

The relative order of sentential adverbs in Icelandic and Faroese

Setningsháorð í íslenskum og føroyskum

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Abstract

This paper discusses the relative order of four types of sentential adverbs in Insular Scandinavian. Data from two judgment tasks show that the relative orders of adverbs that follow Cinque's (1999) hierarchy receive more positive judgments than orders that violate this hierarchy in both languages, but the contrasts are much weaker than expected. That Icelandic and Faroese behave in very similar ways with respect to adverb placement is expected, given all the syntactic similarities between the two languages.

Úrtak

Henda greinin viðger tað lutfalsliga orðaraðið í sambandi við fyra sløg av setningsháorðum í íslenskum og føroyskum. Tilfar frá tveimum spurnakanningum vísir, at tað lutfalsliga orðaraðið í sambandi við háorð, sum fylgja raðskipanini hjá Cinque (1999) í báðum málum, fáa positivari metingar enn orðarað, sum stríðir ímóti hesi raðskipan. Mótsetningarnir eru tó nógv minni enn væntast kundi. At íslenskt og føroyskt bera seg at á sera líkan hátt, tá ið tað snýr seg um pláss hjá háorðum, er væntandi, tá ið havdir eru í huga allir teir setningafrøðiligu líkskapirnir, sum eru millum tey bæði málini.

Keywords: Word order, sentential adverbs, Cinque's hierarchy, Icelandic, Faroese, Insular Scandinavian

1 Introduction

This paper discusses the relative order of sentence adverbs in Icelandic and Faroese from the following four classes: conjunctive adverbs, speech act adverbs, evaluative adverbs and evidential adverbs. Some combinations of these adverbs in Faroese are exemplified below:

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(1)	a.	Jón Jón	hefur has	satt at siga honestly speech act →	<u>týðiliga</u> obviously evidentiality	gjørt done	eitt a	mistak. mistake
	b.	Jón Jón	hefur has	<u>týðiliga</u> obviously evidentiality →	satt at siga honestly speech act	gjørt done	eitt a	mistak. mistake
(2)	a.	Hanus Hanus	var was	tó still conjunction →	<u>tíbetur</u> thankfully evaluation	sloppin escaped		óskaddur. unharmed
	b.	Hanus Hanus	var was	<u>tíbetur</u> thankfully evaluation →	tó still conjunction	sloppin escaped		óskaddur. unharmed

The main goal of this paper is to examine possible sequences of these four adverb classes in Faroese and Icelandic to see how well they fit with Cinque's (1999) theory of adverb placement across languages. For convenience, the word adverb will be used in this paper to refer to single adverbs as well as phrases of various kinds that carry an adverbial meaning since Cinque's theory should predict the syntactic behavior of adverbs in this broad sense. Icelandic and Faroese are well suited for a comparative study because these two languages are closely related and share many syntactic similarities. Hence, adverb sequences may behave in very similar ways in these two languages. The relative order of adverbs is determined by a hierarchy of 30 functional projections hosting adverbs as their specifiers in Cinque's theory. Deviations from this hierarchical order should lead to ungrammaticality unless some specific conditions hold (see further in 3.4). The data presented here show that orders that comply with Cinque's hierarchy are always preferred to orders that violate the hierarchy in both languages. Thus, far more Faroese speakers accept (1a) and (2a) than (1b) and (2b), but the contrasts are not nearly as strong as one would expect from Cinque's theory. As discussed by Jónsson (2002), similar facts hold for sentential adverbs in Icelandic.

The structure of this paper is as follows. Section 2 lays out the theoretical background of the study. Section 3 presents the results from questionnaire surveys that were conducted in the Faroe Islands in 2016 and in Iceland 2017, as well as naturalistic data from Icelandic, and discusses the theoretical implications of these results. Section 4 contains some concluding remarks.

