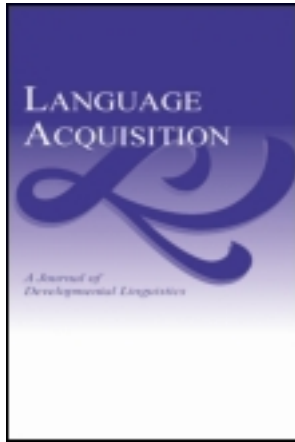


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Acquisition in Variation (and Vice Versa): V-to-T in Faroese Children

Caroline Heycock^a, Antonella Sorace^a, Zakaris Svabo Hansen^b & Frances Wilson^c

^a University of Edinburgh

^b University of the Faroe Islands

^c University of Delaware

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ARTICLES

Acquisition in Variation (and Vice Versa): V-to-T in Faroese Children

Caroline Heycock and Antonella Sorace

University of Edinburgh

Zakaris Svabo Hansen

University of the Faroe Islands

Frances Wilson

University of Delaware

Faroese is at the tail end of a change from an Icelandic-type syntax in which V-to-T is obligatory to a Danish-type system in which this movement is impossible. While the older word order is very rarely produced by adult Faroese speakers, there is evidence that this order is still marginally present in the adult grammar and thus only dispreferred, rather than completely ungrammatical. Here the results are presented of an experimental study of older Faroese children: 5-year-old children both accept and produce the older word order, 6-year-olds do so significantly less, and 10-year-olds behave like adult speakers. We discuss a number of possible interpretations of the children's variability in the context of residual effects of diachronic change in Faroese.

1. FAROESE: THE SYNTAX OF VERB MOVEMENT IN TRANSITION

Faroese is a Scandinavian language spoken as a first language by the approximately 49,000 inhabitants of the Faroe Islands, a partly autonomous dependency of Denmark, and by several thousand Faroese living outside the islands, mainly in Denmark. All of the Scandinavian languages are SVO and exhibit verb-second (V2) word order in main clauses, and Faroese is not an exception.

One point on which the syntax of these languages does differ, however, is that Icelandic exhibits the phenomenon sometimes known as “V-to-I” or “V-to-T” in subordinate clauses, while in the Mainland Scandinavian languages (at least, in the standard varieties) even the finite verb remains in a low position, as diagnosed by its order with respect to negation or to sentence-medial adverbs. Thus while a simple main clause in Icelandic shows the same word order as the corresponding example in Danish (1a–b), in a subordinate clause in Icelandic the finite verb appears above negation while in Danish it appears below it (2a–b).¹

- | | | |
|--------|--|-----------|
| (1) a. | Elín (hefur) ekki (*hefur) lesið bréfið.
Elin has NEG has read letter.DEF
Elin has not read the letter. | Icelandic |
| b. | Tove (har) ikke (*har) læst brevet
Tove has NEG has read letter
Tove has not read the letter.DEF | Danish |
| (2) a. | Þetta er bréfið sem Elín (hefur) ekki (*hefur) lesið.
that is letter.DEF that Elin has NEG has read
That is the letter that Elin has not read. | Icelandic |
| b. | Dette er brevet som Tove (*har) ikke (har) læst.
that is letter.DEF that Tove has NEG has read
That is the letter that Tove has not read. | Danish |

An (over)simple analysis of the pattern in (1–2) is that while in both Icelandic and Danish the finite verb moves to C in a main clause, in a subordinate clause the finite verb in Icelandic moves to T, but in Danish it remains within the VP.² In fact, one complication has to be mentioned immediately: while V2 is excluded in Mainland Scandinavian (Danish, Norwegian, Swedish) in most types of subordinate clause, it is known to be possible in declarative complements to a subclass of non-negative, non-factive verbs such as *say*, *believe*, or *know* (see, e.g., Julien 2007). This phenomenon, often referred to as Embedded V2, is exemplified by the grammaticality of either order for the finite verb with respect to negation in (3), from Vikner (1995:67), which contrasts with (1b) above.

- | | | |
|-----|---|--------|
| (3) | Vi ved at Bo (har) ikke (har) læst denne bog.
we know that Bo has NEG has read this book
We know that Bo hasn't read this book. | Danish |
|-----|---|--------|

One of the features of Faroese that has attracted much interest particularly since the work of Jonas (1996) is that this language has been undergoing a change from a system like Icelandic to a system like Danish. Thus Jonas reported that for some—mainly older—speakers, both orders

¹The grammaticality judgments on the Icelandic example are an oversimplification; for at least some speakers, placement of the finite verb after the adverb in a relative clause is possible, although it is infrequent (for discussion, see, among others, Bobaljik & Thráinsson 1998; Angantýsson 2001, 2007; Thráinsson 2003, 2007; Wiklund et al. 2007). The crucial point here is that the placement of the verb before the adverb is grammatical for all speakers.

²There are many different possibilities for analyzing the various positions of the finite verb in Icelandic and in the Mainland Scandinavian languages, including Danish; here we outline a relatively “conservative” analysis, without making a commitment to its adequacy.

in a subordinate clause were possible, with a preference for the verb being in the high position to the left of the adverb:

- (4) Hetta er brævið, sum Elin (%hefur) ikki (hefur) lisið. Faroese
 this is letter.DEF that Elin has NEG has read
 This is the letter that Elin has not read.

