COMPREHENSION OF RELATIVE CLAUSES BY L2 LEARNERS OF ENGLISH: NO ASYMMETRY AND PUZZLING PREPOSITIONS

Marie-Anne Duffeler[*] and Martine Coene[**]

Abstract: The asymmetry in processing subject and object relative clauses in first language acquisition has been the focus of interest of many researchers and has often been interpreted in terms of structural distance and Relativized Minimality. This paper investigates whether this asymmetry also holds for second language acquisition. A listening comprehension test was administered to French-speaking learners of English to see first whether the subject-object asymmetry in relative clauses (RCs) evidenced in native language children is mirrored in the second language acquisition of English, and second whether oblique RCs with stranded prepositions are more difficult to understand than their pied-piped counterparts. Whereas the experiment has evidenced no difference in the comprehension of subject and object RCs, it has however revealed a better comprehension of oblique RCs with stranded prepositions. This is a rather unexpected result considering the absence of this structure in the learners' L1.

Keywords: relative clauses, SLA, subject-object asymmetry, preposition stranding, English

1. Introduction

The asymmetry between subject and object relative clauses is a classical finding in the linguistic literature and many experts have examined it in the last four decades (Cook 1975, Hakes et al. 1976, McKee et al. 1998, Traxler et al. 2002, Warren and Gibson 2002, Izumi 2003, Gordon et al. 2004, Volpato and Adani 2005, Chen 2006, Aydin 2007, Hu and Liu 2007, Friedmann et al. 2009, Belletti and Contemori 2010, Carreiras et al. 2010, Costa et al. 2011). Studies range from investigating native speakers of various languages (head-final and head-initial), at different ages (children and adults) and with possible language impairment, to studying second language acquisition (SLA) of relative clauses by speakers of diverse languages. Little is known, however, on the comprehension of subject and object relative clauses (RCs) by French-speaking learners of English.

The present study targets specifically adult learners of English whose L1 is French. First we would like to know whether the subject-object asymmetry in relative clauses (RCs) evidenced in native language children and atypical populations is mirrored in the second language acquisition (SLA) of English, and second we wish to investigate whether oblique RCs with stranded prepositions (*the horse that the dog is looking at)* are more difficult to understand than pied-piped RCs (*the horse at which the dog is looking*) due to the absence of the former structure in the participants' L1 (French).

The article is organized as follows: In section 2 we will describe the theoretical framework used to explain the structure and the processing of RCs, in section 3 we will review the research that has been carried out so far on how RCs are processed by various populations in the L1 and in SLA, then we will formulate our aim and hypotheses in

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[*] Vrije Universiteit Amsterdam, maduffeler@gmail.com.
[**] Vrije Universiteit Amsterdam, m.m.r.coene@vu.nl.

section 4, describe our experiment in section 5, and report, in section 6, our results, which will be discussed in section 7. Finally we will draw general conclusions in section 8.

2. Theoretical framework

2.1 Syntactic structure

In most languages four basic types of restrictive relative clauses can be distinguished.

(1)   The cat that is black is running.
(2)   The cat that the dog is chasing is black.
(3)   Tom watches the cat that is black.
(4)   Tom watches the cat that the dog is chasing.

Sentence (1) contains an extracted element (*cat*), which is the subject of the sentence and of the relative clause and is henceforth referred to as SS. Sentence (1) can be rewritten as in (5) and represented graphically as in figure 1a.

(5)   [IP [NP The cat$_1$ [CP that [IP t_1 is black]]] [I'[I] [VP is running]]

In sentence (2) the extracted element (*cat*) is the subject of the sentence but the object of the relative clause. This type of relative is designated as SO. Its bracketed equivalent is (6) and is represented in figure 1b.

(6)   [IP [NP The cat$_1$ [CP that [IP [NP the dog] [I'[I Infl] [VP [V is chasing] [NP t_1]]]]]] [IP is running]]

In sentence (3) the extracted element (*cat*) is the object of the sentence and the subject of the relative clause. This type of relative is referred to as OS. It is transcribed in sentence (7) and graphically represented in figure 1c.

