2003 are consistent with speakers in the age group investigated having acquired a grammar without V-to-I, as Petersen concluded about the results of his own study, and in this respect the syntax of their Faroese is identical to that of a speaker of standard Danish or one of the other mainland Scandinavian languages. Under the second, these speakers still have access to a grammar with V-to-I as one (disfavoured) option—as Thráinsson concluded.

3 Our study

3.1 Questions

3.1.1 *Embedded Verb Second*

As we have seen, in order to gain a clearer understanding of the status of V-to-I in modern Faroese, it is necessary to control for the possible confounding factor of embedded Verb Second (EV2). So far there has been little systematic investigation of the distribution of EV2 in Faroese; one part of our study was therefore a preliminary comparison of the acceptability of EV2 in different clause types.

As already mentioned, there is considerable disagreement in the literature as to the possibility of EV2 in different contexts in Icelandic, as well as in the mainland Scandinavian languages.¹¹ In their much-cited paper, Rögnvaldsson and Thráinsson 1990 argued that Icelandic differed from the Mainland Scandinavian languages in allowing nonsubject-initial V2 in all types of subordinate clause; this conclusion is upheld in Vikner 1995, and it is now common to divide the Germanic Verb Second languages into “symmetric” V2 languages that exhibit V2 in both matrix and subordinate clauses (Icelandic and Yiddish) and “asymmetric” V2 languages that restrict embedded V2 to a very limited set of clauses (the bulk of Germanic). However, the conclusions and even the data of Rögnvaldsson and Thráinsson 1990 have proved controversial. Ottósson 1989, for example, argues that topicalisation is very restricted in embedded clauses in Icelandic. Jónsson 1996 argues that there are two dialects of Icelandic with respect to EV2: a more liberal dialect (Icelandic A) which “allows topicalisation quite freely in embedded clauses [that do not contain a trace, e.g. not relative clauses and embedded questions]” and a more conservative dialect (Icelandic B) which allows embedded topicalisation only in the complements of bridge verbs—that is, which is identical to Mainland Scandinavian as far as the distribution of EV2 is concerned (Jónsson 1996, p. 39).

More recently, Wiklund et al. 2009, p. 10 claim that there are three varieties of Icelandic as far as EV2 is concerned: one that allows EV2 in all types of embedded clauses, one which does not allow EV2 in any type of embedded clause¹², and one that allows EV2 in the same restricted contexts—after assertive and semi-factive predicates—in which it is also allowed in Mainland Scandinavian. Although Wiklund et al. state that the existing literature identifies the first and second of these three varieties, and that their contribution is to point to the existence of the third, as far as we have been able to determine no one has actually ever proposed the existence of the second variety (the one that disallows topicalization in all types of embedded clauses). The authors who are cited as having argued for it seem rather to have argued for the third: for example, in the footnote from Vikner that is referred to, he cites Halldór Sigurðsson as pointing out that not all Icelandic speakers are equally happy with embedded topicalisation *outside bridge verb contexts* (our emphasis). We

¹¹ Throughout this section, references to EV2 refer to unambiguous instances of embedded verb second in which the clause-initial XP is some phrase other than the subject.

¹² The exact formulation in Wiklund et al. 2009 is that in this variety of Icelandic “speakers are reluctant to [accept] embedded topicalization regardless of context.”

therefore take it that the question at issue concerning Icelandic specifically is whether or not EV2 is permitted in more contexts than it is in Mainland Scandinavian, either for all or for some speakers. With respect to Faroese, Wiklund et al. 2009 argue that Vikner 1995 was correct in grouping together Faroese with the Mainland Scandinavian languages in that it only allows EV2 in restricted contexts.¹³

Even in contexts in which EV2 is considered to be grammatical in all these languages, it is not completely clear how native speakers judge it and use it. For example, Thráinsson 2003 writes:

Now although verb movement (i.e. V-to-C) is possible in Danish (and other Mainland Scandinavian) bridge verb complements, it is not the rule (see e.g. Pedersen 1996, Gregersen and Pedersen 1997).

While one could technically account for the optionality of verb raising in Faroese bridge verb complements in a similar fashion, that does not seem satisfactory since for many speakers it is much more common than verb raising in Danish bridge verb complements. (Thráinsson 2003, p. 180)

The relative frequency of EV2 and of V–Neg orders in bridge verb complements in Danish and in Faroese is a very interesting question, but one that we do not currently have very good data for. Thráinsson’s corpus data do show a consistently high rate of V–Neg orders in this context in Faroese, but it would be necessary to compare them with similar types of text in Danish; we are not aware of any work that does this for a representative sample of texts. In Heycock et al. 2003 this was done for one parallel text in Danish and Faroese, and in Heycock and Sorace 2007 a further comparison was made with non-subject-initial clauses in the same parallel text. In the data considered there, V–Neg orders were not found at all in the Danish text in the complement to bridge verbs, while they were common in the Faroese text; non-subject-initial orders in bridge verb complements were also more common in Faroese, but here the difference appeared much smaller. These data however come from a single text, so the comparison is between one Faroese writer and one Danish writer. Further corpus study is indeed highly desirable; but even if a difference in frequency were to be established, we would still not necessarily know if there was a difference in grammaticality.

Our survey of the literature on EV2 in Scandinavian made it clear that it would be hard to situate Faroese with respect to the other languages without conducting a direct comparison. In this study we therefore conducted a parallel investigation of EV2 in Faroese, Icelandic and Danish. For each of these languages we considered five different contexts for verb second:

1. declarative main clause
2. the complement of the “bridge” verb *say*
3. the complement of the semifactive *admit* and the factive verb *regret*

¹³ At occasional points in Wiklund et al. 2009 the claims about Faroese are restricted to “varieties of Faroese” (e.g. pp. 1,9,18); the discussion in the text however suggests that the three Faroese speakers consulted all gave judgments on EV2 (setting aside the subject-initial cases that are referred to here as cases of V-to-I) that were identical to those of the Swedish and Norwegian speakers. There is no explicit discussion of possible variation in Faroese with respect to EV2.

4. the complement of the “negative” verbs *deny* and *doubt*, and the factive adjective *proud*
5. indirect questions

The third and fourth category together contain predicates that according to the description of Vikner 1995 might be expected to disallow EV2 in Danish but allow it in Icelandic.¹⁴ On the other hand, according to the proposal in Wiklund et al. 2009 semifactives such as *admit* allow EV2 in all the Scandinavian languages. Further, they argue that *regret* in Icelandic behaves differently from other factive verbs in allowing EV2 very freely, and that this is because, while its complement is always presupposed to be true (so that it is indeed a factive), it may represent information assumed to be new to the addressee. This is perhaps the same point that is made in Gärtner 2003 about this verb having a use as a verb of communication. It is stated in Wiklund et al. 2009 that the Norwegian and Swedish verbs *angre* and *ångra* can only be used when the speaker believes that the information in the complement is not only true, but known to the addressee. True factives like *be proud that* and inherently negative verbs like *doubt* and *deny* on the other hand they argue to disallow EV2 not only in the mainland Scandinavian languages but also in Icelandic.¹⁵ By considering separately *deny*, *doubt*, and *be proud* on the one hand, and *regret* and *admit* on the other, we are thus able to test the predictions of these different authors for Icelandic and Danish, as well as establishing the location of Faroese with respect to these two better-studied languages.

Main clauses and indirect questions are included essentially as controls. All accounts of the Scandinavian languages predict grammaticality for non-subject initial main clauses, even though the subject-initial order is the most frequent (just to cite one example, the study in Heycock and Sorace 2007 finds the non-subject initial order in a parallel text in Danish, Faroese and Icelandic to occur in 18%, 19% and 17% of declarative main clauses, respectively; naturally there may be significant effects of genre, spoken versus written language, etc.). Conversely, all accounts argue that non-subject initial order is barred in indirect questions, as in relative clauses, even in Icelandic.

Our aim then is to answer the following questions:

1. Do any or all of the languages studied group *regret* and *admit* with uncontroversial bridge verbs like *say* in admitting EV2, while disallowing EV2 in the complement of *deny*, *doubt* and *be proud*, as claimed in Wiklund et al. 2009 to be the case in Swedish, Norwegian, Faroese, and one variety of Icelandic? Or do all of *regret*, *admit*, *deny*, and *doubt* pattern together, as in the description of Vikner 1995?

¹⁴ The predicates that were used overlap with but are not all identical to those in Vikner’s list. Of the predicates we tested, Vikner specifically mentions *regret*, *doubt*, and *admit*. We tested in addition *deny*, which would be expected to behave like *doubt*; and *be proud that*, which would be expected to behave like the example of the factive predicate *be happy that* that Vikner mentions.

¹⁵ Julien 2007 on the other hand argues that even factive predicates can allow EV2, and cites examples from her corpus study of the standard Mainland Scandinavian languages. Wiklund et al. 2009 also note that possible variation within the class of factive predicates. In their own data, out of five Icelandic speakers who accepted *vera stoltur yfir* (be proud that) with a finite complement, four found EV2 in its complement to be fully grammatical, and one judged it to be possible but marked.

2. Do we find evidence for a variety of Icelandic in which it patterns with Mainland Scandinavian (here represented by Danish) with respect to the distribution of EV2? Or only for a variety in which EV2 is permitted in contexts where it is ungrammatical in Danish (Rögnvaldsson and Thráinsson 1990, Vikner 1995)? Or for both, as suggested in Vikner 1995, and argued for at more length in Jónsson 1996, Wiklund et al. 2009?
3. If Danish and Icelandic do differ with respect to EV2, does Faroese behave like Danish or like Icelandic or neither?

3.1.2 V-to-I

The distribution of EV2 is of interest in itself, but it is also part of the background to the second focus of our study, the status of V-to-I in Faroese. In this study we investigated this directly by testing the acceptability of sentences with and without V-to-I in relative clauses, which, like indirect questions, are an environment where EV2 is ruled out in all the Scandinavian languages including Icelandic, and hence one in which a “high” placement of the finite verb cannot be explained in terms of EV2.