There is, however, considerable disagreement as to the status of V-to-T in the current population. Here we report on findings concerning the grammaticality judgments and elicited production of subordinate clauses from 5- to 10-year-old Faroese children. We will show that contrary to what might be expected given the direction of change away from V-to-T in Faroese, preschool children exhibit more of this “old” order than adults do. We compare this with findings from other Scandinavian languages where a similar pattern has been observed and draw some tentative conclusions about the cause of this difference between adults and children, as well as the implications for the diachronic change that has been taking place.

2. ADULTS AT THE END OF THE LOSS OF V-TO-T

Since the seminal work of Jonas (1996), there has been considerable disagreement as to the availability of a grammar with V-to-T in modern Faroese, with Vikner (1995) and Petersen (2000), for example, claiming that V-to-T is no longer part of the grammar of the vernacular, at least for speakers born after 1960; but Thráinsson (2003) argues that V-to-T remains a (less frequent) option even for this group. Our own data on adult grammaticality judgments show that there is a strong preference for Neg–V order in subordinate clauses in contexts where embedded V2 is known to be excluded, but that there is evidence for the marginal availability of a grammar with V-to-T (Heycock et al. 2012).³

As a background to the investigation of the children’s language, we would of course like to have good data on the nature of their input from the adults. Unfortunately, because of the low frequency of the relevant contexts and the lack of any corpus of transcribed speech, we have only a limited amount of information about the incidence of V-to-T in informal speech (in particular, input to children). As part of our project, we made video recordings of four families interacting with their children and have transcribed to date approximately 170 minutes of speech. Within this, in the adult speech we found 18 examples of subordinate clauses with negation. The results are summarized in Table 1. We have divided the clauses up into a number of subtypes because some types of subordinate clause are more likely than others to allow embedded V2 (for a brief discussion, see below; for more detailed discussion, see Heycock, Sorace & Hansen (2010).

Because the data are so sparse, we supplemented this with data from the largest collection of contemporary tagged Faroese text currently available, the *Corpuseye* corpus built by Bick et al.

³We cannot directly compare the adult experimental data described in Heycock, Sorace & Hansen (2010) and Heycock et al. (in press) with the children’s data set out here. On the one hand, an attempt to carry out a production task with the adults similar to that conducted with the children was not successful, although we do have other production data, as described in the text. On the other hand, we elicited judgments from adults using the Magnitude Estimation technique, where judgments are given in relative rather than absolute terms, and participants are not limited to a binary scale; these data cannot be compared directly to the binary judgments that we obtained from the children.

TABLE 1
Subordinate Clauses with Negation: Adult Speakers to Children

<i>Type of Clause</i>	<i>Verb–Neg</i>		<i>Neg–Verb</i>		<i>Total</i>
Complement Declarative	4	67%	2	33%	6
Adjunct Introduced by <i>tí</i> (because)	2	100%	0	0%	2
Other Adjunct Clause	1	50%	1	50%	2
Indirect Question	0	0%	2	100%	2
Relative	0	0%	4	100%	4
Conditional	0	0%	2	100%	2
Total	7	39%	11	61%	18

TABLE 2
Subordinate Clauses with Negation: Written Texts

<i>Type of Clause</i>	<i>Verb–Neg</i>		<i>Neg–Verb</i>		<i>Total</i>
Complement Declarative	77	39%	120	61%	197
Adjunct Introduced by <i>tí</i> (because)	23	77%	7	23%	30
Other Adjunct Clause	1	3%	36	97%	37
Indirect Question	0	0%	14	100%	14
Consequence of Degree (<i>so X that –</i>)	7	35%	13	65%	20
Relative	1	1%	91	99%	92
Conditional	1	4%	25	96%	26
Total	110	26%	306	74%	416

(n.d.; approximately 206,000 words from the *Sosialurin* newspaper and the Faroese edition of *Wikipedia*), and we additionally searched in approximately 289,000 words of interviews conducted and transcribed by Jógvan í Lon Jacobsen.⁴ We searched for all instances of the negator *ikki*, and then from the results hand-selected the subordinate clauses. These data are discussed in more detail in Heycock et al. (2012); Table 2 summarizes the results from the written texts in the *Corpuseye* corpus, and Table 3 the results from the transcribed interviews.⁵

The results from the written texts and the interview transcriptions are very similar to each other and are also in line with the (minimal) data from the child-directed speech. There is a significant proportion of V–Neg order in subordinate declarative clauses (e.g., the complements to propositional attitude verbs) in adjunct clauses introduced by *tí* ‘because’ and in clauses that express “consequence of degree,” as in “He was so tall (*that*) *he could not fit through the door*,” but these are all contexts in which V2 is known to be possible, so we cannot be sure that these are instances of V-to-T (Heycock, Sorace & Hansen 2010; Heycock et al., 2012). In indirect

⁴These interviews were carried out as part of Jógvan í Lon Jacobsen’s doctoral research on attitudes to loan words in Faroese (Jacobsen 2008).

⁵We have excluded “result clauses” introduced by *so* from these data because of the difficulty of distinguishing between “result” and “purpose” clauses; the former often behave like root clauses (*so* can exhibit V2), while the latter are more likely to behave like true subordinate clauses.

