

Forgotten Factors in the Development of Dependent Clauses in Swedish as a Second Language

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Abstract

This paper is concerned with the acquisition of Swedish dependent clauses. In a longitudinal study of Belgian foreign language learners of Swedish, three factors were found to be of special relevance in the learner's successive acquisition of dependent clauses: (i) finiteness, i.e. the difference between finite and non-finite complements; (ii) complementizers, i.e. the acquisition of different complementizers (iii) dependent clause types, i.e. the acquisition and use of different types of dependent clauses. My study emphasizes the importance of acknowledging a wide array of structural factors besides internal word order, which has hitherto been the main focus in studies on the acquisition of Swedish dependent clauses.

1 Introduction

In the area of Second Language Acquisition in general, subordination is often linked to syntactic complexity. Relative frequency of subordination is sometimes even used as a measure of syntactic complexity in studies on linguistic complexity (Norris & Ortega, 2009). However, Baten & Håkansson (2015) recently argued that it is the internal structure of the subordinate clause, rather than its frequency ratio, which is relevant when analysing language development.

In Swedish, dependent clause word order is typically acquired late (see for instance Glahn et al., 2001) and often perceived of as a difficult feature to acquire in Swedish (Baten & Håkansson, 2015). Most studies on the acquisition of dependent clauses in Swedish language development have focused on the internal structure, but on word order almost exclusively; see, e.g., Baten & Håkansson, 2015; Glahn et al., 2001; Håkansson & Nettelbladt, 1993; Håkansson & Norrby, 2010; Hammarberg & Viberg, 1977; Hyltenstam, 1977. Word order is indeed the most obvious contrast between main and dependent clauses in Swedish. In main clauses, sentence adverbials follow the finite verb, whereas they precede the finite verb in dependent clauses¹. This rule applies irrespectively of whether the finite verb is an auxiliary or a main verb, as illustrated in (1)–(4).

- (1) Hon berättar *aldrig* sanningen.
She tell.PRS never truth.DEF
'She never tells the truth.'

¹ As is well known, some dependent clause types (especially narrative *att*-clauses) allow main clause word order, a phenomenon commonly referred to as embedded V2. I will not be concerned with such clauses in this paper.

- (2) Hon fick *aldrig* veta sanningen.
 She get.PST never know.INF truth.DEF
 ‘She never got to know the truth.’
- (3) När hon *äntligen* berättade sanningen blev hon ledsen.
 When she finally tell.PST truth.DEF become she sad.
 ‘When she finally told the truth, she became sad.’
- (4) När hon *äntligen* fick veta sanningen blev hon lättad.
 When she finally get.PST know.INF truth.DEF become she relieved.
 ‘When she finally got to know the truth, she became relieved.’

Given the obvious linear distinction between (1) and (2) on the one hand and (3) and (4) on the other hand, it is perhaps not surprising that most of the above-mentioned studies have focused on the placement of negation in relation to the finite verb. The problem with such a focus is that it limits the field of investigation, as most dependent clauses do *not* contain negation, after all. Hence, one has to design tests with the specific purpose of eliciting dependent clauses containing clause adverbials. Elicitation tasks always have their limitations of course, because a restricted number of clause types can be tested.

Moreover, most of the above-mentioned studies tested the placement of negation particles in relative clauses as an only diagnostic (Baten & Håkansson, 2015; Glahn et al., 2001; Håkansson & Nettelbladt, 1993; Norrby & Håkansson, 2007). This means both that other dependent clause types and other sentence adverbials have received little attention in the literature so far.

This article builds on a longitudinal study of 21 Dutch-speaking foreign learners of Swedish. By examining seven consecutive written texts by each informant, I have charted the linguistic development for a duration of 1 year and 3 months. The results indicate the importance of three factors that have not been discussed extensively in relation to the acquisition of dependent clauses in Swedish as a foreign language: (i) finiteness, i.e. the difference between finite and non-finite complements; (ii) complementizers, i.e. the acquisition of different complementizers (iii) dependent clause types, i.e. the acquisition and use of different types of dependent clauses. Based on these results, I conclude that we must look beyond both subordination ratio and internal word order if we want to arrive at a full understanding of the process of acquiring dependent clause structures in Swedish.

