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*Swedish learners' usage of relative
pronouns in English*

An informant testing study

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Abstract: The complexity of the grammatical rules governing relative pronouns in English can cause foreign language learners to experience uncertainty in when to apply which relative pronoun. The aim of this study is to explore Swedish learners' choices and usage of relative pronouns in English to identify possible patterns and to compare the usage with that of native speakers. A quantitative analysis of a gap sentence test answered by 76 EFL learners in a Swedish upper-secondary school revealed several patterns. For one thing, the results suggest that the relative pronoun *that* is greatly preferred where possible by Swedish learners compared to native speakers. For another, that the *zero* construction rarely is utilized. In addition, the results indicate that the constraint on relative pronoun choice in non-restrictive clauses is difficult for many learners to adhere to in writing. To a certain extent the findings also support the NPAH as a difficulty scale for relative clause acquisition.

Keywords: Relative pronouns, relative clauses, English as a foreign language (EFL), English as a second language (ESL).

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1 Introduction

1.1 Background

English has been taught as a first foreign language in Swedish schools for several decades and at the time of this essay's publication, I, as a Swedish student, have studied English for a total of 19 semesters from fourth grade compulsory school to university level. Sixteen of these semesters were obligatory for me, but the conditions for learners of English today have to a certain extent changed. Nowadays, English as a subject is taught from first grade in compulsory school, and an additional two years in upper-secondary school is obligatory within programs oriented towards higher education (The Swedish National Agency for Education, 2011a, 2011b). After completing the second year at upper-secondary school (English step 6 course) the learners are expected to have reached a vantage point in their language proficiency where they can understand complex texts, produce clear and detailed texts, as well as interact with native speakers of English with relative fluency (Council of Europe, 2001, pp. 23-24).

When it comes to the issue of how English is to be learned or acquired the approach adopted by the Swedish National Agency for Education today, is the development of a communicative language competence. The notion of communicative competence is considered to encompass the three components: linguistic, sociolinguistic, and pragmatic competence, which together account for all dimensions of a language system (Council of Europe, 2001, p. 13). Consequently, each of these components has been the focus of considerable research, and linguistic competence in particular, has drawn much attention in second language acquisition and learning studies (e.g., Köhlmyr, 2003; Lagnemo, 2012; Pavesi, 1986).

An interesting field to explore within linguistic competence is the usage of relative pronouns (RelP) in relative clauses since the choice of RelP is restrained by strict grammatical rules while these grammatical rules at the same time, generate a great deal of liberty in choice. For example in the sentence below where three different constructions are grammatically possible:

1. The problem *which* we are faced with must be dealt with soon!
2. The problem *that* we are faced with must be dealt with soon!
3. The problem we are faced with must be dealt with soon!

This freedom in choice among RelP's has generated numerous studies on how native speakers of English use and choose relative pronouns to observe any patterns in this (e.g., Diaz Pérez, 1997; Guy & Bayley, 1995; Olofsson, 1981, 2005). For non-native speakers the choice between several possible RelP's in certain relative clauses can cause uncertainty in when to use which RelP, and the rules governing RelP's could plausibly make relative clauses difficult constructions to accurately produce.

To investigate how foreign learners of English use RelP's is likewise an interesting focus for research, especially compared with how native speakers use them. Furthermore, the relative clause is a common feature in English and therefore, it is required to know how to construct relative clauses to be able to reach high proficiency in English.

1.2 Aim of the present study

The present study is a further addition to examining linguistic competence in foreign language learners. The aim of the study is to explore learners' choices and usage of relative pronouns in English. The result will be analysed on whether their usage is grammatically possible and how it compares to how native speakers use relative pronouns.

By identifying patterns in learners' usage of relative pronouns as well as what mistakes learners make, it will be possible for teachers to know what needs attention in English class in order to improve their communicative competence.

1.3 Theoretical framework

1.3.1 Didactics

Hedge (2000, pp. 12,158-159) maintains that learners learn languages inductively. They make use of their knowledge about their native and other languages as well as what they already know about the target language, to formulate hypotheses on how the target language is structured. After testing their hypotheses they will revise them based on success and thus increase their grammatical competence. Therefore, Hedge argues, the presentation of grammar to learners will increase the possibility of intake and thus assist the acquisition process. The concept of intake refers to that part of all exposed input available which the learner notices, processes, and internalizes into their theory about the target language. By knowing which grammatical features the learners have not yet accurately acquired, exposure to these can assist and speed up the learning process.

In the upper-secondary school syllabi for English as a subject it is established that the study of English should focus on a development of communicative competence in both receptive and productive skills with a reference to the Common European Framework of

Reference for Languages [CEFR] (The Swedish National Agency for Education, 2011b). After the English course 6, a learner is expected to have reached the proficiency level B2.1 described in the CEFR to pass the course (grade E) (The Swedish National Agency for Education, n.d.).

Communicative competence in the CEFR is stated to consist of three further competences or skills, namely linguistic, pragmatic, and sociolinguistic competence. Linguistic, which the present study is concerned with, in turn include: lexical, grammatical, semantic, phonological, orthographic, and orthoepic competence (Council of Europe, 2001, pp. 108-109). The CEFR furthermore provides a general linguistic range for what a learner at level B2.1 is expected to master. A learner with a level B2.1 linguistic competence “has a sufficient range of language to be able to give clear descriptions, express viewpoints and develop arguments without much conspicuous searching for words, using some complex sentence forms to do so.” (Council of Europe, 2001, p. 110).

Of special interest for the scope of this paper is lexical and grammatical competence where the use of relative pronouns fit in. Lexical competence is according to CEFR the learner’s “knowledge of, and ability to use the vocabulary of a language” (Council of Europe, 2001, p. 111), the vocabulary including both lexical and grammatical elements. For a learner to be said to have lexical proficiency level B2, he or she displays both the range and control of vocabulary expressed in the document. Firstly, the range is described as “has a good range of vocabulary for matters connected to his/her field and most general topics. Can vary formulation to avoid frequent repetition, but lexical gaps can still cause hesitation and circumlocution.” (Council of Europe, 2001, p. 112). Secondly, the vocabulary control level is defined as “lexical accuracy is generally high, though some confusion and incorrect word choice does occur without hindering communication” (Council of Europe, 2001, p. 112).

Grammatical competence on the other hand is the ability to understand and use the grammatical principles of how to assemble different elements into sentences (Council of Europe, 2001, pp. 112-113). Proficiency levels are set for grammatical accuracy in the same way. For level B2.1 the learner “shows a relatively high degree of grammatical control. Does not make mistakes which lead to misunderstanding” (Council of Europe, 2001, p. 114).

Although the ability to use ReLP’s is not directly mentioned in the syllabi, it is stated that one of the aspects which will be assessed is the learner’s ability to express her-/himself in a structured manner (The Swedish National Agency for Education, 2011b). Moreover, that grammar is a very central aspect of communicative competence and thus language education

is unmistakably stated in the CEFR “the syntax of the language of a mature native speaker is highly complex and largely unconscious. The ability to organise sentences to convey meaning is a central aspect of communicative competence.” (Council of Europe, 2001, p. 115).