(7)   [IP [NP Tom] [VP [V watches] [NP the cat$_1$ [CP that [IP t_1 [VP is black]]]]]]

Finally in sentence (4) the extracted element (*cat*) is the object of the sentence and of the relative clause. This configuration is known as OO. It is rewritten in sentence (8) and is represented graphically in figure 1d.

(8)   [IP [NP Tom] [VP [V watches] [NP the cat$_1$ [CP that [IP [NP the dog_1] [I' [I Infl] [VP [V is chasing] [NP t_1]]]]]]]]
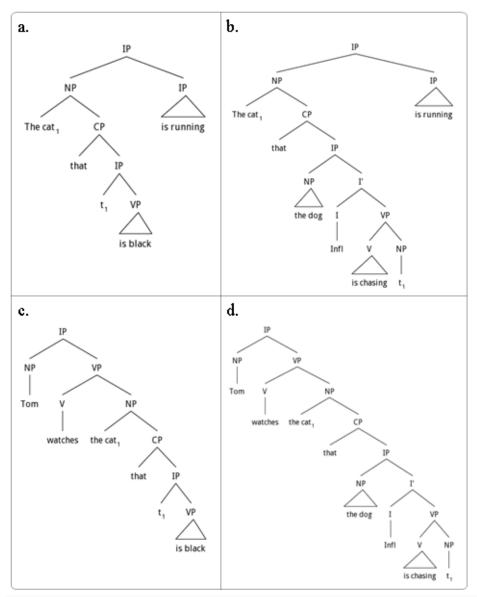
Figure 1: Syntactic trees of the four types of relative clauses: a. SS, b. SO, c. OS, d. OO.

Looking at the four types of relative clauses, we could expect SS and SO to be more difficult to process than OS and OO since the RC is embedded between the sentential subject and the main verb. However, in a study carried out by Hakes et al. (1976) with adult native speakers of English, this idea was disproved. Indeed the critical element is the function of the relative (subject or object), and not its position in the sentence, so that test takers had more difficulty understanding object than subject RCs.

The difference between subject and object RCs lies in their structures: In head-initial languages the distance between a trace and its antecedent is greater in object than

in subject RCs. This distance is linear (how many words are found between the trace and its antecedent) and structural (the trace is embedded deeper down in the structure), and this could account for the asymmetry in processing between both types of RCs.

2.2 Relativized minimality in RCs

A useful theoretical framework to analyze the differentiated understanding of RCs is the theory of Relativized Minimality (Rizzi 1990), whose original formulation is given in (9):

(9)   X … Z … Y

RELATIVIZED MINIMALITY: X α-governs Y iff there is no Z such that
  i.   Z is a typical potential α-governor for Y,
  ii.   Z c-commands Y and does not c-command X.

In general terms, Relativized Minimality (RM) theory states that an intervener Z between X and Y can become a barrier and block antecedent government. The theory accounts for *wh*-island and pseudo-opacity effects, as well as head movement constraint, superraising, and inner islands. However, as the original theory was too restrictive, it has evolved so that the newly formulated principle states that RM effects can be expected when Z is *of the same structural type* as X. Structural type refers here to the argument's set of morphosyntactic features (Argumental, Quantificational, Modifiers, Topic) as described in the Cartographic Approach (see Grillo 2008, for an extensive review of RM).

In a recent paper by Friedmann et al (2009) RM is used to make sense of the difficulty in processing object relative clauses by native Hebrew-speaking children. Indeed the authors see strong similarities between the ban on extraction from weak-island contexts and RCs, so that they assume the following analysis of headed object RCs:

(10)   a.   the cat that the dog is chasing
         b.   D   NP R … D NP …   <D NP>

R stands for the relative complementizer and D NP for the nominal expression introduced by a determiner. In sentence (10) <D NP> cannot cross over D NP as this violates RM. This analysis is true of children's grammar, which usually rejects object RCs. However, as object RCs are accepted in adult grammar, other elements must come into play: the morphosyntactic features developed in the Cartographic Approach. The authors thus follow the insight of Starke (2001) and re-analyze sentence (10) as in (11):

(11) [+R, +NP] … [+NP] … <+R, +NP>

In this case the intervener [+NP] does not block the movement of the relative clause object <+R, +NP> because the initial attractor is more richly specified than the intervening subject [+NP].