2 Theoretical background

Adverbs can be divided into many classes depending on their syntactic and semantic properties (see Jackendoff 1972, Travis 1988, Alexiadou 1994, 1997, Cinque 1999, Nielsen 2000, Ernst 2002, 2004, 2007, Svenonius 2002, Pittner et al. 2015). As is well known, the syntax and semantics of adverbs is strongly linked in that adverbs with a

similar meaning tend to have a similar syntactic distribution. In this paper, we will only be concerned with adverbs that are often referred to as sentential adverbs because they modify the whole clause rather than a subpart of the clause. Sentential adverbs split into various subclasses but we will focus here on conjunctive adverbs, speech act adverbs, evaluative adverbs and evidential adverbs.

Sentential adverbs in Faroese are a largely uncharted territory (but see Thráinsson et al. 2012: 181–190 for some discussion). More is known about sentential adverbs in Icelandic (see Bergsveinsson 1969, Jónsson 2002, Jóhannsdóttir 2005 and Thráinsson 2005:123–137 and 2007:37–40, 79–87) although further studies are needed. The examples in (3) show the type of sentential adverbs that are the main focus of this paper:

- | | | | | | | | | |
|-----|----|----------|-----|---------------------------|------|----------------------|---------------|----------------------|
| (3) | a. | Ferðin | til | Húsavíkur | gekk | samt sem áður | vel. | (conjunctive adverb) |
| | | trip.the | to | Húsavík | went | nevertheless | well | |
| | b. | Maturinn | er | í hreinskilni sagt | ekki | nógu | góður. | (speech act adverb) |
| | | food.the | is | honestly | not | enough | good | |
| | c. | Hann | er | skiljanlega | | miður sín. | | (evaluative adverb) |
| | | he | is | understandably | | devastated | | |
| | d. | Hún | er | greinilega | | verðugur | | (evidential adverb) |
| | | she | is | clearly | | sigurvegari | worthy winner | |

These examples illustrate the neutral position of sentential adverbs in Icelandic, which is after the finite verb (Thráinsson 2007:37–40 and references cited there). This is also the case in Faroese (Thráinsson et al. 2012: 241–246). Sentential adverbs can also be fronted in both languages but that should not make any difference for the ordering relations between the adverbs.

If two or more sentential adverbs occur in the same clause, Cinque's theory (1999:106) predicts a rigid order between them. This is shown in (4), which features three subclasses of sentential adverbs where each class is expected to precede all classes that are lower in the hierarchy.

- (4)
- a. Conjunctive adverbs
lastly, consequently, nevertheless
 - b. Speech act adverbs
frankly, briefly, honestly
 - c. Evaluative adverbs
fortunately, understandably, luckily
 - d. Evidential adverbs
supposedly, apparently, truly

Conjunctive adverbs are not included in the hierarchy proposed by Cinque (1999). However, since the only analysis of this adverb class that is consistent with his approach to adverb ordering is to place them in the hierarchy, presumably above the other adverb classes, we will assume that this is a correct interpretation of Cinque's theory. Note also that (4) constitutes only a small part of Cinque's (1999) hierarchy of 30 functional projections hosting adverbs as their specifiers. Still, we believe that investigating four adverb classes should give a good indication of the plausibility of Cinque's theory with respect to the relative order of sentential adverbs in Insular Scandinavian.

Cinque's (1999) theory falls within hierarchical analyses of adverbs which state that adverbs occupy fixed specifier positions in the syntactic structure (Alexiadou, 1997; Cinque, 2004). The alternative is the adjunction analysis, which holds that adverbs adjoin rather freely to any maximal projection so long as they receive a suitable interpretation (Alexiadou, 1997; Ernst, 2002, 2004, 2007, 2020). The adjunction approach has the advantage of being flexible enough to allow some variability in the relative order of adverbs, but it is also too weak in allowing too much variability. By contrast, the hierarchical approach is often seen as too restrictive in ruling out various adverb sequences that are not categorically excluded. However, for the Insular Scandinavian data examined here, it is also a problem for the applicability of Cinque's theory that various examples that follow his hierarchy are not only marginally acceptable for many speakers.