TABLE 3
Subordinate Clauses with Negation: Oral Interviews

<i>Type of Clause</i>	<i>Verb–Neg</i>		<i>Neg–Verb</i>		<i>Total</i>
Complement Declarative	84	45%	104	55%	188
Adjunct Introduced by <i>tí</i> (because)	69	68%	33	32%	102
Other Adjunct	1	2%	55	98%	56
Indirect Question	0	0%	7	100%	7
Consequence of Degree (<i>so X that –</i>)	8	80%	2	20%	10
Relative	3	2%	147	98%	150
Conditional	3	2%	142	98%	145
Total	168	26%	490	74%	658

questions, there are no instances of V–Neg order in either the child-directed speech or in the texts, and in relatives and conditionals there are no examples of this order in the child-directed speech; in the written data and the interview transcriptions, where we have more data, the V–Neg order occurs at a very low rate. Although we would clearly want to have more data from child-directed speech in particular, it seems reasonable to conclude that in the input from adults to children, there is at best minimal evidence for V-to-T in these contexts.

One possible source of variation for children is the presence of “archaic” V-to-T in fairytale stories. Some researchers (e.g., Fodor & Crowther 2002) are skeptical that this type of input is actually used by children in building their mental grammars, but it is possible that in the context of ongoing variability and change children may be more sensitive to marked obsolete structures and do not exclude them from their database.⁶ Inquiries to preschool teachers suggested that the book most widely read to small children is a classic collection of fairy stories, *Ævintýrbókin*, translated into Faroese by three different Faroese writers. One of these writer-translators was the author Heðin Brú; since Sandqvist (1981), it has been much noted that Brú uses the older order (with V-to-T) at a much higher rate than his contemporaries, and this is in fact reflected in the collection. Table 4 gives the breakdown for all the stories together, but almost all of the cases of the V–Neg/Adv order are due to Brú.⁷

As the table shows, instances of the V–Neg/Adv word order are much more frequent in these texts than in our other data, but of course the total number of cases is very small. Despite these small numbers, however, children who listen to these stories are exposed to these structures; whether this input is likely to affect their developing grammar has to be considered in the context of their residual presence in the adult grammar—a point to which we return in section 5.

⁶Fodor and Crowther (2002) are actually vague about the mechanisms that might be used by children to filter out obsolete or marked structures heard in stories and other literary sources. They suggest that “children are learning about genres as they are learning about the language” (118). It is unclear, however, what this means in the absence of any consideration of the relative frequency of marked structures in the literary texts and their status in the adult language.

⁷In this table, we give the figures for the order of the finite verb with respect to sentence medial adverbs such as *enn* (still) as well as to the negative marker *ikki*, although the latter is by far the most frequent. We only counted cases where it was clear that the adverb was not in a clause-final position. In the more extensive corpora, we have only considered the negative marker due to the relative rarity of the other cases and the labor involved in searches in non-parsed corpora.

TABLE 4
Subordinate Clauses with Negation/Adverbs: Ævintýrbókin

<i>Type of Clause</i>	<i>Verb–Neg/Adv</i>		<i>Neg/Adv–Verb</i>		<i>Total</i>
Complement Declarative	8	80%	2	20%	10
Adjunct Introduced by <i>tí</i> (because)	7	78%	2	22%	9
Other Adjunct	5	50%	5	50%	10
Indirect Question	0	0%	0	0%	0
Consequence of Degree (<i>so X that –</i>)	7	100%	0	0%	7
Relative	0	0%	4	100%	4
Conditional	3	50%	3	50%	6
Total	30	65%	16	35%	46

3. ACQUISITION OF SUBORDINATE CLAUSE WORD ORDER: BACKGROUND

Petersen (2000:83) states that the speakers he investigated, Faroese students with an average age of 20, “do not regard [V–Neg order in relative clauses and indirect questions] as ungrammatical, but rather as belonging to written Faroese.” Vikner (1995:150) also suggests that V–Neg order may now be a relic associated with the written language. This leads to the expectation that pre-literate children should produce less of this order and find it less acceptable than speakers with more exposure to writing. However the adult data, both from our adult-to-child speech corpus and from Jacobsen’s interviews, show that literate adults produce V–Neg only very occasionally, which suggests that literacy and exposure to the written language does not influence the word order that speakers prefer in production.

On the other hand, there is evidence that young children learning Scandinavian languages where V-to-T has been lost nevertheless produce subordinate clauses with “high” verb placement, even where this is ungrammatical for adults.

For Swedish, the evidence so far is that this “overgeneralization” of V–Neg order is lost by the time children reach the age of 4. Håkansson & Dooley-Collberg (1994:102) report that a child who consistently produced V–Neg orders for auxiliaries in subordinate clauses at 2;11 in an imitation task consistently produced Neg–V orders at age 3;06, and the highest age at which any of the four children in their study produced the V–Neg order in spontaneous speech was 3;02.⁸ Waldmann (2008) conducts a study of four children acquiring Swedish. He concludes on the basis of his own data and those of Lundin (1987) that “even if the individual variation can be large, it seems at least that the Swedish children investigated use the correct verb placement in the majority of their subordinate clauses already when they are just over 3 years old. [At 3;03–4;00] they have the verb in the wrong position [i.e., before negation] only in exceptional cases” (Waldmann 2008:236; our translation).

