

Verb Second Word Order in Norwegian Heritage Language: Syntax and Pragmatics*

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1. Introduction

In this paper, we investigate verb second (V2) word order in Norwegian heritage language spoken in the United States, i.e., in a situation where the heritage speakers have English as their dominant language. We show that not only the syntax of V2 may be affected in a heritage language situation, but that the number of contexts for this word order may also be severely reduced (i.e., non-subject-initial declaratives). V2 languages typically have a high proportion of non-subject-initial declaratives in spontaneous speech, while English declaratives are mainly subject-initial. The reduction of non-subject-initial declaratives (the context for V2) is thus argued to be the result of cross-linguistic influence from English. We also show that this correlates with non-target-consistent word order, in that the fewer contexts for V2 that speakers produce, the more non-target-consistent non-V2 word order appear in their data. We also discuss to what extent there is a causal relationship between the two phenomena.

This paper is structured as follows. Section 2 presents some basic properties of V2

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languages and English, focusing on the interplay of verb placement and pragmatic structure. In section 3, some previous research on word order and pragmatic structure in different populations is presented. Our research questions for this paper are formulated in section 4, and section 5 presents our participants and methodology. Section 6 contains the results of our investigation, and in section 7, we provide a general discussion of our findings in relation to our research questions. A brief summary is given in section 8.

2. V2 syntax and pragmatics

V2 word order is a relatively robust property of all Germanic languages except present-day English, which has an SVO grammar. Traditionally, V2 is defined as a requirement that the finite verb appear in second position in main clauses. Importantly, V2 word order is only distinguishable from SVO syntax in declaratives that start with a non-subject, such as in (1).

- (1) I går **spiste vi** fisk til middag.
yesterday ate we fish to dinner
'Yesterday we had fish for dinner.'

In subject-initial declaratives, on the other hand, the V2 word orders will be identical to SVO. There is considerable discussion in the literature as to whether or not subject-initial clauses involve a different underlying structure than non-subject-initial ones (see Travis 1984, Zwart 1997 and many others for extensive discussion). In this paper, we assume that only non-subject-initial declaratives provide a relevant cue for V2 syntax, and that these clauses involve movement of the verb to some left-peripheral position, following den Besten's (1983) original analysis, further developed in Haider & Prinzhorn (1986), Platzack (1986), Holmberg (1986), Diesing (1990), Sigurdsson (1990), Rögnvaldsson & Thráinsson (1990), Vikner (1995), and

Holmberg & Platzack (1995). Subject-initial declaratives have a different structural representation, arguably involving verb movement to a lower position in the inflectional domain of the clause (Travis 1984, Rögnvaldsson & Thráinsson 1990, Zwart 1997, Westergaard, Lohndal & Alexiadou 2016).

The pragmatic structure of declaratives can be said to be reflected in the type of element that starts the clause. In Germanic V2 languages, the proportion of non-subject-initial declaratives is relatively high, as approximately 30-40% of all declaratives start with a non-subject in spontaneous production; see e.g., Lightfoot (1999), Westergaard (2009a) or Bohnacker & Rosén (2008). In English, on the other hand, the proportion of non-subject-initial declaratives is much lower, as subjects are preferred in initial position. As Yang (2001: 242) observes, “[...] based on the Penn Treebank, a corpus of modern English, [...] less than 10% of all sentences have V<2 word order”. This percentage includes both XSV and SXV orders, demonstrating that XSV is rare and that there is a clear preference for SVO in English.

Thus, the difference between Norwegian and English is both syntactic and pragmatic: English is SVO and prefers subjects in initial position, while Norwegian is V2 and typically has a high number of non-subject-initial declaratives (the context for V2). These properties make it especially interesting to study speakers where English and Norwegian are in contact. Norwegian heritage speakers in the US are precisely such speakers, as they are bilinguals that are native speakers of Norwegian, while they are dominant in English.

3. Previous research

Verb second word order is attested in monolingual acquisition from a very early age: Finite verbs are found in 2nd position from the earliest relevant utterances in corpora of Germanic V2 languages; see e.g., Clahsen (1990, 1991) for German, Blom (2003) for Dutch, Waldmann (2008, 2012) for Swedish, and Westergaard (2009a) for Norwegian. Examples from Norwegian

child language are provided in (2)-(3), showing that the finite verb appears in front of the subject.