Cinque (1999: 3-4) allows for certain deviations from the hierarchical order imposed by his theory. First, one adverb may modify another adverb, in which case the two adverbs form one syntactic constituent. It is difficult to determine if this applies to any of the examples in the two surveys discussed here because the participants were not asked about the interpretation of the test sentences. Our own intuition is that the Icelandic test sentences do not allow for this kind of reading and the same seems to hold for the corresponding example in Faroese (Zakaris S. Hansen, p.c.), with one or two possible exceptions discussed below.

Parenthetical adverbs which are set apart prosodically from the rest of the clause are also exempt from Cinque's hierarchy. As with semantic interpretation, it is hard to know what role (if any) intonation plays in the evaluation of individual examples in a written

survey of native speakers' judgments. While there are indications that some speakers treat some adverbs as parenthetical in the surveys discussed here (see further in 3.2-3.4 below), such adverbs are quite marked in Insular Scandinavian, and thus we believe that they cannot be an important factor in native speaker judgments of illicit adverb sequences.

In this paper, we therefore focus on Cinque's theory without any comparison to other theories of adverb ordering. It will be shown that Icelandic and Faroese pattern in very similar ways with respect to adverb ordering and data from both languages pose problems for Cinque's theory. We will argue that most of these problems can be accounted for if various non-syntactic factors are taken into consideration, factors that either improve the relevant examples or make them less acceptable.

3 Adverb ordering

3.1 The questionnaires

The data discussed here are mainly based on two written questionnaires administered to comparable groups of university students in Iceland and the Faroe Islands. We have also added some corpus data from Icelandic wherever there were enough examples to provide a meaningful comparison to the results from the judgment tasks. The following table gives some basic information about the two questionnaires:

TABLE 1
Judgement studies on the relative order of adverbs

Questionnaire	Participants	Place	Date
Written (123 examples)	32 students	Fróðskaparsetur Føroya	April 4, 2016
Written (24 examples)	37 students	University of Iceland	November 24, 2017

The questionnaires had the same kind of instructions and format, but the Faroese version was much longer since it contained not only examples of the constructions discussed here, but also various other examples. The Icelandic questionnaire consisted of 24 examples, including 10 examples testing the relative order of sentential adverbs. In both questionnaires, the examples were presented as minimal pairs or triplets and the participants were asked to rate them as good, dubious or impossible. These options

correspond to a three-point scale which has been used in various studies on syntactic variation in Insular Scandinavian (Thráinsson, 2015). The two surveys did not cover all possible combinations of the adverb classes under investigation but this should not be necessary to test the predictions of Cinque's theory of adverb ordering.

Most studies of adverb sequences that we know of are based on the judgments of the author or a handful of native speakers. However, since the relevant data can be quite delicate, it is preferable to use the judgments of a large number of speakers. In fact, the limitations of Cinque's theory are clearly exposed in studies of that kind as can be seen in Payne's (2018) study of some adverb sequences in English.

We will present results from the two surveys in sections 3.2 and 3.3 and point out various challenges to Cinque's theory. We will also discuss some naturalistic data from Icelandic found in the Risamálheild Corpus (Steinþórsson et al. 2018) to compare to the results from the judgment tasks.¹ This chapter concludes with a brief summary in 3.4 which also highlights some theoretical implications.

3.2 Icelandic

Cinque's (1999) theory of adverbs predicts a very strong contrast between the a-examples in the following sentence pairs and the b-examples as the former comply with his hierarchy whereas the latter do not.

These predictions are confirmed in that orders consistent with Cinque's hierarchy are clearly preferred to the opposite orders. Still, the judgments are much more gradient than expected as many speakers find these examples questionable rather than acceptable or unacceptable.² To be sure, examples with adjacent sentential adverbs tend to produce a rather awkward prosody because the two adverbs do not naturally form a phonological phrase, and this may explain the relatively low acceptance rate for (5a). Note, however, that this type of explanation does not rely on Cinque's theory, and it also fails to explain the number of speakers that found (5b) merely questionable.

