ORIGINALE ARTICLE

THE ACQUISITION OF DEFINITE ENGLISH RRCS BY L1 SPEAKERS OF LSA

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ABSTRACT

Introduction: Second language acquisition research aims to develop theories that predict and explain what learners can acquire. This study focuses on the acquisition of definite restrictive relative clauses by native speakers of Latakian Syrian Arabic. **Objective**: The objective of this study is to investigate the acquisition of definite restrictive relative clauses by learners of Latakian Syrian Arabic, contributing to our understanding of second language acquisition. **Methods**: A quasi-longitudinal design was employed in this study. Learners at different proficiency levels (elementary, lower intermediate, upper intermediate, and advanced) completed tasks including a grammaticality judgment task, a guided gap-filling task, and a translation task. **Results**: First language influence was observed at early stages of learning, particularly on some properties of relative clauses. However, not all properties showed this influence. Persistent influence of the first language was noted in later stages of learning, particularly on properties involving uninterpretable features. On the other hand, interpretable features seemed to be fully acquired. **Conclusion**: The findings suggest that while some aspects of definite restrictive relative clauses are influenced by the learners' first language, particularly those involving uninterpretable features, other aspects appear to be fully acquired. This sheds light on the process of second language acquisition and has implications for understanding the role of Universal Grammar (UG) in language acquisition.

Keywords: *UG, definite restrictive relative clauses, proficiency, uninterpretable features*

INTRODUCTION

One of the goals of second language acquisition (SLA) research is to find a theory which can predict and explain what second language (L2) learners can acquire. This paper aims to contribute to this goal by investigating the acquisition of RRCs by native speakers of LSA. SLA research, which looked at the persistent difference between native speakers and non-native speakers with regard to this particular structure, can be classified as follows. In the case of the initial stage of acquisition, the first camp welcomes the idea that there is full first language (L1) transfer, another argues for a minimal transfer, and the third camp rejects the notion that there is any transfer involved. In the case of the endstate, there are those who argue for the full access to UG, others for a partial access, and yet others for no access.

The empirical investigation reported here homes in on finding a satisfactory account of convergence and divergence in the L2 initial state and endstate. The results of three tasks: a Grammaticality Judgement Task (GJT), a Guided Gap Filling task (GGFT) and a Translation Task (TT) are reported. Before proceeding to the empirical study, an analysis of the syntactic structure of RRCs in both English and LSA is advanced. This is because the more evidence accumulated from the investigation of different L1-L2 pairings where features underlying syntactic constructions differ, using different methodologies, the more chance there will be of deciding between competing hypotheses about the role of UG and the L1 in L2 acquisition.

The Syntactic structure of English RRCs

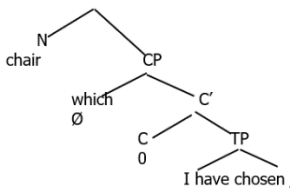
The structure of English RRCs like those in (1) has been the subject of considerable debate in the linguistic literature:

1a. The student whom I met ___
b. The student that I met___
c. The student I met ___

In each of the examples of (1) there is a dependency between a head N *student* and an empty position in the RRC, as well as differences in the form that links the head N and the clause. The issue is: what is the nature of the dependency, and is this related to the forms that link the head and the clause?

One of the approaches that tried to answer these questions is the operator-movement analysis of RRCs (as described, for example, in Chomsky (1995: chapter 1) Chomsky (2000) and Radford (2009: chapter 5)). This assumes that a clause (CP) is right-adjoined to a head N, and an operator moves from some DP position in the clause to the specifier (Spec) of CP leaving behind in the extraction site a full copy deleted in PF as illustrated in (2).

2.



This analysis accounts for the three possibilities in RRCs: *wh*-operator-null complementizer (C), null operator-null C, null operator-*that* C, (but not *wh*-operator-*that* C (Rizzi (1990: 65-71) for a discussion of the impossibility of this option in English)). When the RRC begins with a *wh*-element such as *whom* as in (1a), *whom* occupies the Spec CP position, and when there is no overt *wh*-element, the Spec CP position is occupied by an empty/null operator followed either by an overt C as in (1b) or a null C as in (1c). The empty copy left behind by operator movement (represented by __ in (2)), is a variable whose value must be determined. The N *chair* provides the value. It is assumed that the clause is predicated of the head N such that the operator takes on some of the head N's feature values and then binds the variable.

The Syntactic structure of RRCs in LSA

Two of the main properties of RRCs in LSA are that they never involve a relative pronoun introducing the RRC; they are rather always used with an element which can be argued to be C. LSA uses clitic pronouns at the position in the clause at which the head of the RRC is interpreted. These are often referred to in the literature as resumptive pronouns (RPs). In certain contexts, clitics are obligatory. In others, they are ruled out. There are no contexts in which both gaps and clitics can appear. The distribution of clitics in different RRC types is illustrated in the following examples:
i. Clitics are required in all non-subject positions:

Direct object position:

3a. l-ktāb [yalli dras-t-o] (the system adopted for transliteration is EI)
the-book [that studied-I-it]
The book that I studied
b. ktāb [dras-t-o]
book [studied-I-it]
A book I studied

Embedded object positions:

4a. l-ktāb [yalli fekkar-te ʾinno shtarai-t-o**]**
the-book [that thought-you.SF that bought-I-it]
The book that you thought that I bought
b. ktāb [fekkar-te ʾinno shtarai-t-o**]**
book [thought-you.SF that bought-I-it]
A book you thought that I bought

Object of preposition positions:

5a. l-ktāb [yalli sme`-t `ann-o**]**
the-book [that heard-I about-it]
The book that I heard about
b. ktāb [sme`-t `ann-o**]**
book [heard-I about-it]
A book I heard about

Embedded object of preposition positions:

6a. l-ktāb [yalli fekkar-te ʾinno sme`-t `ann-o**]**
the-book [that thought-you.SF that heard-I about-it]
The book that you thought I heard about
b. ktāb [fekkar-te ʾinno sme`-t `ann-o**]**
book [thought-you.SF that heard-I about-it]
A book you thought I heard about

Possessor position (Genitive RRCs):

7a. l-muʾallef [yalli krī-na ktāb-o]
the-author [that read-we book-his]
The author whose book we read
b. muʾallef [krī-na ktāb-o]
author [read-we book-his]
An author whose book we read

ii. Clitics do not occur when the highest or embedded subject position is relativized.

8a. l-muʾallef [yalli katab l-ktāb]
the-author [that wrote the-book]
The author that wrote the book
b. muʾallef [katab l-ktāb]
author [wrote the-book]
An author that wrote the book

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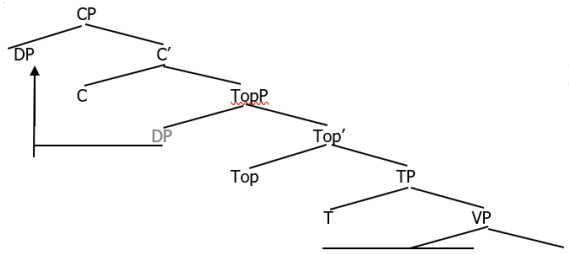
9a. l-muʾallef [yalli fekkar-te ʾinno katab l-ktāb]
the-author [that thought-you.FS that wrote the-book]
The author that you thought that wrote the book
b. muʾallef [fekkar-te ʾinno katab l-ktāb]
author [thought-you.FS that wrote the-book]
An author that you thought that wrote the book

iii. Clitics appear also within islands:
Adjunct Island
10. l-bēt [yalli zari-t-**o** qabl ma nedhan-**o]**
the-house [that visited-she-it before paint.1P-it]
The house that she visited before we painted it
Wh-Island
11. l-bēt [yalli sʾal-t iza shtaray-na-**h]**
the-house [that asked-she whether bought-we-it]
The house that you asked whether we bought it
Complex-NP Island
12. shefna l-qaṣr [yalli qābal-na l-muhandes yalli ṣammam-**o]**
saw-we.P the-palace [that met-we the-architect that designed-it]
We saw the palace that we met the architect that designed it.

RRCs are based on a Clitic Left يislocated CLLD structure. Assuming a CLLD structure for RRCs is necessary especially to account for the fact that, in RRCs, object clitics are obligatory. If *yalli* is generated in the head C position, this would mean that an element is necessary to check the features of *yalli* (definiteness and φ features) in the course of the derivation. This set of features is identified with a null operator. With (13) the only movement will be from Spec TopP to Spec CP. The *pro* is coindexed with the empty operator in Spec TopP. If *pro* is in object position it will need to be identified by a clitic.

13.



So, for LSA, one can assume the following:
i. The only movement involved is that of an operator from Spec TopP to Spec CP
ii. In the case of high subject position and embedded subject position, there is a resumptive *pro* within the RRC.
iii. A resumptive *pro* fills the position of the direct object licensed by an obligatory clitic.
iv. A clitic is obligatory in possessor and object of preposition positions. This is because DPs and PPs do not allow extraction in LSA as well as in many languages.
v. Movement does not occur within islands. Since the operator is not possible from within an island, the features of *yalli* can only be checked by moving *pro* from Spec TopP to Spec CP and coindexing it to a clitic inside the island.

All the RRC constructions included in the empirical study, which will test learners' knowledge of this structure in English, is based on CLLD structure.

Theories of SLA and studies of the L2 acquisition of RRCs

Researchers interested in SLA have viewed this phenomenon from a number of perspectives, one of which is the nature of L2 knowledge that underlies the use of the language. For them, such knowledge can usefully be investigated at three points of development: (i) a starting point (the initial state); (ii) an endpoint (the steady state); and (iii) a transitional stage between these two phases.