2 Dependent clauses in Swedish

In Swedish, a prototypical dependent clause is traditionally defined as an embedded clause introduced by a subordinating conjunction and containing a finite verb (Teleman et al 1999: 4, 462).² Three main types of dependent clauses are usually distinguished, based on their

² An exception to this rule is that the finite auxiliary *har/hade* ‘have/had’ before the supine in the perfect tense can be omitted, leaving the clause with only a nonfinite verb form:

(i) Han var inte full, men han märkte att han (hade) druckit.
 He was not drunk, but he noticed that he had drunk
 ‘He wasn’t drunk, but he could feel that he had been drinking.’

grammatical function in the sentence (SAG 4: 462-472): *noun clauses*, *attributive clauses* and *adverbial clauses*. Noun clauses function as arguments to the verb and can be subjects, direct objects, predicates, appositives or objects of the preposition. Noun clauses have an obligatory syntactic function and most prominently include *att*-clauses (comparable to *that*-clauses in English) and interrogative clauses. Adjectival clauses are mainly relative clauses. Adverbial clauses can for instance express time, condition, purpose, reason, place or manner. Both adjectival and adverbial clauses are syntactically optional. An example of each clause type is given in (5)-(7) below.

- (5) Alla trodde att det inte var sant. (noun clause)
 All believe.PST that it not is.PST true
 ‘Everyone thought that it wasn't true.’
- (6) Vi tog en bok som du inte har läst. (SAG 4: s. 471) (adjectival clause)
 We take.PST a book that you not have.PRS read.SUP
 ‘We took a book that you haven't read.’
- (7) Han tappade bort boken innan han hann läsa den. (adverbial clause)
 He loose.PST book.DEF before he manage.PST read.INF it
 ‘He lost the book, before he managed to read it.’

Baten and Håkansson (2015, p. 532) argue that the acquisition of subordination is not difficult *per se*. They state that in a language like English, for example, there is no difference between most main and dependent clauses with regard to internal structure. Thus, they conclude that “(i)n L2 English, learners merely need to acquire (the meaning of) complementizers, to which they can add a new clause (Baten & Håkansson 2015, p.32).” Nevertheless, I would argue that this view is too simplistic: even in the lack of structural word order differences, the learner still has to acquire an understanding of different clause types. It may be that this distinction is not as relevant for learners of English compared to learners of Swedish, as dependent clause word order in Swedish can only be acquired after the L2 learner has acquired the concept of dependent clauses. But acquiring the concept of subordination might be more challenging than the word order pattern itself.

This means that whenever an L2 learner of Swedish uses incorrect (main clause) word order in dependent clauses, the error may be taken to indicate one of the following:

- i) the dependent clause word order is not yet acquired/automatized;
- ii) the learner can apply the correct word order but has not acquired the distinction between main and dependent clauses in the L2;
- iii) Neither the word order rule nor the difference between main and dependent clauses have been acquired in the L2.

In order to recognize dependent clauses, the language user can rely on subordinating conjunctions, as well as on the number of finite verbs in a sentence. These two aspects are therefore important to take into account when investigating the acquisition of dependent clauses.

3 Material

The material that was analyzed for the purpose of this paper comes from a longitudinal study including data from 21 Dutch-speaking learners of Swedish as a foreign language, starting from beginner's level. The group of learners consisted of students at Ghent University, Belgium. All learners had Dutch as their L1 and English as their strongest L2³, and the learners' age of onset was between 17 and 22. Students with any prior knowledge of Swedish were excluded from the study. The data consists of seven free writing assignments that were obtained at seven different points in time, over a time span of one year and three months. In this context, 'free writing assignment' means that only the topic of writing was given, without further instructions. Table 1 provides an overview of these topics and the time of writing, counted from the start of the learning process.

Table 1. Topics of learners' writing assignments

Text	Time of writing (after time of onset)	Topic
1	4 weeks	Tell me about yourself
2	8 weeks	A travel story
3	12 weeks	Description of a person I like
4	6 months	Explain why behavior is also part of language
5	1 year	Advantages and disadvantages of [topic of choice]
6	1 year and 1.5 months	A childhood memory
7	1 year and 3 months	Abstract of a popular science article

Each text contained approximately 300 words, and the learners had a dictionary at their disposal while writing. The texts were not written specifically for this study, but were part of the course practice. Thus, the learners were not aware which structures were targeted.