As for (6a), the acceptance rate was only 30%. Some of the participants in the survey mentioned in a box for additional comments that they found it odd to have both *skiljanlega* 'understandably' and *satt að segja* 'honestly' within the same sentence. We agree with this intuition, and we suspect that combining these two adverbs sounds contradictory to some speakers since the adverb *skiljanlega* indicates that the proposition is

¹Unfortunately, there is no online corpus of Faroese that is large enough to be used for this purpose.

²It should be noted that the judgments of various filler sentences in both surveys were far more categorical than what we find with the test sentences. Thus, the results for the adverb sequences cannot be explained by reference to other results in the surveys.

TABLE 2

The relative order of speech act adverbs vs. evidential and evaluative adverbs

						Yes	?	No
(5a)	Jón hefur satt að segja <u>greinilega</u> gert mistök					76%	21%	3%
	Jón has honestly obviously made mistake							
	speech act → evidentiality							
(5b)	Jón hefur <u>greinilega</u> satt að segja gert mistök					3%	32%	65%
	Jón has obviously honestly made mistake							
	evidentiality → speech act							
(6a)	Jón hefur satt að segja <u>skiljanlega</u> engan áhuga					30%	16%	54%
	Jón has honestly understandably no interest							
	speech act → evaluation							
(6b)	Jón hefur <u>skiljanlega</u> satt að segja engan áhuga					9%	32%	59%
	Jón has understandably honestly no interest							
	evaluation → speech act							

expected whereas *satt að segja* is typically used to reduce the effect of a frank statement that is likely to express unexpected information.

Of course, one could ask if this pragmatic incompatibility should not also be a problem for (6b), making it even worse than a standard violation of Cinque's hierarchy. Our tentative answer, based on our intuitions as native speakers, is that some speakers mitigate the problem by interpreting *satt að segja* as modifying *skiljanlega* rather than the whole clause. This interpretation could be paraphrased as 'Jón has no interest, and this is frankly understandable.' The same may apply in (5b), i.e., some speakers marginally accept the reading where *satt að segja* modifies *greinilega* 'clearly'. Note that this type of account evades Cinque's hierarchy in a way that his theory allows for.

Judgments on the relative order of conjunctive adverbs on one hand and evidential and evaluative adverbs on the other hand are shown in Table 3.

Jónsson (2002) claims that the relative order of conjunctive adverbs with respect to these types of adverbs is relatively free in Icelandic, but these results show that speakers prefer to place conjunctive adverbs before evidential and evaluative adverbs. Still, the acceptance rate for the a-examples is quite low, especially (7a), and the acceptance rate for (8b) is unexpectedly high. Our consultations with native speakers suggest that the problem with (7a) is that the participants in the survey did not like the word *megrast* instead of the more common (and less formal) verb *greennast* 'lose weight'.

TABLE 3
The relative order of conjunctive adverbs vs. evaluative and evidential adverbs

		Yes	?	No
(7a)	Hann hefur samt <u>greinilega</u> megrast he has still obviously lost.weight conjunction → evidentiality	50%	25%	25%
(7b)	Hann hefur <u>greinilega</u> samt megrast he has obviously still lost.weight evidentiality → conjunction	8%	22%	70%
(8a)	Hann hafði samt <u>sem betur fer</u> sloppið ómeiddur he had still fortunately escaped unharmed conjunction → evaluation	65%	14%	21%
(8b)	Hann hafði <u>sem betur fer</u> samt sloppið ómeiddur he had fortunately still escaped unharmed evaluation → conjunction	30%	30%	40%

To make sense of (8b), it should be noted that *samt* does not have to take scope over the evaluative adverb *sem betur fer* ‘fortunately’. On the contrary, (8a-b) are most naturally understood as stating that what was unexpected in view of the preceding discourse was that he escaped unharmed. It is much less natural to interpret the counter-expectation in (8a-b) as the fact that he fortunately escaped unharmed. This means that the word order in (8b) reflects the most normal scopal relation between the two adverbs and this is probably the reason why so many speakers find (8b) acceptable. By contrast, *samt* takes scope over *greinilega* in (7a-b), i.e. the counter-expectation in these examples is that he has clearly lost weight.