(2) der er mann. (Ina.01, age 1;8.20)

there be.pres man

‘There is (a/the) man.’

(3) så tegne æ mamma. (Ina.02, age 1;10.4)

then draw.pres I mommie

‘Then I draw mommie.’

Furthermore, the acquisition of verb movement has been shown to be a step-by-step rule-based process, attested in Norwegian, Swedish, and English child language (cf. Waldmann 2012, Westergaard 2009a, b). For example, V2 in Norwegian declaratives is typically attested first with the verb *be* and full DP subjects, while this word order lags behind in declaratives with pronominal subjects.

In L2 (or Ln) acquisition, the Norwegian V2 word order has been shown to be a challenge for certain learners whose previously acquired language(s) do(es) not have a V2 requirement (e.g., Brautaset 1996). Bohnacker & Rosén (2008) have found that if both the L1 and the L2 are V2 languages, learners do not have any problems with the syntax of V2. However, they show that V2 languages may vary considerably with respect to the pragmatic structure of declaratives, reflected in the type of elements typically appearing in initial position: For example, while German declaratives often have informationally heavy (rhematic) elements clause-initially, the corresponding position in Swedish is mainly filled by informationally light (thematic) elements (especially *det* ‘it’). In a study of L1 Swedish learners of L2 German, they find that, while V2 syntax is attested from early on, the learners transfer the pragmatic structure

of Swedish into their L2 German for an extended period of time; i.e., the distribution of initial element types in their L2 corresponds to the typical Swedish distribution. An example of a (written) sentence in German produced by one of these learners is illustrated in (4), while example (5) represents the same sentence after it has been corrected by a native speaker of German, who has placed a heavier element in initial position.

- (4) **Es** ist in dem königlichen Zimmern, wo den Besuchern die Motive aus mittelalterem Märchen begegnen ...

it is in the royal rooms where the visitors the scenes from mediaeval sagas encounter ...

- (5) **In den königlichen Zimmern** begegnen den Besuchern Motive aus mittelalterlichen Märchen ...

In the royal rooms encounter the visitors scenes from mediaeval sagas ...

‘In the royal rooms visitors will encounter scenes from mediaeval sagas’

In the history of English, the loss of V2 word order in declaratives correlates with a reduction in the number of non-subject-initial declaratives in the historical texts. This has typically been referred to as a development where the clause-initial position is increasingly defined as a subject position (e.g., van Kemenade & Los 2006). This means the structure in (6a) becomes less frequent over time in English, being replaced by the structure in (6b).

- (6) a. [XP – V_{fin} – S]
 b. [S – V_{fin} – ...]

It is unclear to what extent the two developments (loss of V2 syntax, reduction of non-subject-

initial declaratives) are causally related, and if so, what is cause and effect. Speyer (2008) has argued that the loss of V2 syntax led to a reduction in non-subject-initial declaratives, due to what he calls the *Clash Avoidance Requirement*, a dispreference for two prosodically prominent elements in adjacent positions (thus excluding a structure with a relatively heavy initial element followed by a heavy subject, e.g., [XP – DP_{subj} ...]). The opposite development is argued for by van Kemenade & Westergaard (2012): Loss of information structure effects and a corresponding reduction of non-subject-initial clauses led to fewer V2 contexts in the input to learners, and thus eventually to a loss of the syntax of V2.

Finally, we consider previous studies on heritage languages. When a property is attested in a heritage language that is different from the non-heritage variety of the language, this is typically referred to as the result of either attrition or arrested development (sometimes referred to as incomplete acquisition; see e.g., Montrul 2008). In heritage Icelandic, heritage Danish, as well as heritage German, it has been shown that, although V2 syntax seems relatively robust, occasional examples of non-V2 word order are attested in contexts where this would be ungrammatical in the non-heritage variety of the language (Arnbjörnsdóttir, Thráinsson & Nowenstein to appear, Köhl & Heegård Petersen to appear, Schmid 2002). This has also been attested in previous studies on heritage Norwegian (Strømsvåg 2013, Eide & Hjelde, 2015, Johannessen 2015a, Larsson & Johannessen 2015, Khayitova 2016). In general, it seems fair to say that examples of non-V2 word order are relatively infrequent. An example is illustrated in (7).