The learner data were also compared to L1 baseline data in two types of written texts: 20 blog texts (informal) and 20 newspaper texts (formal) of a length comparable to the learner texts. The texts were randomly picked from various blogs and newspapers and analyzed in the same way as the learner texts.

4 Results: The role of variation

In this section, I present the main results from study. For every text, the dependent clauses were analyzed and classified according to the three before-mentioned types: noun clauses, relative clauses and adverbial clauses. This was done so as to get a clear picture of which clause types are used over time and in what genres. In the following subsections, I discuss each clause type in turn.

4.1 Noun clauses

Figure 1 below shows the average number of all dependent *att*-clauses per text (LT1–LT7). The error bars display the standard error for the means. The learner data were also compared to L1 baseline data in two types of written texts: blog texts (NTB: informal) and newspaper

³ According to self-judgment in survey questions, English was the language the participants used most frequently besides their L1 Dutch and the language they were most competent in. Many participants also had knowledge of other languages (most importantly French).

texts (NTN: formal). In the figures below, NNS stands for non-native speakers, NS for native speakers.

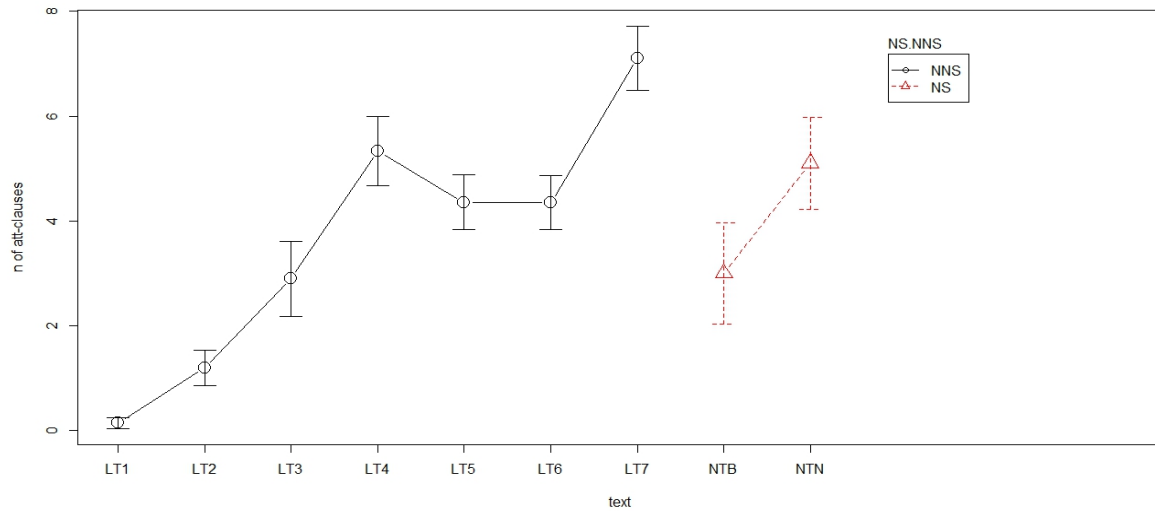


Figure 1: Plot of means for number of *att*-clauses, language learners (NNS) and native speakers (NS).

As evident from figure 1, the use of noun clauses increases linearly between text 1 (LT1), in which most learners do not use any dependent clauses, and text 4 (LT4). The frequency stabilizes in text 4 and 5 but reaches a peak in text 7. In the native speakers' texts the frequency of *att*-clauses is higher in the more formal newspaper texts than the informal blog texts. However, the frequency of noun clauses in the texts written by native speakers is comparable to the frequency in the learner texts from learner text 3 onwards.

4.2 Relative clauses

Figure 2 below shows the average number of all dependent relative clauses per text (LT1–LT7). The error bars display the standard error for the means. The learner data were also compared to L1 baseline data in two types of written texts: blog texts (NTB: informal) and newspaper texts (NTN: formal).