Westergaard & Bentzen (2007) report that sporadic recordings and diary notes from two children (2;04–8;00 and 1;08–5;09) acquiring Tromsø Norwegian show that V–Neg/Adv order in

⁸It should be noted though that they only had data for the children up to 3;06, and also, conversely, that some of the examples of V–Neg order occur in clauses that are potentially interpretable as result clauses, another context in which V2 may be possible.

subordinate clauses is attested for these children around the ages of 4 to 5 years old; an elicited production experiment (similar to the one employed in the present study) conducted with these two children, then aged 5;09 and 8;00, found that the younger child used V–Neg/Adv order in 7 out of a total of 8 indirect questions produced with negation; the older child never produced this order in any of the 11 relevant environments. Thus they conclude that children exposed to Tromsø Norwegian optionally move the verb past negation and adverbs in non-V2 contexts up to the age of (at least) around 6;00.⁹

4. OUR STUDY OF FAROESE CHILDREN

Against this background, we tested a total of 41 Faroese-speaking children, of whom 3 had to be excluded because they could not perform in the tasks. The remaining 38 were divided into three age groups: 5;00–6;00 (two years before school entry; 12 children); 6;00–7;00 (the year before school entry; 10 children); and 9;00–10;00 (two years after school entry; 16 children). We used both an elicited production task and a judgment task. All the children did the production task but only a subset could complete the judgment task: 9 for the 5;00–6;00 age group, 9 for the 6;00–7;00 group, and 14 for the 9;00–10;00 group.

4.1. Materials and Method

In the grammaticality judgment task, each child saw a series of animations featuring familiar cartoon characters (adapted from Sorace et al. 2009). Children were told that the characters were learning Faroese, and that they sometimes made mistakes. After each mini dialogue, they were asked whether the last character to speak spoke right or wrong.¹⁰ Examples of materials for judgement task in (5) and (6) are given in Figure 1.

- (5) Donald sings and Mickey makes a comment, Minnie and Daisy talk afterwards (Figure 1a)

Indirect questions, Neg–V

Mickey: Kenna tit ikki henda sangin?
know you [2p pl] not this song

Daisy: Hvat segði Mickey?
what said Mickey?

Minnie: Hann spurdi, um vit ikki kenna handa sangin.
he asked if we not know that song

⁹The Tromsø dialect differs from standard varieties of Norwegian (and Swedish) in allowing the finite verb even in non-V2 contexts to precede certain adverbs such as *ofte* ‘often’; it is like these other varieties, though, in not allowing the finite verb to precede negation in these contexts (Bentzen 2005). There is some evidence that Faroese shows a similar tendency (Bentzen et al. 2009; Heycock, Sorace & Hansen 2010).

¹⁰Although it was presented in the form of animations, the task was metalinguistic, in the sense that children had to evaluate the acceptability of the form of sentences in abstraction from its meaning. This is already a demanding task, and for this reason children were not asked to justify their answers or provide a correction.

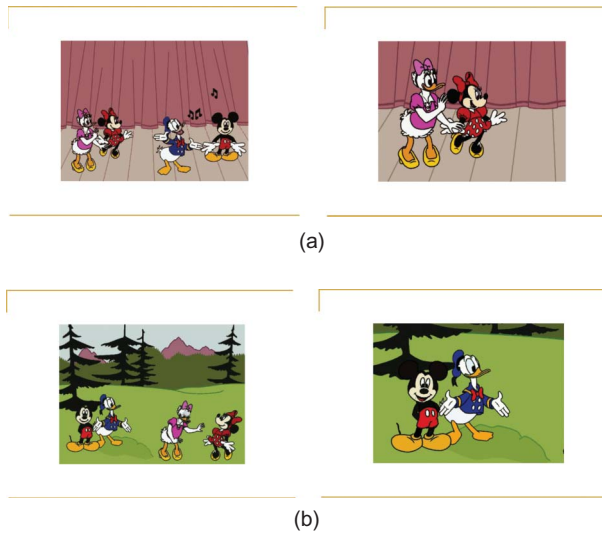


FIGURE 1 Sample materials for the judgment task. “Donald sings and Mickey makes a comment, Minnie and Daisy talk afterwards” is illustrated in (a). “Minnie sneezes and makes a comment, Mickey and Donald talk afterwards” is illustrated in (b) (color figure available online).

- (6) Minnie sneezes and makes a comment, Mickey and Donald talk afterwards (Figure 1b)

Indirect questions, V–Neg

Minnie: Eg eri køld! Hví tók eg ikki eina troyggju við mær?
 I am cold! Why brought I not a sweater with me
 Mickey: Hvat segði Minnie?
 what said Minnie?
 Donald: Hon spurdi, hví hon tók ikki
 she asked why she brought not
 eina troyggju við sær.
 a sweater with her

There was an initial training session with two grammatical and two ungrammatical examples. There were six examples each of V–Neg and Neg–V order in embedded questions; as fillers there were seven grammatical sentences with and without expletive subjects and five ungrammatical sentences that included other irrelevant gender and word order errors. The materials were embedded in a PowerPoint presentation delivered by a 15.4 screen laptop. The participants’ responses were digitally recorded. The instructions were recorded and given in Faroese. Care was taken to ensure that the intonation of sentences was the same for both word orders.¹¹

¹¹A reviewer asks whether there are prosodic differences associated to each word order for speakers who actually produce both orders. While it is our impression that there are no such differences, this is an empirical question that, to our knowledge, has not been studied. Experimentally, controlling for intonation was necessary to exclude the possibility that children may produce judgments based on this factor rather than on the word order.

Our methodology for the production task (see Appendix) was an adaptation of that described in Westergaard & Bentzen (2007). Each child was read a story by the investigator and told that an assistant had a very good memory of the story. The two preschool groups were read the same story; a different one was used for the 9- to 10-year-olds. The child was then reminded of various events in the story and told to ask the assistant if she remembered them, always beginning “Do you remember . . .,” in order to elicit embedded questions. The question word was almost always *why*, because of the relative unnaturalness of most other question words when combined with negation.