The contrasts found in (7) and (8) are much stronger in the naturalistic data found in the Risamálheild Corpus. As shown in Table 4, the order evaluative adverb + conjunctive adverb is highly infrequent compared to the expected order conjunctive adverb + evaluative adverb.³ There is also a very strong preference for conjunctive adverbs to precede evidential adverbs.

Since most of the texts in the Risamálheild Corpus are highly formal texts, it is plausible to attribute this difference to a difference in register. Thus, we might conclude

³We only searched for cases where the two adverbs are adjacent. When one adverb is fronted, there seems to be more freedom in the relative order of sentential adverbs but this merits further investigation.

TABLE 4
Results from the Risamálheild Corpus (Icelandic)

Adverbs	Number	Percentage	Order
samt – sem betur fer	35	94,6%	conjunction → evaluation
sem betur fer – samt	2	5,4%	evaluation → conjunction
samt – greinilega	149	96,1%	conjunction → evidentiality
greinilega – samt	6	3,9%	evidentiality → conjunction

that deviations from Cinque's hierarchy are more acceptable in the judgments tasks under discussion here because they are fairly neutral with respect to register.

Table 5 shows two different orders of evaluative and evidential adverbs following a speech act adverb. Examples with three adjacent adverbs received very negative judgements with only a minimal difference between the expected order in (9a) and the unexpected order in (9b):

TABLE 5
The relative order of evaluative and evidential adverbs following a speech act adverb

	Yes	?	No
(9a) María hefur satt að segja <u>sem betur fer</u> <i>greinilega</i> Mary has honestly fortunately obviously lesið bókina read book.the speech act → evaluation → evidentiality	29%	14%	57%
(9b) María hefur satt að segja <i>greinilega</i> <u>sem betur fer</u> Mary has honestly obviously fortunately lesið bókina read book.the speech act → evidentiality → evaluation	21%	24%	55%

The low acceptance rate for (9a) is not surprising because three adverb sequences are incredibly rare as they often create problems with respect to semantics and prosody even if the ordering restrictions imposed by Cinque's hierarchy are respected. It is likely that the participants in the survey struggled to find an appropriate context for these examples and the prosody is also unnatural because (9a) seems to require a break both before and after the second adverb (*sem betur fer*) and possibly also before the first adverb (*satt að*

segja).⁴ Prosody also plays a role in (9b) because this example requires a break before and after the adverb *greinilega* and this break surrounding the adverb *greinilega* makes the order in (9b) compatible with Cinque's hierarchy. Thus, the main problem with (9b) is semantics and prosody just as with (9a) and the result is that native speakers only get a minimal difference between these two examples.

3.3 Faroese

Let us now look at possible combinations of sentential adverbs in Faroese. Table 6 shows sentence pairs where the a-examples reflect the order predicted by Cinque's theory (1999) but the b-examples illustrate the opposite order.

TABLE 6
The relative order speech act adverbs vs. evidential and evaluative adverbs

		Yes	?	No
(10a)	Jón hevur satt að siga <u>týðiliga</u> gjørt eitt mistak Jón has honestly obviously made a mistake speech act → evidentiality	73%	17%	10%
(10b)	Jón hevur <u>týðiliga</u> satt að siga gjørt eitt mistak Jón has obviously honestly made a mistake evidentiality → speech act	10%	14%	76%
(11a)	Jón hevur satt að siga <u>væl skiljandi</u> ongan áhuga Jón has honestly understandably no interest speech act → evaluation	42%	34%	24%
(11b)	Jón hevur <u>væl skiljandi</u> satt að siga ongan áhuga Jón has understandably honestly no interest evaluation → speech act	38%	38%	24%

The order required by Cinque's hierarchy is strongly preferred in (10a-b), just as in the corresponding Icelandic examples in (5), but there is very little difference between

⁴There is a general issue here concerning the effects of weight on adverb ordering. As Höskuldur Thráinsson (p.c.) reminds us, one would expect that the weight of adverbs could influence their placement in view of the general tendency in Icelandic and other languages for light phrases to precede heavier phrases. The surveys reported here were not constructed to test weight effects of this kind, so we have no results to report here but this is clearly something that merits further investigation.