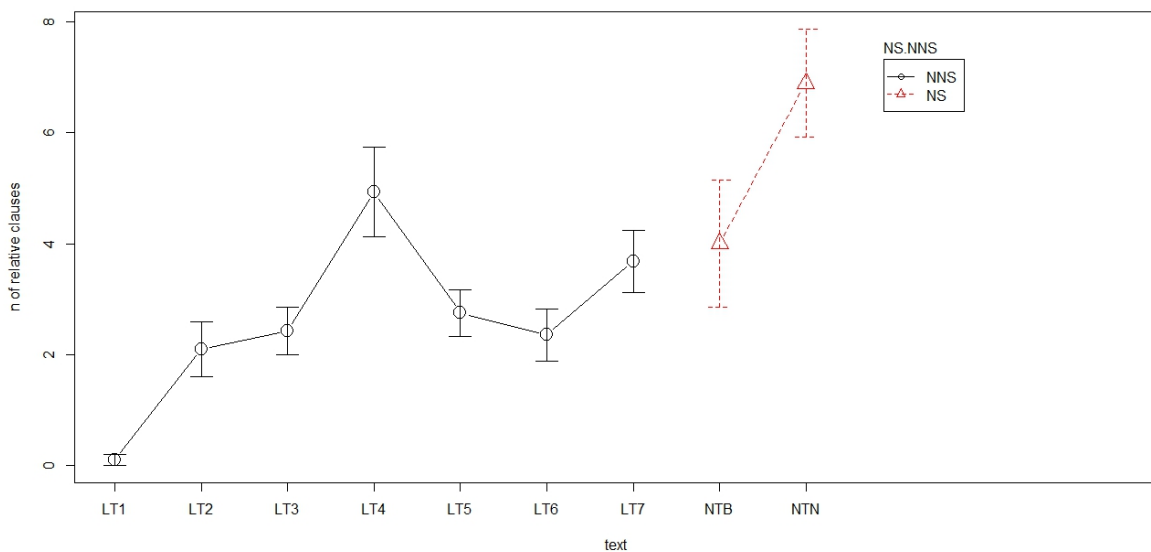


Figure 2: Plot of means for number of relative clauses, language learners (NNS) and native speakers (NS).

As illustrated in figure 2, the frequency ratio of relative clauses is slightly different from *att*-clauses. The first relative clauses appear in text 2 (LT2) and the relative frequency is similar in text 3 (LT3); in both texts relative clauses are less frequent than in the two text types by native speakers. The number of relative clauses substantially increases in text 4 (LT4), but drops again in text 5 (LT5) and 6 (LT6), again below the frequency of the native texts. The number of relative clauses shows a slight increase in the last text (LT7), but it does not reach the frequency of text 4. Thus, the number of relative clauses does not top out in the last text, in contrast to the number of noun clauses. By the last text, the frequency is still not quite native-like. In fact, the native blog text (NTB) has a higher frequency of relative clauses than every learner text, with the exception of learner text 4. The more formal newspaper texts (NTN) have a higher frequency of relative clauses than all learner texts.

4.3 Adverbial clauses

Figure 3 below shows the average number of all dependent relative clauses per text (LT1–LT7). The error bars display the standard error for the means. The learner data were also compared to L1 baseline data in two types of written texts: blog texts (NTB: informal) and newspaper texts (NTN: formal).