In the grammaticality judgment task we used only “main” (non-auxiliary) verbs in order to avoid any possible confound from a difference in verb type (Håkansson & Dooley-Collberg 1994, but see also Waldmann 2008). Our prompts in the production task also involved only main verbs, but frequently the children spontaneously produced examples with auxiliaries.

4.2. Results

Figure 2 shows the mean proportion of positive judgments of acceptability for indirect questions with V–Neg order, for Neg–V order, and for the ungrammatical controls in the judgment task, as well as the proportion of V–Neg order produced in the production task. Visual inspection of the graph suggests that in the judgment task there is an overall preference for the Neg–V order, but that this increases with age, both because the Neg–V order becomes more acceptable (although it starts from a high point, accepted at a mean rate of 77% by the youngest group, rising to 96% in the oldest) and because the V–Neg order becomes less acceptable (falling from a mean rate of 63% in the youngest group to 26% in the oldest). These impressions are confirmed by correlation analyses. There is a significant negative correlation between age (in months) and proportion of V–Neg acceptance, $r = -.449(31)$, $p < .00$, and a significant positive correlation between age and proportion of Neg–V acceptance, $r = 0.352(31)$, $p < .05$. Further, there is a significant correlation between age and the difference in proportion of V–Neg to Neg–V acceptance, $r = -.506(31)$, $p < .01$, confirming that the strength of children’s preference increases with age.

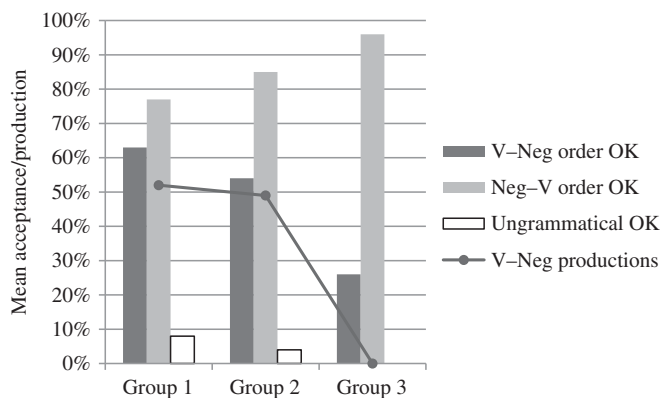


FIGURE 2 Children’s judgments and production.

In the production task, the two younger groups produced the V–Neg order at mean rates of 52% and 49%; the older group was virtually categorical in only producing Neg–V order (in a total of 99 productions of indirect questions with negation by this group, only one production from one child had V–Neg order). Both of the following examples are from a single child in the youngest age group:

- (7) a. *Minnist tú, hví Pippi ekki dugir at skriva?*
 remember you why Pippi NEG can to write
 Do you remember why Pippi can't write?
- b. *Minnist tú, hví Pippi liggur ekki í seingini sum onnur börn?*
 remember you why Pippi lies NEG in bed like other children
 Do you remember why Pippi doesn't lie in bed like other children?

Other examples of sentences produced by children in the middle and older group, respectively, are given in (8) and (9).

- (8) *Minnist tú, hví Pippi ekki tímdi at vaska gólv sum hini?*
 remember you why Pippi NEG felt like washing floor like others
 Do you remember why Pippi didn't feel like washing the floor like the others?
- (9) *Minnist tú, hví mamman ekki kláraði at vaska hárið á Henry?*
 remember you why mother NEG managed to wash hair of Henry
 Do you remember why the mother didn't manage to wash Henry's hair?

Since these data have a binomial response variable (accept or not), we used a logit mixed model to analyze the data from the two younger groups to avoid the problems associated with using ANOVA for data of this kind (see Jaeger 2008 for further discussion).¹² We ran a logit mixed modeling analysis of these data from the younger two groups (the older group could not be included as they were essentially categorical in their responses) with the fixed factors of word order and age and random factor of subject; the younger two groups showed no preference for either order, nor was there a main effect of age nor an interaction between age and word order.

The fact that the two younger groups produced V–Neg order around or above 50% of the time suggests that their relatively high rates of acceptance of this order need not be taken simply as an effect of the judgment task being too hard for them. It is also important to notice that these children overwhelmingly rejected the ungrammatical control sentences, again suggesting that they were able to perform the judgment task.

Inspection of the acceptance and production histograms for V–Neg (Figures 3 and 4) confirms a higher rate of variability within the two younger groups (where children accept and produce

¹²Mixed modelling is a more appropriate statistical technique than ANOVA, because ANOVA is used to analyse continuous data. Our data would therefore need to be converted to proportions to perform an ANOVA, which may lead to violations of the assumptions of ANOVA because confidence intervals may extend beyond the boundaries of proportion data of zero and one, leading to spurious results. Furthermore, mixed modelling has the advantage over traditional techniques of allowing a more sophisticated treatment of unwanted noise in the data.

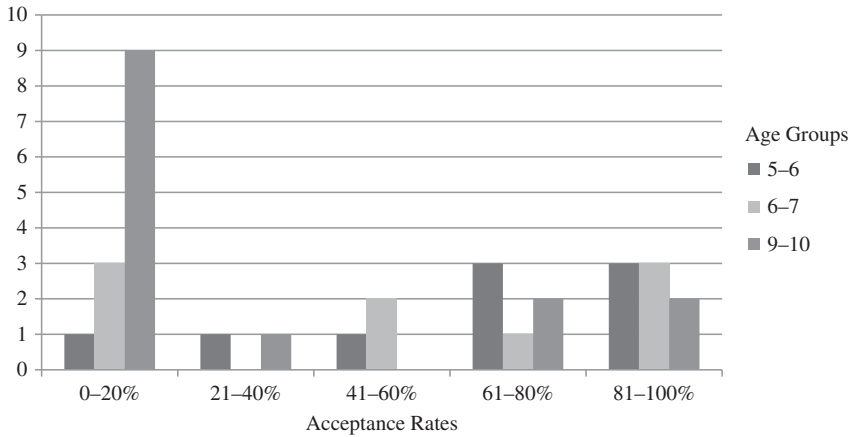


FIGURE 3 Acceptance rates of V-Neg for different age groups.