1.3.1 Relative pronouns

Relative pronouns introduce relative clauses which either identify or further describe an antecedent in the main clause. RelP’s identify which antecedent is concerned in restrictive clauses, and describe or add commenting information in non-restrictive ones. The non-restrictive relative clause in a sentence can thus be removed without altering the overall meaning of a sentence (Quirk, Greenbaum, Leech, & Svartvik, 1985, pp. 365-366). The relative pronouns included in the scope of this paper are the six principal ones: *who*, *whom*, *which*, *whose*, *that*, and the *zero* construction (Johansson & Lysvåg, 1986, pp. 150-153; Quirk et al., 1985, p. 366) shown in table 1.

Table 1. Relative Pronouns in English

	Restrictive		Non-Restrictive	
	Personal	Non-Personal	Personal	Non-Personal
Subjective case	<i>Who</i> <i>That</i>	<i>Which</i> <i>That</i>	<i>Who</i>	
Objective case	<i>Who</i> <i>*Whom</i> <i>That</i> <i>Zero</i>	<i>Which</i> <i>That</i> <i>Zero</i>	<i>Who</i> <i>*Whom</i>	<i>Which</i>
Genitive case	<i>Whose</i>			

** In principle limited to formal contexts. Obligatory when governed by a preposition*
 Source: Adapted from Quirk et al. (1985, p. 366)

The choice of relative pronoun depends in part on the semantic difference between restrictive and non-restrictive clauses. Quirk et al. (1985, pp. 366-368) maintain that the *that* and the *zero* construction are applicable only in restrictive clauses whereas a *wh-* pronoun is required for a non-restrictive clause. In addition, the choice depends on the animacy of the antecedent along with the syntactic function as shown above in table 1. *That* and *Zero* are used for all types of antecedents, but *who* and *whom* refer to personal antecedents while *which* refers to non-personal antecedents. Moreover, the *zero* construction and *whom* only occur in the objective case while *whose* is used for all antecedents for genitive case.

There are some differences between the English and Swedish relative pronouns which furthermore could make the English RelP's difficult to learn when Swedish is one's first language. In contrast to English, there is no concord between personal or non-personal antecedents and any of the RelP's. The most frequently used RelP is thus without a doubt *som* which is equivalent to *who*, *which*, and *that* because of the absent contrast. Swedish furthermore has an optional number variation for genitive and a special RelP when the antecedent is a whole clause as exemplified in the sentences:

4. Jag ville hjälpa flickan *vars* paraply blivit stulet.
I wanted to help the girl *whose* umbrella got stolen.
5. Barnen *vars/vilkas* julklappar gick sönder blev ledsna.
The children *whose* Christmas presents got broken became sad.
6. Hon är väldigt envis, *vilket* verkligen irriterar mig.
She is very stubborn, *which* really annoys me.

Vars is both singular and plural while the optional plural version is *vilkas*. The RelP *vilket* is only used when the antecedent is a whole clause. The rules for the *zero* construction are however the same (Holmes & Hinchliffe, 2008, pp. 89-90). Similarly, there are other differences which could make the English RelP's difficult to learn for learners with a first language other than Swedish.

1.4 Previous studies

Research involving relative clauses and RelP usage in second language acquisition as well as native speaker usage is extensive. Therefore, only a small selection of importance to the scope of this paper can be represented here.

Research on relative clauses in second language acquisition has to a great extent dealt with the theory of the Noun Phrase Accessibility Hierarchy [NPAH], first presented by Keenan and Comrie (1977). Without going too deep into the NPAH theory, it is of interest to summarize its basic point. In brief, it declares that the variation of noun phrase positions (relative pronouns) which can be relativized in a language is not random but dependent on which other noun phrase positions are relativizable within the same language. Moreover, that the dependence relationships are universal for languages. The theory of the NPAH declares the following reliance:

Subject > Direct Object > Indirect Object > Object of Preposition > Genitive > Object of Comparison

This suggests that a position higher up on the hierarchy scale (left) is more accessible than the lower ones. This also implies that if a language allows the genitive function to be relativized in a relative clause, it also allows the functions to the left (S, DO IO, OPREP) to be relativized but not necessarily the positions to the right (OCOMP) (Keenan & Comrie, 1977, p. 66).

Gass (1979, p. 339) soon after suggested that the positions higher up in the NPAH are produced with greater accuracy among second language learners than the less accessible ones. That is to say, learners would display a higher syntactic accuracy level in relative clauses where a relative pronoun has a subject function than a genitive function in the relative clause. That the NPAH also represents a scale of difficulty in acquiring a target language's relative clauses has since been supported in numerous studies (e.g. Eckman, Bell, & Nelson, 1988; Marefat & Rahmany, 2009; Pavese, 1986).

In another second language acquisition study specifically involving Swedish learners, Köhlmyr (2003, pp. 133-135) investigated relative clause errors in Swedish 16-year-old learners' written production in English, from a corpus of 383 free written texts for the Swedish National Assessment Programmes in 1992 and 1995. In her analysis she categorized the errors as being errors of four different types. *Substitution*: when a RelP is replaced by another grammatical unit, *addition*: when a RelP is incorrectly added, *omission*: when a RelP is missing, or *gender concord*: no agreement between the RelP and its antecedent (e.g. Non-personal RelP for a human antecedent). However, when a personal pronoun was used instead of a relative the error was not interpreted as grammatical but as a punctuation error and hence excluded from the study.

Concerning the principal RelP's, Köhlmyr (2003, pp. 133-135, 187-188) only found 30 occurrences of error in her analysis (see examples in table 2), 10 instances of substitution, 2 of omission, and 18 of gender concord error.

Table 2. Examples of relative pronoun errors found by Köhlmyr (2003)

Error type	Example	Correct construction
Substitution	(385) I even got a dog <u>as</u> we count to our family [sic]	That/Which/(who)
Omission	(392) In Kopenhagen there is alot off people _ just need any help [sic]	Who
Gender concord	(658) My name is N N and I live in a small village <u>who</u> is called X [sic]	Which/That

Source: Adapted from Köhlmyr (2003, pp. 135, 188)

Köhlmyr's results could be interpreted as an indication that learners master the RelP's reasonably well. However, the material investigated was written by learners for the purpose of being assessed and consequently there is a possibility that the learners chose a sentence structure they felt confident in using. Put in a situation where they had to adhere to syntax constraints they might have performed differently. This factor should be taken into account when reaching a conclusion of the learners' ability to use relative pronouns.

From the reviewed studies conducted on second language acquisition it can be assumed that learners display a higher accuracy level for RelP's with a subject function than object and genitive function. In addition, it can also be assumed that gender concord errors will be common mistakes made by learners in an investigation of how learners choose RelP's.

The question on how native English speakers use relative pronouns, has also received considerable interest in research. In an American English corpus based study conducted by Olofsson (1981) the usage of RelP's in writing was investigated, with focus on non-personal antecedents in restrictive clauses. Olofsson (1981, p. 66) found that for personal antecedents in restrictive clauses *who* is used in 97% of the cases with subject function, and with object function the *zero* construction is most common. With subject function and non-personal antecedents in restrictive clauses as in sentence (19) from the present study:

7. (19) Have you seen the new Bond film was just released?