2.3 Head-initial and head-final languages

While the asymmetry between subject and object RCs is rather straightforward in head-initial languages (longer vs. shorter linear and structural distance), the situation is more complex in head-final languages. Indeed, in these languages, the relative clause precedes the noun and is not introduced by an interrogative-like word acting as relative complementizer. Moreover the linear distance does not coincide with the structural distance, so that subject RCs feature a long linear but a short structural distance, and object RCs are characterized by a short linear but a long structural distance. The head-final languages that have been studied recently are Chinese, Japanese, Korean, and Basque, and the results are controversial. Some studies (Lin and Bever 2006; Chen et al. 2013, for Chinese; Ishizuka 2005; Ueno and Garnsey 2008 for Japanese; Kwon et al. 2006; Kwon et al. 2010 for Korean) indicate that subject RCs have a clear advantage over object RCs, while others (Hsiao and Gibson 2003; Lin and Garnsey 2011 for Chinese; Ishizuka et al. 2006 for Japanese; and Carreiras et al. 2010 for Basque) report that object RCs are easier to process. Carreiras et al. (2010) suggest in fact that the processing difficulty linked to RCs might not result from distance but could be linked to language-dependent parameters, such as case-marking. More research however is needed to establish which type of RC is better comprehended in head-final languages, which could in turn shed light on RC processing in general.

3. Processing relative clauses

3.1 Native language speakers

3.1.1 Adults

The first study that looked at RC comprehension (in a forced-choice word selection task) by adult native speakers of English was carried out by V. Cook in 1975, and it revealed that object RCs were more prone to errors than subject RCs. Then Hakes et al. (1976) also examined the comprehension of relative clauses by native English speakers in a monitoring and paraphrasing experiment in order to see whether the position of the RC within the sentence affected its comprehension. Although they evidenced no difference at that level, they discovered an asymmetry between object and subject RCs: Object relatives took longer to parse and were more prone to errors when they were paraphrased by participants, which suggests lower comprehension level. More recently Traxler et al. (2002) re-examined the issue and investigated the processing of subject and object relatives in eye-movement-monitoring experiments, while manipulating the plausibility and the animacy feature of the relative clauses. They concluded that object RCs were always harder to process than subject RCs, but that the former were more easily understood when the sentential subject was inanimate and the subject of the object RC was animate (e.g. *Show me the bone that the dog is eating*). Relative clauses were investigated also by Warren and Gibson (2002), and Gordon et al. (2004) to see how the type of noun phrase (NP) can affect sentence complexity and the parsing of relative

clauses. In self-paced reading experiments, sentence complexity ratings, and corpus analyses, the experimenters found evidence that the object RC was more easily processed when it contained a proper name or a pronoun, in other words the object RC was parsed faster if it did not contain a noun after the relative complementizer, regardless of the definiteness and semantic richness of the latter. However, Costa et al. (2011) tested the comprehension of RCs by native Portuguese-speaking adults in sentence-picture matching tasks and did not evidence any difference between the comprehension of subject and object RCs.

3.1.2 Typically developing children

The asymmetrical understanding of RCs by typically developing children has also been the focus of many studies. It was first reported by Cook (1975) who tested native English-speaking children with sentence-scenario comprehension tasks. More recently Friedmann et al. (2009) examined the comprehension of RCs by Hebrew-speaking children in sentence-picture and sentence-scenario matching tasks. Their experiment gave evidence that object relatives are significantly more difficult to understand than subject relatives but that difficulty depends on the structural similarity between the A'-moved element and the intervening subject. The authors also elicited production from the children using toys and scenarios, and they saw that object RCs were indeed often avoided in speech. Another experiment by Belletti and Contemori (2010) on children's production in their L1 (Italian) evidenced the same avoidance of object relatives. Costa et al. (2011) tested the comprehension of RCs by Portuguese-speaking children and their findings corroborate previous results: Object RCs are more difficult to understand than subject RCs and are thus good markers of linguistic development in children.