4.3.4 L1 Influence on L2 grammatical knowledge

In much of the existing research literature there is a controversy about the role that the L1 plays in the development of L2 knowledge. This controversy has triggered a number of questions: (i) what constitutes the initial state of SLA? (ii) Is there any role for the mother language? (iii) If yes, to what extent is it involved; partially or fully? (iv) Does this influence end as adult L2 learners develop their L2 grammar? Different accounts have been proposed to answer these questions: there are those who argue for full transfer (Towell and Hawkins, 1994: chapter 6, White, 2003: chapter 3, Schwartz and Sprouse 1994 amongst others), others for partial transfer (one position that falls within this view: the

Minimal Trees Hypothesis. This position is held by Vainikka and Young-Scholten (V&Y) (1996a, 1996b, 1998)), and yet others for no transfer. The next section reviews studies that deal with learners who are beyond the initial stage grammar.

4.3.5 The availability of UG to L2 learners

Different accounts have been proposed of the extent of the availability of UG in SLA. Three different hypotheses are advanced: the Full Transfer/Full Access (FT/FA) hypothesis, the partial access hypothesis and the no access hypothesis. See White (2003) for detailed information about the three positions. In the next section focus will be shifted to studies conducted on *wh*-movement particularly *wh*-movement in RRCs. Since RRCs show constrained differences in realisation cross-linguistically, and implicate principles of UG, they are a good area in which to pursue further research.

4.3.6 RRCs in the acquisition literature

The existing literature is largely divergent. The first view is that learners can construct full target-like mental representations for the target L2 whereby syntax and morphology are native-like in high-proficiency learners. Where L2 learners diverge, they have an output problem or a processing problem (Martohadjono and Gair (1993), White and Juffs (1998), Lardiere (2007), and Hu and Liu (2007)). The second view is that there is always a gap in L2 representation; some properties in the target language might be persistently problematic, i.e. some aspects of their knowledge are impaired as a result of a critical period with the result that they do not establish fully the representation for the target language (Hawkins and Chan (1997), Hawkins and Hattori (2006), and Yuan (2007)).

4.3.8 Research questions

The choice of the LSA-English pairing gives the opportunity to address relevant research questions. LSA has some morphological and structural properties that are advantageous for studying the acquisition of RRCs: (i) definite RRCs are introduced by C, unlike English which has relative pronouns, C and a null-form used in definite RRCs; (ii) Gen RRCs in LSA are formed on the basis of a non-inflected C, and a clitic in the relativized position, whereas in English they are formed by operator movement that pied pipes that N complement to the relative pronoun to the Spec CP (iii) LSA makes use of resumptive clitics whereas English does not; (iv) there are no Subjacency effects in LSA, unlike English which abides by island constraints. The differences will allow us to address the following question(s): Do native speakers of LSA no longer significantly differ from English native speakers in:

i. identifying the grammatical–function-constrained optionality of the relativizer in English. This measures the ability to acquire a target property that is under-determined by input.
ii. identifying the fact that RPs are disallowed in English. This is another measure for L1 influence.
iii. recognizing that the presence of gaps in English RRCs is the result of operator movement, and whether this is accompanied by sensitivity to grammatical vs ungrammatical long-distance movement of *wh*-relative pronouns. This directly engages access to UG. Knowledge that English RRCs involve operator movement will be shown in responses to the ungrammaticality of extraction from islands,
iv. identifying the range of English RRC constructions, including the form of Gen RRCs. This measures L1 transfer, and also tests the acquisition of a language-specific property in the L2.

4.3.9 Predictions

Here, the predictions relevant to the acquisition of RRCs by LSA learners from the perspective of the different hypotheses are presented here.

4.3.9.1 Initial stage

- From the Full Transfer point of view, the following assumptions follow: LSA learners would i) prefer C, being the only relativizing word in this variety; ii) prefer *that* with definite RRCs; iii) overuse RPs, iv) show no sensitivity to island constraints, v) not use the Gen form *whose* to refer to possession, rather *that* with a RP would be used instead.
- Under the Minimal Trees, the functional categories of LSA are not transferred. This implies the following: i) no Ds are expected to be used, and hence learners' judgements of definite RRCs are going to be the same or random; ii) Cs are absent; iii) RPs will be used; iv) no *whose* form is used; v) no sensitivity to island constraints.

4.3.9.2 Final stage

- FA predicts that LSA learners would reach a native-like English grammar as a result of the restructuring of the L2 English grammar which is guided by UG. That means they will come to realize that i) optionality of the relativizer in English has to do with the function of the relativized position; ii) the learners will unlearn the resumptive strategy, however, if there seem to be variability in the use of RPs, this might be taken as a indication of some superficial problem; iii) learners will reject sentences violating island constraint suggesting that UG is involved; and v) *whose* is used where appropriate to indicate possession without being linked to a RP.
- The Failed Functional Feature (FFF) viewpoint, which assumes that the L1 affects L2 development, predicts that ii) learners will experience no difficulty using all the possible relativizers in English: *that*, *wh*-relativizer, and Ø-relativizer; iii) there is going to be a variability in the use of the RP; v) learners will continue to accept sentences that violate Subjacency; iv) there is going to be a persistent difficulty in producing the English possessive construction.

2. MATERIALS AND METHODS

In order to test the predictions outlined above in relation to development of knowledge of RRCs, participants were chosen from different proficiency levels using a standardised general test of proficiency (to provide a measure of development over time, on the assumption that each level is representative of a stage of development that will be found in individual learners). Furthermore, three tests were constructed specifically aimed at eliciting information about knowledge and use of English RRCs by the participants: a GJT, a GGFT and a TT. There was also an Arabic GJT in Arabic to gain information about the intuitions of native speakers about assumed grammatical and ungrammatical sentences involving RRCs in LSA.

The rationale for selecting these tasks was the following. Because RRCs are relatively infrequent in the spontaneous use of a target language by L2 speakers, and because information about participants' use and knowledge of both grammatical and ungrammatical RRC constructions was required, tasks were needed where control could be exercised over the clause types involved. GJTs have been widely used in SLA research, particularly the ones concerned with RRCs. A GJT is one of the battery of tests because it provides a measure of what is possible and what is not in learners' L2 internalized grammars (Gass and Mackey 2007: 85, Gass and Selinker 2008: 65). The GGFT, which presented participants with sentences containing RRCs with gaps in them and a set of choices for possible fillers, was chosen because, rather than asking participants to rate sentences as natural or unnatural (as in GJT), it asks them for a positive decision about whether a sentence feels natural for production. The TT was chosen because it allows control over the types of RRC tested, while at the same time requiring participants to access their knowledge of the L2 for production. Although the main drawback of translation is that the central presence of the L1 in the task may bias the constructions chosen in the L2, masking knowledge that a speaker might have of other constructions, it was felt that this disadvantage was outweighed by the advantages of a controlled production task. The choice of three tasks, rather than one, was to provide what White (2003) has described as 'converging evidence' about the nature of interlanguage grammars from different types of performance task.

1. Participants

The participants in the GJT, GGFT, and TT were students studying at the department of English Language at Tishreen University/Lattakia/Syria. All students were speakers of LSA and they were learning English as an L2. Some of the informants knew a little French, as students in the department have to learn a third language in addition to English. Native speakers of English who formed the control group were all university educated and spoke British English. A method of assessing L2 proficiency – version 2 of the Oxford Quick Placement Test (OPT) (1992) – was used to assign participants to general proficiency levels in English. This is a 60-item written multiple-choice test that covers a range of grammatical and lexical properties of English. Participants were given 40 minutes to complete the test. Detailed information about the groups so formed is given in table 1.

Table 1: Participant information.

Participant group	Number of participants	Age range	No of years studying English	Starting age of L2 learning
Elementary	37	24-28	14-19	9-13
Lower interm	58	22-28	14-18	9-13
Upper interm	28	23-27	14-18	9-13
advanced	25	23-34	14-20	9-13
Native speakers of English (control group)	16	19-60		
Native speakers of LSA (control group)	17	26-60		

2. Materials

The test materials consisted of a GJT, a GGFT, and an Arabic to English TT. Before proceeding to the description of the tests, a number of general principles used in their design are outlined below. Attention was given to consistency within the same test and between the tests, the number of test items, the way they were presented, the ordering of the test items, and the appropriate amount of time allowed to participants to answer each item:

1. All vocabulary items in the three tests were checked for their frequency. This was done using a programme called Compleat Lexical Tutor. Within the Compleat Lexical Tutor, the British National Corpus (BNC -20) was used to check the frequency of words. Most of the vocabularies that were regarded less frequent were eliminated from the task. However, some of the words that were considered less frequent such as laptop, vase, download … were kept in the tasks because they are loan words or widely used in English met in LSA.
2. Sentences were composed to be semantically acceptable as independent clauses before they were turned into RRCs. This was particularly important in the construction of sentences that involved extraction from an island, to ensure that the resulting ungrammaticality was only attributable to the island violation and not some other factor.
3. The antecedent in all RRCs in all the tests consisted of D followed by a NP; no modifiers were used other than D.

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4. There were no split main clauses as in *The doctor advised Sarah who the fever had a bad effect on to rest for a week*. Such structures were avoided in order to eliminate any possible ambiguity in the sentence.
5. All the sentences used in the main study had the same tense (simple past).
6. All the tested properties had animate and inanimate relative heads equally.
7. All the relativized heads occupied the object position in the main clause.
8. The four tests were paced so that all participants attempted the same sentence at the same time, and made decisions on the basis of *feel* rather than conscious reflection. Subjects heard the voice of a native speaker reading the task sentences (the test items were recorded by a native speaker of English). After listening to the recording and reading each sentence (the tested items were also written), the participants were given a short time to answer:
    - 7 seconds in the case of the English GJT
    - 12 seconds in the case of the GGFT
    - 45 seconds in the case of the TT
9. No successive items tested the same property to lessen the likelihood that participants would identify the properties being tested.