In most previous studies of Faroese it has been assumed that the relevant diagnostic for V-to-I is the position of the verb to the left of the negative marker *ikki* or any sentence-medial adverb. Given that in Icelandic the finite verb must precede all of these elements, and in the standard Mainland Scandinavian languages it must follow all of them, this has seemed a reasonable working assumption.¹⁶ However, in addition to the theoretical distinction between “short” and “long” verb movement made in Pollock 1989, who argued that there is a position for verb movement between adverbials and sentential negation, recent work by Kristine Bentzen has shown that in some dialects of Regional Northern Norwegian the finite verb can appear above (at least some) sentence-medial adverbs but not above negation (Bentzen 2005, 2007a,c), and she has argued that the same is true for the Swedish dialect spoken in Kronoby in Finland (Bentzen 2007b). We therefore compared the two possible orders in Faroese not only with respect to *ikki* but also with respect to two adverbs that can occur sentence-medially, one that is relatively high and one that is relatively low in the hi-

¹⁶ In fact it is not always clear in previous studies whether the “adverb” used to determine the position of the verb is always *ikki* or whether other sentential adverbs have been included. There are practical reasons for considering only sentential negation when looking at frequency. There are no tagged corpora of Faroese freely available, but there is a certain amount of electronic text; while it is possible to search for the string *ikki*, searching for other adverbs would have to be done separately for each adverb. As nearly all of the adverbs that appear sentence-medially can also appear sentence-finally, this would require a particularly high level of hand-sorting. Finally, as mentioned earlier, the possibility of sentence-final orders also means that only clauses with transitive verbs, or with composite tenses, can be compared, since an finite intransitive main verb followed by an adverb would be structurally ambiguous between a derivation with a raised verb and a sentence-medial adverb and a derivation with a sentence-final adverb (and ambiguous placement of the finite verb).

erarchy posited in Cinque 1999: *perhaps*¹⁷ (Da. *måske*, Fa. *kanska*, Ic. *kannski*) and *often* (Da. *ofte*, Fa. *ofta*, Ic. *oft*).

As with the investigation into EV2, here again we conducted parallel investigations of Faroese, Danish and Icelandic. In this case the reason for including the latter two languages was not because there is any unclarity as to this aspect of their grammar, but rather the opposite. Given that we know that V-to-I is obligatory in Icelandic and disallowed in Danish, by conducting a closely parallel judgment task in those languages and in Faroese, we gain an additional way to interpret the responses that we get from Faroese subjects. That is, in addition to comparing Faroese judgments of sentences with differing positions of the verb to each other and to sentences that are deliberately constructed to be fully acceptable or fully unacceptable, we can also compare the response of the Faroese speakers to the response of Danish and Icelandic speakers, in whose grammars V-to-I is impossible (Danish) or obligatory (Icelandic).

Our aim here is then to answer the following questions:

1. To what extent is V-to-I a grammatical option in current Faroese?
2. Does movement of the finite verb past negation have the same status as movement of the finite verb past other adverbs?

There is one further question concerning Faroese that we address here, and that is the effect of regional variation within Faroese itself. As mentioned above, Jonas 1996 claimed that there are two varieties of Faroese, one of which does not allow V-to-I at all (*Faroese 2*), the other showing variation between (preferred) V-to-I and (possible) V-in-situ (*Faroese 1*). Jonas speculated that as well as showing a correlation with age, there was also a geographical component to the dialectal variation, with speakers from the southern islands more likely to speak the more conservative *Faroese 1*. Before embarking on the interlanguage comparison, we thus addressed the following question:

3. Is there regional variation with respect to V-to-I within Faroese? In particular, are speakers from the southern islands more likely to allow V-to-I than speakers from the capital, Tórshavn?

3.2 Methodology

3.2.1 Grammaticality judgments and Magnitude Estimation

All the judgment data here were gathered using the methodology of Magnitude Estimation. Magnitude Estimation is a technique borrowed from psychophysics (see in particular Stevens 1957, 1971, 1975); for an extensive discussion of its application in linguistics see Bard et al. 1996, and more recently Keller 2000, Featherston 2005, Sprouse 2007, Sorace to appear. Subjects are asked to assess the “goodness” of a

¹⁷ Although this type of adverb is known to have distinctive properties when it occurs clause-initially, in that it appears to be able to introduce a subordinate clause in the Scandinavian languages, presumably as a remnant of its etymological origins, we do not know of any indication that it has an anomalous status when in the “middle field.”

sequence of sentences— in this it is just like other more widely-used methods of obtaining grammaticality judgments. However, unlike most other protocols for gathering such judgments, subjects are explicitly asked to give relative, rather than absolute judgments. That is, they are asked to compare sentences and state how much better or worse each sentence is relative to some other sentence, in a proportional way—that is, how many times better or worse. Also, in contrast to most other protocols, no limit is placed on the number of discriminations that can be made; that is, subjects are not asked to make a binary choice or even to place sentences on a two-point, three-point, or 15-point scale; rather they are encouraged to make as many discriminations as they feel capable of.

The ME procedure for linguistic acceptability is analogous to the standard procedure used to elicit judgments for physical stimuli. Subjects are required to assign numbers to a series of linguistic stimuli proportional to the degree of acceptability of the stimuli as they perceive it. First, subjects are exposed to a modulus item, to which they assign an arbitrary number. Then, all other stimuli are rated proportional to the modulus (and hence to each other); for example, if a sentence is three times as acceptable as the modulus, it should receive a number that is three times as large as the modulus number. How the modulus itself is chosen varies from study to study, and also whether the subjects continue to see the modulus as they proceed from one sentence to another. In this study the modulus was selected at random for each subject, in order to avoid the possibility that the choice of a particular modulus might bias the results (Sprouse 2007), and did not remain on screen.

Each subject can choose their own scale, although they are encouraged to use as wide a range of numbers as possible. Because of this the scores have to be normalised. This can be done in various ways: in this study the scores for each subject were converted to z-scores (which indicate how far and in what direction the original score differs from the mean for that speaker, expressed in terms of the standard deviation of the score for that speaker).¹⁸

Our methodology in this study is in some respects not a major departure from the techniques of gathering grammaticality judgments that have been standard in syntactic work over the last half-century. These have always involved attempting to isolate the relevant linguistic (“within-subject”) variables, and frequently a further comparison between languages or dialects (“between-subject” variables). The focus in current linguistic theory on I-language, in principle the internal system of an individual speaker, has legitimised reference to the judgments of a single individual, frequently the linguist conducting the study, and this has proved a fruitful technique. Nevertheless, when investigating a lesser-known language (data from which therefore cannot easily be validated by referees and audiences) and in particular a language suspected to be in the process of change, linguists have always recognised the need to gather data from more than one native speaker. Thus our procedures here can be seen as a systematisation of the procedures used in the studies on which we are building, procedures which are generally not described in any detail only because they are taken for granted. We believe however that this systematisation is crucial when conclusions

¹⁸ In addition to normalising the scores by using z-scores, the original scores were first converted into logs, to correct for the skew that follows from asking for proportional judgements (Keller 2000).

have to be drawn from comparisons between languages/dialects (including diachronic varieties of a single language).

3.2.2 Design

The gathering of judgments concerning EV2 and V-to-I in relatives was set up as two experiments which were run simultaneously, the items for one constituting a part of the “filler” items for the other. The design of both experiments was necessarily mixed, with one between-subjects variable (language) and two within-subjects variables in each case.

In the embedded V2 experiment, what we wanted to test was the extent to which the acceptability of V2 varies between the three languages at issue, and in the five different clause types mentioned earlier. As examples of unambiguously V2 clauses we chose clauses that began with an adverbial phrase. None of the examples in this experiment contained medial adverbs. The full list of sentences that were used in the study, with glosses and translations, is given in an appendix available on the website for the *Journal of Comparative Germanic Linguistics*.

- (4) a. Bonden sagde, at somme tider er det svært at få solgt alt
The farmer said that sometimes is it difficult to get sold all
kødet. *Danish*
the meat
The farmer said that sometimes it is difficult to sell all the meat.
- b. Hanus segði, at viðhvørt er tað ringt at sleppa av við alt
Hanus said that sometimes is it difficult to sell all
kjötið. *Faroese*
the meat
Hanus said that sometimes it is difficult to sell all the meat.
- c. Hans sagði að stundum væri erfitt að selja allt kjötið. *Icelandic*
Hans said that sometimes was difficult to sell all the meat
Hans said that sometimes it is difficult to sell all the meat.

We used examples with fronted adjuncts to exemplify non-subject initial V2 rather than examples with fronted arguments because the latter typically require a discourse context involving some kind of contrast with the fronted argument;¹⁹ as our sentences were presented with no additional context all such sentences would therefore be likely to be judged of lower acceptability for reasons extraneous to the phenomena we wished to investigate.

For this experiment there were therefore three independent variables:

1. language (Danish, Icelandic, Faroese)
2. type of clause (main clause, bridge-verb complement, non-bridge predicate complement A (*regret, admit*), non-bridge verb predicate B (*doubt, deny, be proud*), indirect question)
3. word order (subject initial and nonsubject initial)

¹⁹ The decreased acceptability of EV2 in Icelandic when the initial constituent is an argument rather than an adjunct is noted in Jónsson 1996.

For each language, this yielded 10 different conditions. For each of these we constructed 3 different sentences: a total of 30 sentences in each language.

As discussed above, for the V-to-I experiment there were again three independent variables:

1. language (Danish, Icelandic, Faroese)
2. type of medial adverb (negation, “high” adverb *perhaps*, “low” adverb *often*)
3. relative order of finite verb and adverb (V-Adv and Adv-V)

For each language, this yielded 6 different conditions; again we constructed 3 sentences for each, a total of 18 sentences. In all cases the relevant verb appears in a restrictive relative clause, as this is a construction, like indirect questions, in which EV2 appears to be excluded even in Icelandic. The relative clause is always in the perfect, so that the finite verb is always the auxiliary *have*. This avoids any potential confound from a difference between auxiliaries and main verbs in the possibility of movement, as familiar from English but also reported in the acquisition of Swedish in Håkansson and Dooley-Collberg 1994 and found also in the Tromsø dialect of Northern Norwegian (Bentzen 2007a). It also guarantees that there is at least a past participle following the adverb, thus excluding a parse where the adverb is right-attached to the clause, rather than at the left edge of the VP, as discussed above.