Olofsson (1981, p. 71) found *that* to be used in 56%, *which* in 43%, and *zero* construction in 1%. With object function on the other hand, *that* was used in 15 %, *which* in 13 %, and *zero* construction was used in 72 % of the cases (ibid., p. 71-72) as in sentence (9).

8. (9) I need to return the books I borrowed from Emma.

Olofsson (1981, pp. 92-93) further concluded that there are factors which affect the choice of RelP's in restrictive clauses with non-personal antecedents apart from the ones dictating grammatical possibility. He maintains that the choice is affected depending on whether an element (e.g. post modifier) separates the relative clause from the head of the antecedent. This factor, which he refers to as *closeness*, has a drastic impact on usage and especially in object function as illustrated in table 3 below.

Table 3. Closeness effect on choice of relative pronoun

	Subject			Object		
	Close	<i>That</i> 58%	<i>Which</i> 41%	<i>Zero</i> 1%	<i>That</i> 12%	<i>Which</i> 11%
Non-close	<i>That</i> 51%	<i>Which</i> 48%	<i>Zero</i> 1%	<i>That</i> 33%	<i>Which</i> 11%	<i>Zero</i> 56%

Source: Adapted from Olofsson (1981, p. 93)

The one percent usage of the *zero* construction with subject function could be observed errors in the corpus since the *zero* is a grammatically impossible construction with these factors.

Another study examining relative pronoun choice was performed by Guy and Bayley (1995). The results, based on seven American academic articles from 1973 to 1986 and *The White House Transcripts* from 1974, supported the findings of Olofsson (1981). Guy and Bayley (1995, pp. 152-155) likewise found *who* to be the most common RelP with subject function for human antecedents, and the *zero* construction to be favoured in direct object position for human antecedents.

More recently, Olofsson (2005) compared the usage of *which* and *that* for subject case in restrictive clauses with non-personal antecedents in American English corpora from the 1960's and 1990's. In this study he discovered an extreme shift in favour of *that*. Both alternatives are as mentioned possible in this situation¹, but in the Brown corpus from 1961 *which* was encountered almost twice as often as *that* while *that* was used in approximately 80 percent of all instances in the newer corpus (2005, pp. 164-165). This drastic shift suggests a clear favour in usage towards *that* in American English as non-personal subjects, which Olofsson suggests is due to “computerized grammar checkers” (2005, p. 160).

¹ Sentence (19) Have you seen the new Bond film was just released?

2 Method and Materials

2.1 Research method

To meet the aim of this study a quantitative research method using informant testing consisting of gap sentences was selected. Another method which could have been used is text analysis of authentic written English production by learners. The benefit of using this method would have been that the used ReIP's would have been used in an authentic context purposely selected for any degree of formality intended.

However, getting access to a corpus was deemed difficult given the quantity needed to attempt any generalisations from the results. Furthermore, an advantage of using a gap sentence test is that the use of *zero* construction can be observed since the sentences containing relative constructions already are given. In a corpus based study, searching for nothing with a computer program would most likely prove difficult. A final benefit with using informant testing was that the study could complement the findings reached in previous corpora studies.

2.1.2 Material

The primary material for this study consists of a gap sentence test answered by 76 EFL learners in a Swedish upper-secondary school. In designing the test consideration was given to a number of factors. Firstly, that the answering would take place during lesson time and thus should take as little time as possible. Therefore, the choice to use gap sentences rather than translation sentences was made. Furthermore, all the ReIP's were already listed on top of the test sheet so that the informants only had to choose the alternative preferred from the list. Secondly, that the combinations of different factors that affect the usage of ReIP's should be represented in at least one sentence. Among the 21 gap sentences 11 combinations of factors affecting possible ReIP were represented (see table 4):

Table 4. Represented combinations of factors affecting possible relative pronouns

	Restrictive		Non-Restrictive	
	Personal	Non-Personal	Personal	Non-Personal
Subject function	x	x	x	x
Object function	x	x	x	x
Object function following prep.	x			
Genitive function	x	x		

2.1.3 Informants

The 76 informants participating in this study are learners of English as a foreign language (EFL) step 6 in an upper-secondary school in central Gothenburg. They were not individually selected for the research but part of three classes chosen for the study. In other words, no consideration was taken to ensure a representative variety of gender, social class or ethnic background. However, in table 5 the gender and age distribution are accounted for. The three classes in this study are studying EFL within the social science program.

Table 5. The Informant group divided by sex and age

	Girls	Boys
16-year-olds	7	2
17-year-olds	23	44
Total number of informants	30	46

2.1.4 Procedure

The test was filled in by the learners during one of their English lessons and then handed in directly to me by the learners. Of 81 returned questionnaires 76 have been used for analysis in this study. The loss of 5 questionnaires was due partly to no consent given (3 instances) and obvious cases of deliberate wrong answering (2 instances). The resulting data from the answered questionnaires was then transferred to an Excel sheet where the choices made for each sentence and the sentences themselves were coded and analyzed.

First, the sentences were coded into categories in accordance with the following criteria:

- Animacy: personal or non-personal antecedent
- Syntactic function: subject, object, genitive, or object governed by a preceding preposition
- Restrictive or non-restrictive clause

A deviation from the above criteria was however made for sentence 20, which strictly belongs to the category: *non-personal antecedent, subject function in restrictive clauses*, but has been put in a separate category for analysis purposes for the reason that its antecedent is a dog. Svartvik and Sager (1996, p. 223) note that animals such as dogs and horses which one could consider having a personal relationship with, sometimes are referred to as *who*.

Secondly, the total number of calculated occurrences of the RelP alternatives was noted for each sentence. Thirdly, the RelP's were coded into a category of either grammatically

possible or not possible for each sentence. Finally, the number of occurrences of the RelP's in each sentence was converted into percentages, allowing an average percentage value to be calculated for each combination category and RelP usage within it.

2.2 Reliability of the study

One source of error found while coding the data was gaps left blank by the learners. The *zero* construction was one of the six alternatives suggested on the test sheet indicated to be used with the symbol: \emptyset . In 46 instances \emptyset was used and on one test sheet both \emptyset and blank had been used for different sentences. This could be because the learners did not make any choice. Therefore, no occurrence of a gap left blank has been coded as the *zero* construction even if it was grammatically possible for a sentence.

Another possible source of error is the calculation and coding of the data. Both the calculation of the number of occurrences for each RelP per sentence and the input to Excel were made by hand and were thus subjected to human error. To minimize the risk of error, each test sheet was read and entered in Excel twice with the same outcome. Conversions of numbers to percentages and calculations of averages were done within Excel and one value per combination category was calculated again using a calculator at a later date to cross check a sample.

It is furthermore recognised that the informants could be a source of error. It is possible that some learners who felt they had done poorly or feared that they would perform poorly chose to not participate in the study. This risk factor should have been reduced by the information provided about test anonymity, but nevertheless remains a difficult factor to evaluate.

Regarding the validity of the present study it is important to point out that the data was retrieved from a preference rather than a production test. To say that learners use relative pronouns as the results suggest is to assume that the learners would be likely to produce this type of sentence. In an authentic communicative situation the speaker or writer would choose to convey their message in a sentence type they feel most comfortable with. In other words, it is possible that a relative pronoun can be avoided altogether in a sentence.