(7) Og der **dem lager** vin.

and there they make wine

‘And there they make wine.’

Target: Og der **lager dem** vin. (Eide & Hjelde 2015: 89)

4. Research questions

In this paper, we ask the following research questions:

1. May the pragmatic structure of declaratives be affected in a heritage language situation, similar to what has been found for L2 acquisition?
2. If so, what is the relationship between the proportion of contexts for V2 (non-subject-initial declaratives) and the loss of V2 syntax?
3. Why do there only seem to be occasional examples of non-V2 in heritage language data?
4. Could the production of non-V2 in Norwegian heritage language be considered the result of arrested development?

To address these questions, we conduct a study of a spoken corpus of heritage Norwegian spoken in the US (more on this below)

5. Participants and Methodology

Current speakers of Norwegian in the US are 2nd- to 4th-generation Norwegian-Americans, that is, descendants of immigrants from Norway that arrived in the US in the late 19th and early 20th century. They learned Norwegian from birth in the home, from their parents and grandparents. For most of the current speakers, the community played a limited role, related to the decline of Norwegian communities in the US (see Haugen 1953 and Lovoll 1999 for more on the general linguistic and social situation). These speakers acquired English from age 5-6, and from then on, English became their dominant language. The current speakers are quite old (70-90 years of age) and have not passed on their heritage language to the next generation. Thus, today Norwegian is only used for special occasions with a limited set of speakers. Furthermore, the heritage speakers have minimal or no literacy in Norwegian.

Our data come from the Corpus of American Norwegian Speech (CANS; Johannessen

2015b), which currently comprises transcribed data from 50 heritage speakers of Norwegian heritage language. So far, we have investigated 16 of the informants (6 female, 10 male). We compare these data with data from two speakers of non-heritage Norwegian in the Nordic Dialect Corpus (NDC; Johannessen et al. 2009), which contains data from 400 informants from approximately 100 locations in Norway. The corpora are similar, in that both consist of transcribed speech collected through structured conversations and interviews. However, we have relatively sparse data per speaker.

Concretely, we investigated the transcribed files manually, as it is not possible to search the corpus based on syntactic function. Subject-initial and non-subject-initial declaratives were identified, and for the latter, the clauses were also sorted according to whether or not they exhibited a V2 or a non-target-consistent non-V2 word order. Importantly, well-known exceptions to the V2 rule were discarded, e.g., initial *kanskje* ‘maybe’; see Eide (2011), Bentzen (2014). All files have been checked by at least two speakers of Norwegian.

6. Results

Let us first consider the results from the NDC. Table 1 shows the percentage of non-subject-initial declaratives for two speakers. The two speakers are very similar and we assume that they are representative of the situation in Norwegian, whereby approximately 30% of all declaratives are non-subject-initial.

Table 1: Subject-initial and non-subject-initial declaratives in the Nordic Dialect Corpus (n = 2, 1 female).

	Subject-initial	Non-Subject-initial (all V2)	Total declaratives
dalsbygda_03gm	224	100 (30.9%)	324

dalsbygda_04gk	214	94 (30.5%)	308
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Table 2 displays the findings for the 16 speakers in CANS that we are considering in this paper, sorted according to their proportion of non-subject-initial declaratives.

Table 2: Subject-initial and non-subject-initial declaratives in the Corpus of American Norwegian Speech (n = 16, 6 females).

Speaker	Subject-initial	Non-Subject-initial (V2+non-V2)	% Non-V2	Total
westby_WI_02gm	68	31 (31.3%)	-	99
coon_valley-WI_07gk	115	33 (22.3%)	1/33 (3%)	148
westby_WI_06gm	178	45 (20.2%)	4/45 (8.9%)	223
westby_WI_01gm	509	160 (19.6%)	2/160 (1.3%)	669
zumbrota_MN_02gm	137	33 (19.4%)	-	170
coon_valley_WI_06gm	260	57 (18%)	2/57 (3.5%)	317
zumbrota_MN_01gk	326	62 (16%)	5/62 (8.1%)	388
fargo_ND_01gm	174	31 (15.1%)	6/31 (19.4%)	205
westby_WI_05gm	85	15 (15%)	-	100
westby_WI_03gk	350	57 (14%)	-	407
portland_ND_02gk	157	25 (13.7%)	-	182
webster_SD_02gm	52	8 (13.3%)	-	60
blair_WI_04gk	217	23 (9.6%)	3/23 (13%)	240
chicago_IL_01gk	483	49 (9.2%)	4/49 (8.2%)	532
blair_WI_07gm	199	19 (8.7%)	2/19 (10.5%)	218