3.1.3 Language impaired populations

Among language impaired populations two studies are worth mentioning: One was carried out by Volpato and Adani (2005), who chose to investigate hearing-impaired Italian-speaking children with agent selection tasks. Their study reveals that a gradient of difficulty is found in the comprehension of relative clauses: Object RCs are less well understood than their subject counterparts, and among object RCs, those with postverbal subject (a possible structure in Italian) are harder to comprehend than those with preverbal subject. Another study was carried out by Friedman (2008), who tested the comprehension of subject and object relative clauses by agrammatic adults in a picture-matching task. They confirmed that the asymmetry between subject and object RCs is present in this population: While the understanding of subject RCs was above chance, that of object RCs was at chance level. Moreover the presence of a resumptive pronoun in the object relative clause did not improve the results, so that Friedman suggests that the difficulty in comprehending object RCs might be linked to the agrammatic patients' deficit in assigning thematic roles over another argument or to a poor syntactic construction – in the absence of a CP or IP, no linking to antecedents is possible.

3.2 Second language learners

Although many studies have looked at the oral comprehension of RCs in the L1, few have focused on it in second language acquisition (SLA). Izumi (2003) investigated the processing difficulty in understanding RCs by means of a picture-selection task with oral and written prompts. The participants were learners of English as a second language who had different levels of proficiency and came from various countries. Izumi evidenced difficulty in processing RCs linked to the embedding position of the relatives (RCs in subject position were harder to process) but no significant difference between the comprehension of subject and object RCs. Another experiment (Aydin 2007) focused on the comprehension of Turkish RCs by learners of Turkish as a second language in a picture-selection task. The participants' native languages were English, Korean, and Japanese and were subdivided in two levels (intermediate and basic). The results of the study indicate that subject RCs were better understood than object RCs by intermediate learners, yet that difference was not attested in the group of basic learners. Chen (2006) examined the processing of English subject and object RCs by adult Chinese learners with a complexity-rating test. Considering that Chinese is a head-final language and that the subject vs. object RC preference is still hotly debated, we would hope that Chen's experiment could shed light on the processing of RCs by speakers of a head-final L1. However the author found out that object RCs were rated more complex than subject RCs by advanced learners of English but not by those at a lower level of proficiency, which does not indicate any RC type preference. Another study by Hu and Liu (2007) looked at the acquisition of Chinese relative clauses by English- and Korean-speaking learners. Participants were asked to rate the complexity of written RCs and again no substantial differences between subject and object RCs were found in the scores given by both groups of learners (at elementary, intermediate, and advanced levels).

4. Aims and hypotheses

The aims of the present study are twofold: First we wish to determine whether L2-learners compare to native language speakers of English with respect to the attested asymmetries in comprehension performance between subject relatives (SRs) and object relatives (ORs), and second we would like to focus on oblique relative clauses with stranded preposition (*The lion that the horse is jumping over)* as a particular sub-class of relatives yielding grammatical utterances in the targeted L2 (English) while being absent from the native language system of the language learner (**Le lion que le cheval saute au-dessus*). Indeed French oblique relatives with prepositions are always constructed with the fronted preposition, the so-called *pied-piping* process (*Le lion au-dessus duquel le cheval saute)*. Henceforth the abbreviations ORPP and ORPS are used to refer to oblique relatives with pied-piping and with preposition standing respectively.

The following hypotheses are thus tested: (i) the natural order of acquisition of SRs and ORs in L2 learners mirrors the pattern found in L1 developers, so that ORs are more difficult to process and are therefore more prone to comprehension errors than SRs; (ii) oblique relative clauses with preposition stranding (ORPS) are less well understood

by French learners of English than their pied-pied equivalents (*The lion over which the horse is jumping*) as the former are infelicitous in the native language of the L2-learner.