The participating informants were all learners within a social science program at the same upper-secondary school. Although they had different English teachers and could have come from both different socioeconomic and regional/national backgrounds, it is certainly possible that 76 informants from other educational programs and other schools would select partly different pronouns for the same sentences. The decision to only test learners from the

same school and education program was taken due to availability and scope of the present study. Permission from the learners' principal as well as teachers was needed before the learners themselves could be consulted. The time frame for this bachelor degree project narrowed down the possible scope.

Despite the mentioned shortcomings of this study, the results can nevertheless say much about learners' usage of the RelP's, not least for didactical purposes. Not only were the different combinations of factors that constrain the usage of RelP's in English all tested, but most of them were tested at least twice in different sentences. The average percentages therefore illustrate a good representation of how learners choose RelP's under these constraints, i.e., their application of grammatical rules.

2.3 Research ethics

Consideration has been taken in regard to the participants' integrity. Since the learners were over fifteen years old and the study does not concern ethically sensitive information *Informed consent* was obtained by providing written information about the research in Swedish, saying that participants will remain anonymous and that participation is voluntary in accordance with CODEX recommendations (CODEX, 2013).

3 Results

3.1 Introductory

In this section the results are presented in twelve different categories based on the combination of grammatical rules that govern relative pronoun usage. As mentioned previously, the choice of relative pronouns is dependent on the semantic difference between restrictive and non-restrictive clauses. The grammatical constraints for the two types of clauses are very different with non-restrictive clauses requiring a *wh-* pronoun and restrictive clauses allowing for *that* and *zero* construction to be used. The results are therefore here presented according to learners' usage in restrictive clauses first and in non-restrictive later.

As mentioned in section 2.2, the learners have sometimes left gaps blank on the test. These instances are included in the statistics, but always regarded as a non-grammatical construction. Thus, when the *zero* construction is possible the blanks are still counted as impossible.

3.2 Restrictive clauses

Of the 21 gap sentences on the test, 15 contained a restrictive relative clause. How often the learners chose a grammatically accurate or not possible relative pronoun can be seen through percentages in figure 1.

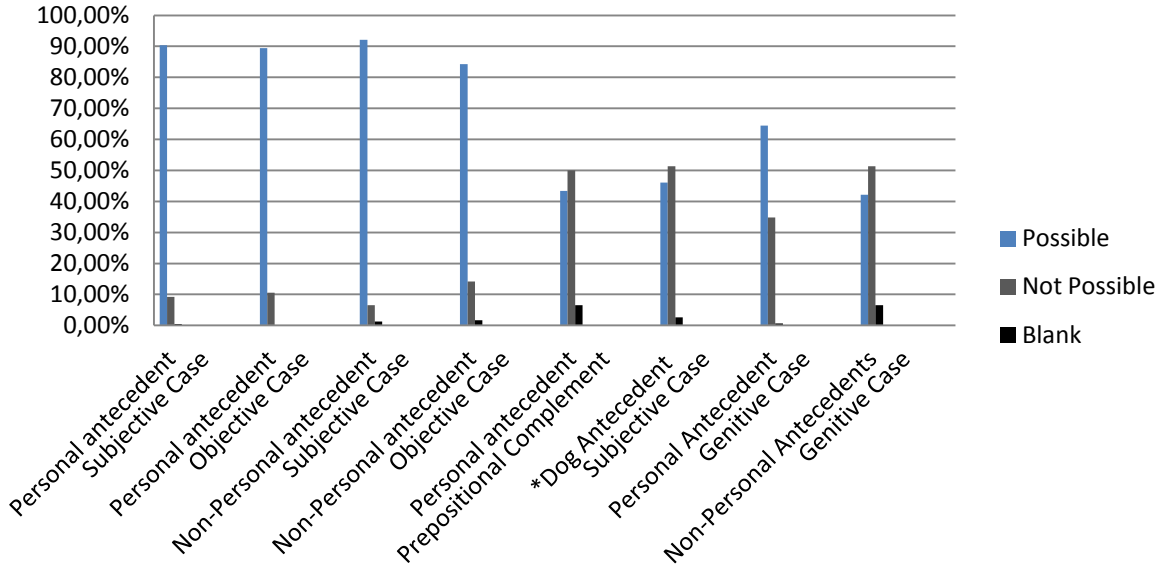


Figure 1. Learners' usage in Restrictive clauses

Overall, the learners displayed a relatively high accuracy in their choices for subject and object function for both personal and non-personal antecedents in the provided sentences². On two occasions, the learners demonstrated a very low accuracy level for these cases. In the sentence where a relative pronoun with object function following the preposition *to* for a personal antecedent, and in the sentence where the relative pronoun was in subject position referring to a dog. The accuracy level for use of genitive is significantly lower with non-personal antecedent posing the main challenge. The results for all categories and the disposition of relative pronouns used will be further addressed separately below.

In the first category, subject function with personal antecedent, tested through three sentences, exemplified with sentence (21), the accuracy level was consistently high on all three occasions resulting in a high average usage as well.

9. (21) You are the only one can help me.

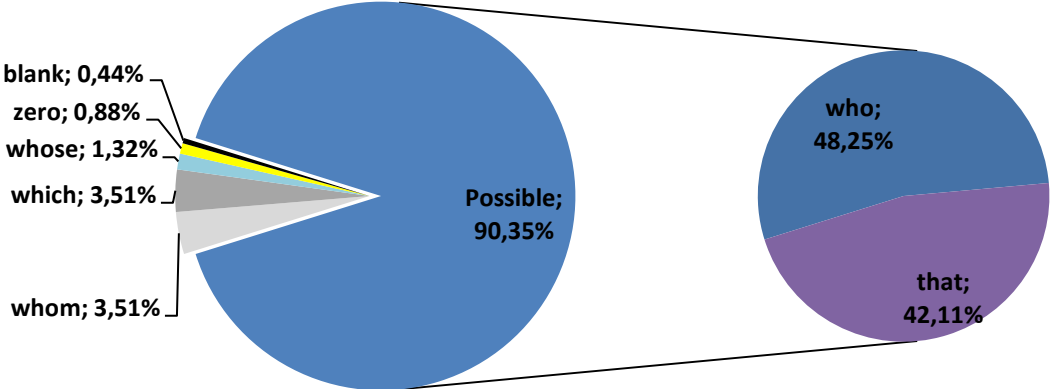


Figure 2. Personal antecedent, subject function in restrictive clauses

The learners alternated between the two possible constructions among the sentences, but as illustrated in figure 2 a minor favouring of *who* is overall discernible. Interesting to note is the difference in comparison with the results found by Olofsson (1981) as well as Guy and Bayley (1995) in American English. Guy and Bayley (1995) found that the preferred choice without a doubt is *who* in this category, and Olofsson (1981) observed a favouring of *who* in 97 percent in the same. There is thus a clear distinction between the Swedish learners' preference in using *that* and *who* almost equally often, and that of American native speakers.

With object function instead, which was tested through two sentences here exemplified with sentence (16), the learners still demonstrated a high accuracy level.