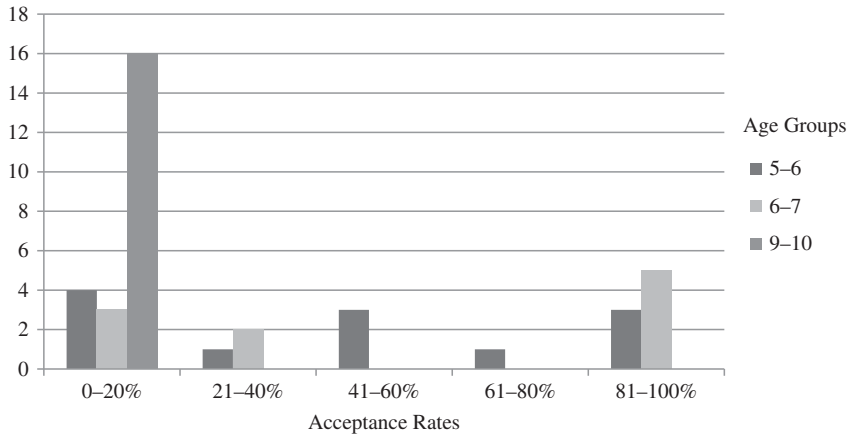


FIGURE 4 Production rates of V-Neg for different age groups.

this order at variable rates) than in the older group, where children are much more homogeneous in their behavior.¹³

We checked to see whether there was any effect of verb type (main vs. auxiliary) on the likelihood of the verb preceding or following negation in production. We give the total *Ns* in Table 5 (as the oldest group was categorical, they are not included here or in the analysis).¹⁴ The proportions for the two youngest groups taken as wholes are graphed in Figure 5.

¹³Further analyses revealed no correlation between acceptance and production of Neg-V and acceptance of V-Neg in individual children. This is probably due to the fact that while all children display very high rates of acceptance and production of Neg-V, there is considerable individual variation with respect to the rates of acceptance and production of V-Neg.

¹⁴Examples with the copula *vera* 'be' are excluded from these data and analysis as it was not clear how to categorize these cases.

TABLE 5
Productions of V–Neg and Neg–V Order by Verb Type

	<i>Verb–Neg</i>	<i>Neg–Verb</i>	<i>Total</i>
Auxiliary	40	13	53
Main	60	45	105
Total	100	58	

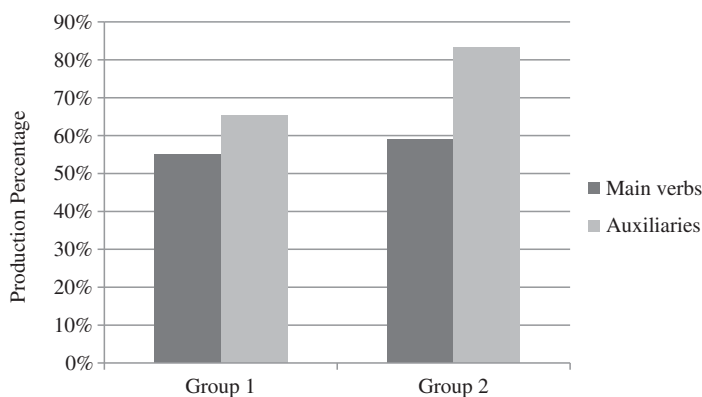


FIGURE 5 Verb–Neg production in the two youngest groups by verb type.

TABLE 6
Summary of the Fixed Effects in the Mixed Logit Model (Loglikelihood = –65.68)

<i>Predictor</i>	<i>Estimate</i>	<i>Std. Error</i>	<i>z value</i>	<i>Pr(> z)</i>
Intercept	2.7883	0.9657	2.887	0.00388
Verb Type	–1.9239	0.6785	–2.836	0.00458

For these data we ran a logit mixed model including the fixed factors of age, gender, and verb type (main vs. auxiliary) and the random factor of subject. There were no significant interactions, only a main effect of verb type: the likelihood of Verb–Neg order is higher with auxiliaries than with main verbs, as shown in Table 6.

5. DISCUSSION

Contrary to any expectation that preliterate Faroese children might show the least amount of V-to-T, our results show that in fact preschool children up to the age of 7 years old show higher rates of acceptance and production of this order than 9- to 10-year-olds. This suggests a developmental account, particularly in the light of the data from Swedish and Tromsø Norwegian. On the other hand, this pattern persists in Faroese children at least up to the age of 7;00, which is older than has been reported for either Swedish or Tromsø Norwegian (see above). As our data were

gathered using different methodologies than those of either Waldmann (2008) or Håkansson & Dooley-Collberg (1994), however, a direct comparison between Swedish children (whose input is invariant) and Faroese children (whose input may still be variable) has yet to be made.