5. Materials and method

To test these hypotheses, a comprehension test was offered to 59 adult French-speaking learners of English. The participants were all students at a Belgian university with an intermediate level of English (B1). That level is based on the university's assessment of the students' proficiency although no proficiency test was administered prior to the experiment. On average participants had studied English for 7.12 years (mostly in secondary school).

The test consisted in a three-item forced choice picture-selection task allowing a subject or object RC-oriented interpretation. Participants had to listen to 56 recorded sentences containing the various types of RCs and to circle the character that was described in the oral description. The distribution of the test sentences was the following: 16 SRs, 8 object ORs, 8 ORPS, 8 ORPP, and 16 fillers. Subject RCs were more numerous because they contained all the transitive verbs used in object RCs (*bite*, *brush*, *follow*, *hit*, *lift*, *pull*, *push*, and *watch*) and the intransitive ones used in oblique RCs (*jump over*, *look at* – used twice –, *run behind*, *run in front of*, *step over*, *walk behind*, *walk in front of*). All RCs were placed in object position in the sentences. The design of our test was similar to the one used by Friedmann et al. (2009), except that three possible answers could be selected. Participants could either select the target answer, or make a role reversal error, for example choosing the Patient instead of the Agent, or choose the middle character (see Adani 2011 for a discussion of the middle error). All characters were singular (only one character acted on another one) and animate so as to control for animacy effect (see Traxler et al. 2002). Examples of test items are given in Figure 2.
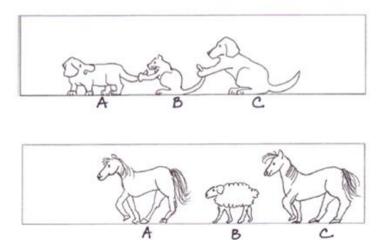

Figure 2: Examples of picture sets. The corresponding auditory stimuli are: *Show me the dog that the cat is pulling* **and** *Show me the horse in front of which the sheep is walking*.

6. Results

The mean comprehension scores of subject (SR) vs. object (OR) relatives and of oblique relatives with pied-piping (ORPP) vs. with preposition stranding (ORPS) are presented in table 1 and 2 respectively. Results are expressed in percents and error bars indicate the 95% confidence interval. The mean comprehension score for subject relative clauses is 93.86% and 95.13% for object RCs, whereas it is 91.74% for oblique relatives with preposition stranding and 84.96% for oblique relatives with pied-piping.
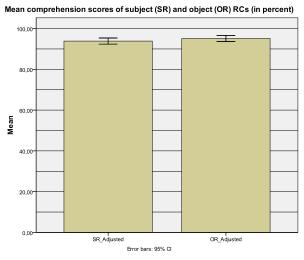
Mean comprehension scores of subject (SR) and object (OR) RCs (in percent)

Error bars: 95% CI

Table 1: Comprehension of subject and object RCs

Mean comprehension scores of oblique RCs with preposition standing (ORPS) and pied-piping (ORPP) (in percent)
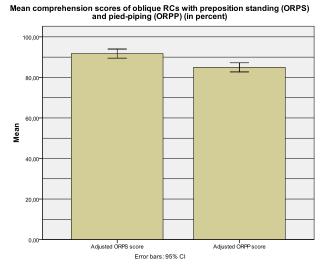

Error bars: 95% CI

Table 2: Comprehension of oblique RCs with preposition stranding and with pied-piping

Since we tested the same group of participants on the comprehension of four conditions (SR, OR, ORPS, and ORPP), we opted first for a repeated measures ANOVA.

However, since our data was not normally distributed (significant Levene's test, $p < 0.5$), we decided to analyze it with the non-parametric Friedman's two-way analysis and with post hoc tests. First Friedman's ANOVA reveals that the results in the four types of RCs are significantly different ($p < 0.001$). Then the post hoc Wilcoxon Signed Rank test indicates that the results on the first two conditions (SR vs. OR) are not significantly different ($p = 0.532$) but that the difference in comprehension under the last two conditions (ORPS vs. ORPP) is highly significant ($p = 0.004$). In other words relative clauses with pied-piping are significantly less well understood than those with preposition standing.