In what follows, I will present a description of each of these tests.

2.1 Grammaticality Judgement Task

The GJT included sentences that tested extraction from S, O, OP, and GEN positions. The reason for including these different types of extraction is that in Arabic, unlike in English, these positions involve an obligatory clitic (except for the S position), and this provides a means for investigating L1 transfer. RRC tokens involving overt relative pronouns, null relative pronouns, overt C *that* and the null C were included to test participants' knowledge of the distribution of these forms. Ungrammatical sentences involving RP or violations of island constraints were also included. This is in order to test whether they are sensitive to island violations and their possible rescue with a RP.
Because the test was already long, no distractors were used. Over-long tests are counterproductive because participants get tired and respond erratically. Because the RRC structures tested in this task are varied, they act as distractors for one another (Gass and Mackey, 2007: 88).

The test items were randomized using a programme called Research Randomizer. However, after that, the items were checked again to make sure that no successive items tested the same property. Sentences were presented to participants bimodally: they both read (on paper) and simultaneously heard the sentences (recorded by a native speaker of English). The reason for this was (a) to allow participants to judge both the sound and visual form of the sentences being presented to them; (b) to control the pace of their decision making, to ensure that they were not taking too long in making judgements, and were responding by *feel* rather than on the basis of any conscious knowledge they might have about RRCs in English.

Participants were required to judge the *naturalness* of the sentence since linguistically naïve informants often have divergent interpretations of what is meant by *grammaticality*. Asking them to judge whether a sentence sounds *natural* or is *likely to be said by a native speaker* is assumed to be a better reflection of their intuitions about their own internalized grammars.

Participants were given three choices for each sentence: perfect, possible and impossible. The use of different levels of rating in principle allows the researcher to gain greater insight into the subtleties of participants' intuitions than a forced choice test (Birdsong, 1989: 116). Where participants rated the sentence as impossible, they were asked to underline the part of the sentence which made the sentence impossible. The logic behind this is that 'one cannot be sure that a learner marked a sentence ungrammatical for the same reason that the researcher believes it to be ungrammatical' (Gass and Selinker, 2008:66) and because '…learners can avoid processing syntactically by relying on semantic processing (Ellis, 2003:158).
Participants were given a few sentences as practise before the start of the actual task. Here are three examples of items from the GJT.

The final GJT was arrived at following extensive piloting. The aim of the pilot study was to examine the validity, adequacy and reliability of the instruments used in the full study as well as the administration procedures. The following elements of the task were decided on the basis of the responses of participants in the pilot studies:

- The test was paced.
- Some properties were added, e.g. *wh*-RRCs and Ø RRCs, Gen RRCs, Adjunct Islands, and embedded object RRCs (without a RP).

2.2 Guided Gap-Filling Task

The GGFT is both a comprehension and production task. It is a multiple-choice test with more than one right answer. Participants were encouraged to choose more than one option if this was appropriate. This test has the advantage that (i) many aspects can be tested using a small number of sentences; (ii) it eliminates any potential fatigue as it is less time consuming. There were 33 items in the GGFT testing the same range of RRC types tested in the GJT. This is in order to increase the validity and reliability of the results gained from GGJT. Under each test item, participants were

given 4 or 5 options for filling the gap. The gaps in these items were two: one in the landing site and one in the extraction site. As in the case of the GJT, items in this task were randomized using the Research Randomizer, but were later checked to avoid having successive items testing the same property. The options provided under each sentence were also randomized, so that they would have a different order in every sentence. Before the start of the actual test, participants did some sentences as a practise.

2.3 Translation Task

The translation task was made up of 24 items, testing properties comparable to those in the other tasks. The test included items with the three types of island constraint violations. This is because parallel constructions are acceptable in Arabic and the presence of such constructions allows the testing of the influence of the L1. Participants were asked to translate the sentences from LSA into English after listening to the Arabic sentence read by a native speaker of LSA. They were asked not to change the structure of the sentence except when the change was necessary to produce a proper English sentence. Participants were encouraged to ask about the meaning of words that might be difficult for them although a translation for some vocabulary items was provided next to the majority of sentences.

3. Procedure

Since test environment can affect performance (Bachman, 1990:118), testing took place in a location familiar to participants using a method (paper and pen) with which they were also familiar. The personnel involved in administering the test were already known to the participants, and testing took place during time when they normally have classes. All subjects involved in this study did the four tests: the OPT, the GJT, the GGFT, and the TT. These tests were given to subjects within a period of three weeks. The tests were given to subjects by the researcher with the assistance of the class teachers.

3.1 Administration of the Oxford Placement Task

The session started with an oral explanation of what the subjects were supposed to do in the grammar test. This was followed by reading the instructions and some example questions. Subjects had to underline the correct answer from the three/four choices for each question. They were given 40 minutes to finish the test.

3.2 Administration of the Grammaticality Judgement Task

15 minutes after finishing the OPT, the GJT was given to subjects. Subjects were asked not to go back to the previous test and change their answers. Participants were instructed to follow the tape while doing the test. They were told not to turn back to previous questions, to change answers or do those questions which had not yet been read on the tape. Example sentences were shown as part of the written instructions. After that, they were given a few practice sentences. They had to put a tick in the appropriate box provided under each sentence. They were also asked to underline the part of the sentence which they thought made the sentence impossible.

3.3 Administration of the Guided Gap Filling Task

The GGFT was given to subjects one week after the administration of the GJT. The instructions were explained orally in both Arabic and English. Then they were asked to listen to them recorded. They were given example sentences. Following that, they were asked to do some practise sentences.

The test required the subjects to listen to sentences and then underline which of the options provided under each sentence is a possible answer for the sentence. For some of the sentences, there might be one possible answer, more than one answer, or no possible answer. In every sentence there were two spaces. Subjects needed to decide which pairs of items were appropriate for those two spaces (or if none of them are).

3.4 Administration of the Translation Task

Both the GGFT and the TT were conducted in the same session with 15 minutes interval between the two. The students were asked to listen to each Arabic sentence read by a native speaker of LSA, and then translate it. They were told they can ask about the meaning of any word, although every sentence is provided with the Arabic translation of some potentially difficult words. Participants were asked not to change the structure of the Arabic sentence except to produce a correct English sentence.

4. Scoring

4.1 Scoring of the Oxford Placement Task

Students were grouped into four levels according to their results in the Quick OPT in the following way:
Students who scored 18-29/60 were placed in the elementary group.
Students who scored 30-39/60 were placed in the lower intermediate group.
Students who scored 40-47/60 were placed in the upper intermediate group.
Students who scored 48-54/60 were placed in the advanced group.

4.2 Scoring of the Grammaticality Judgement Task

The first analysis of the data was simply in terms of participant ratings of sentences that were a priori deemed to be grammatical. A three-point scale 0-2 was used to represent perfect (2), possible (1), and impossible (0) options. In this analysis all those who chose *impossible* got 0 regardless of whether they underlined the correct part of the sentence or not.

The second analysis was in relation to participant ratings of sentences deemed a priori to be ungrammatical. This analysis distinguished different categories of response where the impossible option was chosen: the degree to which the participant recognizes the true nature of the impossibility:

1 was given to a participant who rated an ungrammatical RRC as perfect,
2 was given to a participant who rated an ungrammatical RRC as possible,
3 was given to a participant who rated an ungrammatical RRC as impossible and correctly underlined correctly the ungrammatical part,
4 was given to a participant who rated an ungrammatical RRC as impossible but underlined the wrong part,
5 was given to a participant who rated an ungrammatical RRC as impossible but underlined only a RP, where the RP is not the only error as in **the doctor that we called his secretary* or where the RP is not completely incorrect *?I do not like the video game which Kitty told Sally when she could see it*,
6 was given to a participant who rated an ungrammatical RRC as impossible but did not underline the incorrect part.

4.3 Scoring of the Guided Gap Filling Task

Each answer chosen was given the value 1 regardless of its correctness (and if not chosen the subject is awarded 0). Then the number of times a participant selected a particular token out of the total number of possible tokens for a given type was counted, e.g. the number of times a participant chose *which* in a context like *the book* ___ *I bought*, the number of times the participant chose *that, Ø…*.so each participant is scored separately for each option offered for each sentence, not with a single score for a sentence item.

4.4 Scoring of the Translation Task

There was a set of relevant features of translations (some correct and some not) which was established and each person scored 1 or 0 depending on whether their translation had that feature(s). The scores were given to the following:

- Producing a perfect RRC
- Producing a RRC which contains a RP
- Producing a RRC which contains wrong linking word
- Changing the structure of the RRC
- Not completing the sentence
- Using a *wh*-word as a linking word
- Using *that* as a linking word
- Using Ø form as a linking word
- Producing a RRC which contains a violation of island constraints
- Producing a RRC with an indefinite head

In this task, errors of tense, agreement and spelling were not considered.

5. Data analysis

Data from each of the tasks used were scored and analysed using the statistical package SPSS (v18). Because Kolmogorov-Smirnov tests showed that some (although not all) of the variables used for comparisons between and within groups were normally distributed, it was decided to use parametric inferential statistics (ANOVAs and *t*-tests), which is also a common practice in the analysis of data in L2 studies. Furthermore, since there are no non-parametric tests for repeated measures and independent groups combined together equivalent to those in the parametric tests, and since there is a focus in this study on the interaction effect of proficiency groups and repeated measures, parametric tests were used. However, as a rough check, non-parametric tests of main effects were carried out, with the finding that on the whole the non-parametric results agreed with the ANOVA results.