As reported also for the Tromsø Norwegian children in Westergaard & Bentzen (2007), we found no evidence that the children were giving these embedded questions the syntax of root questions, as even the youngest children never moved the verb to the left of the subject. Thus we have children who produced indirect questions like (10), but they did not produce (11b) by analogy to (11a):

- (10) Minnist tú, um hesturin tímdi ikki at vera inni?
remember you if horse.DEF wanted NEG to be inside
Do you remember if the horse didn't want to be inside?
- (11) a. Tímdi hesturin ikki at vera inni?
wanted horse.DEF NEG to be inside
Didn't the horse want to be inside?
- b. *Minnist tú, um tímdi hesturin ikki at vera inni?
remember you if wanted horse.DEF NEG to be inside
Do you remember if the horse didn't want to be inside?

Like Westergaard & Bentzen (2007), we conclude that our children were not generalizing the syntax of root questions to these indirect questions.

A second possible alternative analysis of the children's data is that the finite verb is in C, or some Topic projection, and the question word in some yet higher projection, along the lines of (12):

- (12) . . . [_{CP} if [_{TOPP} the horse_i [_{TOP'} wanted_j [_{TP} t_i [_{T'} [_{VP} NEG [_{VP} t_j . . .

There are two reasons to reject this analysis. First, it would attribute to the children a grammar unlike any that we are familiar with. Even in Icelandic, which has been argued to allow V2 very freely in embedded contexts, it is never possible to embed V2 within an indirect question in this way (see, e.g., Vikner 1995). Second, it would not explain the different behavior of main verbs and auxiliaries. We know from modern English that these verb types may have different privileges of access to T, but any difference in their ability to move higher is strictly parasitic on that. It would therefore be surprising if in these children's grammars the main verb/auxiliary verb distinction was affecting direct movement into the C domain.

Having set aside these two alternatives, we conclude that the younger Faroese children do not have more generalized V2 than the adults; rather they have variable V-to-T at a rate that as far as we can tell greatly exceeds that in the input. A possible explanation for this is offered in Westergaard & Bentzen (2007) for their Tromsø Norwegian children: in brief, in the course of acquisition children seek to adopt a grammar that minimizes the amount of movement that has to be postulated; they therefore initially analyze subject-initial root V2 structures as TPs and hence interpret the V–Neg orders that are found in root clauses as evidence for V-to-T.

This analysis predicts this developmental path in any V2 SVO language; thus we would expect children learning standard Danish, Swedish, or Norwegian also to initially overgeneralize V-to-T.

As we have seen, there is some evidence that indeed this does happen in Swedish, although the children seem to abandon this analysis earlier than in Tromsø Norwegian or Faroese.

A remaining possibility is that variable V-to-T in Faroese children could be attributed to residual variability in the adult language. We have shown above that production of V–Neg word order is very limited in Faroese, both in corpus data and in naturalistic interactions with children and adults. However, evidence from experimental work with adults (Heycock et al. 2012) demonstrates that this order is not completely rejected by Faroese speakers in grammaticality judgment tasks. First, intra-language comparison shows that sentences with V–Neg orders in contexts where V2 is excluded, although dispreferred to those with the alternative Neg–V order, are much more acceptable than those exhibiting a number of other syntactic violations. Second, inter-language comparison with Danish, a related language but one in which V-to-T was lost three centuries ago, shows that Danish speakers judge V–Neg orders exactly like other cases of V2, while Faroese speakers do not. Instead, the judgments of Faroese speakers suggest that they still have limited access to a grammar with V-to-T. Does “limited access” mean that the speakers have two competing grammars, or rather that they do not have V-to-T in their mental grammar but recognize this structure as part of an obsolete variety of the language? While the data do not allow us to adjudicate unambiguously between these possibilities, we have argued that the evidence from grammaticality judgments suggests that the V–Neg option is still marginally part of the mental grammar of adult Faroese speakers; they are still at the “tail end” of the process of losing V-to-T movement. The V–Neg order may be so dispreferred with respect to the alternative that it is produced by adults only rarely, but its marginal presence in the grammar is manifested in other more subtle ways.¹⁵ The same question arises for children: are the patterns evinced in our study a classic case of grammar competition (Kroch 1989; Roeper 1999; Yang 2004), or are they rather the result of averaging among children who consistently allow V–Neg and children who consistently do not allow this order? Inspection of the histograms in Figures 3 and 4 indicate that it is not the case that the younger children are split in these two categorical groups: instead they alternate the two word orders in production and judgments to variable rates.¹⁶

¹⁵In future research we plan to make use of different experimental methodologies, such as syntactic priming (Pickering and Branigan 1999), which may be more suitable to test the “implicit” presence of the variant in speakers’ grammars.

¹⁶A reviewer suggests similarities between the data presented here and a study by Han, Lidz & Musolino (2007), which shows that Korean children exposed to scarce and ambiguous evidence of verb raising end up either representing V-raising or not representing it at all, with the two settings chosen randomly. Whether the case of Faroese children is similar or different hinges on the quality of the evidence from adult input: the Faroese child-directed data available to us seems to overwhelmingly lack overt evidence of V-to-I (with the limited exception of fairy tales), but we need a wider range of production data and contexts of interaction, as well as consideration of adult-to-adult speech that may be available to children. Another reviewer notices analogies between our data and the findings of Schönenberger’s (2010) study, where two Swiss-German children overgeneralize Verb Second in embedded clauses introduced by *wil* ‘because.’ This is a context in which adults generally use the verb final order to express a factive reading and, less often, use the V2 order to express speaker attitude: both orders are grammatical and children’s problem is the late learning of the interface conditions on their distribution, resulting in the overgeneralization of the V2 pattern. In contrast, there are no documented semantic or pragmatic conditions on Neg–V and V–Neg in non-V2 Faroese contexts: Faroese children’s use and acceptance of V–Neg therefore cannot be due to delays in learning these conditions. One alternative account is that children, upon hearing V–Neg occasionally, “regularize” the probability distribution of the two word orders by boosting the rate of occurrence of the least frequent order, as shown by Hudson Kam & Newport (2009) in artificial grammar experiments. This account, however, crucially hinges on the children’s obtaining at least some evidence for V–Neg in the input.