² See appendix

10. (16) The women..... I met work at the police station.

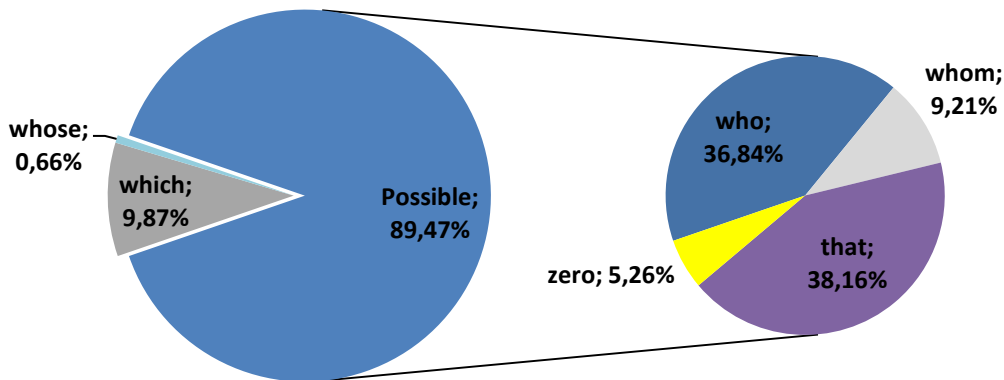


Figure 3. Personal antecedent, object function in restrictive clause

As seen in figure 3, *who* and *that* were still undoubtedly favoured by the learners with the formal option *whom* in a distant third place. Comparing these results with the usage of native speakers there is once again a clear difference in preference. The *zero* construction was rarely used in this category while being the most common construction in American (Guy & Bayley, 1995; Olofsson, 1981).

The category in which the learners displayed the highest accuracy was subject function with non-personal antecedents. The two possible alternatives *which* and *that* are relatively evenly used with some favouring of *that* in sentence (19) as seen in figure 4 below.

11. (19) Have you seen the new Bond film was just released?

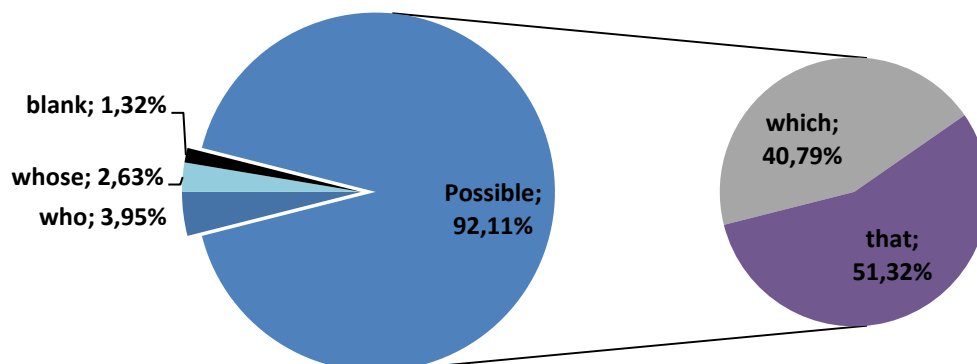


Figure 4. Non-personal antecedent, subject function in restrictive clause

This distribution is similar to that found by Olofsson (1981) in American usage, with *that* being used 13 percentage points more often than *which*. However, in a more recent study, *that* was found to have increased to being used in 80 percent for this category in American English (Olofsson, 2005), notably different from that by Swedish learners.

In the category for object function with non-personal antecedents, the learners display somewhat more inaccuracy. This category was tested through four different sentences, exemplified with sentence (9), and in all but one sentence all relative pronoun options were used at least once.

12. (9) I need to return the books..... I borrowed from Emma.

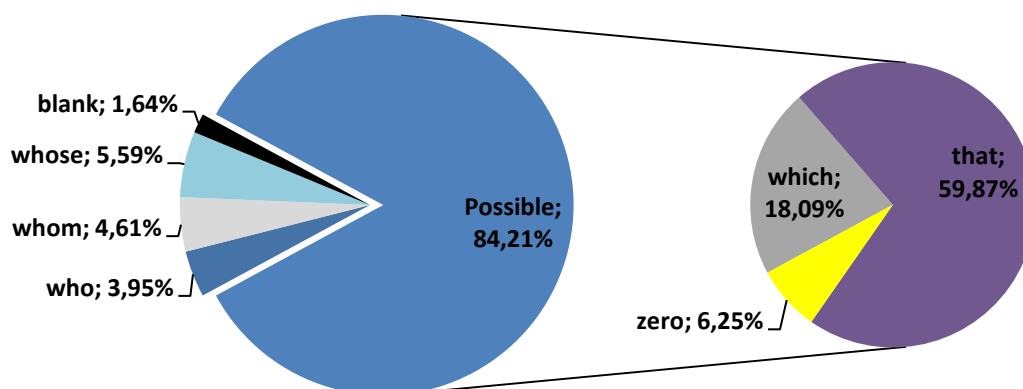


Figure 5. Non-personal antecedent, object function in restrictive clauses

The distribution among the three possible relative pronouns, see figure 5, is also considerably different from that of native speakers. Once again the most often used relative pronoun was *that* while the *zero* construction, which is used in 77 percent in this category in American English³ (Olofsson, 1981), was only used on 19 instances, a little more than six percent. Despite the usage of impossible alternatives, *which* is notably more frequent in this study than the 11 percent found in American (Olofsson, 1981).

As mentioned in table 1, the object case *whom* for personal antecedents is nowadays more retained for formal style and *who* is used in its place. However, when governed by a preceding preposition the relative pronoun is still obligatory as in sentence (5). Object case following preposition for personal antecedents is therefore here given a category in which the learners' usage is accounted for.

³ Relative pronoun is close to the head of the antecedent. See table 2.

13. (5) The receptionist to..... I gave my CV told me to call you.

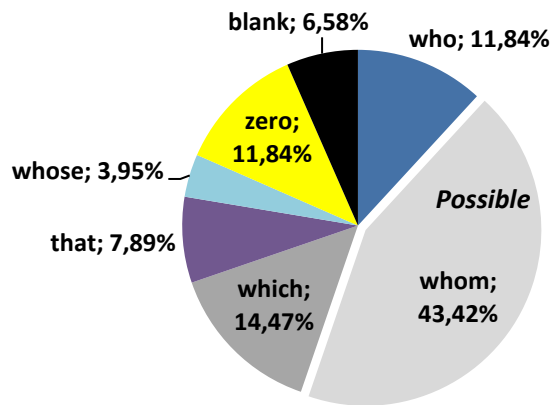


Figure 6. Personal antecedent, object function governed by preposition in restrictive clauses

As figure 6 illustrates, the accuracy level is considerably lower than in the category for personal antecedents object function (figure 3). Again all the relative pronoun options were used by the learners in the test and more learners chose not to fill in anything. All the incorrect alternatives were also used relatively often indicating a general uncertainty with this construction.

Another combination of factors governing possible relative pronoun presented in a separate category in this study is subject function when the antecedent is a dog. Dogs are non-personal, but are often given personal status being a common pet one has a personal relationship with and considered a family member as mentioned in section 2.1.4. Therefore the relative pronouns *which*, *that*, and *who* can be found referring to them. This spread in use was also evident from the Swedish learners' choices as tested in sentence (20) and seen below in figure 7.