webster_SD_01gm	330	19 (6.0%)	8/19 (42.1%)	349
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As the table shows, speakers differ quite substantially in terms of the proportion of non-subject-initial clauses that they produce. Furthermore, the table verifies the previous findings that some speakers also produce non-V2 structures, another domain in which there is considerable variability: the percentage ranges from only V2 to 42.1% non-V2. Examples from the corpus illustrating V2 and non-V2 are provided in (8) and (9) respectively.

- (8) a. og da mamma # gikk der # så **møtte hun** faren
and when mom went there then met she father
min (chicago_IL_01gk)
my
‘And when my mother went there, she met my father ...’
- b. han hadde ett **sa han** (westby_WI_01gm)
he had one said he
‘He had one, he said.’
- (9) a. det er rart ... i Norge **de ville** aldri møttes (chicago_IL_01gk)
it is strange ... in Norway they would never meet
‘It is strange ... in Norway they would never have met.’
- b. Når jeg taler norsk, **jeg taler** ... (blair_WI_07gm)
when I speak Norwegian, I speak ...
‘When I speak Norwegian, I speak ...’

In order to consider the relationship between non-target-consistent word order and the number of contexts for V2, we ran a correlation test and found a significant correlation between the

percentage of non-V2 and the proportion of non-subject initial declaratives ($t = -2.52$, $df = 14$, $p = 0.024$, $R^2 = 0.31$). This is illustrated in Figure 1.

<Figure 1 about here>

Figure 1: Non-target-consistent non-V2 correlates statistically with low production of context for V2 (non-subject-initial declaratives). $p < 0.05$.

In other words, the lower the proportion of contexts for V2 word order, the more non-target-consistent non-V2 speakers produce. The next section discusses what this finding tells us about the relationship between pragmatic and syntactic structure in this heritage language.

7. Discussion

We formulated four research questions above, which we discuss in turn here. The first research question concerns whether or not the pragmatic structure of declaratives may be affected in a heritage language situation, similar to what has been found for L2 acquisition. From the data presented in the previous section, we see that the initial element of declaratives in heritage Norwegian is quite different from what is found in the non-heritage variety, as there is a considerable reduction in the production of non-subject-initial clauses (the relevant contexts for V2). In the data of some speakers, the proportion of initial non-subjects is as low as 6%, which is similar to the distribution that is typical of English. A likely explanation for this reduction is that it is related to cross-linguistic influence from these speakers' dominant language. These heritage speakers are quite old and have been dominant in English throughout their adult lives. Thus, the typical distribution of initial elements in English declaratives overrides the pragmatic structure of Norwegian, the weaker language of these bilinguals. An alternative account of this

finding could be that SVO word order is chosen because it is less complex than non-subject-initial declaratives and also leads to greater word order rigidity. This has been suggested for other heritage languages, e.g., Russian or Spanish (Benmamoun, Montrul & Polinsky 2013, Scontras, Fuchs & Polinsky 2015), but in these cases, the majority language of the heritage speakers was also English, and it is thus impossible to distinguish between the two accounts.

Our second research question asks whether there is a relationship between the number of contexts for V2 and the loss of V2 syntax. According to the statistical analysis, there is a correlation between the two, in the sense that the fewer the contexts for V2 (non-subject-initial declaratives), the more non-V2 errors the speakers produce. Thus, the situation in heritage Norwegian is similar to what has been found for the history of English (cf. section 3). Clearly, a correlation does not necessarily mean that the two findings are causally related: It is possible that the speakers' production is affected by their general proficiency in the heritage language and that the non-target-consistent production of V2 word order would also correlate with other deviant forms, e.g., grammatical gender (Lohndal & Westergaard 2016). However, *if* the two phenomena are causally related, there are of course two possible scenarios, as in the history of English: (i) the loss of V2 syntax leads to a reduction in non-subject-initial declaratives, or (ii) the development is the other way around, in that the reduction in contexts for V2 leads to the loss of the syntax of V2.