- (5) a. Dette er brevet, som Tove ikke har læst. (*Danish*)
 that is the letter that Tove NEG has read
 That is the letter that Tove hasn't read.
- b. Þetta er bréfið sem Elín ekki hefur lesið. (*Icelandic*)
 that is the letter that Elin NEG has read
- c. Hetta er brævið, sum Elin ikki hevur lisið. (*Faroese*)
 that is the letter that Elin NEG has read

To these 48 sentences we added 29 fillers—16 fully grammatical sentences, and 13 ungrammatical sentences (with both morphological and syntactic errors). Thus each subject judged a total of 77 sentences.

3.2.3 Subjects

There were 35 Icelandic subjects (21 female, 14 male, mean age 43) and 32 Danish subjects (20 female, 12 male, mean age 41), all of whom identified themselves as being native speakers of the relevant languages. Subjects were contacted via email either directly or indirectly through linguists working in the relevant countries. All Icelandic and Danish subjects gave their judgments online.

There were a total of 47 Faroese subjects (24 female, 23 male, mean age 39). Further, because of the suggestion from Jonas 1996 that there might be dialectal variation between “Northern” and “Southern” speakers within the Faroes with respect to the acceptability of V-to-I, the Faroese speakers were initially divided into two groups, “Northern” speakers who were brought up and resident in the capital Tórshavn (25 subjects) and “Southern” speakers brought up and resident in the southernmost island of Suðuroy (22 subjects). As will be reported below, no dialect difference was found, so the results for all these speakers were subsequently pooled. The Faroese subjects

did not give their judgments online; the experiment was run locally on a laptop, in the presence of Zakaris Svabo Hansen.²⁰

3.2.4 Procedure

The sentences were presented to the subjects using the web program *WebExp2* (Keller et al. 1998, 2009). The subjects were first introduced to the idea of giving proportional judgments through a trial session involving line length; this was followed by a trial session of linguistic judgments before the sentences that comprised the experiment were presented, in a random order that was different for each participant. Sentences were presented one at a time on screen, with no opportunity to go back to earlier decisions.

4 Results

4.1 Dialect variation in Faroese

In order to test the hypothesis of Jonas 1996 that speakers in the southern islands are more likely to retain the V-to-I option than speakers from further north, including those from the capital Tórshavn, we checked to see whether there was any difference between our two groups of Faroese speakers in the judgments of the two orders V-Adv and Adv-V in relative clauses.²¹ To do this, we conducted a 3-way mixed ANOVA with Verb Placement (before or after adverb/negation) as one variable, Type of Adverb (Negation, “High” adverb *kanska* (perhaps) and “Low” adverb *ofta* (often)) as within-subject variables, and Dialect Area (North vs South) as the between-subject variable. The null hypothesis is that there will be no effect of dialect area, and no interaction between dialect area and any of the other variables. Conversely,

²⁰ There is a complication concerning the Faroese subjects, mentioned here to clarify why the number of Faroese subjects appears to vary between experiments. The experiment was initially run with 17 Faroese subjects, all from the Northern area. This version of the experiment did not include any examples of the second class of non-bridge verb complements (complements of *deny*, *doubt*, or *be proud*). At this point we became aware of the claims in Wiklund et al. 2009 that the purported nonbridge verbs we had included (*regret*, *admit*) in fact allowed embedded V2 in all the Scandinavian languages, and contrasted with true factives and negative verbs. We therefore amended the materials to include this additional level of the clause type variable before running the experiment on a further 30 subjects.

In order to make sure that this difference in materials did not affect the results, before running any of the analyses described below we ran mixed ANOVAs for the two experiments on the Faroese data alone, splitting the Faroese subjects into three experimental groups: the 17 Faroese subjects from the Northern dialect area who judged the original materials (Northern-1), the additional subjects from that area who judged the amended materials (Northern-2), and the subjects from the Southern dialect area who all judged the amended materials (Southern). In neither the EV2 nor the V-to-I experiment was there a significant main effect of experimental group (EV2: $F(2,44)=.69$, ns; V-to-I: $F(2, 44)=.02$, ns). Nor were there any significant interactions between experimental group and any of the linguistic factors.

Since these analyses showed that there was no reason to suppose that the difference in materials had made a difference to the results, in all subsequent analyses we do not separate out the subjects who saw the initial version of the materials, unless specifically indicated to the contrary.

²¹ Although it was not the main focus of our study, we present the results concerned possible dialect variation in Faroese first, since how we analyse the inter-language comparison depends on whether or not we can treat the Faroese speakers as a single group.

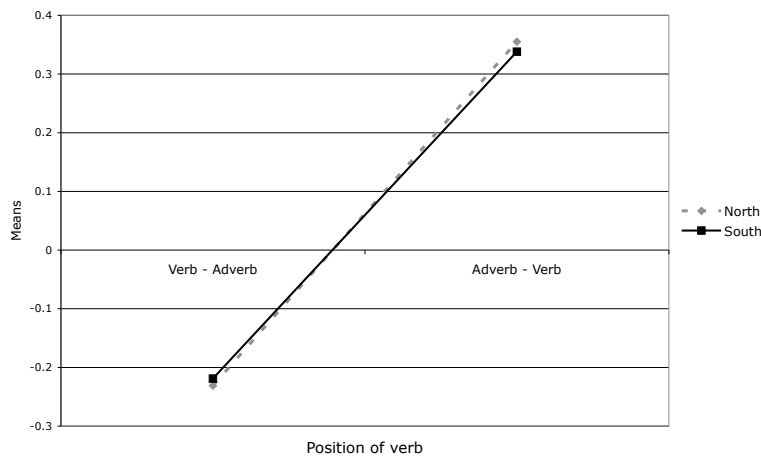


Fig. 1 The (non)effect of dialect area on verb placement in relative clauses in Faroese

the prediction from Jonas 1996 is that there will be an interaction between dialect area and verb placement: according to this hypothesis speakers from all dialect areas will find the Adv-V order acceptable, but Southern speakers should find the V-Adv order more acceptable than Northern speakers will. Indeed, Jonas suggests that for speakers of Faroese 1 the V-Adv order is preferred over Adv-V.

We found no main effect of dialect area (North vs. South): $F(1, 45) < .01$, ns). We also found no interaction of dialect area with either adverb type ($F(1, 45) = .58$, ns) or verb placement ($F(1, 45) = .07$, ns). For both groups there was a clear preference for the Adverb/Negation-Verb order. Figure 1 illustrates the lack of interaction between dialect group and verb placement.²²

There is no prediction in the literature concerning variability within Faroese concerning the availability of embedded verb second, but if a greater retention of a V-to-I grammar were part of a general “conservatism,” and if Faroese had evolved from a language similar to modern Icelandic in allowing EV2 more generally than the standard Mainland Scandinavian languages, we might expect EV2 also to be more available in a “conservative” dialect. We tested whether there was a dialect difference between Northern and Southern speakers with respect to EV2 by running a 3-way mixed ANOVA with Order (Subject-Initial vs Adjunct-Initial) and Clause Type (Main Clause, Bridge-Verb Complement, Non-Bridge-Verb Complement A, Indirect Question²³) as within-subjects variables and Dialect Area as the between-subjects

²² In this and all following figures, the units on the y axis are zscores of the log transformed results.

²³ As mentioned in footnote 20, 17 of the Faroese subjects did not judge sentences including examples of Non-Bridge-Verb Complement B (complements to *doubt*, *deny*, *proud*; that is, in this version of the

variable. In the event, also here we found no main effect of dialect area ($F(1,45)=.02$, ns), and no significant interaction of dialect area with either Order ($F(1,45)=.08$, ns) or Clause Type ($F(1,45)=.03$, ns).

4.2 Embedded Verb Second (EV2) in Faroese, Icelandic, Danish

As described above, in order to test the acceptability of EV2 in different clause types in the different languages we investigated the effects of one between-subject variable (Language: Faroese, Icelandic, Danish), and two within-subjects variables: Order (Subject-Initial vs Adjunct-Initial) and Clause Type (Main Clause, Bridge-Verb Complement, Non-Bridge-Verb A Complement, Non-Bridge-Verb B Complement, Indirect Question).²⁴ Because we expect Subject-Initial orders to be acceptable in all cases, and are only interested in the contrast between subject-initial and adjunct-initial orders, we took as a measure of the effect of V2 the difference between the subjects' responses for these two orders: that is, for each subject and each condition we subtracted the score for the subject-initial condition from the score for the adjunct-initial condition.²⁵ Note that this procedure means that if the adjunct-initial order is reported as less acceptable than the subject-initial order this measure will be negative. Thus in the ANOVA analysis, rather than an "Order" variable with two levels, we now have a dependent variable "Effect of V2."

We thus carried out a 2-way mixed ANOVA with Language as a between-subjects variable and Clause Type as a within-subjects variable. For both variables there was a significant main effect (Language: $F(2,94) = 16.60$, $p < .001$; Clause Type: $F(4,376) = 119.95$, $p < .001$). There was also a smaller, but still significant interaction between these two variables ($F(8,376) = 6.34$, $p < .001$).

The graph in Figure 2 plots the overall means for the three different languages (the error bars indicate the 95% confidence interval). Recall that the Y axis plots the difference between the subject-initial and non-subject initial orders: a score of zero represents no difference in acceptability between the two orders; the further below zero the score, the greater the dispreference for the adjunct-initial order. From the graph it appears that Faroese and Icelandic are similar to each other in the extent to which they disprefer adjunct-initial order, and different from Danish, where the dispreference is stronger.