14. (20) The dog bit me was a German shepherd.

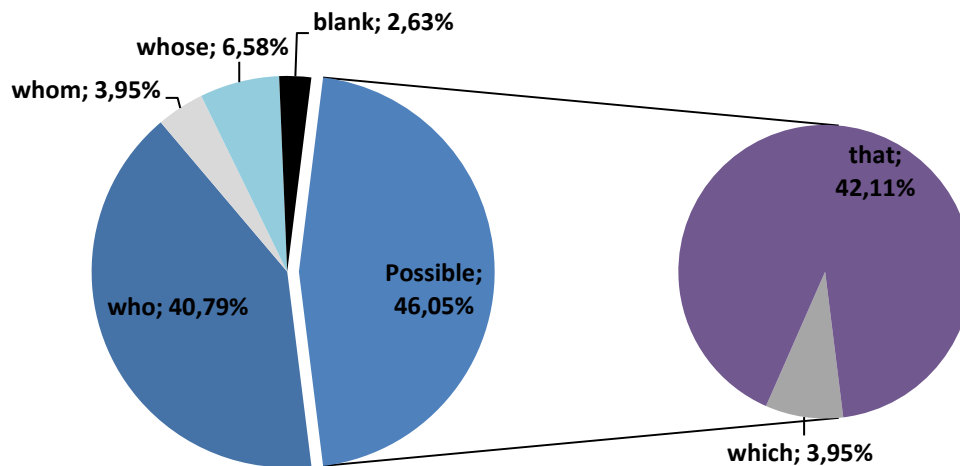


Figure 7. *Dog antecedent, subject function in restrictive clause

This poses some complexity in evaluating accurate usage. A standpoint on possible relative pronouns has therefore been taken based on the context found for using *which* or *who* in sentences from The British National Corpus [BNC] Online service, managed by Oxford University Computing Services on behalf of the BNC Consortium.

Overall, *who* appears to be used when speaking fondly of a dog or as a family member as in the following two examples from BNC:

15. **K2R 55** And Tara (6), owned by Leslie Patton of Bangor, will be Sandy, the faithful dog who befriends the little orphan girl.
16. **ACM 797** My initial impression of Sadie was that of a dog who was totally depressed.

Which on the other hand, appears in negative or neutral sentences in the BNC as in:

17. **CJE 1374** Another dog which can prove difficult to train is the Chow Chow.
18. **G3S 2980** That dog which had tortured me was there in that kennel.

In this study the possible relative pronouns for this category have been limited to *that* and *which*, regarding the dog as a non-personal antecedent since the sentence used in this study is similar to that of **G3S 2980**.

The last two categories with restrictive clauses involve genitive. *Whose* is the only possible construction that can be used when indicating genitive. Two sentences with personal antecedents were used in the test with rather different results. In the first sentence (12) the learners displayed a much higher accuracy level on 73,68 percent while they in the second

(14) only used *whose* in 55,26 percent of the case. Consequently, the average becomes relatively low as seen in figure 8 below.

19. (12) I wanted to help the girl umbrella got stolen.

20. (14) It is a novel about a scientist research was banned.

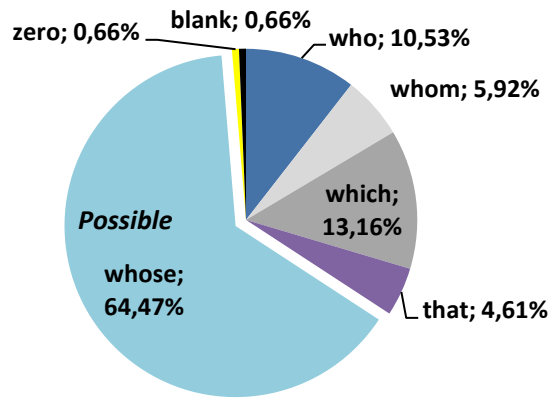


Figure 8. Personal antecedent, genitive function in restrictive clauses

As shown in figure 8, the main source of error overall is *which*. In sentence 14 however, *who* was used in a percentage point more than *which*.

Lastly, we find genitive with non-personal antecedents, which was tested through sentence (2). This category contained without a doubt the combination of factors that the learners had most problems with.

21. (2) This is a newspaper opinions I share.

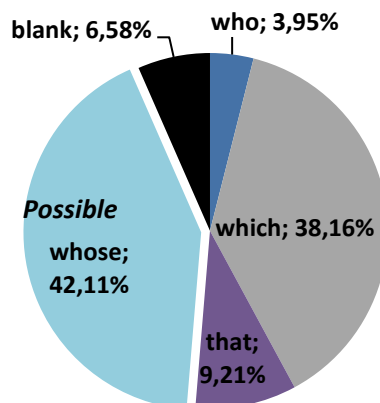


Figure 9. Non-personal antecedent, genitive function in restrictive clause

Again, an extensive loss in data is evident due to gaps left blank by the learners as seen in figure 9. *Whose*, the only possible relative pronoun was merely used 32 times while *which* was used 29 times.

3.3 Non-restrictive clauses

The remaining six sentences contained non-restrictive relative clauses. Whereas the grammatical accuracy overall is high for subject and object cases in restrictive clauses, the learners surprisingly showed a much higher wavering in non-restrictive clauses.

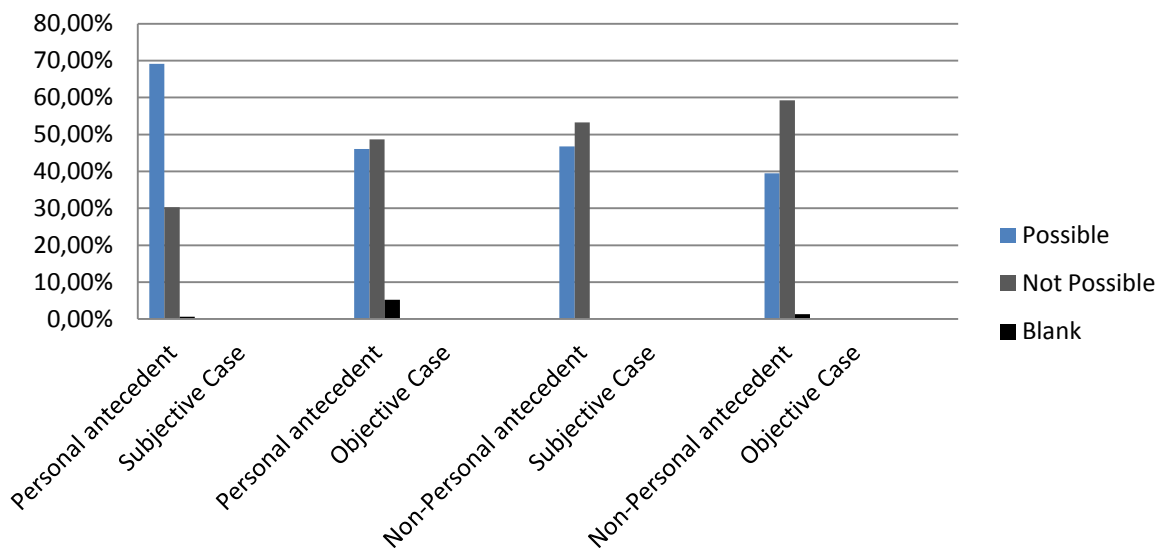


Figure 10. Learners' usage in Non-restrictive clauses

As seen in figure 10, it is only in the first category, subject function with personal antecedent, in which a possible relative pronoun is preferred amongst the tested learners. Although only the two categories involving subjective function were tested in two sentences each, the accuracy level of just below 40 percent for object function referring to a non-personal antecedent appears very striking.