Percentage agreement and standard deviation were used as measures of item reliability to quantify how far identical judgements were given to items that are testing the same property. Reliability here means absolute agreement reliability, i.e. consistency in the rating scale. This means the items supposedly measuring the same property are judged as reliable insofar as subjects gave the same rating or other response to them. The reliability results were all positive and high in most of the tests: 49.95% for the GJT, 72.52% for the GGFT, 82.92% TT, 72.71% AGJT.

3. RESULTS

The results of the three studies conducted for the purpose of testing certain predictions are reported here. These predictions are based on the structural differences and similarities between LSA and English, and on the background research on RRCs.

3.1 Results of the Grammaticality Judgement Task

3.1.1 Definite RRCs with *wh*-word, that, and Ø form results

Definite RRCs in LSA always involve the overt and invariable linking form *yalli* between the head and the RRC. *Yalli* belongs to the C category. English allows three linking options in non-S, non-Gen RRCs: *that*, an overt relative operator (*who*, *which,* ...) and Ø operator/C. In SRRCs only the first two of these options are available. In Gen RRCs, only *whose* is available. This section reports the ratings given by participants to the different English options. The findings should provide evidence bearing on the extent of L1 transfer. It is possible that the L2 learners will (at least initially) reject the Ø operator/Ø C option because in LSA *that* option is only available where the head of the RRC is definite. Results should also provide evidence about participants' preferences with respect to relativizer form.

SRRCs

The mean ratings of participants for the three types of head-RRC linker are shown in table 2.

Table 2: Mean rating/2 for each RRC linking form: definite SRRCs.

Linker	**wh-**		**that**		**Ø**	
Participants	M	sd	M	sd	M	**sd**
Elementary (n=37)	1.69	.4	1.27	.49	.54	**.46**
Lower Interm (n=58)	1.84	.28	1.44	.59	.62	**.55**
Upper Interm (n=28)	1.89	.25	1.48	.5	.34	**.41**
Advanced (n=25)	1.88	.22	1.84	.35	.24	**.50**
Native speakers (n=16)	**1.84**	**.24**	**1.97**	**.13**	**.09**	**.27**

The mean scores show that the *wh*-word was highly-accepted (and descriptively with some slight increasing across proficiency levels) and is the favoured form among all the groups (except for the natives who preferred *that*); *that* was highly accepted as well though to a less degree than the *wh*-relativizer (it starts lower than *wh-* but increases strongly across proficiency levels to reach almost the same level as *wh-* for the advanced group); the Ø relativizer was accepted to a low degree and in fact tends to decrease across proficiency levels.

A repeated measures 5*3 ANOVA (proficiency level*relativizer type) found a non-significant main effect for proficiency level, a significant main effect for relativizer type and a significant interaction between proficiency level and relativizer type. See table 3 for the statistical details.

Table 3: Summary of ANOVA output – SRRCs.

	df	**F**	**Sig**
Proficiency level	4	1.94	**.106**
Relativizer type	2	488.1	**<.001**
interaction	**8**	**9.53**	**<.001**

All the groups right from early stages preferred the *wh*-type over the other two types. *That* might have been expected to be the favoured form, because it is the realization of the C category, hence equivalent to *yalli* in LSA. Since the null relative operator/null C construction is impossible with definite RRCs in LSA, all learners did not rate it highly.

ORRCs

The mean ratings of participants for the three types of RRC linker in relativized O position are provided in table 4.

Table 1. Mean rating/2 for each RRC linking form: definite ORRCs.

Linker	**wh-**		**that**		**Ø**	
Participants	M	sd	M	sd	M	**sd**
Elementary (n=37)	1.60	.458	1.54	.44	1.32	**.59**
Lower Interm (n=58)	1.68	.49	1.60	.47	1.43	**.54**
Upper Interm (n=28)	1.80	.31	1.57	.42	1.82	**.31**
Advanced (n=25)	1.70	.43	1.92	.18	1.92	**.31**
Native speakers (n=16)	**1.43**	**.30**	**1.96**	**.12**	**1.84**	**.23**

The mean scores show that the elementary and lower intermediate groups favoured the *wh*-relativizer; the upper intermediate group marginally preferred Ø form; the advanced group preferred both *that* and Ø form, and the native control group preferred *that*.

A repeated measures 5*3 ANOVA (proficiency level*relativizer type) shows a significant proficiency effect, a non-significant main effect of the relativizer type, and importantly a significant interaction of the proficiency level and the relativizer type. See statistical details in table 5:

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Table 5: Summary of ANOVA output – ORRCs.

	df	F	Sig
proficiency	4	8.535	**<.001**
Relativizer type	2	1.093	**.336**
interaction	**8**	**5.132**	**<.001**

To summarize, all groups showed high ratings for the *wh*-option. If LSA speakers were transferring this property from Arabic into English, and had identified *that* as a C in English, it is expected that this would be the preferred option. Learners might have been expected to reject the Ø option at the earliest stages of acquisition because such an option is not possible in Arabic. The lowest proficiency groups are indeed rating it less acceptable than the native controls though still as higher than possible.

OPRRCs

Table 6 displays the mean ratings of participants for the three types of linkers in relativized OP position.

Table 6. Mean rating/2 for each RRC linking forms: definite OPRRCs

Linker	**wh-**		**that**		**Ø**	
Participants	M	sd	M	sd	M	**sd**
Elementary (n=35)	1.45	.533	1.48	.52	1.11	**.56**
Lower Interm (n=58)	1.39	.52	1.37	.60	1.32	**.57**
Upper Interm (n=28)	1.69	.36	1.57	.53	1.58	**.36**
Advanced (n=25)	1.72	.38	1.80	.32	1.88	**.21**
Native speakers (n=16)	**1.68**	**.35**	**1.81**	**.30**	**1.87**	.22

It is clear that the elementary group slightly rated *that* higher than the *wh*-linker, the lower and upper intermediate group favoured the *wh*-relativizer, the advanced group and the native control group preferred the Ø form.
A repeated measures 5*3 ANOVA (proficiency level*relativizer type) found a significant proficiency effect, a non-significant main effect of the relativizer type, and a significant interaction of the proficiency level and the relativizer type.

Table 7: Summary of ANOVA output –OPRRCs

	df	F	Sig
Proficiency	4	13.003	**<.000**
Relativizer type	2	.483	**.617**
Interaction	**8**	**2.253**	**.024**

What these results suggest is that, like in the case of the SRRCs and ORRCs, the *wh*-link is highly rated. *That* is also highly accepted. The null form which does not constitute an option in the L1 is less accepted only among the elementary group.

Doubly filled complementizer

Definite RRCs in LSA involve the use of *yalli* between the head and the RRCs. No other forms are available or are used with *yalli* to link the RRCs and the antecedent. English allows three linking options in non-S, non-Gen RRCs, but never two overt forms together. If learners are influenced by their L1, they should reject this structure. Results should provide information related to whether learners are aware that English only allows one linker and not two. Results also quantify how far the L1 is influencing subjects' performance. The mean ratings of participants for the doubly filled C in relativized S, O and OP are shown in table 8.

Table 8: Mean Rating Divided by 2 for Doubly-Filled Complementizers in Relativized Subject, Object, and Object of Preposition Structures.

Linker	**S**		**O**		**OP**	
Participants	M	sd	M	sd	M	**sd**
Elementary (n=37)	.41	.47	.50	.52	.64	**.59**
Lower Interm (n=58)	.52	.60	.55	.61	.78	**.60**
Upper Interm (n=28)	.21	.31	.35	.50	.57	**.63**
Advanced (n=25)	.04	.20	.10	.25	.30	**.47**
Native speakers (n=16)	**.00**	**.00**	**.03**	**.12**	**.09**	**.20**

The mean scores show low ratings in all three relativized positions. Learners seem to be able to distinguish impossible linkers, and to know that English does not allow doubly filled C from early on.

Gen RRCs

In LSA, Gen RRCs are formed on the basis of a non-inflected C and a possessive clitic in the relativized position. In English they are formed by operator movement that pied-pipes the N complement to the relativized pronoun to Spec

C. Learners of all proficiency levels are expected to have a difficulty acquiring this structure given that it is different from the structure they have in their L1. The results should provide evidence bearing on whether LSA learners identify the English construction. This in turn will give information about the extent of L1 influence. This will also measure the acquisition of a language-specific property in L2: pied piping of a complement to a relative operator. The mean ratings of participants for the three types of Gen RRCs are displayed in table 9.

Table 9: Mean Rating for Each Type of Genetive Relative Clause Construction (SGen, OGen, OPGen RRCs) Divided by 2.

Gen	**SGen**		**OGen**		**OPGen**	
Participants	M	sd	M	sd	M	**sd**
Elementary (n=36)	1.65	.44	1.05	.60	1.25	**.626**
Lower Interm (n=58)	1.75	.48	1.18	.65	1.12	**.589**
Upper Interm (n=28)	1.87	.25	1.33	.68	1.35	**.63**
Advanced (n=25)	1.96	.20	1.50	.57	1.66	**.59**
Native speakers (n=16)	**1.87**	**.28**	**1.46**	**.42**	**1.71**	**.36**

Participants showed acceptance to the three forms from the elementary level, and increasingly rated *whose* highly. Results of a repeated measures 5*3 ANOVA (proficiency level*relativized Gen position) shows a significant proficiency effect, a significant main effect of the relativized position, but a non-significant interaction of the proficiency level and the relativized Gen position.