A post-hoc Tukey's test confirms this impression: the difference between Icelandic and Danish is significant ($p < .001$), as is the difference between Faroese and Danish ($p < .001$), but there is no significant difference between Faroese and Icelandic.

As mentioned above, there was also a significant interaction between clause type and language: that is to say, the effect of clause type on the grammaticality of EV2 was not the same between all the three languages. Figure 3 illustrates this by plotting the three different languages separately:

materials the variable Clause Type had 4 rather than 5 levels. We thus excluded this condition from this ANOVA so that we could include data from all the Faroese subjects.

²⁴ For this comparison we excluded all the Faroese subjects who judged the set of sentences that did not include any examples of "Non-Bridge-Verb B" complements.

²⁵ The use of this kind of arithmetic operation is made possible because Magnitude Estimation yields interval data, one of the advantages of the methodology.

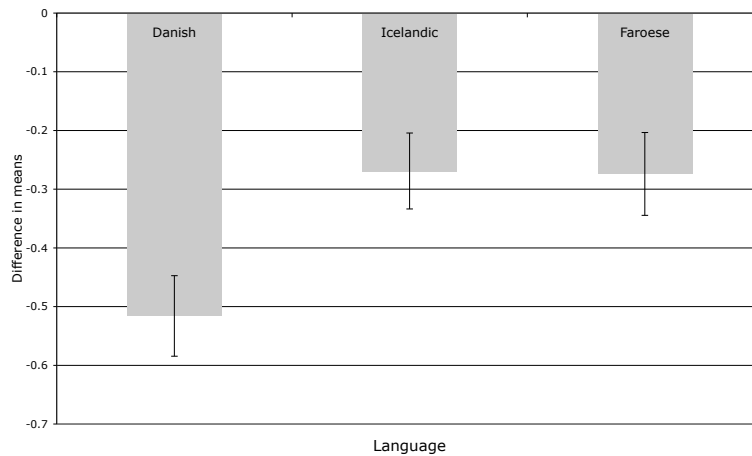


Fig. 2 The effect of Adjunct-initial V2, by language

As can be seen from the graph in Figure 3, in main clauses in all three languages adjunct-initial order is as acceptable as subject-initial order (that is, in all three languages the difference in scores between the two orders in main clauses is close to zero). Similarly, in all three languages adjunct-initial order is worst in indirect questions. However, while in Danish V2 is judged significantly less grammatical in the complement to *doubt*, *deny*, *be proud* (Non-Bridge Verb B) than it is in main clauses ($F(1,31)=53.48$, $p<.001$), in Faroese and Icelandic there is no significant difference in the grammaticality of V2 in these two contexts. In Faroese, in fact, the only context in which V2 is judged significantly less grammatical than in main clauses is in embedded questions ($F(1,29)=88.62$, $p<.001$); in Icelandic V2 in the complements to *say* and to *regret* and *admit* is slightly worse than in main clauses ($F(1,24)=15.47$, $p<.001$; $F(1,24)=13.38$, $p<.001$).

4.3 V-to-I in Faroese, Icelandic, Danish

As described in Section 3.2.2, we investigated the acceptability of V-to-I by comparing the judgments of sentences containing relative clauses, where the finite auxiliary *have* occurred before or after the negative marker (Faroese *ikki*, Danish *ikke*, Icelandic *ekki*), the adverb *perhaps* (Faroese *kanska*, Danish *måske*, Icelandic *kannski*), and the adverb *often* (Faroese *ofta*, Danish *ofte*, Icelandic *ofti*). As in the case of embedded V2, here we were primarily interested in the difference between two ordering possibilities (with the verb before or after the adverb), and we therefore took as a measure

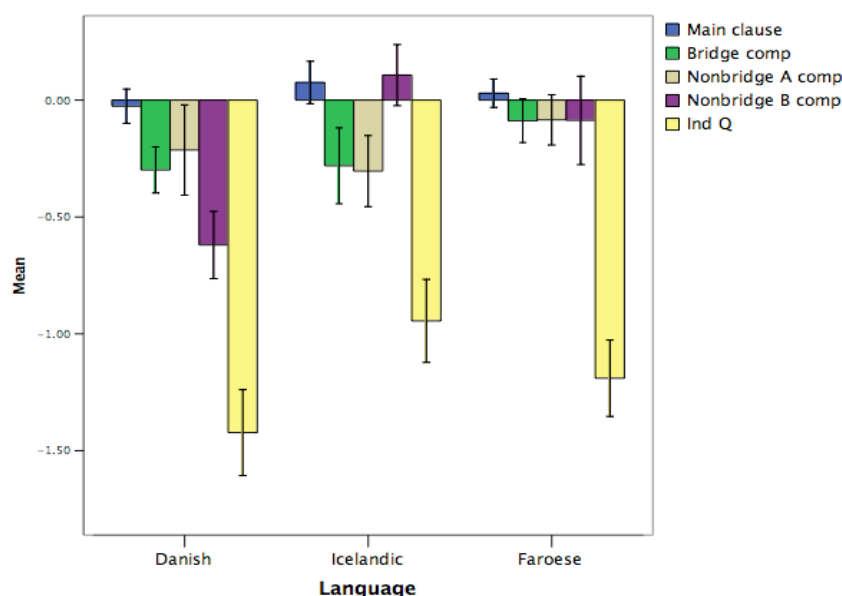


Fig. 3 The effect of Adjunct-Initial V2 in the different clause types, by language

of the acceptability of the V-Adv order the difference between the subjects' responses for these two orders, subtracting the score for the Adv-V order from the score for the V-Adv order. Thus if the V-Adv order is reported as less acceptable than the Adv-V order this measure will be negative.

We then carried out a 2-way mixed ANOVA with Language as a between-subject variable, as before, and Adverb Type as a within-subjects variable. We predicted that there would be a significant interaction between the two variables, as V-to-I is virtually obligatory in Icelandic, and ungrammatical in Danish.

For both variables there was a significant main effect (Language: $F(2,111)=126.45$, $p<.001$); Adverb Type: $F(2,222)=3.25$, $p<.05$). There was also a significant interaction between language and adverb type ($F(4,222)=3.09$, $p<.05$), as predicted.

Fig. 4 shows the effect of the verb moving to the left of Negation, the high adverb "perhaps," and the low adverb "often," in Icelandic, Faroese, and Danish. As expected, in Icelandic the order with the verb before the adverb is preferred in all cases, and there is no significant difference between the effect of the movement past

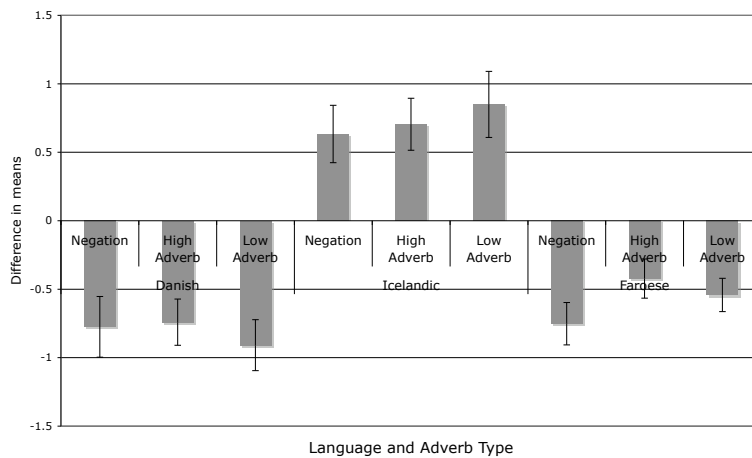


Fig. 4 The effect of the verb preceding three different types of adverb, by language

negation and past either of the two adverbs. Conversely, in Danish the Adverb-Verb order is consistently preferred; again there is no significant difference between the effect of the movement past negation and past either of the two adverbs. Faroese is similar to Danish in that the Adverb-Verb order is always preferred. As the graph suggests, the preference for the Neg-Verb order is as strong for Faroese as for Danish. In contrast to Danish, however, in Faroese movement past either the High Adverb or the Low Adverb was somewhat better than movement past Negation, and this difference was significant: ($F(1,46)=14.20, p<.001$; $F(1,46)=7.28, p<.05$).

5 Discussion

5.1 Dialect variation in Faroese

As is clear from the results presented in Section 4.1, our data do not support the speculation of Jonas 1996 that there is a dialectal difference between speakers from the southern islands and those from the capital, Tórshavn, with respect to the possibility or otherwise of V-to-I. Both sets of speakers had a clear preference for the Neg-Verb order, and there was no difference between the two groups in the extent of this preference. Thus our results provide support for the tentative conclusion of Thráinsson et al. 2004, p. 363 that north/south dialect differences do not play a role in any variation in the availability of V-to-I.

This does not exclude the possibility of other dialectal differences with respect to verb movement, as we only investigated speakers from the two localities of Tórshavn and Suðuroy. It seems that the discussions in the literature of a geographic dialect split with respect to V-to-I can in fact ultimately be traced back to the observation of Sandqvist 1981 that the author Heðin Brú used the “Icelandic” order almost exclusively in his writing, and that he stated himself that this was a feature of the dialect of his home village Skálavík on the southern island of Sandoy. Further, Thráinsson 2003, relying on earlier studies by Hagström 1967, Weyhe 1996, Thráinsson et al. 2004, notes that speakers in Tórshavn and Suðuroy are similar in their inflectional systems, both dialects having lost number distinctions in the regular past as a result of mergers of unstressed vowels, while the dialect in Sandoy retains a singular-plural distinction. Thus if there is a connection between richness of agreement and V-to-I, we might expect a dialectal difference between the former two dialect areas and that of Sandoy, rather than between Tórshavn and the other two. However, the only investigation of which we are aware that includes data specifically from Sandoy does not show any greater acceptability of V-to-I among speakers from that island (Bentzen et al. 2009).