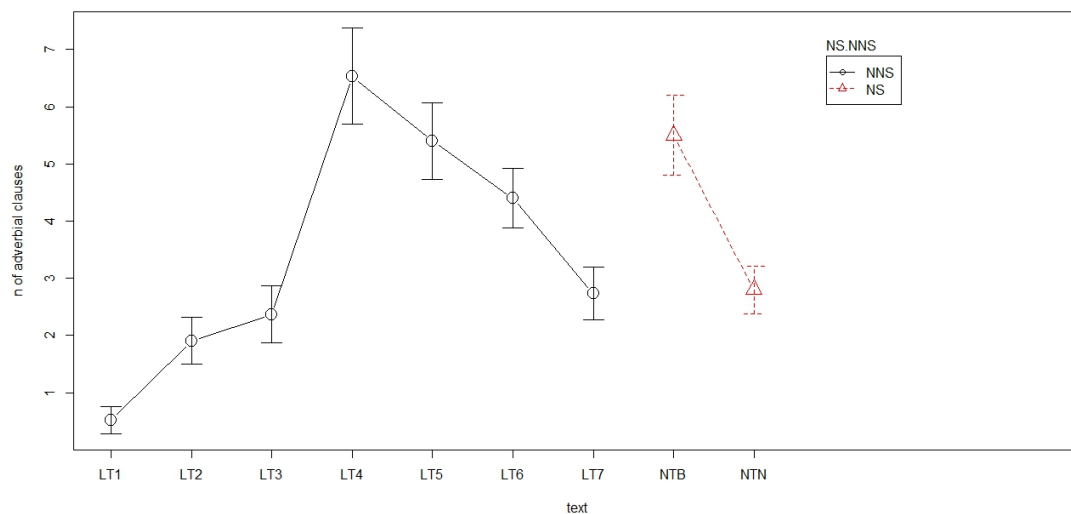


Figure 3: Plot of means for number of adverbial clauses, language learners (NNS) and native speakers (NS)

As illustrated in figure 3, the relative frequency of adverbial clauses in the learner texts shows a rather remarkable development. The number of adverbial clauses steadily rises in the first four texts and peaks at text 4 (LT4); in this text, the ratio of adverbial clauses is higher than in any of the two native text types. This can be explained by the high number of adverbial clauses introduced by *när* ‘when’. Some examples of this are given in section 5.1 below. After text 4, however, the number of adverbial clauses decreases for each of the following texts. The number of adverbial clauses in the last text (LT7) is equal to the number of adverbial clauses in text 3 (LT3). By the last text, the frequency of adverbial clauses is similar to that of the newspaper texts. The frequency of adverbial clauses was higher in the blog texts than in the newspaper texts.

4.4 Intermediate conclusion

As was shown in figures 1–3, the use of dependent clauses in all dependent clause types increases between text 1 and text 4. After text 4, there is more variation between the different dependent clause types. From this moment in the development, frequencies are not as informative. This is especially so, since the L1 baseline data show very similar frequencies, at least for nominal and adverbial clauses. Compared to learners, native speakers tend to use more relative clauses than learners, but this only holds for the newspaper texts, indicating that there is an effect of text register on dependent clause types used. In the texts by native speakers, the number of noun clauses and relative clauses are higher for the newspaper texts than for the blog texts. The opposite is true for adverbial clauses, although the difference is only statistically significant for adverbial clauses (ANOVA: $F= 10.92$, $P< 0.005$). The effect of text type could of course also hold for the learner texts, which strengthens the idea that frequencies alone are not sufficient measures for development.

Given that this is a longitudinal study, it is possible to look at the individual development in more detail. This will be done in the next section.

5 Individual variation

In this section, I look at three distinct aspects that – according to my study – seem to play an important role in the acquisition of Swedish subordinate clauses: (i) clause types (ii) complementizers and (iii) finiteness. Let us look at each aspect in turn.

5.1 Dependent clause types

When looking at individual results, clause types are not always equally distributed. In general, many learners start using dependent clauses more frequently in text 2 or 3, but most of these clauses are of the same type and/or have a similar structure. Some learners rely on one or two clause types only, many use one clause type far more frequently than other types, although the choice of clause type can vary for each text. In their later development, the learners show a more varied use of clause types.

The gradual development can be illustrated by the acquisition of one particular learner, SDN in this study. Almost all of SDN's dependent clauses in text 3 are adverbial clauses introduced by *när* 'when'. Text 3 also marks the beginning of SDN's use of dependent clauses. Some examples from text 3 are given in (8)–(10) below.

- (8) När han skrattar, han har gropar i kinderna.
'when he smiles, he has dimples in his cheeks.'
- (9) När vi går på restaurang med vår släkten, han ha en svart kostym på sig.
'When we go.PRES to a restaurant with our family, he wear.INF a black costume.'
- (10) När är vi på resa, då tror man som vi är tvillingar.
'When we are on a trip, then people think that we are twins'

The constructions in (8)–(10), are identical: each sentence starts with an adverbial clause introduced by *när* ‘when’ and is followed by a main clause. In (8) and (9), the subject does not invert, resulting in (ungrammatical) V3 word order. These examples indicate that SDN has not yet acquired subject-verb inversion, which is necessary for the V2 constraint (note that the same inversion rule applies to SDN’s mother tongue Dutch). The fact that learner SDN uses commas might also indicate that the two clauses are analysed as two separate main clauses. In (10), however, SDN does use the correct, inverted word order after the adverbial clause, though this particular construction contains a doubling adverbial. Still, the adverbial clause is separated by a comma, and has the non-targetlike word order of a main clause *wh*-interrogative. From these three examples we may thus conclude that SDN has not yet required a distinction between main and subordinate clauses in Swedish, but rather treats the adverbial clause and the main clause as two separate main clauses.