We believe that there is some evidence against scenario (i): The heritage Norwegian speakers still use V2 syntax; note that even the speaker who only produces 6% non-subject-initial declaratives uses this word order close to 60% (cf. Table 2). Thus, the syntax of V2 is not lost from the I-language grammars of the heritage speakers, and it should be possible to retrieve it in cases where it would be necessary for prosodic Clash Avoidance (Speyer 2008). Furthermore, in the heritage speaker data – as in spontaneous spoken language in general (see e.g., Westergaard 2010) – subjects are predominantly realized as pronouns, and in those cases,

there is no prosodic clash, as the (heavy) initial element would be followed by a prosodically light subject. Thus, we find it more likely that the development is the other way around: Due to these speakers being unbalanced bilinguals (just like L2 learners, cf. Bohnacker & Rosén 2008), the pragmatic structure of their dominant language is affecting the distribution of initial elements in declaratives, causing them to produce a predominance of subject-initial clauses. This means that the context for V2 syntax is severely reduced in their own production, leading to this word order becoming vulnerable to further cross-linguistic influence from English. This means that the representation of V2 syntax is presumably (more or less) intact in the I-language grammar of these heritage Norwegian speakers, but due to lack of use of Norwegian and especially the context for V2 word order, the syntax of V2 becomes harder to retrieve in production.

We now turn to the third research question, which asks why there seem to be relatively few examples of non-V2 in heritage data. The answer to this question may be quite trivial. We have seen that the speakers who have the most problems with V2 syntax also produce very few contexts for V2, i.e., declaratives with initial non-subjects. This means that these speakers in some sense avoid V2 syntax, and consequently, there will be few non-target-consistent examples in the data.

The last research question is concerned with whether or not the production of non-V2 in Norwegian heritage language is a result of (so-called) incomplete acquisition or arrested development, as has been argued for by Khayitova (2016). We consider it unlikely that V2 is not completely acquired in childhood, for two reasons: First, these heritage speakers were monolingual children until approximately age 6. Based on research on first language acquisition and V2, including work on Norwegian (Westergaard 2009a), we know that V2 is typically acquired early. Thus, there is no reason to think that these speakers of Norwegian heritage language did not acquire V2 target-consistently as children. One may question whether or not

a change in the grammar could have already taken place, meaning that the input to the speakers in our corpus had examples of non-V2. It is not possible to determine this, since we do not have comparable data from the previous generation. However, as Eide & Hjelde (2015) argue, there is very little, if any, non-V2 in Norwegian heritage language data before the recordings in CANS. This suggests that the input to the speakers was relatively robustly V2.

The second argument which goes against arrested development is the fact that acquisition is typically a rule-based step-wise development. In Norwegian, V2 first appears with the verb *be* and a DP subject, and then later on, the child generalizes it to all verbs and all subjects, possibly with an intermediate stage allowing all subject types but restricted to the verb *be* (Westergaard 2009a, 2014). If V2 had been incompletely acquired, it is to be expected that some step is not acquired and that this emerges in production in a way that is rule-governed. The data we have so far for the 16 American Norwegian speakers discussed in this paper do not provide evidence of rule-governed production. Rather, the production of non-V2 seems to be unpredictable, which is more in line with the idea of *attrition* (cf. Lohndal & Westergaard 2016). This has also been argued for by Larsson & Johannessen (2015).

8. Conclusion

In this paper, we have shown that not only purely syntactic properties such as V2 word order may be affected in a heritage language situation, but the distribution of contexts for this word order may also be severely reduced (i.e., non-subject-initial declaratives). We have argued that this is a result of cross-linguistic influence from English, the speakers' dominant language, since English has a different distribution with respect to pragmatics/information structure of declaratives, in that most declaratives are subject-initial. A reduction in the context for V2 word order subsequently leads to less activation of the syntax of V2, and as a result, this word order will be harder to retrieve in production. Thus, the two processes correlate, possibly one causing

the other. If so, we would argue that the reduction of contexts for V2 word order affects V2 syntax in the sense that it becomes vulnerable to (non-representational) cross-linguistic influence from English.

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