5.2 Embedded Verb Second in Faroese, Icelandic and Danish

In Section 3.1.1 we set out the following questions concerning the distribution of Embedded Verb Second (EV2):

1. Do any or all of the languages studied group *regret* and *admit* with uncontroversial bridge verbs like *say* in admitting EV2, while disallowing EV2 in the complement of *deny*, *doubt* and *be proud*, as claimed in Wiklund et al. 2009 to be the case in Swedish, Norwegian, Faroese, and one variety of Icelandic? Or do all of *regret*, *admit*, *deny*, and *doubt* pattern together, as in the description of Vikner 1995?
2. Do we find evidence for a variety of Icelandic in which it patterns with Mainland Scandinavian (here represented by Danish) with respect to the distribution of EV2? Or only for a variety in which EV2 is permitted in contexts where it is ungrammatical in Danish (Rögnavaldsson and Thráinsson 1990, Vikner 1995)? Or both, as suggested in Vikner 1995, and argued for at more length in Jónsson 1996, Wiklund et al. 2009?
3. If Danish and Icelandic do differ with respect to EV2, does Faroese behave like Danish or like Icelandic or neither?

To begin with the first question: as was shown in Section 4.2, the judgments that we obtained for Danish were essentially as reported in Wiklund et al. 2009 for Swedish and Norwegian—and argued there to be valid for all varieties of Scandinavian apart from one variety of Icelandic. Nonsubject-initial orders were somewhat dispreferred in comparison to subject-initial orders after *beklage* ‘regret’ and semifactive *indrømme* ‘admit’, but no more than after the reportative *sige* ‘say’. The nonsubject-initial order was significantly worse after the inherently negative verbs *tvivle på* ‘doubt’ and *nægte* ‘deny’ and factive *være stolt af* ‘be proud’. Thus our results support the conclusions of Julien 2007 and Wiklund et al. 2009 that the class

of verbs disallowing EV2 in their complements should not include semifactives, and also the observation that *regret*, despite its factivity, may license EV2.²⁶ We noted in footnote 15 that Julien 2007 argues that even factive predicates like *be proud* can allow EV2. We did not set up our materials to test this hypothesis, as we grouped *be proud* together with the inherently negative verbs. There are probably differences between the individual cases, as shown in Figure 5, which disaggregates the means for the effect of EV2 by the embedding predicate, but if anything it suggests a division between *deny* and *be proud* on the one hand, and *doubt* on the other, rather than a division between the two inherently negative verbs on the one hand and the factive on the other.

With respect to our second question—whether Icelandic and Danish pattern alike with respect to the distribution of EV2—we arrive at rather a different conclusion to the one that can be extrapolated from Bentzen et al. 2007 (although that paper compares Icelandic with Faroese, Swedish and Norwegian, and does not contain any data from Danish itself). As noted in Section 4.2 we found that although Icelandic and Danish speakers were similar in the extent to which they tolerated EV2 after *say*, *regret*, and *admit*, they differed in their judgments of EV2 after *doubt*, *deny* and *be proud*. As illustrated in Figure 3, overall Icelandic speakers did not judge the nonsubject-initial orders to be significantly worse than the canonical subject-initial order after these predicates, in contrast to the clear dispreference shown by Danish speakers. Figure 5 suggests that there may be differences between the individual predicates, or possibly just the different examples (note that speakers judged only one token each of subject-initial and adjunct-initial orders for each individual predicate within the “Non-bridge verb (B)” class). However, it should be observed that for each predicate the Danish speakers show a greater dispreference for the nonsubject-initial order than the Icelandic speakers. We therefore conclude that Rögnvaldsson and Thráinsson 1990 and Vikner 1995 were right in arguing that the distribution of EV2 is different in these two languages, and that Icelandic allows EV2 in a wider range of contexts than Danish.

The comparison of Danish and Icelandic is made harder by the possibility, discussed above, that there may be two variants of Icelandic, one of which allows EV2

²⁶ The fact that the Icelandic results show a small dispreference for EV2 in the complement to *say* and the (A) class of “non-bridge” verbs (*regret* and *admit*) is unexpected given the consensus in the literature about the first case, and the fact that they show no such dispreference for EV2 in the complement of the (B) class of “nonbridge” predicate (*deny*, *doubt*, *be proud*). This last case will be discussed below; with respect to the first two cases, it appears that this may be the result of extraneous factors in the materials. The two adjunct-initial initial cases in (ia,b) were given anomalously low scores:

- (i) a. Torfi sagði að á morgun komi hann seint til vinnu.
Torfi said that tomorrow comes he late to work
Torfi said that he will be late to work tomorrow.
- b. Bílstjórinn viðurkenndi að í gærkvöldi keyrði hann of hratt.
the driver admitted that last night drove he too fast
The driver admitted that last night he drove too fast.

It appears that this is due to an infelicitous choice of tense in the subordinate clause: although the original examples were constructed and checked by native speakers of Icelandic, speakers who we have consulted subsequently have told us that, regardless of order, present tense *komi* in (ia) is awkward (past tense *kæmi* is preferred), and that the pluperfect subjunctive is preferred in (ib) (*hefði keyrt* rather than *keyrði*).

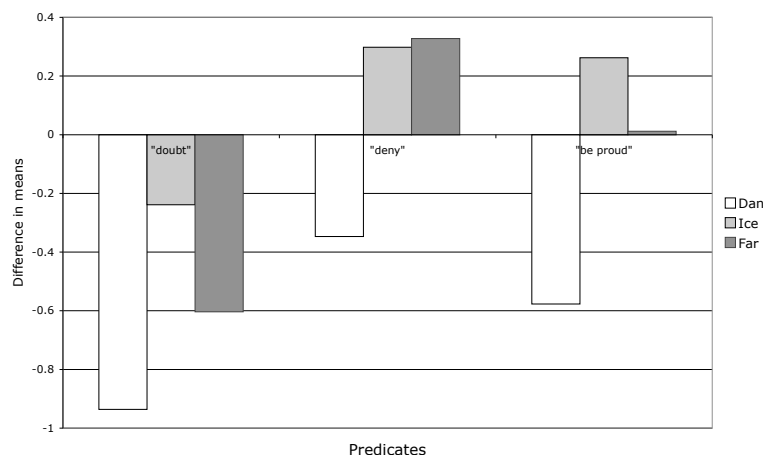


Fig. 5 The effect of Adjunct-Initial V2 after *doubt*, *deny*, and *be proud*

even after negative and factive predicates, and one which does not. If this split were reflected in our subjects, we would expect that some subjects would pattern like the Danish speakers in clearly dispreferring EV2 after *doubt*, *deny*, and *be proud*, while others would show no such dispreference; this could show up in our pooled results as “weak” dispreference (the strength or weakness depending on the proportion of the two types of speaker in the subject pool). There are two reasons for rejecting this possibility. One is that, as already illustrated in 3, the Icelandic results for EV2 in the complement of these verbs show no overall dispreference for the adjunct-initial order at all in this context, not even a “weak” dispreference. The second is that if our subjects fell into two groups with respect to the possibility of EV2 in the complement of these predicates, we would expect to find a bimodal distribution in their judgments. As Figure 6 illustrates, however, there is no evidence for this in the relevant Icelandic data. Thus, while it remains possible that there is such a dialect split within Icelandic, and in fact we believe that a detailed investigation of this possibility would be of great interest, there was no evidence for such a split among the 35 speakers who participated in our experiment.

When our results concerning EV2 are compared to those reported in Wiklund et al. 2009 and elsewhere, it is important to bear in mind that all of the cases of nonsubject-initial clauses that we elicited judgments for have a local sentential adjunct in initial position (an adjunct that has not been extracted from a further embedded clause). One example (cited here without judgments) from Icelandic, Danish and Faroese is given in (6a–c); the other examples can be found in the complete list available on the website.

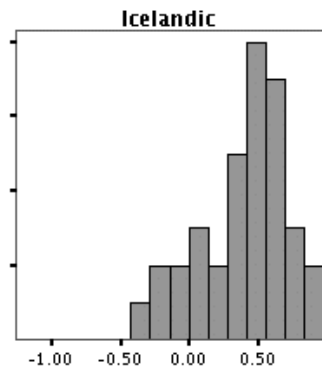


Fig. 6 Distribution of judgments of adjunct-initial order in the complements to *doubt*, *deny*, and *be proud*

- (6) a. Einar neitaði að í mörgum tilvikum hefði hann drukkið alla nóttina
 Einar denied that on many occasions had he drunk all night
 á barnum. *Icelandic*
 in bar-DEF
 Einar denied that on many occasions he had been drinking all night in
 the bar.
- b. Kasper nægtede, at flere gange havde han drukket hele natten i
 Kasper denied that many times had he drunk all night in
 baren. *Danish*
 bar-DEF
 Kasper denied that on many occasions he had been drinking all night in
 the bar.
- c. Einar noktaði, at í fleiri førum hevði hann drukkið alla náttina
 Einar denied that on many occasions had he drunk all night
 á barrini. *Faroese*
 in bar-DEF
 Einar denied that on many occasions he had been drinking all night in
 the bar.

As mentioned earlier, it has been noted in previous work that EV2 in Icelandic may be less acceptable when the initial nonsubject constituent is an argument than when it is an adjunct (see for example Jónsson 1996, p. 42). The general assumption in work on V2 to date appears to be that there is no syntactic reason for this effect.²⁷

²⁷ This assumption may well be incorrect. In work on the left periphery of non-V2 languages, it has been argued that “topicalised” local adjuncts may appear in a different, lower, position than fronted arguments. Haegeman 2003b, p. 642 notes that in English, for example, topicalisation of arguments is restricted to “root clauses or clauses with root behavior,” but that this is not true of local adjuncts (adjuncts that have not been moved from a lower clause):

- (i) a. *If these exams you don’t pass, you won’t get the degree.
 b. If next week you cannot get hold of me, try again later.

At least, though, the effect on acceptability should be borne in mind when comparing judgments from different studies; depending on the strength of the effect, this could account for some of the differences between our data from Icelandic and the conclusions in Bentzen et al. 2007, where the examples cited all involve fronting of an internal argument.