The fact that many learners hold on to a very limited number of dependent clause types can mark a learner strategy. It also suggests that much interesting information is lost if we only test one type of dependent clauses in the development of learners, especially because dependent clause word order is sometimes used in one dependent clause type but not in others. Overall, many learners in this study are rather conservative in their choice of dependent clause types, complementizers and sentence structures. Moreover, the difference between native speakers of Swedish and L2 learners was biggest for the frequency of relative clauses, which is exactly the clause type that has been investigated most frequently in studies on Swedish word order acquisition (Baten & Håkansson, 2015; Glahn et al., 2001; Håkansson & Nettelblatt, 1993; Norrby & Håkansson, 2007). Therefore it is important to be aware of the differences between dependent clause types and look at other clause types as well.

5.2 Complementizers

Another issue concerns the use of complementizers. As a possible transfer from Dutch (or English), some learners overuse the relative pronoun *som* ‘which/who’. The Dutch equivalent *dat* (and English *that*) can be used to introduce relative as well as nominal clauses; in Swedish, declarative nominal clauses must be introduced by *att* ‘that’. Overall, the variety of complementizers used is limited. Often there is a clear pattern in the texts, showing that most learners tend to use only a couple different complementizers within a text, which corresponds to the limited variation in dependent clause types. As already mentioned, adverbial clauses with *när* are overrepresented in the first learner texts, and are also overused in contexts where another subordinating conjunction would be used in the target language.

Other learners, like the learner CDU in this study, use other clause types as a kind of default. CDU starts using dependent clauses in text 2; in this text, 7 out of 8 dependent clauses are relative clauses.

(11) Den är en stad var gamla romarna bodde förr!

‘That is a city where old Romans lived in the past!’

(12) Det är slottet var kung Henry VIII bodde förr.

‘That is the castle where King Henry VIII lived in the past.’

- (13) London var den sista stad som vi besökte under vår resa.
 ‘London was the last city which we visited during our trip.’

CDU also seems to have a transfer problem with the choice of subordinators. In the learners’ native language Dutch, as well as in the L2 English, *waar/where* is used to introduce spatial relative clauses. However, in the target language Swedish *där* ‘there’ should be used. The word order is grammatical, but as none of the subordinate clauses contains an adverbial, the underlying structure cannot be deduced from these examples. Note also that sentence (11)–(13) are structurally very similar; they all start with the subject followed by a copula verb and the predicate which is specified by a relative clause.

The use of complementizer can also indicate other learning difficulties. A good example concerns the subordinating conjunction *att*. The word is homonymous with the Swedish infinitive marker, a fact that can lead to a mix-up of verb forms after either of them. In (14) below, *att* is an infinitive marker; in (15) *att* is a subordinating conjunction.

- (14) Han gillar *att* laga mat.
 He likes to make.INF food
 ‘He likes to cook.’
- (15) De sa *att* de skulle komma.
 They said that they will.PST come.INF’
 They said that they would come’
- (16) De kommer *och* de tar med kaffe och kakor.
 They come.PRS and they take.PRS with coffee and cookies
 ‘They are coming and they will bring coffee and cookies.’

Phonetically, there is a difference in pronunciation between the two homonyms. Subordinating *att* is pronounced [at:], whereas the infinitive marker *att* is often pronounced [ɔ]. This does not necessarily simplify the situation, however, since the infinitive marker and the coordinating conjunction *och* ‘and’ are homophones. This means that *att* (infinitive marker) and *att* (complementizer) in examples (14) and (15) respectively are homonyms, whereas *att* (complementizer) and *och* (coordinator) in examples (14) and (16) respectively are homophones.