Table 10: Summary of Analysis of Variance (ANOVA) Results for Genetive Relative Clause Constructions (Gen RRCs).

	df	**F**	**Sig**
proficiency	4	6.216	**<.001**
Relativized position	2	46.945	**<.001**
interaction	**8**	**1.309**	**.238**

In order to throw light on the interaction effect, follow-up between-subjects comparisons with a univariate analysis of variance were conducted to compare each group of learners for each relativized position separately against the native norm. Results of between-subjects paired comparisons show no significant differences between the groups and the natives in the case of the SGens. In the case of OGens, only elementary learners were significantly lower than the advanced in accepting this structure (p=.028), other groups performed at a native-like level in accepting relativized OGens. Both the elementary and the lower intermediate groups were significantly lower than the advanced in accepting relativized OPGens (p=.005) and (p=.001) respectively, the other groups showed a similar level of acceptance of this structure as the native speakers. To summarize, learners arrived at a native-like level on all the different Gen positions though they varied at the stage at which they started to be native-like: they were very likely to accept the English Gen form in the early stages in the case of the SGens and OGens, but at more advanced stages in the case of the relativized OPRRCs.

3.1.2 Island constraints results

In English movement through islands is not permitted as this leads to different types of island constraint violations. In LSA, a resumptive is used in all types of islands and a resumptive clitic is used in all non-subject positions. Learners therefore are expected to accept the structure with RPs. The results should show learners' awareness of the ungrammaticality of extraction from islands. If they recognize the ungrammaticality of RRCs involving island violations, this could mean that they have the knowledge that RRCs in English involve operator movement. Moreover, this is suggestive that UG is involved.

WH-island Constraint

The mean ratings of participants for *Wh*-island constraint: with and without a RP are shown in table 11.

Table 11: Mean Rating Divided by 2 for Violations of the Wh-Island Constraint: Comparison between Relative Pronoun Inclusion and Exclusion

***Wh*-island**	**+RP**		**-RP**	
Participants	M	sd	M	**sd**
Elementary (n=37)	1.04	.43	1.17	**.43**
Lower Interm (n=58)	.97	.44	1.21	**.34**
Upper Interm (n=28)	.76	.43	1.05	**.38**
Advanced (n=25)	.58	.49	1.11	**.32**
Native speakers (n=16)	**.15**	**.19**	**.19**	**.16**

Learners showed the same pattern; they all accepted the structure more without a RP. They did not prefer the structure which they have in their L1, rather they choose the cases which involve a violation of island constraint. Natives did not accept it.

Results of repeated measures 5*2 ANOVA (proficiency level*presence of RP) show a significant proficiency effect, a significant main effect of presence of RP, and a non-significant interaction of the proficiency level and presence of RP.

Table 12: Summary of Analysis of Variance (ANOVA) Results for the Wh-Island Constraint.

	df	F	Sig
proficiency	4	10.405	**<.001**
presence of RP	1	17.276	**<.001**
interaction	**4**	**2.282**	**.063**

Between-subjects paired comparisons show that in the case of *wh*-islands which involve a RP the elementary, and lower intermediate and upper intermediate groups were significantly higher than the natives in accepting the structure (p=.001), (p<.001) and (p=.031) respectively. In the case of the *wh*-islands which do not involve a RP, all groups were significantly higher than natives in accepting the structure: (p<.001). Further within-subject comparisons with a paired sample t-test show that there is a significant difference between the two types (t(-5.406), df=161, p<.001) with more preference to the cases which do not involve a RP.

CNP Island Constraint

Table 13 shows the mean ratings of participants for the complex NP constraint: with and without a RP.

Table 13: Mean Rating Divided by 2 for Violations of the Complex Noun Phrase (CNP) Constraint: Comparison between Relative Pronoun Inclusion and Exclusion.

CNP island	**+RP**		**-RP**	
Participants	M	sd	M	**sd**
Elementary (n=36)	1.29	.46	1.34	**.57**
Lower Interm (n=58)	1.08	.56	1.20	**.53**
Upper Interm (n=28)	.80	.47	1.03	**.55**
Advanced (n=25)	.68	.67	1.16	**.37**
Native speakers (n=16)	**.06**	**.25**	**.15**	**.35**

As in the case of *wh*-island constraint, learners accepted the structure more with no RPs; learners gradually rejected their L1 structure. The results of a repeated measures 5*2 ANOVA (proficiency level* presence of RP) show a significant proficiency effect, a significant main effect of presence of RP, and a non-significant interaction between the proficiency level and presence of RP.

Table 14: Summary of ANOVA output – CNP constraint

	df	F	Sig
proficiency	4	25.374	**<.001**
presence of RP	1	14.307	**<.001**
interaction	**4**	**2.178**	**.074**

The between-subject paired comparisons show that in the case of both CNP constraint that involve a RP and those which do not, the groups were significantly different from the natives: (p<.001). Further within-subject comparisons show that there is a significant difference between the two types (t(-3.691), df=162, p<.001) with more preference to the cases which do not involve a RP.

Adjunct Island Constraint

The mean ratings of participants for the adjunct island constraint: with and without a RP are shown in table 15.

Table 15: Mean rating/2 for Adjunct island constraint violation: with RP vs. no RP.

Adjunct-island	**+RP**		**-RP**	
Participants	M	sd	M	**sd**
Elementary (n=37)	1.24	.60	1.32	**.62**
Lower Interm (n=58	1.18	.62	1.34	**.55**
Upper Interm (n=28	1.01	.70	1.35	**.50**
Advanced (n=25	.70	.67	1.36	**.42**
Native speakers (n=16	**.12**	**.34**	**.28**	**.36**

These results show that, as in the case of the other two types of island constraints, learners accepted the structure which does not involve a RP more; they rated the cases which involve a violation of island constraint higher.
The results of a repeated measures 5*2 ANOVA (proficiency level* presence of RP) show a significant proficiency effect, a significant main effect of the presence of RP, and a significant interaction between the proficiency level and the presence of RP.

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Table 16: Summary of ANOVA output – adjunct island constraint.

	df	F	Sig
proficiency	4	20.133	**<.001**
presence of RP	1	19.488	**<.001**
interaction	**4**	**2.819**	**.027**

Between-subject paired comparisons show that in the case of Adjunct Islands which involve a RP the elementary, and lower intermediate and upper intermediate groups were significantly higher than the natives in accepting the structure (p<.001). In the case of the Adjunct Islands which do not involve a RP, all groups were significantly higher than natives in accepting the structure: (p<.001). Further within-subject comparisons show that there is a significant difference between the two types (t(-4.193), df=163, p<.001) with more preference to the cases which do not involve a RP.

3.1.3 Results of the Guided Gap Filling Task

Although the same properties which were investigated in the GJT are dealt with in this task, the additional perspective that the GGFT brings to our understanding of the knowledge of the L2 learners and which makes it complementary to both the GJT and TT is that it is a combination of an intuition/receptive task and a production task; the learner does not have to generate answers since the answers are already provided under each testing item, so it is similar to the GJT. However, unlike the GJT also, the answers provided are not ratings rather they are im/possible answer/s to be filled in the blanks; the learner has to think about which options are (not) acceptable. Being so, it requires the learner to provide the possible matching options for the blanks. So, this task shares some of the properties of both the GJT and the GGFT, this has the effect of enhancing the validity of the study through three-way triangulation.

3.1.3.1 Definite RRCs with *wh*-word, that, zero form results

SRRCs

Like the results of SRRCs in the GJT, the *wh*-relativizer is the preferred linking word for all L2 learners of different proficiency levels, and the Ø form was the least accepted. Native speakers, however, showed different preferences in the two tasks: they accepted C more in the GJT whereas they favoured the *wh*-relativizer more in the GGFT.

ORRCs

All learners of different proficiency levels and native speakers favoured the *wh*-relativizer, while they did not accept the Ø form highly. In the GJT, the elementary and lower intermediate learners preferred the *wh*-relativizer.

OPRRCs

The results of this relativized position are not completely consistent with those of the GJT; all learners of different proficiency levels showed a preference for the *wh*-form in the GGFT (advanced learners favoured both the *wh*-word and *that* relativizers equally), while the native speakers favoured the *wh*-form and *that* equally. The null relativizer was the least accepted. In the GJT, however, only lower intermediate and upper intermediate learners preferred the *wh*-form.

Doubly filled C

There is no evidence of any learners making a significant choice of the doubly-filled C, since the highest rate of selection is 0.05. In the GJT as well, learners did not prefer the option.

Gen RRCs

Elementary learners did not accept the three genitive types, however, there was a gradual progression in accepting the types among the other proficiency levels. This is similar to the results of the GJT in that there was a progression in accepting *whose*.

The between-subject comparisons show a significant difference between the elementary and lower intermediate groups as compared to natives in the case of the SGen; they rated this structure less acceptable than natives (p<.001) (p<.001). All groups, however, were significantly different from the natives in the case of the other Gen types: (p<.001) (p<.001) (p<.001) (p=.009) for OGens, (p<.001) (p<.001) (p<.001) (p=.005) for OPGens.

3.1.4 Rating of RRCs involving resumptive pronouns

RPs in relativized S, O, OP positions

Learners did not accept the RP in S position. however, they (apart from the advanced learners) accepted the RP in OP position. In O position only elementary and lower intermediate learners accepted the RP. Natives did not accept the RP in any relativized position. In the GJT elementary learners accepted the RPs in all relativized positions, however, as proficiency increased, learners progressed in rejecting the RPs. All groups, except for the lower intermediate group, were not significantly different from the natives in accepting the RP. The lower intermediate group accepted the RP more than natives (p=.054). In the case of the ORRCs, both the elementary and lower intermediate groups were significantly different from the control group in accepting the RP more: (p<.001) (p<.001) respectively. All groups

except for the advanced, were significantly higher than the natives in accepting the RP in OPRRCs (p<.001) (p<.001) (p<.001).