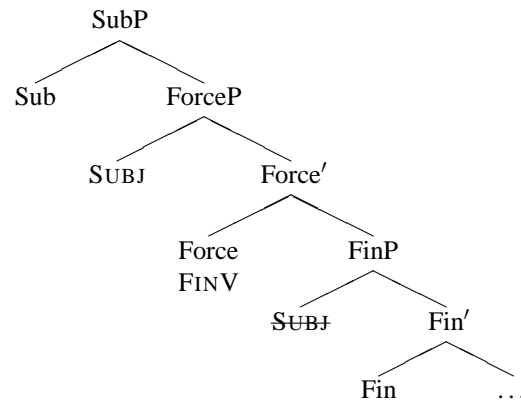
We have now addressed the first and second question reiterated at the beginning of this section, and we now turn to the last. Having established that Danish and Icelandic do not behave alike with respect to EV2, does Faroese pattern like Danish, like Icelandic, or does it show yet another pattern? The answer from our results is that Faroese patterns together with Icelandic. As discussed in Section 4.2, while both Icelandic and Faroese differed significantly from Danish in the overall effect of EV2, there was no significant difference between Faroese and Icelandic. The breakdown of these results by clause type and language shown in Figure 3 makes it clear in particular that EV2 is available even after the class of predicates that in Danish produce a significant drop in judgments of acceptability.

What kind of analysis can be given for the different distributions of EV2 that we have found between Icelandic and Faroese on the one hand and Danish on the other? In Julien 2007 it is proposed that EV2 is possible when the semantics/pragmatics of the embedding context allow a projection of Force to be included in the embedded clause: this head is what carries the illocution of “assertion.” The Force head, which carries an unvalued finiteness feature, and attracts the finite verb, also has an EPP feature, so that both the head and the specifier of the projection are filled by movement. If Force selects FinP directly, the closest XP will be the subject (or, in order to account for the behaviour of sentential adjuncts, we may hypothesise an optional Mod[ifier]P in addition). However, Force can also select a Top[ic]P—which, crucially for the account of EV2, cannot occur unless it is so selected. In this case whatever element carries some “Topic” feature and has moved to Spec,TopP will move further to Spec,ForceP, resulting in nonsubject-initial V2. The derivations that Julien proposes for these two cases of EV2 are set out in (7), where “Sub” is *subjunction*, a “pure” marker of subordination, expressed independently of Force, as in Bhatt and Yoon 1991, Haegeman 2002, 2003a.

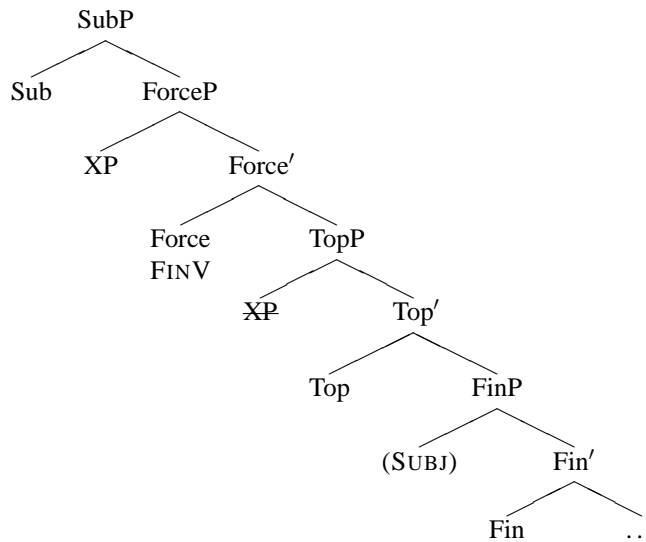
-
- (ii) a. *When her regular column she began to write for the *Times*, I thought she would be OK.
 b. When last month she began to write a regular column for the *Times*, I thought she would be OK.

If in fact Icelandic and the Mainland Scandinavian languages differ in the availability of EV2 for local adjuncts and subjects, but topicalised nonsubject arguments are ruled out in non-asserted embedded contexts in both sets of languages, one could pursue the possibility that the difference between Icelandic and the Mainland Scandinavian languages comes down to the possibility in Icelandic of exhibiting V2 in some lower projection that includes the position for sentential adjuncts but not the higher Topic projection that is licensed by Force. For now we have to leave this more thorough crosslinguistic comparison of EV2 to further research.

(7) a.



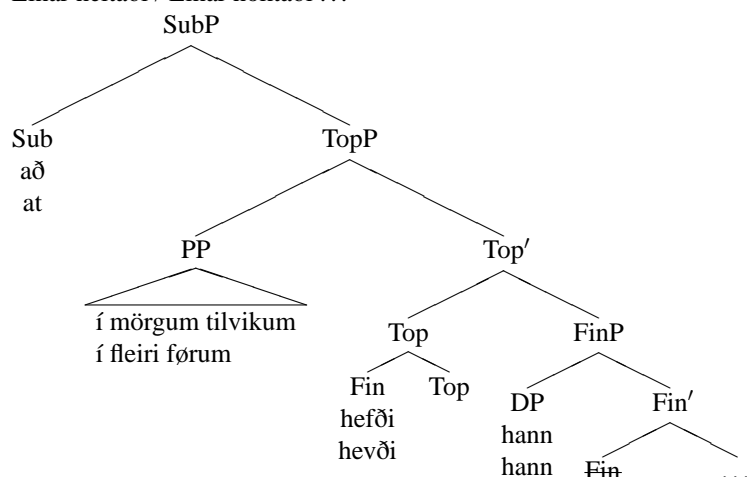
b.



The minimal change that we could make to this proposal to accommodate the possibility of EV2 in Icelandic and Faroese in nonasserted contexts such as the complement to inherently negative verbs would be to propose that in these languages **TopP** does not require licensing by **Force**, but can instead occur independently of it. Under such an analysis, Icelandic and Faroese, but not Danish, would allow the derivation in (8) for the example in (6a):²⁸

²⁸ In theory, one consequence of such an analysis would be that subject-initial V2 clauses after verbs like *deny* in Icelandic should only be possible if the subject had the discourse status of "Topic." However, since we know that Icelandic has V-to-I, there is no way to test this prediction: while in the Mainland Scandinavian languages, lacking V-to-I, there is a diagnostic for V2 even in subject-initial clauses (the verb precedes negation), in Icelandic there would be no independent evidence for whether or not a subject-initial clause had the subject in **Spec,TopP** or **Spec,FinP**.

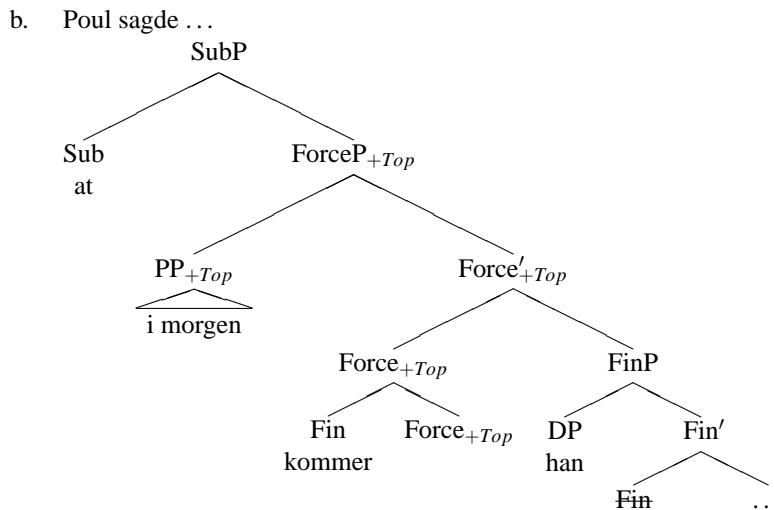
(8) Einar neitaði / Einar noktaði ...



This approach would be similar in spirit to the proposal in Jónsson 1996, p. 39, modulo the difference that that is couched in terms of CP recursion.

It is a notable feature of this kind of analysis for the Mainland Scandinavian languages, however, that not only does TopP never occur without an immediately dominating ForceP, but when they do occur together both the specifier and the head of TopP always move to occupy the equivalent positions in ForceP. Potentially a more explanatory analysis of the difference between these languages and Icelandic/Faroese, then, is that ForceP and TopP are distinct in Icelandic and Faroese, but that they are fused in Danish (and the other Mainland Scandinavian languages), along the lines proposed for TP and AgrP in Thráinsson 1996, Bobaljik and Thráinsson 1998. Under this proposal, ForceP in Mainland Scandinavian might have Topic features or might lack them, but these features would not be instantiated as an independent head. It would of course follow directly that in the absence of Force there would be no V2 (note that the need for TopP to be licensed by Force in the analysis of Julien 2007 has to be stipulated). The analysis of a Danish example like (9a) would therefore be as in (9b):

- (9) a. Poul sagde, at i morgen kommer han sent på arbejde.
 Poul said that tomorrow comes he late to work
 Paul said that he would be late for work tomorrow.



In Icelandic and Faroese, on the other hand, ForceP and TopP would be distinct projections. Just as Bobaljik and Thráinsson 1998 argued that the postulation by children of distinct heads for Tense and Agreement may arise in the absence of overt morphological heads as long as there is syntactic evidence available, this split structure could in principle be maintained without specific morphological evidence. In fact, it is at least conceivable that it could be reinforced in Faroese because of generational differences in the course of the loss of V-to-I. Consider the situation of a speaker who has lost this option in their grammar (or at least who expects it to occur only infrequently). How might they accommodate input from a speaker with a higher rate of V-to-I? One possibility would be precisely to attribute the position of the finite verb before negation to V2. Thus it is possible that in the intermediate stages of the loss of V-to-I, the mixed input favours the postulation of general EV2, and the split ForceP/TopP structure.