Subject function with a personal antecedent, is the category in which the learners displayed the highest accuracy level from non-restrictive clauses, here exemplified with sentence (1).

22. (1) My brother, is a policeman, still lives at home.

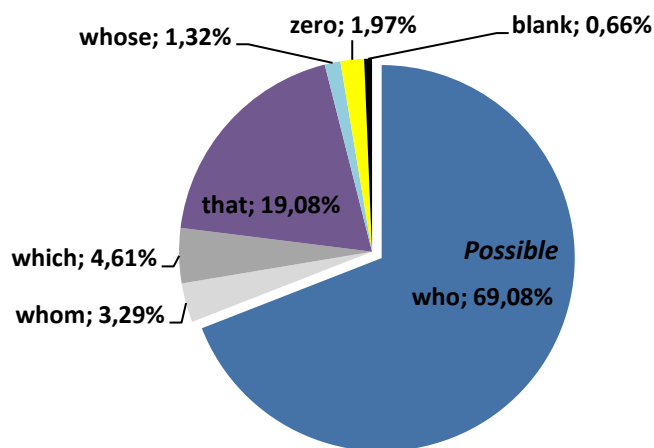


Figure 11. Personal antecedent, subject function in non-restrictive clauses

Who, which is the only possible ReLP, was clearly the dominating construction. Nevertheless, an incorrect ReLP was chosen slightly over 30 percent of the times with *that* accounting for approximately 20 percentage points of these, see figure 11.

With object function and personal antecedent as in sentence (15), a possible construction was preferred in 46 percent of the occasions as illustrated in figure 12 below.

23. (15) Sarah and John, you will be sharing the apartment with, are at the cinema right now.

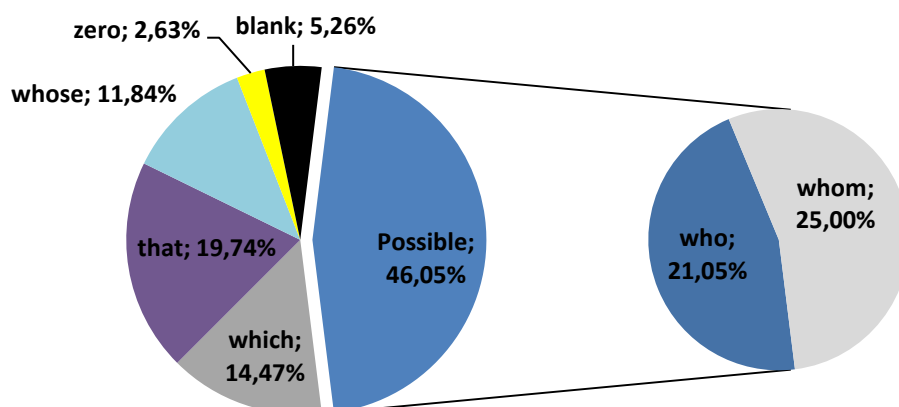


Figure 12. Personal antecedent, object function in non-restrictive clause

As figure 12 shows, the majority of the different constructions were fairly evenly used in this category. Of the possible constructions the formal alternative *whom* was preferred by most learners, although this alternative only constitutes a quarter of the observed cases. The commonest inaccurate construction found was *that*, which is possible in restrictive clauses, followed by the non-personal ReLP *which*.

The next category, non-personal antecedents and subject case exemplified with sentence (13), has a similar accuracy level.

24. (13) She is very stubborn, really annoys me.

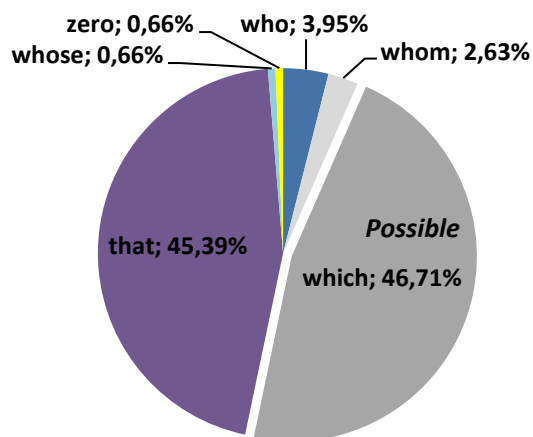


Figure 13. Non-personal antecedent, subject function in non-restrictive clauses

As seen in figure 13, the possible construction was preferred by less than half of the learners. *Which* and the impossible *that* were the mainly used relative pronouns in this category while the other constructions were rare just as in restrictive clauses (compare figure 4). On the whole the usage of RelP's within the two clause types is rather similar with the exception of *whom* only being applied in the clause at hand.

Lastly, we find the category based on object function and non-personal antecedents tested through sentence (18). This is the where the lowest accuracy level on less than 40 percent was found.

25. (18) The problem,..... I intend to solve in this proposal, is...

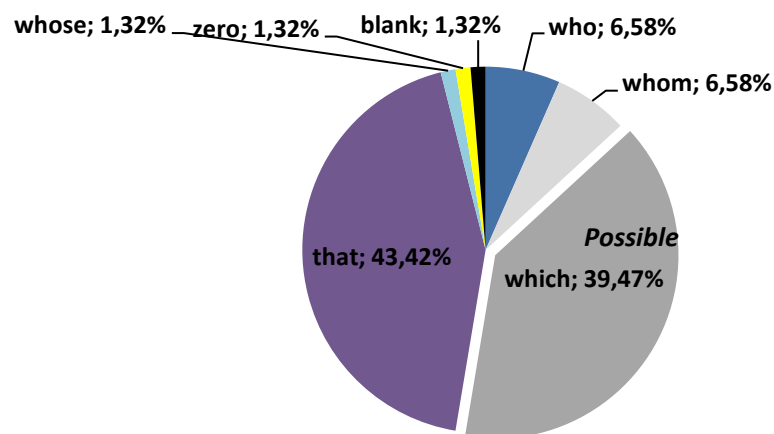


Figure 14. Non-personal antecedent, object function in non-restrictive clause

As figure 14 illustrates, *That* was the main preferred construction just as in restrictive clauses with object function and non-personal antecedents. The only grammatically possible RelP *Which*, was however only chosen on three instances less than *that* and occurred in 21 percentage points more than it did in restrictive clauses (compare figure 5).