It is reasonable to assume that these similarities between important clause-linking words may lead to confusion for learners of Swedish, especially with verbs that can take both infinitival and finite *att*-complements as their arguments, such as *vilja* ‘want’ and *låtsas* ‘pretend’. This complicates the process of learning the difference between main clauses, dependent clauses and non-finite clauses, which leads us to another factor in the development of dependent clauses.

5.3 Finiteness

Another frequently occurring problem found in the data, which is related to the acquisition of subordination, is the choice of verb forms. In Swedish, verb morphology is rather poor: verbs are only inflected for tense and imperative mood. As a result, the morphological differences between finite and nonfinite verb forms are limited. In (39) above, for instance, the infinitive

ha ‘have’ was used in the main clause instead of the finite form *har*. Consider the following example sentences from text 7 of learner EDS:

- (17) Till sist påpekar Parkvall att möjligheten för att uttrycka sig **inte är** beroende av vilket språk någon tala, för att det finns **alltid** ett sätt för att uttrycka sig. ‘Finally, Parkvall points out that the possibility to express yourself is **not** dependent on which language someone **speak**.INF, because there is **always** a way *(for) to express yourself.’
- (18) Man kan återkomma från en resa och har **bara** sett turistiska sida av landet. You can.PRS come.INF back from a journey and **just** have.PRS seen the touristy side of the country

Sentence (17) and (18) illustrate all before-mentioned problems: word order, choice of complementizers and finiteness, which can all be explained by the learner’s confusion about clause boundaries. First, the verb *tala* has the infinitive form, leaving the relative clause without a finite verb, which is ungrammatical. In sentence (18) on the other hand, the same language learner uses the finite form *har* instead of the infinitive *ha*, which would be grammatical, because the sentence contains two coordinated VPs with the auxiliary *kan* ‘can’. It is likely that the learner analyzed the part after the conjunction ‘and’ as a main clause and therefore chose the finite verb form. This hypothesis is supported by the word order in the sentences, which leads us to the second problem.

In (18), the sentence adverb *bara* ‘just’ follows the finite verb, so the learner chose to apply the main clause word order, hence the selection of the finite verb form. In sentence (17), the sentential adverbial *inte* ‘not’ precedes the finite verb, so the learner used dependent clause word order, which is grammatical. In the second part of the same sentence the adverbial *alltid* ‘always’ follows the finite verb, meaning that the main clause word order is applied in the dependent *att*-clause. This means that either word order is not acquired yet, or that the learner wrongly analyzes dependent clauses as main clauses and vice versa. The second explanation seems plausible, because the word order is used correctly in other clauses. Furthermore, it can be the case that the learner recognizes only certain sentence adverbials. Negation particles are used frequently and they are often given as the main example of sentence adverbials in the classroom. Therefore it is not surprising that the dependent clause word order is applied when the clause includes negation but not other sentence adverbials.

6 Conclusion

In this paper some preliminary results from a longitudinal study on the acquisition of dependent clauses in Swedish as a foreign language were presented. In the area of Second Language Acquisition, subordination is often linked to syntactic complexity and the relative frequency of subordination is even frequently used as a measure of syntactic complexity. My study has shown that the ratio in itself is not sufficient, as the learners often fall back on different strategies, such as repeating the same dependent clause type or making use of only a few different types. Consequently, we have to look more closely at the kind of subordinate clauses the learners use.

Following Baten & Håkansson (2015), I looked at the internal structure of the subordinate clause instead of its frequency ratio. Besides word order, finiteness of the complement and choice of complementizers were looked at briefly, because these are factors that the learner can use to both identify and produce dependent clauses. In many cases there seems to be a clear interplay between word order and the factors considered in this paper. Main clause word order is often linked to ungrammatical use of finite/non-finite complements and non-native like use of complementizers. Furthermore, the learners in this study were often conservative in their use of dependent clause types as well as complementizers, often repeating the same constructions and patterns within the same text. This raises the question whether the learners acquire several dependent clause patterns rather than the category of dependent clauses in general. It also stresses the importance of investigating various dependent clause types, as well as various sentence adverbials, because this possibly has important implications for the learning development. The data have to be scrutinized further to find out whether the interplay between the investigated factors is systematic for all learners.

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