The paired samples t-tests results show that there is a significant difference between cases that involve RPs in the different relativizing positions and the cases which do not: for definite SRRCs the result was (t(25.258), df=161, p<.001); for definite ORRCs, (t(8.072), df=162, p<.001), and for definite OPRRCs (t(1.278), df=162, p=.203). Although learners accepted the RP in all three positions (though to varying degrees), they nevertheless seem to be aware of the difference between RP cases and their grammatical counterparts.

RPs in Gen RRCs

Learners did not accept RPs highly in all relativized positions (though advanced learners accepted the RPs more than the other groups). Natives did not accept them in all positions. This is different from the results of the GJT where all learners were more likely to accept the RPs in all relativized positions. Between-subject comparisons show that the upper intermediate and advanced speakers were significantly more likely than the natives to accept the RP in SGen positions (p=.048), (p=.030). In the case of OGens, the lower intermediate, upper intermediate, and advanced groups were significantly more likely to accept the RP than the natives (p=.044), (p=.001), (p<.001). The upper intermediate and the advanced learners were significantly more likely than the natives to accept the RP (p=.007), (p=.002). The results of the paired samples t-tests show that there is a significant difference between the use of Gen RRCs with and without RPs: (t=11.841, df=163, p<.001) for the SGens, (t=2.847, df=162, p=.005) for OGens, and (t=4.780, df=161, p<.001) for OPGen RRCs. Although upper intermediate and advanced groups (and lower intermediate in the case of OGens) highly accepted the RPs in all three Gen positions, learners seem to be able to recognize the difference between the grammatical and the ungrammatical cases.

3.1.5. Embedded RRCs

The results of this test show that although learners preferred the structure more with RPs at the elementary and lower intermediate stages, they seemed to favour the structure with less RPs as they pregressed. In the GJT, however, only elementary learners accepted E RRCs more with a RP. The between-subject comparisons show that the elementary group, lower intermediate, upper intermediate groups were significantly different from the natives: in the case of E RRCs involving a RP, the three groups were significantly more likely to accept a sentence with a RP than the natives (p<.001) (p<.001) (p=.001), whereas in the case of the grammatical E RRCs, the same three groups were significantly lower than the natives in accepting this structure (p<.001) (p<.001) (p<.001). The results of the paired sample t-tests show that learners treat grammatical E ORRCs and grammatical simple ORRCs differently; there is a significant difference between the two situations (t(5.459), df=158, p<.001) with the simple RRCs being more accepted. They also treat the ungrammatical simple and E ORRCs differently (t(-4.998), df=158, p<.001) with the RP being more accepted in the embedded constructions.

3.1.6. Island constraints results

Wh-island Constraint

The results of this test and the GJT show that RPs are less favoured (with the exception of the elementary learners in the GGFT who favoured the RP more in this structure). The between-subject comparisons show that in the case of *wh*-islands which involve a RP the elementary, and lower intermediate and upper intermediate groups were significantly more likely than the natives to accept the structure (p<.001), (p=.002) and (p=.009) respectively. In the case of the *wh*-islands which do not involve a RP, the lower intermediate, upper intermediate and the advanced groups were significantly more likely than the natives to accept the structure: (p=.036), (p=.011) (p<.001). The paired samples t-test results show that there is a significant difference between the two types (t(-5.482), df=163, p<.001) with a stronger preference for the cases which do not involve a RP.

CNP Constraint

The results of this test are consistent with those of the GJT; all participants preferred this structure more with no RPs. The between-subject comparisons show that, in the case of sentences that violate the CNP constraint and that involve a RP, the elementary and lower intermediate group were significantly more likely than the natives to accept the structure: (p<.001) (p=.017), whereas in the case of the islands that do not involve a RP, the elementary, lower intermediate, upper intermediate groups were more likely than the natives to reject the structure. (p=.004) (p=.004) (p<.001). The results of the within-subject comparisons show that there is a significant difference between the two types (t(-9.097), df=163, p<.001) with more preference to the cases which do not involve a RP.

Adjunct Island Constraint

Only the advanced learners preferred the structure with no RPs. In the GJT, all participants preferred the structure with no RPs.

Between-subject comparisons show that in the case of Adjunct Islands which involve a RP the elementary, and lower intermediate and upper intermediate groups were significantly more likely than the natives to accept the structure

(p<.001). In the case of the Adjunct Islands which do not involve a RP, all groups, except the elementary one, were significantly more likely than the natives to accept the structure: (p=.023) (p=.016) (p<.001).

The within-subject comparisons results indicate that there is a significant difference between the two types (t5.514), df=163, p<.001) with more preference to the cases which involve a RP. Unlike the case of the other two types of island constraints, learners generally tended to accept the structure which involves a RP.

3.1.7 Results of the Translation Task

The TT used in this study is the closest of the three tasks to a measure of production, and the extent to which participants produce RRCs in a native-like way. It is also useful for comparison with participants' intuitions (the results from the GJT) and the semi-productive GGFT. Whether the results correspond to those of the other tasks or not will have implications for the interpretation of the nature of the L2 interlanguage grammar. The same properties which were investigated in the other two tasks are investigated in this task.

3.1.7.1 Definite RRCs with *wh*-word, that, zero form results

S, O, OP RRCs

The mean translation accuracy of S, O and OP RRCs is displayed in table 17.

Table 17: Mean translation accuracy/1 of definite S, O and OP RRCs.

RRC type	SRc		ORc		OPRRc	
Participants	M	sd	M	sd	M	**sd**
Elementary (n=37)	.85	.28	.48	.41	.24	**.34**
Lower Interm (n=57)	.89	.22	.57	.39	.40	**.42**
Upper Interm (n=28)	.96	.13	.94	.15	.73	**.39**
Advanced (n=25)	**.98**	**.10**	**1.00**	**.00**	**.94**	**.16**

Accuracy here means that participants produce the RRC which they were asked to translate without changing the structure of the sentence, for example, if the sentence in Arabic is a SRRC, learners are supposed to translate it as a SRRC into English.

The mean scores show that learners were mostly accurate in translating SRRCs right from early stages. In the case of ORRCs and OPRRCs, learners were initially inaccurate but as they progressed, their accuracy increased so that ORRCs were correct, and SRRCs and OPRRCs were almost all correct. In order to investigate the sources of inaccuracy and (sometimes mistakes), further analyses were conducted to measure accuracy. Learners did not misuse the linking words; they used them as productively as native speakers; learners produced very few sentences which are not RRCs; they did not resort to changing the structure of the sentence in translating simple S, O and OP RRCs; and there are almost no cases when learners produced sentences which were not complete. The results also show that learners hardly used indefinite heads where they should have used definite ones. The actual reason for the lower scores among the elementary and lower intermediate participants as compared to the upper intermediate and advanced speakers' scores has to do with the use of RPs.

Gen RRCs

The mean translation accuracy for Gen RRCs is shown in table 18.

Table 18: Mean translation accuracy/1 definite SGen, OGen, and OPGen

Gen type	SGen		OGen		OPGen	
Participants	M	sd	M	sd	M	**sd**
Elementary (n=37)	.44	.38	.01	.08	.05	**.15**
Lower Interm (n=58)	.59	.41	.08	.21	.11	**.24**
Upper Interm (n=28)	.78	.37	.17	.24	.12	**.25**
Advanced (n=25)	**.84**	**.27**	**.44**	**.16**	**.44**	**.44**

Learners were not accurate in producing grammatical OGen OPGen RRCs. This is different from the case of SGens where learners' mean scores results were low at elementary levels but got higher in advanced stages.
Learners' inaccuracy is mainly due to the wrong use of the linking word *whose*. This is mostly apparent in OGen and OPGen RRCs as in table 19.

Table 19: Definite simple Gen RRCs: wrong linking word/1.

Wrong linker	SGen		OGen		OPGen	
Participants	M	sd	M	sd	M	**sd**
Elementary (n=37)	.39	.42	.95	.13	.79	**.29**
Lower Interm (n=58)	.17	.31	.89	.24	.77	**.32**
Upper Interm (n=28)	.08	.23	.82	.24	.75	**.28**
Advanced (n=25)	**.08**	**.23**	**.56**	**.16**	**.50**	**.43**

There were very few cases of non-RRCs, of changing the structure, of the sentence not being complete and of using indefinite heads.

Different relativizers in S, O and OP RRCs

The *wh*-relativizer was the most used linker among all learners in the three relativized positions. While there were just few cases where *that* was used, the Ø relativizer was rarely used. A comparison between the GJT, GGFT and TT shows that learners in the three tasks preferred the *wh*-relativizer more than the other forms (with the exception of the upper intermediate and advanced learners in the GJT in ORRCs in GJT, and elementary and advanced learners in OPRRCs in GJT).

Doubly-filled C

No cases of doubly filled C were observed in the TT among all participants. This is consistent with the results of the GJT and GGFT.

Different relativizers in SGen, OGen, OPGen RRCs

There are very few uses of *that* and the Ø operator. The *wh*-relativizer (*who* or *which* but not *whose*) is highly used in the three Gen types right from early stages.