5.3 V-to-I in Faroese

The discussion has now brought us back to our original question: the status of V-to-I in contemporary Faroese. As was shown in Section 4.3, our results indicate that overall the 47 Faroese speakers who took part in our study judged the order with the finite verb preceding the sentential negator *ikki* (V-Neg) to be as degraded with respect to the Neg-V order as the Danish speakers did for the equivalent in Danish. That is, for these Faroese speakers verb movement past negation in a context where V2 is excluded is no more grammatical than it is in Danish, contrary to the speculation in Thráinsson 2003. Our results therefore support the conclusions of Vikner 1995, Petersen 2000 that the change from a system in which V-to-I is at least one option is either complete or at least very near completion. The difference that we did find between the Danish and Faroese speakers was in the narrowing in the gap between

the Adverb-Verb and Verb-Adverb order when the verb moved not past negation, but past an epistemic or frequency adverb, for the Faroese speakers only. The effect is a small one, but it did reach statistical significance. It raises the possibility that at least some Faroese speakers may have the system that is described for Regional Northern Norwegian in Bentzen 2007c, in which the finite verb optionally moves above a range of adverbs, but not above negation. Further, a similar finding concerning the special status of negation with respect to other adverbs in Faroese is also reported in Bentzen et al. 2009. It should be noted, however, that for the Faroese speakers, although the dispreference for the Verb-Adverb order was less for *kanska* 'perhaps' and *ofta* 'often' than for *ikki* 'not,' there is still a strong preference for the finite verb to remain below the adverb; it is not clear to us whether this is true to the same extent in the relevant Norwegian dialects. One interesting question that also remains to be investigated is whether there is any diachronic evidence for a clearer distinction of this nature at a stage when verb movement was more generally accepted in Faroese.²⁹

6 Conclusion and Outlook

As originally conceived, this study was intended to elucidate the current status of verb movement in Faroese by comparing it with two languages that are commonly taken to instantiate the kinds of grammar from which and toward which Faroese has been changing, and which have been the subject of much more systematic investigation over a longer time period than has yet been possible for Faroese. We believe that this method has yielded some new and useful insights into the syntax of contemporary Faroese, and at the same time that it has enabled us to shed some further light on the syntax of embedded verb second in all three of the languages examined.

Syntactic theory has made enormous progress over the last half century through testing theories against the results of detailed comparisons between languages, but where judgments are less than categorical it has remained a problem to know how to compare reliably data from different languages. We hope that this study will contribute not only to a better theoretical understanding of the syntax of verb movement, but also to improved methodologies for extending this understanding. Our use of Magnitude Estimation has enabled us to make a quantitative comparison between Faroese, Icelandic, and Danish that has supported some claims that have been made in the literature but contradicted others. We have been able to show that there is no quantifiable difference between Faroese and Danish with respect to the grammaticality of verb movement above negation; something that has been asserted in a number of studies in the past, but that has lacked solid empirical support. We have also been able to show not only that verb movement above negation differs from verb movement above other adverbs in Faroese, but that this pattern contrasts with the situation in Danish. Finally, we have been able to make a systematic comparison of embedded

²⁹ As pointed out by one reviewer, this pattern—whether in Faroese or Regional Northern Norwegian—immediately gives rise to a “Bobaljik paradox” of transitivity (Bobaljik 1999): *perhaps* can—and preferentially does—precede negation in both languages, so to the extent that the finite verb can precede *perhaps* we would expect it to precede negation. We do not pursue this problem here, but refer the reader to the discussions in Bobaljik 1999, Nilsen 2003.

verb second in these three languages even though the relevant judgments are often somewhat intermediate, and have shown that here Faroese shows the same freedom as Icelandic (contrary to the hypotheses of Vikner 1995, Koenenman 2000 that V-to-I and general embedded V2 necessarily pattern together). While our conclusions may turn out ultimately to be incorrect, we consider it important that we have been able to set out clearly how they are supported, and hence what it would take to disprove them.

As always, much work remains to be done, even on the issues that we address directly here. Although we found no regional differences in the acceptability of V-to-I in Faroese, we did not in this study set out to investigate whether there are generational differences. Age was in fact claimed in Jonas 1996 to be the main predictor for the acceptability of V-to-I, and of course this is expected if the language is still in the process of change. In the project of which the work reported here is one part, we are currently investigating the possibility of generational differences in the acceptability of this and other phenomena that have been argued to be parametrically related. Research that lies outside the scope of our current work on Faroese but that we believe is of significant theoretical interest is the further investigation of crosslinguistic differences in the distribution of Embedded Verb Second, in particular comparing the patterns observed in the Scandinavian languages to those found in Dutch and German, and pursuing more thoroughly the question of whether Icelandic does exhibit the dialectal difference that has been much discussed but was absent from our data.

Acknowledgements This research is funded by a grant from the UK Arts and Humanities Research Council for the project *Verb movement in contemporary Faroese*; we gratefully acknowledge this support. The work would not have been possible without the generous help of Neil Mayo, Frank Keller, and Cedric Macmartin, who spent a considerable time assisting us in setting up the experiments on WebExp and extracting the data; Snorri Rafnsson, Gunnar Hrafnbjargarson, and Þórunn Blöndal, who helped us with the Icelandic version of the experiment, Bergur Rønne Moberg, who helped us with the Danish version, Anna Hatzidaki, who helped with the statistical analysis, and all the Danish, Faroese, and Icelandic participants who gave of their time to work with us. We also thank Sten Vikner, Ásgrímur Angantýsson, Jóhannes Gísli Jónsson, and three anonymous referees for their helpful comments. None of the above named is of course responsible for any of the use that we have made of their assistance, or our interpretation of the data.

References

- Andersson, L.-G. (1975). *Form and Function of Subordinate Clauses*. Ph. D. thesis, University of Göteborg.
- Angantýsson, Á. (2001). Skandinavísk orðaröð í íslenskum aukasetningum. *Íslenskt mál* 23.
- Angantýsson, Á. (2007). Verb-third in embedded clauses in Icelandic. *Studia Linguistica* 61(3), 237–260.
- Bard, E., D. Robertson, and A. Sorace (1996). Magnitude Estimation of linguistic acceptability. *Language* 72, 32–68.
- Barnes, M. (1992). Faroese syntax—achievements, goals and problems. *The Nordic Languages and Modern Linguistics* 7, 17–37.
- Barnes, M. (2001). *Faroese Language Studies*. Number 5 in *Studia Nordica*. Tórshavn and Oslo: Føroya Fróðskaparfelag and Novus forlag.

- Barnes, M. and E. Weyhe (1994). Faroese. In E. König and J. van der Auwera (Eds.), *The Germanic Languages*, pp. 190–218. London: Routledge.
- Bentzen, K. (2005). What's the better move? On verb placement in Standard and Northern Norwegian. *Nordic Journal of Linguistics* 28(2), 153–188.
- Bentzen, K. (2007a). The degree of verb movement in embedded clauses in three varieties of Norwegian. *Nordlyd (Tromsø Working Papers in Language and Linguistics)* 34, 127–146.
- Bentzen, K. (2007b). Kronoby revisited: Verb movement in embedded non-V2 contexts in Northern Ostrobothnian. *Nordlyd (Tromsø Working Papers in Language and Linguistics)* 35.
- Bentzen, K. (2007c). *Order and Structure in Embedded Clauses in Northern Norwegian*. Ph. D. thesis, University of Tromsø.
- Bentzen, K., P. Garbacz, C. Heycock, and G. H. Hrafnbjargarson (2009). On variation in Faroese verb placement. Ms., University of Tromsø, University of Lund, University of Edinburgh.
- Bentzen, K., G. H. Hrafnbjargarson, Þ. Hróarsdóttir, and A.-L. Wiklund (2007). The Tromsø guide to the force behind V2. *Working Papers in Scandinavian Syntax* 79, 93–118.
- Bhatt, R. and J. Yoon (1991). On the composition of COMP and parameters of V2. In *Proceedings of WCCFL 10*, Stanford, pp. 41–52. CSLI.
- Bobaljik, J. (1999). Adverbs: the hierarchy paradox. *GLoT International* 4, 27–28.
- Bobaljik, J. (2002). Realizing Germanic inflection: Why morphology does not drive syntax. *Journal of Comparative Germanic Linguistics* 6(2), 129–167.
- Bobaljik, J. and H. Thráinsson (1998). Two heads aren't always better than one. *Syntax* 1(1), 37–71.
- Cinque, G. (1999). *Adverbs and Functional heads: A Cross-Linguistic Perspective*. Oxford University Press.
- de Haan, G. (2001). More is going on upstairs than downstairs. *Journal of Comparative Germanic Linguistics* 4, 3–38.
- den Besten, H. (1983). On the interaction of root transformations and lexical deletive rules. In W. Abraham (Ed.), *On the Formal Syntax of the Westgermania*, pp. 47–131. Amsterdam: John Benjamins. Draft version circulated in 1977.
- Falk, C. (1993). *Non-Referential Subjects in the History of Swedish*. Ph. D. thesis, University of Lund.
- Featherston, S. (2005). Magnitude estimation and what it can do for your syntax: Some wh-constraints in German. *Lingua* 115, 1525–1550.
- Gärtner, H.-M. (2003). How Icelandic can you be, if you speak Icelandic B? In L.-O. Delsing, C. Falk, G. Josefsson, and H. Sigurðsson (Eds.), *Festschrift for Christer Platzack*, Volume II of *Grammar in Focus*, pp. 115–122. Department of Scandinavian Languages, Lund University.
- Gregersen, F. and I. L. Pedersen (1997). Hovedsætningsordstilling i underordnede sætninger. *Dansk folkemål* 39, 55–112.
- Haegeman, L. (2002). Anchoring to Speaker, adverbial clauses and the structure of CP. In S. Mauck and J. Mittelstaedt (Eds.), *Georgetown University Working Papers in Theoretical Linguistics*, Volume 2, pp. 117–180. Georgetown University.