(11a) and (11b) as neither order is widely accepted. The negative reactions to (11a) might be due to the fact that the adverbs *satt at siga* ‘honestly’ and *væl skiljandi* ‘understandably’ are semantically incompatible for many speakers, as already discussed with respect to (6a) in Icelandic. This problem of incompatibility may be solved for some speakers in (11b) if the speech act adverb (*satt at siga*) modifies the evaluative adverb (*væl skiljandi*) as we have suggested for (6b).

TABLE 7

The relative order of conjunctive adverbs vs. evaluative and evidential adverbs

	Yes	?	No
(12a) Oddrún er tó <u>týðiliga</u> klænkað. Oddrún is still obviously lost.weight conjunction → evidentiality	87%	3%	10%
(12b) Oddrún er <u>týðiliga</u> tó klænkað. Oddrún is obviously still lost.weight evidentiality → conjunction	3%	10%	87%
(13a) Hanus var tó <u>tíbetur</u> sloppin óskaddur. Hanus was still fortunately escaped unharmed conjunction → evaluation	73%	10%	17%
(13b) Hanus var <u>tíbetur</u> tó sloppin óskaddur. Hanus was fortunately still escaped unharmed evaluation → conjunction	23%	30%	47%

Just like the Icelandic speakers, the Faroese speakers prefer to place conjunctive adverbs before both speech act adverbs and evidential adverbs rather than the other way around. Still, the acceptance for the order evaluative adverb - conjunctive adverb in (13b) is unexpectedly high, just as in the corresponding Icelandic example in (8b), presumably for the same reason.

As in Icelandic, sentence pairs with evaluative adverbs and evidential adverbs after a speech act adverb were also tested in Faroese. The results are illustrated in Table 8.

Although a minority of speakers finds (14a) acceptable, there is a much stronger contrast between (14a) and (14b) than the corresponding Icelandic examples (9a) and (9b). There is an important difference in that (9a-b) has a heavier evaluative adverb than (14a-b), i.e. *sem betur fer* ‘fortunately’, and this may reduce the prosodic difficulties associated with (14a-b). The result is a higher acceptance rate for (14a) than (9a). However, (14b) has a lower rate than (9b), possibly because it is only in (9b) that native

TABLE 8
The relative order of evaluative and evidential adverbs following a speech act adverb

					Yes	?	No	
(14a)	Maria	hefur	satt að siga	<u>tíbetur</u>	týðiliga	41%	31%	28%
	Mary	has	honestly	fortunately	obviously			
	lisið	bókina.						
	read	book.the						
	speech act → evaluation → evidentiality							
(14b)	Maria	hefur	satt að siga	týðiliga	<u>tíbetur</u>	3%	3%	94%
	Mary	has	honestly	obviously	fortunately			
	lisið	bókina.						
	read	book.the						
	speech act → evidentiality → evaluation							

speakers are likely to think of the prosodic breaks that make the adverb sequence syntactically well-formed.

3.4 Summary and theoretical implications

As shown in the preceding sections, Icelandic and Faroese display very similar results when native speakers judge possible ordering relations between sentential adverbs in the four classes examined here. When the two languages diverge in significant ways, this seems to be due to the fact that the experimental items are not fully comparable across languages rather than some differences in the syntax of sentential adverbs.

Native speaker judgments of various adverb sequences in Icelandic and Faroese are problematic for Cinque's theory. This is most obvious in examples that comply with Cinque's hierarchy and are nevertheless rejected by many native speakers. Thus, the acceptance rate for canonical orders of two sentential adverbs in Icelandic ranges from 30 – 76% and the corresponding figure for Faroese is 42 – 87%. This is shown in the a-examples in (5) – (8) for Icelandic and the a-examples in (10) – (13) for Faroese. A relatively low acceptance rate for examples that conform to the hierarchy is in many cases due to various non-syntactic factors. Although our suggestions in sections 3.2 and 3.3 are somewhat speculative and require further investigation, we conclude that Cinque's hierarchy defines the syntactic well-formedness of adverb sequences, but other factors must also be taken into account as they can significantly reduce the acceptability of such sequences.