4 Discussion and Conclusions

4.1 Discussion

In summary, the results showed that the learners master restrictive clauses better than non-restrictive. The main error reducing the accuracy level in non-restrictive clauses was the extensive use of *that*. It occurred with high percentages in all non-restrictive clauses, but still notably lower than in the restrictive clauses. The *zero* construction occurred with object function in non-restrictive clauses as well, but likewise less often than in restrictive clauses.

Comparing the two clause types some interesting patterns could be seen. For one thing, the learners overall mastered the subject function better than object function in the embedded clauses. However, in non-restrictive clauses the difference in accuracy between subject function with a non-personal antecedent and object function with a personal antecedent can be measured only in thousandths (compare figures 12 and 13). Otherwise, there appears to be no correlation in difficulty level dependent on whether the antecedent is personal or non-personal for subject or object case. For another, object function with a non-personal antecedent (see figures 5 and 14) is the combination shared by both clause types in which the learners displayed the lowest accuracy levels. Moreover, gender concord errors (e.g., using *which* for people) were the most common mistakes in restrictive clauses and second in non-restrictive where the *that* construction dominated.

In restrictive clauses the most difficult combination of factors for the learners was the genitive case and non-personal antecedents with an accuracy level of just over 42 percent. Second most difficult was object function governed by preceding preposition and personal antecedent. The third lowest accuracy was found in subject function with a dog as the antecedent although if *who* is regarded as a possible ReIP, then the genitive case and personal antecedents would claim this placement.

The Noun Phrase Accessibility Hierarchy, thus does appear to offer somewhat of a difficulty scale in relative clauses for the learners. The positions higher up the scale were realised with greater accuracy than the lower ones. Although, object function governed by a preceding preposition with a personal antecedent was a category in which the learners showed less accuracy than genitive function and personal antecedent contrary to the theory.

Due to the difference in material and coding method between the present study and that of Köhlmyr, no cases of substitution errors existed. However, omission errors which occurred in her study on two instances did also take place in the present study. Altogether 19 such

omission errors, where a required RelP had been left out, were encountered (not counting blank answers). Gender concord errors were furthermore common in both our studies.

Compared to how native speakers use RelP's there is on the whole big differences. Perhaps most noticeable is the difference in utilizing the *zero* construction for object case in restrictive clauses. Olofsson as well as Guy and Bayley found the *zero* construction to be the most common construction while the Swedish learners used *zero* construction the least of possible RelP's in object case. Instead the Swedish learners preferred *that*, closely followed by *who* when the antecedent is personal. Moreover, subject function with personal antecedent is a combination in which native speakers use *who* practically at all times. The Swedish learners however, only showed a difference of six percentage points between *who* and its rival *that*. This suggests that the RelP *that* is greatly preferred by Swedish learners, much more than by native speakers and that *zero construction* is very rare compared to native speakers. A last observation concerning the difference between the learners and native speakers is on subject case with non-personal antecedents. As noted in the results (p. 16) native speakers nowadays use *that* 80 percent of the times while the learners used it about half of the times and *which* in almost 41 percent of the times. The usage among the learners resembles to a great extent how native speakers realised this combination in the 1960's (Olofsson, 2005).

4.2 Pedagogical implications

For the most part, the tested learners appeared to use RelP's in accordance with the lexical and grammatical proficiency level B2.1 in that most mistakes made would not hinder communication nor lead to misunderstandings. However, on occasion two types of mistakes might impair communication. First, the use of *which* instead of *whose* in genitive case with personal antecedents could lead the sentences to be perceived as interrogative instead of declarative (sentences 12 and 14). Secondly, using RelP's that are only applicable in restrictive clauses in non-restrictive clauses could lead the clause to be perceived as identifying rather than merely commenting. Sentence (1) for example could with the RelP *that* be interpreted as that there are many brothers, but it is this one that lives at home.

26. (1) My brother, is a policeman, still lives at home.

This misunderstanding is however unlikely to occur in speech were non-restrictive clauses are indicated by pauses instead of surrounding commas.

In view of the patterns of errors found, there appear to be two primary targets for attention in English class that if improved could improve learners' communicative

competence considerably. To begin with, the extensive use of *that* in non-restrictive clauses suggests that many of the learners either are not familiar with how non-restrictive clauses are indicated in written English, or that they have not understood that a *wh*- RelP is required in non-restrictive clauses. Sentence (18) would be perfectly accurate with the RelP *that* if the commas were not there:

27. (18) The problem, I intend to solve in this proposal, is...

Consequently, if a presentation of the grammatical difference between the two types of clauses combined with exposure to them would assist the learning process as Hedge maintains, a focus on teaching this difference could have a significant impact on the accuracy level in non-restrictive clauses.

In second place we have the genitive case, which likewise appears to be an important focus point for teaching in class. With a non-personal antecedent the genitive case seemed to be an unfamiliar occurrence as nearly equally many learners used *which* as the possible *whose*. Given that the learners displayed low accuracy levels for both types of antecedents, further exposure to different genitive constructions to increase the chance of intake is necessary.

Besides these two primary targets, gender concord could also be a point of attention in English teaching to increase learners' proficiency levels. However, the shifting percentages of concord errors between categories as well as single sentences suggest that the reason for error might lie in a perceived obscurity of antecedent gender, rather than only insufficient understanding of the RelP's gender division.

In the same way, the obligatory *whom* following a governing preposition requires attention to the extent that learners become aware of the construction's differing rules since a preposition easily can, and often is relocated to the end of the relative clause where *whom* no longer becomes obligatory.

4.3 Conclusion

The aim of this study was to explore learners' choices and usage of relative pronouns in English, to compare the usage with that of native speakers, and to identify patterns in it. The study has revealed several patterns which indicate how Swedish learners of English use RelP's.

Although different patterns in learners' usage of RelP's have been observed in the study, these should not be generalised as a set of laws. That the *zero* construction was seldom

applied, could for example perhaps depend on unconscious inclinations to believe that gaps should not be left blank or that concrete ReIP's are more correct. Further studies are certainly needed, for instance research on educational programs other than the social science is recommended, but also with other material such as translation sentences to further complement the research field.

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Please fill in the gaps in the sentences below with a relative pronoun.

For many of the sentences more than one alternative is possible. Choose the one you think you would use in real life.

Enter one of the following: **Who, Whom, Which, That, Whose**, or \emptyset =nothing at all.

1. My brother, is a policeman, still lives at home.
2. This is a newspaper opinions I share.
3. That new boy/girl, was at the party last night, is gorgeous.

4. The police have captured the prisoners escaped.
5. The receptionist to I gave my CV told me to call you.
6. Was it not Dante wrote The Divine Comedy?

7. I have sent the letter..... you gave me yesterday.
8. This film, I saw last week, is a classic.
9. I need to return the books I borrowed from Emma.

10. The shoes dad gave me are very comfortable
11. The problem we are faced with must be dealt with soon!
12. I wanted to help the girl umbrella got stolen.

13. She is very stubborn, really annoys me.
14. It is a novel about a scientist research was banned.
15. Sarah and John, you will be sharing the apartment with, are at the cinema right now.

16. The women I met work at the police station.
17. Eric is a teacher you can turn to for advice.
18. The problem, I intend to solve in this proposal, is...

19. Have you seen the new Bond film was just released?
20. The dog bit me was a German shepherd.
21. You are the only one can help me.