3.1.8. Island constraints results

Wh-island Constraint

Inaccuracy here means the extent to which participants did literal translation of the Arabic sentence and either did or did not use the RP and the extent to which they chose other strategies. Learners produced RPs at the early stages, but as proficiency increased, their use of the RPs decreased. All learerns highly produced sentences which violale island constraints. This might indicate that they were not sensitive to the ungrammaticality of this construction. There are very few cases where learners produced a sentence which is not a RRC, changed the structure of the RRC or did not complete the translation of the RRC. The results of the three tests are consistent in that learners preferred this structure with no RP (this is with the exception of the results of the elementary participants in the TT and the GGFT who preferred the structure more with a RP)

CNP Constraint

Learners resorted to changing the structure of the RRC. Learners also produced many RPs at early stages, but their use decreased in later stages. Again this might suggest that they are not aware of the unacceptability of the CNP-island in English. Hardly did they produce a sentence which is not a RRC, or a RRC which is not complete.
Unlike the results of the GGFT and GJT, the results of the TT show a preference for the RP (with the exception of the results of the advanced learners).

Adjunct-island Constraint

Learners resorted to changing the structure of the RRC and sometimes they produced a sentence which is not a RRC. There was also a preference for using RPs which remained clear even at the advanced stage. These results are similar to the results of the GGFT where learner (with the exception of the advanced learners) preferred the structure with no RP, but different from the results of the GJT where all learners accepted the structure with no RP.

4. DISCUSSION AND CONCLUSION

4.1 Discussion of the Grammaticality Judgement Task results

The review of the literature and the study reported above suggest the following as answers to the research questions.

4.2. Answer

There was a progression in recognizing that the absence of C in English is not decided by definiteness.
All elementary learners preferred the *wh*-relativizer, then *that*-relativizer, and finally the Ø relativizer (except for the relativized OP position where learners marginally preferred C to *who*). Advanced speakers accepted the three forms.
There appears to be no L1 transfer as elementary learners did not show a preference for *that*; the form that is equivalent to the complementizer *yalli* in their L1. There are three possible scenarios to explain this. First, it can be argued that this is just an apparent non-transfer case. *Allaði* which is the equivalent form to *yalli* in Modern Standard Arabic (Aoun & Choueiri, 1997: 11) is taught as a relative pronoun in Arabic, and in some grammar books it is categorized as a relative pronoun (Ghalāyīnī (1973)), so learners might have thought that they are using the form (the *wh*-word in English) which parallels the form they have in their L1. In this sense there is L1 transfer.

The second scenario is that the preference for *wh*- over *that* could be the effect of teaching. Learners are presented with many more cases of *who* in the input than cases of *that*; learners are drilled to use *who* whenever there is a RRC, and teachers tend to focus on *wh*-relatives. So the frequency of the different linkers in input mostly in textbooks might have led learners to favour the *wh*-relativizer. However, the assumption that patterns of acquisition follow what is taught has to be cautious because learners do not learn necessarily what is taught to them. Ellis (1985: 224), for example

argues that '… we can say that the overall sequence of development is not affected by formal instruction' and that '[W]hat is quite clear … is that SLA possesses certain structural properties which are immune to environmental differences inherent in classroom and natural settings' (242). With regard to the notion of frequency in SLA, Vanpatten (2007) and Gass and Mackey (2007) argues that frequency does not play a major role. Learners build up their grammar and make sense of the input they get including the instructions, but what they produce might bear little resemblance to what they are taught (White, 2003, chapter 5.8).

The third possibility is that learners are over-generalizing the use of *who* because they identify it as the default form for both questions and relatives. *Who* has more uses than *that* which is more restricted in its contexts. There is no clear evidence to support one of these arguments or the other.

This was not the case for the other groups who showed different judgements for different linkers. The advanced group also showed different preference patterns suggesting that they accept the three types of relativizers. In the case of SRRCs, the preference was for the *wh*-word and then *that*. In the case of ORRCs, learners came to recognize that *that* and Ø are common in English. In fact, these were marginally the favoured forms followed by the *wh*-relativizer which was also highly accepted. This suggests that there is a progression in the acceptance of the relativizers. This might be an experience effect; the result of having worked with English over a number of years. However, as in the case of definite RRCs, as learners get more proficient, they become familiar with the frequency of these forms in the input, and that all three are possible.

Learners were moreover aware that English only allows one relativizer and not two together; they rejected the doubly filled C cases in. It is unlikely that this is an indication that learners have acquired the syntactic properties of the *wh*-expressions and the overt C because even elementary learners who highly accepted the ungrammatical use of RPs rejected the doubly filled C. The fact that the RPs remained a persistent feature of their grammars could mean that they have not acquired the *wh*-movement strategy, rather they rejected the doubly filled C on the basis of their L1 where only one form, *yalli*/ *that*, can introduce a RRC.

The above discussion has the following implications:

i) The L1 facilitates L2 learning, in contrast to the claim proposed by Hu and Liu (2007) that similarity might not facilitate L2 learning. Elementary learners accepted the *wh*-form the most, they tended to accept the overt linkers as it is the case in their L1, and they did not accept the doubly filled C as this is not acceptable in LSA. This is consistent with the claim by Martohadjono and Gair (1993) that similarity between languages facilitates acquisition,

ii) Learners accepted C, which is a functional category, right from early stages. This provides a counterargument to what V&Y (1996a, 1996b, 1998) proposed that in early grammars functional categories are absent.

6.2.3 Answer 2

Learners seem to have learned a language-specific word; whose.

In the case of the Gen form *whose*, all learners progressed in accepting this form. They seemed to have acquired this form in the case of SGen RRCs, however in the case of OGen RRCs elementary learners were significantly less likely to accept it than the native control group. In the case of OPGen RRCs, the elementary and lower intermediate groups were also less likely to accept the form than the native group. However, all advanced groups accepted this language-specific form at a native like level. *Whose* has interpretable properties; it indicates possession. Learners seemed to learn this form as the morphophonological part of lexical items remains potentially open to acquisition as assumed by Tsimpli and Smith (1995). *Whose* also has uninterpretable features associated with *wh*-movement. The question to raise here is the following: if learners gradually got to learn this language-specific form, does that mean that they learnt all its associated properties? Do they no longer associate a RP with it? This question will be dealt with in answer 3.

6.2.4 Answer 3

Learners accepted RPs even at advanced stages.

The results of between subject comparisons show that there is a progression in the rejection of RPs in the case of simple SRRCs, ORRCs, and OPRRCs; the low proficiency subjects allowed more RPs than the more proficient groups. However, when comparing learners' judgements of RRCs that involve a RP and those that do not, it is found that there is a significant difference between the two. This tentatively suggests that learners' L2 grammars have both RPs and gaps, that learners make a distinction between the two cases and that they have acquired the English structure possibly because they could have got clear positive evidence that there are gaps. It might also be argued that they judged the RPs as acceptable just because they want to make the co-reference between the RP and the antecedent explicit (and not because they have the RP in their L1). However, these arguments are dubious as all the groups were more likely to accept the RPs than the natives (except for the advanced learners in the case of ORRCs).

In the case of Gen RRCs, RPs remained highly prominent among all the non-native groups. All learners were significantly more likely than the natives to accept the Gen form with a RP. When comparing learners' judgement of Gen RRCs that contain a RP with those that do not, no significant difference was found between the two in the case of OGen and OPGen RRCs. One might propose that this is due to the fact that the frequency of this construction is quite low and that the evidence in the input might be obscure, and the learners have not had enough evidence that RPs are not allowed.

Yet a second possibility could be that Gens are expected to be acquired later irrespective of the L1, typologically. According to the Noun Phrase Accessibility Hierarchy (Keenan and Comrie, 1977), there is an implicational relation between less and more marked RRC types, where Gens are more marked than ORRCs or SRRCs. Translated into acquisitional terms, this hierarchy predicts an order of acquisition in the L2 of the relativization positions, and Gens are expected to be acquired later in the L2 even if the L1 allows them, although the L1 might make it more difficult. However, this argument is questioned in some studies like Hawkins (2007) where he argues that the Noun Phrase Accessibility Hierarchy is not applicable to Asian languages because their RRC structure is different: 'when L2 learners start to use RRCs productively, they are capable of using them on a range of dependent positions, not just Subjects, but also Direct Objects, Indirect Objects, Genitives. … The NPAH, based as it is on implicational relations between grammatical functions, would play no role in such an account.' (347-348).

The L1 could be at play here. The fact that there was no significant difference between the cases that involved a RP and those that did not could suggest that learners do not distinguish between the two cases. So, that led to a persistent L1 effect in these contexts even in the advanced speakers. The interpretation of this in terms of the acquisition of movement would be either that in some contexts advanced speakers have got movement so they do not use RPs, whereas in other contexts they have not got movement like in the case of Gens, and they still allow non-movement; or it means that they have not actually acquired movement at all; they simply allow a null RP in some contexts. LSA has a null resumptive in all relativized positions. The choice between these two possibilities could be determined depending on whether learners allow long distance movement and in whether they allow Subjacency violations. To this question we turn now.

6.2.5 Answer 4

Learners are not sensitive to long distance movement.

In the case of long-distance movement, the within subject comparisons showed a significant difference between the groups' judgments of RPs in E RRCs. However, the between subject comparisons showed that all learners accepted the RP significantly more than the natives. There was also a significant difference between their judgement of simple ORRCs with a RP and E ORRCs with a RP; they accepted the RP more in the E RRCs. They also accepted simple grammatical RRCs significantly more than E RRCs. Two explanations are possible here. Firstly, learners accepted the RP more because they have a problem processing the sentences; E sentences are more difficult to process because they have more structure to keep in the mental grammar which is not yet fully developed. So they could have relied on making co-reference explicit. Alexopoulou and keller (2007: 110) states that 'embedding reduces acceptability even in extraction out of non-islands and declaratives'. The other explanation is that learners might not be sensitive to long distance movement as they accepted the RPs in the E clauses more, i.e. they have not established the non-resumptive strategy yet. In E RRCs, the processing load is heavier, so learners possibly resorted to the default L1 case which is accepting overt resumptive clitics. Vanpatten (2007:116) argues that '[L]earners may make use of certain universals of input processing but may also make use of the L1 input processor'. When learners have more processing capacity as in the case of simple RRCs, and they can integrate the information that English does not allow overt RPs, they performed apparently better; they used fewer overt RPs, and started using null resumptives.