Challenges to Cinque's theory of adverb order are not limited to cases where his hierarchy of adverbs is respected. Thus, examples (8b), (9b), (11b) and (13b) violate the hierarchy and still receive an acceptance rate well above 10%. As already discussed, it

appears that both (9b) and (11b) rely on comma intonation for full acceptability, in which case the relevant adverbs are exempt from Cinque's hierarchy. Examples where an evaluative adverb precedes a conjunctive adverb, i.e., Icelandic (8b) and Faroese (13b), are more problematic because the crucial issue in these examples seems to be scope rather than prosody and scope is not an independent factor determining adverb order in Cinque's theory.

4 Conclusion

The data presented in this paper show that the relative order of sentential adverbs that follow Cinque's (1999) hierarchy are always preferred to orders that contradict the hierarchy in Insular Scandinavian. This conclusion is based on two questionnaire studies on four different classes of sentential adverbs conducted in Iceland and the Faroe Islands and some corpus data from Icelandic. However, Cinque's theory has its limitations, and this is most evident in the numerous examples that conform to his hierarchy and still receive a relatively low acceptance rate. As we have argued, pragmatic, semantic and prosodic factors play an important role in such examples. Thus, Cinque's hierarchy seems to be correct as far as syntax is concerned, but it cannot be the whole story.

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References

- Alexiadou, Artemis. 1997. *Adverb Placement. A Case Study in Antisymmetric Syntax*. Benjamins, Amsterdam.
- Angantýsson, Ásgrímur. 2017. Setningaratviksorð í íslensku og færeysku. *Íslenskt mál* 39: 75–86.
- Angantýsson, Ásgrímur. 2018. Verb-second in Embedded Clauses in Faroese. *Studia Linguistica* 72 (1): 165–189.