While we do not have spontaneous child production data, it is conceivable that young children's occasional production of V–Neg may go unnoticed by parents and therefore uncorrected, either explicitly or implicitly (Saxton 2000).¹⁷ Alternatively, it is possible that parents spontaneously align with their children's occasional production of this structure (Pickering & Garrod 2004; Costa, Pickering & Sorace 2008; Kunert, Fernández & Zuimeda 2011), thus providing them with indirect positive evidence.¹⁸ Neither of these possibilities could be directly tested by the methods employed in our study, but future research could establish whether parent-child priming and alignment is more likely to occur for this structure than for other ungrammatical structures due to its marginal acceptability.

6. CONCLUSION

The data reported in this article show that Faroese preschool age children produce and accept a word order that is now extremely rare—at best—in adult speakers' production and strongly disfavored in their grammaticality judgments. The discrepancy between the child and the adult behavior points to subtle residual effects of the change from V-to-T that have been taking place in Faroese and that we know took place in the Mainland Scandinavian languages. We plan to explore these effects further in future research. Furthermore, there are wider implications of these findings for models of diachronic change. Given the very scant data available in an SVO language to determine whether V-to-T is possible in the absence of V2, it might have been surmised that the diachronic change could initially have been triggered by children failing to get enough evidence for V-to-T, and that it might subsequently have been driven by children underestimating its frequency in the target grammar. These findings suggest that this is an unlikely scenario, since the acquisition bias appears to be in the other direction (the children initially hypothesize more V-to-T than is warranted by the input). Indirectly, this may thus lend support to the hypothesis that the change may have been initiated by some external factor—the most likely, but by no means the only, possible culprit in this case being contact with Danish—and that an initial acquisition bias against V-to-T cannot be what has kept the change going.

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¹⁷While it is well known that explicit feedback such as error correction does not generally lead to change in children's grammars, the role of implicit negative evidence (confirmation checks, clarification requests, recasts, and other interactional ways of providing the correct version of the child's incorrect utterance) is more controversial: it is at least possible that children notice the gap between their original utterance and the version provided by the interlocutor and revise their grammar accordingly.

¹⁸Our limited samples of child-directed adult data contain very rare instances of V–Neg. However, alignment would be a different type of production data, which is contingent on the child's spontaneous production of V–Neg.

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APPENDIX: MATERIALS FOR THE PRODUCTION TASK

Examples of story prompts used with younger children

(1) Á hesari myndini síggja vit, at Pippi ber ein hest uppi yvir høvðinum á sær. Annika og Tummas trúðu ikki, at Pippi var so sterk. Hví trúðu tey tí ikki? Vit vita hví: ein lítil genta kann ikki bera ein hest. Men heldur tú, at X minnst hví? Spyr X um tað og byrja við: “Minnst tú . . .”

In this picture we see that Pippi is carrying a horse over her head. Annika and Thomas did not believe that Pippi was so strong. Why didn't they believe it? We know why! A small girl cannot carry a horse. But do you think that X remembers why? Ask X about it and start with: “Do you remember . . .”

Expected response: Minnst tú, hví Annika og Tummas (ikki) trúðu (ikki), at Pippi remember you why Annika and Thomas (not) believed (not) that Pippi kundi bera ein hest?
could carry a horse?

(2) Pippi noyðist ikki at fara tíðliga í song. Vit vita hví: Tað er, tí at hon býr einsamøll og eigur eingi foreldur. Tí noyðist hon ikki at fara tíðliga í song. Heldur tú, at X minnst hví? Spyr hana: Minnst tú, hví . . .

Pippi doesn't have to go to bed early. We know why: It is because she lives alone and has no parents. Therefore she doesn't have to go early to bed. Do you think that X remembers why? Ask her: Do you remember why . . .

Expected response: Minnst tú, hví Pippi (ikki) noyðist (ikki) at fara tíðliga í song.
remember you why Pippi (not) had (not) to go early to bed?

Examples of story prompts used with older children

(1) Henry skundar sær ikki yvir til mammu sína. Heldur tú, at X minnst hví . . . Spyr hana: Minnst tú, hví . . .

Harry doesn't hurry to his mother. Do you think that X remembers why . . . Ask her: Do you remember why . . .

Expected response: Minnist tú, hví Henry (ikki) skundar sær (ikki) yvir til mammu sína?
remember you why Harry (not) hurries self (not) over to mother his?

(2) Mamman fann ikki lýs í hárinum á Fríðriki. Heldur tú, at X minnist hví? Spyr hana: Minnist tú, hví . . .

The mother didn't find any lice in Fredrik's hair. Do you think that X remembers why? Ask her: Do you remember why . . .

Expected response: Minnist tú, hví mamman (ikki) fann (ikki) lýs í hárinum á Fríðriki?
remember you why mother.def (not) found (not) lice in hair.def of Fredrik