The results gained from judgements of islands support the second explanation. In the case of sensitivity to island constraints, all learners, including the advanced learners, accepted the islands with no RPs to a considerable extent; they allowed Subjacency violations. Learners accepted ungrammatical sentences with gaps, where they would be expected to prefer the RP as it is the case in their L1. This might suggest that they retained the notion that there is a need for a RP. That is why they allowed the island violations without a RP. There is no overt resumptive element in S position in LSA, so learners might have extended this idea to the other positions. The natives rejected such cases; they were treating these sentences as less grammatical than the Arabic speakers.

The above discussion is consistent with that of Hawkins & Chan (H&Ch) (1997) whereby Chinese Learners were argued not to have acquired *wh*-movement. Rather they assumed the presence of RPs (overt in the case of the elementary subjects, and Ø in the case of the advanced subjects). H&Ch (1997: 220) argue that '… many adults second language learners, despite long exposure to an L2, never fully acquire the same syntactic representations as native speakers. This is not consistent with what White and Juffs's (1998: 127) assume, that their Chinese subjects were native like in their acquisition of *wh*-questions, and that the nature of their difficulty is the result of 'processing difficulties, rather than competence difference'. This is also not compatible with Lardiere (2007) who argues that the L1 and the L2 representations are both present in learners' mental grammar.

6.3. Discussion of the Guided Gap Filling Task results

This task was designed to elicit information about participants' intuitions about RRCs as well as their production of RRCs. The results of this task present converging evidence to those of the GJT in relation to the research questions.

6.3.1 Answer 1

Elementary learners showed a preference for the *wh*-word and then *that* and finally the Ø relativizer (except for the indefinite ORRCs where elementary learners chose *that* more than the *wh*-word, and OPRRCs where learners favoured

both the *wh*-relativizer and *that* equally.). Apparently, this does not entail an L1 effect, however, as mentioned previously in the discussion of the GJT, learners might have given the form that they think equivalent to *yalli*. In this sense, it is possible to argue that they transferred the Arabic equivalent relativizer into English. Learners might have over-generalised the *wh*-relativizer as it can be used in a variety of constructions, or they could have been influenced by the input where the *wh*-form is more frequent than the others.

Learners of all proficiency levels rejected the doubly filled C; again this is not to say that they recognized the syntactic properties of the *wh*-word and *that*. Rather, based on their L1, they recognize that only one element can introduce the RRC. The fact that learners were more likely to accept the RP in different relativizing positions even at advanced stages suggests that they have not acquired the properties of the target structure.

6.3.3 Answer 2

Learners progressed in their acceptance of *whose*, especially in the case of the SGen RRCs. However, all learners remained significantly different from the native group in OGen RRCs and OPGen RRCs. This might be an indication that their L1 pattern (*that* … RP) is still influencing their L2 choices.

6.3.4 Answer 3

There was a progression among all participants in rejecting the RP, and they reached a native-like level (though they varied at the stage when they started to be native-like). When comparing their choice of RRCs that involve a RP with those that do not, there was a significant difference between the two in the case of SRRCs and ORRCs indicating that they can distinguish the two cases. However, no significant difference was found in the case of OPRRCs suggesting that learners do not make a distinction between the cases. What the case could be here, as in GJT, is that the learners are assuming a null RP, because if they were able to distinguish the two constructions, one would expect this to be the case for all the relativized positions, not just some of them.

In the case of Gen RRCs, there was no progression in rejecting RPs, and the advanced learners used more RPs than the other groups. When comparing the results of Gen RRCs with and without RPs, there appeared to be a significant difference between the two cases. These results are different from those in the GJT in that, in the latter, advanced learners progressed gradually in rejecting the RP, unlike here. It can be argued then that learners are not random in their choice, rather they might be still thinking that English has a null RP, and that is why there are still both gaps and RPs.

6.3.5 Answer 4

In the case of E RRCs, all the advanced learners favoured cases with fewer RPs more than the other groups. A comparison between the results of the E RRCs and simple RRCs shows a significant difference between the two suggesting that they tend to accept the RP with E RRCs more than simple RRCs. However, because learners were also more likely to accept the grammatical simple RRCs more than the E ones, one has to be cautious in assuming that learners are not sensitive to long distance movement. Evidence of insensitivity to long distance movement comes from island violations. All advanced learners favoured the null resumptive cases, the other groups varied in their preference. This means advanced learners are not sensitive to movement. This again would be consistent with the idea that when they accept the gap, they are assuming a null RP.

6.4. Discussion of the Translation Task results

In the two previous tasks, there was an element of comprehension: the GJT is clearly intuitional; the GGFT is partly intuitional. Learners allow more the categorical use of certain constructions in their comprehension grammar which is not part of their productive grammar. The TT is expected to show learners' productive grammar which might be more restricted and closer to the LSA grammar. The discussion of the TT will reveal findings compatible to a large extent with those of the other tasks.

6.4.1 Answer 1

Whenever learners produced a relativizer, they used it correctly. There was a preference for the *wh*-relativizer, there were no cases of a doubly filled C, there was no use of Ø relativizer at the elementary level, and there was a progression in correctly producing the other linker, advanced learners used the three forms correctly.

6.4.3 Answer 2

In the case of *whose* where learners though showed a progression in its use, still did not use it highly in both OGen RRCs and Gen OPGen RRCs. The reason again is that learners might still have their L1 pattern (*that* … resumptive clitic); they have not pre-emptied the LSA structure. Worth noting here is that the form that learners used is mostly *who* with animate and *which* with inanimate together with the RP. This might suggest an L1 transfer.

6.4.4 Answer 3

Learners did not allow RPs in advanced stages, actually learners showed once more a progression in rejecting the RP. However, this was not the case of Gen RRCs where participants allowed the RP which was highly prominent in OGen RRCs and OPGen RRCs, though not with SGen RRCs.

6.4.5 Answer 4

In the case of long-distance movement, learners gradually did not allow the RP in their production, so that in the advanced stage, they were unlikely to produce them. RPs were prominent in the case of the *wh*-island and Adjunct Constraints though learners showed a decrease in the use of RPs as they got more proficient. In the case of the CNP Constraint, learners sometimes resorted to changing the structure of the sentence so that it no longer involved an island violation. However, they used a lot of RPs in their translations. This might suggest that they are not sensitive to movement, and where the RP was not overt, a null RP was still there.

5. CONCLUSION

The above discussion has the following implications for a number of competing theories of SLA.

5.1 Contaminated L1 transfer

The results offer partial support for the FT Hypothesis. Not all the properties tested seem to have transferred from LSA. In particular, results from relativizers in definite RRCs presented a blurred picture; there could be a potential influence of teaching on the learners' choice of the relativizer, it is also likely that there is an influence of input, and of course there is still the possibility of some underlying transfer. Which of these possibilities holds is not clear. However, it seems quite conceivable that there are clear cases of L1 effects especially in the case of the doubly filled C which was highly rejected in the GJT and GGFT and never produced in the TT. Also the persistent use of RPs appears to suggest that the instantiations of RRCs are still those of the L1. The results are not compatible with the Minimal Trees Hypothesis as functional categories were present in learners' grammars right from early stages.

5.2 No parameter resetting

The results of this study constitute a challenge for the advocates of parameter resetting; the belief that all the parameters of the L2 are acquirable in adult L2 learners. The results show that the assumption of parameter resetting potentially overestimates the success of learners as it seems that not all the parameters were reset.

It has been made clear that the structure of RRCs in English and LSA is different reflecting a parametric difference between the two languages. In order to acquire the English structure, LSA learners have to acquire the selectional features on C that induce movement of the *wh*-operator to Spec CP. These features are checked in LSA through the movement of an operator from Spec TopP to Spec CP.

There was actually evidence that learners seemed to progressively be more accurate in their intuitions and production of RRCs in English. The more advanced learners are, the more likely they are to accept the sentences without RPs especially in cases which involved short distance movement. However, the results from the three tasks also suggest that participants have not acquired movement, and that they resorted to the way the L1 generates RRCs in order to deal with these constructions in the L2. A potential indication of this can mainly be seen in their response to the Gen RRCs in the three tasks where they showed a high acceptance of the RP.

What this could suggest is that the learners' mental representation of these constructions does not include operator movement. In other words, the status of the gap in LSA learners' mental grammars is not that of a trace/copy, but rather that of a null RP, and the operator has not moved from within the RRC rather it has moved from Spec TopP to Spec CP. Thus, RRCs for LSA learners are antecedent-topic-clitic, and this structure is basically LSA suggesting that they have not established the parametric option that allows the wh-operator to move from within the RRC to Spec CP.

5.3 UG partially involved

Doubt is also being cast on the notion that UG is fully available here. It is assumed that full access to UG is reduced even in the case of advanced learners. In both the production and intuition tasks, the learners did not approximate the performance of native speakers in obeying Subjacency: Learners accepted cases of different island violations which did not involve an overt RP, as well as cases which involved an overt RP. LSA learners' mental representation about island violations (whether with a null RP or overt clitic) seems different from those of the English native group. Nevertheless, this representation is UG constrained, hence the claim of UG-partial availability. There are languages which involve null RPs in islands. In fact, LSA is one of these. This is just to say that this option is UG-constrained.

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