- Angantýsson, Ásgrímur. 2019. On the relative order of central sentence adverbs in the Insular Scandinavian languages. *Working Papers in Scandinavian Syntax* 103: 30–41.
- Cinque, Guglielmo. 1999. *Adverbs and Functional Heads: A Cross-linguistic Perspective*. Oxford University Press, Oxford.
- Cinque, Guglielmo. 2004. Issues in Adverbial Syntax. *Lingua* 114(6): 683–710.
- Delfitto, Denis. 2006. Adverb Classes and Adverb Placement. H. v. Riemsdijk og M. Everaert (eds.): *The Blackwell Companion to Syntax*, I. vol., pp. 83–120. Blackwell, Oxford.
- Ernst, Thomas. 2002. *The Syntax of Adjuncts*. Cambridge University Press, Cambridge.
- Ernst, Thomas. 2004. Principles of Adverbial Distribution in the Lower Clause. *Lingua* 114(6): 755–777.
- Ernst, Thomas. 2007. On the Role of Semantics in a Theory of Adverb Syntax. *Lingua* 117(6): 1008–1033.
- Ernst, Thomas. 2020. The Syntax of Adverbials. *The Annual Review of Linguistics* 6: 89–109.
- Jackendoff, Ray. 1972. *Semantic Interpretation in Generative Grammar*. MIT Press, Cambridge, MA.
- Jónsson, Jóhannes Gísli. 1996. *Clausal Architecture and Case in Icelandic*. GLSA, University of Massachusetts, Amherst.
- Jónsson, Jóhannes Gísli. 2002. S-Adverbs in Icelandic and the Feature Theory of Adverbs. *Leeds Working Papers in Linguistics and Phonetics* 9: 73–89.
- Jóhannsdóttir, Kristín. 2005. Temporal Adverbs in Icelandic: Adverbs of Quantification vs. Frequency Adverbs. *Working Papers in Scandinavian Syntax* 76: 31–72.
- Laenzlinger, Christopher. 1998. *Comparative Studies in Word Order Variation: Adverbs, Pronouns, and Clause Structure in Romance and Germanic*. Amsterdam: John Benjamins.
- Nielsen, Øystein. 2000. *The Syntax of Circumstantial Adverbs*. Novus: Oslo.
- Payne, Amanda. 2018. Adverbial Typology: A Computational Characterization. Doctoral dissertation, University of Delaware.
- Pittner, Karin, Daniela Elsner and Fabian Barteld (eds.). 2015. *Adverbs. Functional and Diachronic aspects*. Amsterdam: John Benjamins.
- Steingrímsson, Steinþór, Sigrún Helgadóttir, Eiríkur Rögnvaldsson, Starkaður Barkarson & Jón Guðnason. 2018. Risamálheild: A Very Large Icelandic Text Corpus. *Proceedings of LREC 2018*, 4361–4366. Myazaki, Japan.
- Sveinn Bergsveinsson. 1969. Die Stellung des Adverbs im Isländischen. *Folia Linguistica* 3:307–332.
- Svenonius, Peter. 2002. Subject Positions and the Placement of Adverbials. P. Svenonius (eds.): *Subjects, Expletives and the EPP*, pp. 202–242. Oxford University Press, Oxford.
- Thráinsson, Höskuldur. 2005. *Íslensk tunga III. Setningar. Handbók um setningafræði*. Almenna bókafélagið, Reykjavík.
- Thráinsson, Höskuldur, Ásgrímur Angantýsson, Þórhallur Eypórsson, Einar Freyr Sigurðsson and Sigrún Steingrímisdóttir. 2013. ‘Efnissöfnun og aðferðafræði’. Höskuldur Thráinsson, Ásgrímur Angantýsson, og Einar Freyr Sigurðsson eds.): *Tilbrigði í íslenskri setningagerð I. Yfirlit yfir aðferðir og helstu niðurstöður*, pp. 19–68. Reykjavík: Háskólaútgáfan.

- Thráinsson, Höskuldur. 2007. *The Syntax of Icelandic*. Cambridge University Press, Cambridge.
- Thráinsson, Höskuldur. 2010. Predictable and Unpredictable Sources of Variable Verb and Adverb Placement in Scandinavian. *Lingua* 120: 1062-1088.
- Thráinsson, Höskuldur, Ásgrímur Angantýsson, Einar Freyr Sigurðsson, Sigrún Steingrímsdóttir and Thórhallur Eythórsson. 2013. Efnissöfnun og aðferðafræði [Data collecton and methodology]. Höskuldur Thráinsson, Ásgrímur Angantýsson, Einar Freyr Sigurðsson (eds.): *Tilbrigði í íslenskri setningagerð. I. Markmið, aðferðir og efniviður* [Variation in Icelandic syntax. Aims, methods and data], pp. 19–68. Reykjavík: Málvísindastofnun Háskóla Íslands.
- Thráinsson, Höskuldur. 2015. Tilbrigði í færeyskri og íslenskri setningagerð [Variation in Faroese and Icelandic syntax]. *Frændafundur* 8: 83–103.
- Thráinsson, Höskuldur. 2018. On the Softness of Parameters: An Experiment on Faroese. M. Sheehan & L. R. Bailey (eds.): *Order and Structure in Syntax II: Subjecthood and Argument structure*, p. 3-40. Language Science Press, Berlin.
- Thráinsson Höskuldur, Hjalmar P. Petersen, Jógvan í Lon Jacobsen and Zakaris Svabo Hansen. 2012. *Faroese. An Overview and Reference Grammar*. Second edition. Fróðskapur, Þórshöfn and Málvísindastofnun Háskóla Íslands, Reykjavík.
- Travis, Lisa D. 1988. *The Syntax of Adverbs*. *McGill Working Papers*, Special Issue on Comparative Germanic Syntax, bls. 280–310. Department of Linguistics, McGill University, Montreal.