- Haegeman, L. (2003a). Conditional clauses: external and internal syntax. *Mind and Language* 18, 317–339.
- Haegeman, L. (2003b). Notes on long adverbial fronting in English and the left periphery. *Linguistic Inquiry* 34, 640–649.
- Hagström, B. (1967). Ändelsevokalerna i färöiskan. En fonetisk-fonologisk studie. *Stockholm Studies in Scandinavian Philology* 6 6.
- Håkansson, G. and S. Dooley-Collberg (1994). The preference for modal + neg: an L2 perspective applied to Swedish L1 children. *Second Language Research* 10, 95–124.
- Heycock, C. (2006). Embedded root phenomena. In M. Everaert and H. van Riemsdijk (Eds.), *The Blackwell Companion to Syntax*, Volume II, Chapter 23, pp. 174–209. Oxford: Blackwell.
- Heycock, C., A. Alderson, J. Brennan, G. Fischer, V. Gall, N. Gregoire, T. Juvonen, T. Kelly, S. Kruss, J. Pope, and S. Sanchez-Romero (2003). Verb movement and the Philosopher’s Stone. Ms., University of Edinburgh.
- Heycock, C. and A. Sorace (2007). Verb movement in Faroese: New perspectives on an old problem. *Nordlyd (Tromsø Working Papers in Language and Linguistics)* 35.
- Heycock, C., A. Sorace, Z. S. Hansen, and F. Wilson (2009). Rediscovering an auxiliary/main verb distinction in Scandinavian children. Paper presented at GALA 2009.
- Holmberg, A. and C. Platzack (1991). On the role of inflection in Scandinavian syntax. In W. Abraham, W. Kosmeijer, and E. Reuland (Eds.), *Issues in Germanic Syntax*, pp. 93–118. Berlin: Mouton de Gruyter.
- Holmberg, A. and C. Platzack (1995). *The Role of Inflection in the Syntax of the Scandinavian Languages*. Oxford: Oxford University Press.
- Hooper, J. and S. Thompson (1973). On the applicability of root transformations. *Linguistic Inquiry* 4.4, 465–499.
- Hróarsdóttir, Þ., A.-L. Wiklund, K. Bentzen, and G. H. Hrafnbjargarson (2007). The afterglow of verb movement. *Working Papers in Scandinavian Syntax* 80, 45–75.
- Jonas, D. (1996). *Clause Structure and Verb Syntax in Scandinavian and English*. Ph. D. thesis, Harvard University.
- Jónsson, J. G. (1996). *Clausal Architecture and Case in Icelandic*. Ph. D. thesis, University of Massachusetts, Amherst.
- Julien, M. (2007). Embedded V2 in Norwegian and Swedish. *Working Papers in Scandinavian Syntax* 80, 103–161.
- Keller, F. (2000). *Gradience in Grammar: Experimental and Computational Aspects of Degrees of Grammaticality*. Ph. D. thesis, University of Edinburgh.
- Keller, F., M. Corley, S. Corley, L. Konieczny, and A. Todirascu (1998). Web-Exp: A Java toolbox for web-based psychological experiments. Technical Report HCRC/TR-99. Technical report, Human Communication Research Centre, University of Edinburgh.
- Keller, F., S. Gunasekharan, N. Mayo, and M. Corley (2009). Timing accuracy of web experiments: A case study using the WebExp software package. *Behavior Research Methods* 41(1), 1–12.
- Koenenman, O. (2000). *The Flexible Nature of Verb Movement*. Ph. D. thesis, Utrecht University.

- Kroch, A. (1989). Reflexes of grammar in patterns of language change. *Language Variation and Change* 1.3.
- Kroch, A. (2001). Syntactic change. In M. Baltin and C. Collins (Eds.), *The Handbook of Contemporary Syntactic Theory*, pp. 629–739. Malden, MA: Blackwell.
- Kühl, K. H. and H. P. Petersen (2009). Converging verbal phrases in related languages: A case study from Faro-Danish and Danish-German language contact situations. In K. Braunmüller and J. House (Eds.), *Convergence and Divergence in Language Contact Situations*, Volume 8 of *Hamburg Studies on Multilingualism*, pp. 101–124. John Benjamins.
- Lockwood, W. B. (1977). *An Introduction to Modern Faroese*. Tórshavn: Føroya Skúlabókgagrunnur (First published in 1955, reprinted in 2002).
- Meinunger, A. (2004). Verb position, verbal mood, and the anchoring (potential) of sentences. In H. Lohnstein and S. Trissler (Eds.), *The Syntax and Semantics of the Left Periphery*, pp. 313–341. Mouton de Gruyter.
- Meinunger, A. (2006). On the discourse impact of subordinate clauses. In V. Molnár and S. Winkler (Eds.), *The Architecture of Focus*, Volume 82 of *Studies in Generative Grammar*, pp. 459–487. Berlin: Mouton de Gruyter.
- Nilsen, Ø. (2003). *Eliminating Positions: Syntax and Semantics of Sentential Modification*. Ph. D. thesis, University of Tromsø.
- Ottósson, K. (1989). VP-specifier subjects and the CP/IP distinction in Icelandic and Mainland Scandinavian. *Working Papers in Scandinavian Syntax* 44, 89–100.
- Pedersen, I. L. (1996). “Der kan jo være nogen der kan itte tåle det.” Om hovedsætningsordstilling i bisætninger. In B. J. Nielsen and I. L. Pedersen (Eds.), *Studier i talesprogsvariation og sprogkontakt*, pp. 242–251. Copenhagen: Reitzel.
- Petersen, H. P. (2000). IP or TP in Modern Faroese. *Working Papers in Scandinavian Syntax* 66, 75–83.
- Platzack, C. (1988). The emergence of a word order difference in Scandinavian subordinate clauses. In McGill Working Papers in Linguistics, Special Issue on Comparative Germanic Syntax.
- Platzack, C. and A. Holmberg (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* 20.3, 365–424.
- Roberts, I. (1999). Verb movement and markedness. In M. DeGraff (Ed.), *Language Creation and Language Change*, Chapter 10, pp. 287–327. MIT Press.
- Rögnvaldsson, E. and H. Thráinsson (1990). On Icelandic word order once more. In J. Maling and A. Zaenen (Eds.), *Modern Icelandic Syntax*, Number 24 in *Syntax and Semantics*. Orlando: Academic Press.
- Rohrbacher, B. (1999). *Morphology-driven Syntax: A Theory of V to I Raising and pro-Drop*, Volume 15 of *Linguistik Aktuell*. Amsterdam/Philadelphia: John Benjamins.
- Sandqvist, C. (1981). Några karakteristiska drag in Heðin Brús språk. *Bókatíðindi* 1, 19–32.
- Schwartz, B. and S. Vikner (1990). All verb second clauses are CPs. In *Working Papers in Scandinavian Syntax* 43, pp. 27–49.

- Sorace, A. (to appear). Magnitude estimation in language acquisition research. In S. Unsworth and E. Blom (Eds.), *Experimental Methods in Language Acquisition*. Amsterdam: John Benjamins.
- Sprouse, J. (2007). *A program for experimental syntax: Finding the relationship between acceptability and grammatical knowledge*. Ph. D. thesis, University of Maryland, College Park.
- Stevens, S. S. (1957). On the psychophysical law. *Psychological Review* 64, 153–181.
- Stevens, S. S. (1971). Issues in psychophysical measurement. *Psychological Review* 78, 426–450.
- Stevens, S. S. (1975). *Psychophysics: Introduction to its perceptual, neural, and social prospects*. New York: Wiley.
- Sundquist, J. D. (2002). *Morphosyntactic change in the history of the mainland Scandinavian languages*. Ph. D. thesis, Indiana University.
- Sundquist, J. D. (2003). The rich agreement hypothesis and Early Modern Danish embedded-clause word order. *Nordic Journal of Linguistics* 26(2), 233–258.
- Thráinsson, H. (1996). On the (non)-universality of functional projections. In W. Abraham, S. Epstein, H. Thráinsson, and J.-W. Zwart (Eds.), *Minimal Ideas*, pp. 253–281. Amsterdam: John Benjamins.
- Thráinsson, H. (2003). Syntactic variation, historical development, and minimalism. In R. Hendrick (Ed.), *Minimalist Syntax*, Chapter 4, pp. 152–191. Oxford: Blackwell.
- Thráinsson, H., H. P. Petersen, J. í Lon Jacobsen, and Z. S. Hansen (2004). *Faroese: An Overview and Reference Grammar*. Tórshavn: Faroese Academy of Sciences.
- Vikner, S. (1994). Finite verb movement in Scandinavian embedded clauses. In D. Lightfoot and N. Hornstein (Eds.), *Verb Movement*, pp. 117–147. Cambridge: Cambridge University Press.
- Vikner, S. (1995). *Verb Movement and Expletive Subjects in the Germanic Languages*. Oxford, New York: Oxford University Press.
- Vikner, S. (1997). V⁰-to-I⁰ movement and inflection for person in all tenses. In L. Haegeman (Ed.), *The New Comparative Syntax*, Chapter 8, pp. 189–213. Edinburgh: Longman.
- Waldmann, C. (2008). *Input och Output: Ordföljd i svenska barns huvudsatser och bisatser*. Ph. D. thesis, Lund University.
- Westergaard, M. and K. Bentzen (2007). The (non)effect of input frequency on the acquisition of word order in Norwegian embedded clauses. In I. Gülzow and N. Gagarina (Eds.), *Frequency Effects in Language Acquisition: Defining the Limits of Frequency as an Explanatory Concept*, Studies on Language Acquisition, pp. 271–306. Mouton de Gruyter.
- Weyhe, E. (1996). Bendingarmunur í fýroyskum málförum. *Íslenskt mál* 18, 71–118.
- Wiklund, A.-L., K. Bentzen, G. H. Hrafnbjargarson, and Þ. Hróarsdóttir (2009). On the distribution and illocution of V2 in Scandinavian *that*-clauses. *Lingua*, doi: 10.1016/j.lingua.2009.03.006.
- Wiklund, A.-L., G. H. Hrafnbjargarson, K. Bentzen, and Þ. Hróarsdóttir (2007). Rethinking scandinavian verb movement. *Journal of Comparative Germanic Linguistics* 10, 203–233.