Additional ANOVAs have been performed to see whether other factors had an influence on our results, namely the years of study of English and the bilingualism of test takers (a minority of them had a second L1 beside French, which obviously was different from English), but no significant difference has been found.

7. Discussion

According to our first hypothesis we expected object relative clauses to be more difficult to understand by second language learners than subject relative clauses. The motivation for this was that object RCs are acquired at a later stage by L1 children (Friedmann et al. 2009) and that they are more difficult to process in the L1 (Traxler et al. 2002). We assumed therefore that, during the acquisition process of the second language, learners would go through the same stages as in the L1 development and so would misinterpret object RCs. Our results however do not indicate a significant difference in SLA between the comprehension of subject and object RCs by intermediate L1 French learners of English, and they coincide with Izumi's (2003) findings.

The absence of significant difference in the comprehension of subject and object RCs seems to disprove the similarity of acquisition between the L1 and the L2. In our case we can say that the adult L1 French learners of English behave like native speakers since a similar comprehension study carried out by Costa et al. (2011) found out that adult L1 speakers of Portuguese understood equally well subject and object RCs. One could counter however that our participants do not exhibit any sign of asymmetry because their level of English proficiency is too high (B1) and that English and French both have RCs introduced by complementizers, but if we consider that Izumi (2003) also evidenced an absence of asymmetry in the comprehension of subject and object RCs in learners of L2 English who had typologically different L1s and were at various levels of proficiency in English (from lower to higher intermediate), we come to the working conclusion that second language acquisition does not mirror L1 development. This conclusion is temporary because it is based on the acquisition of one syntactic structure and it needs to be confronted with other L1 markers of development.

If we consider the theories about the nature and development of adult L2 learners' interlanguage, our results are compatible with both Full Access Full Transfer (FAFT) and Full Access No Transfer (FANT) accounts. Indeed according to FAFT theory the L2 learner's initial grammar is the L1 which is progressively reset to accommodate the L2 parameters. If we assume that there is no significant difference in the comprehension of

subject and object relatives in the L1, we will expect this to be true also of the L2 (because of the transfer from the L1), which is the case in our experiment. From the point of view of the FANT theory however, the learner starts learning the second language while having access to the lexical and functional categories of UG, and not the L1, but this access to UG does not tell us much about the L2 learner's initial grammar, so that no conclusion can be drawn at this stage about the comprehension of relatives.

Our second hypothesis claimed that French-speaking learners of English would understand oblique relative clauses with pied-piping better than those with stranded prepositions since preposition stranding is infelicitous in French. Our results however reveal a very different and puzzling situation: The comprehension of object relatives with preposition stranding is significantly better than the comprehension of object relatives built with pied-piped prepositions.

Let's look at this phenomenon in light of the FAFT and FANT theories. The Full Access Full Transfer account claims that learners use the L1 as basis to learn the L2 and that parameters are reset progressively. According to FAFT, L1 French learners would have in their initial L2 grammar the oblique RC form that is licit in French, namely the one with a pied-piped preposition. French learners would thus fare better on English RCs with pied-piping than on those with preposition stranding, or at least they would understand both forms equally well, if we assume that some parameters have been reset to the L2 (English). However our results indicate an inverse situation: RCs with preposition stranding were better understood than the pied-piped ones. This seems incompatible with the FAFT account, all the more so that the tested French learners had an intermediate level of English and so they would still be influenced by their L1. We come to the conclusion that either our L2 learners had already reset their parameters to the L2 (but we would have to check that those parameters generate a better comprehension of RCs with preposition stranding) or second language learners in general do not start using their L1 as basis to learn the L2.

A word of caution however has to be expressed at this stage. Although preposition stranding is infelicitous in standard French, pied-piping is not necessarily always used in the L1. Indeed some authors (Guasti 2002, Guasti and Cardinaletti 2003, Labelle 1990) have reported that native French children tend to avoid pied-piping and use instead a combination of complementizer and resumptive pronoun, a construction that is also found in non-standard varieties of French. If some of our participants accepted in their L1 non-standard resumptive RCs that bear some resemblance to English preposition-stranded RCs, it would make it difficult to distinguish which structures (standard or non-standard) from the L1 are dragged into the interlanguage and how it influences the comprehension of the L2.

On the other hand the better understanding of English RCs with preposition stranding by French learners of English is compatible with the Full Access No Transfer explanation, whereby L2 learners acquire the L2 structures until they reach an L2-like steady state grammar and those developments are sanctioned within UG. As we have mentioned before, however, the nature of the initial state grammar is unclear, so that we cannot make claims about the initial comprehension of oblique RCs.

One reviewer did point out that the oblique RCs containing locative prepositions (6 out of 8 sentences) could be reduced to a simpler expression, so that a test sentence

such as *show me the horse that the sheep is walking in front of* could be understood as *show me the horse* and *the sheep is in the front*. Although this process would not prevent L2 learners from making role reversal errors, it is possible that they use the semantic content of locative prepositions and the similarity to canonical sentence order as hints to understand oblique RCs, and this would need to be further researched.

To conclude it is difficult to analyze the SLA process of certain structures in the absence of valid reference data. In the case of RCs we need to be able to compare the results of our L2 learners of English with the grammar of native English speakers so as to ascertain that the better comprehension of relatives with preposition stranding is indeed native like.

8. Conclusions

A lot of research has focused on relative clauses recently. The asymmetry between subject and object relatives has been studied in various populations (native adults, native children, native agrammatic populations) and with diverse methods (grammaticality judgments, comprehension tests, elicitation tasks, eye tracking devices, ERP). However few experiments have investigated this asymmetry in SLA, so that our experiment is an interesting complement to research in this field.

Our experiment consisted in testing the comprehension of relative clauses by L1 French learners of English (with an intermediate proficiency level) in a three-item forced choice selection task. A pool of 59 French-speaking students was asked to listen to descriptions of animate characters and to circle the one that was being referred to. The sentences contained various types of relative clauses: subject RCs, object RCs, oblique RCs with preposition stranding, and oblique RCs with pied-piping. Then the percentage of correct answers for each type of RC was calculated.

The results of this experiment reveal first that no significant difference is found in the comprehension of subject and object RCs by French learners of L2 English. This means that L2 learners behave like adult native speakers in terms of comprehension of subject and object RCs. This observation is compatible with Full Access theories, with or without transfer. If there is transfer from the L1, we can link the L2 learners' good comprehension of object RCs to their competence in their own L1. If there is no transfer, we can assume that L2 learners have already reset their parameters to the L2. In terms of acquisition of the L2, this absence of asymmetry in the comprehension of subject and object RCs indicates that L2 learners do not follow the development stages of L1 speakers, as far as relative clauses are concerned.

The second result that comes out of that study is that L2 English oblique relative clauses with preposition stranding are better understood than the ones with pied-piping although the latter structure is the only acceptable one in the test takers' L1, French. This result contradicts the Full Access Full Transfer theory in that test takers are seemingly not influenced by their L1 when listening to relatives with pied-piping. We could consider that the learners have already reset all their parameters to the L2, but we find it unlikely since the learners had an intermediate level of proficiency (B1) in English. The L2 learners' better understanding of relatives with preposition stranding however is

compatible with Full Access No Transfer theory although the latter gives little information on the initial state of the L2 learners' grammar. Further research is needed to examine how native speakers would behave in their L1 when listening to both forms of oblique RCs because we assume, but cannot ascertain, that native English speakers would understand oblique RCs with preposition stranding better than the pied-piped ones. As it stands now, we can say that our L1 French learners of English are not transferring their L1 structures in the L2 but we do not know whether their understanding is similar to that of native speakers.

In conclusion, more research is needed to be able to generalize the working conclusions drawn in this paper. In particular examining whether other L1 linguistic development markers can be found in the second language acquisition process would shed light on second language acquisition in general. Moreover testing native speakers on their comprehension of oblique relative clauses would allow us to make more substantial claims based on our present results.

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