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TRANSFER IN THE ACQUISITION OF ECM CLAUSES BY CATALAN LEARNERS OF ENGLISH

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1. INTRODUCTION

The acquisition of a mother tongue is an innate, inevitable capacity of human beings, and “part of the whole maturational process of the child” (Corder, 1967: 19). Once this process of acquisition of the first language is complete, the speaker—being already exposed to language data—is then ready to learn a second language. However, we shall assume that the notions of acquiring and learning a language are rather different from each other and, therefore, so are the type of errors speakers make in each process.

It is true that the syntactic structures in our mother tongue and those in a second language can sometimes coincide, but this does not always occur. Consequently, we can say that some of the errors that L2 learners make result “from the habits of the first language” (Corder, 1967: 19), and when this occurs we deal with ‘interlingual errors’—errors in the L2 which mirror the L1 structures—or, in other words, ‘transfer’ errors. In English, an embedded sentence like “I know *that she is happy*” would be syntactically equivalent to the Catalan “Sé *que (ella) és feliç*”. The English conjunction ‘that’ is the Catalan conjunction ‘que’, and the verb in the embedded clause is inflected in both cases. Nevertheless, not all embedded clauses are syntactically equal in English and in Catalan and this leads to errors in L2 production.

Having said this, our hypothesis is that Catalan learners of English as L2 make *transfer* errors where the syntactic structures of Catalan and English embedded finite and non-finite clauses do not coincide. For instance, this would be the case of English nominal non-finite embedded clauses with a lexical subject and no subordinator—i.e. sentences of the type (1a.)—whose equivalence in Catalan would be a nominal embedded clause with a subordinator and an inflected verb in the subjunctive form—i.e. (1b.). My objective is to consider this syntactic contrast between English and Catalan embedded finite and non-finite clauses and to analyze the errors made by the English

learners to test the hypothesis that transfer is involved in L2 acquisition. Let's compare and analyze these sentences:

- (1) a. "I want Peter TO COME"
b. "Vull QUE en Peter VINGUI"
c. "*I want THAT Peter COMES"

Assuming that the Catalan speakers learning English as L2 know that the conjunction 'que' in Catalan is 'that' in English, we predict that our subjects will generalize and accept (1c.) instead of (1a.). In fact, the syntactic structure in (1c.) mirrors the L1 of the English learners—i.e. Catalan—as we see in (1b.)^{*}.

This type of learners' errors analysis is useful in many senses. First we are provided with "evidence of the system of the language that he is using (i.e. has learned) at a particular point in the course" (Corder, 1967: 25). Besides, it helps not only teachers or researchers, but also the learners: The former are able to know the level of their students, researchers can have evidence of the way language is learned, and the learners are provided with devices which help them know how the target language works syntactically speaking. The L1 transfer/UG access framework (White 2001) expands the objectives of L2 acquisition research and integrates it into the general scientific framework of Principles and Parameters (Chomsky 1981, 1986). Accordingly, this is the framework I will adopt, since I will focus on transfer.

2. SENTENCES, MAIN CLAUSES & EMBEDDED CLAUSES

In Huddleston's words, the concept of sentence can be defined as "the largest stretch of language forming a syntactic structure" (Huddleston, 1988). It must contain a subject and a predicate. Depending on the type of verb—whether intransitive or transitive, linking verb, complex-transitive verb, etc.—a sentence may also contain complements

^{*} Except for the subjunctive in the Catalan example.

like a direct object, an indirect object, a subject complement, or others, including optional elements—i.e. adjuncts. Assuming that the sentence is the maximal syntactic construction, we inevitably come up with the notion of clause. “Where a sentence and a clause coincide, we say that the sentence is made by one clause” (Llinàs-Grau et al. 2008: 9), as in

(2) *She has won the lottery.*

Clauses can be either independent—i.e. the main clause of a sentence—or dependent—i.e. the embedded clause of a sentence. A main clause shall contain both a subject and a finite verb and it can stand by itself, whereas embedded clauses can be either finite or non-finite and cannot stand by themselves, since they belong to another (main) clause.

2.1 ENGLISH FINITE vs. NON-FINITE EMBEDDED CLAUSES

Finite clauses tend to be introduced by a subordinator, though in some cases it can be omitted:

(3) *I know (that) she has won the lottery.*

In non-finite clauses, the subject can be present or not, and they may or may not contain a subordinator. Depending on these conditions, there are different kinds of non-finite clauses:

(4) *I wonder whether to go to the party.*

(5) *I wonder if my boyfriend can go to the party.*

(6) *My boyfriend wants to sleep.*

(7) *My boyfriend wants me to sleep.*

Sentence (4) is a non-finite embedded clause (*to go*) without a lexical subject and a subordinator (*whether*), sentence (5) is a finite embedded clause (*can*) with a lexical subject (*my boyfriend*) and a subordinating conjunction (*if*), sentence (6) is a non-finite embedded clause (*to sleep*) without a lexical subject and no subordinator and, finally,

sentence (7) is a non-finite embedded clause (*to sleep*) with a lexical subject (*me*) and no subordinator. Having said that, in my research project I will only focus on embedded clauses of the type in (7), but I first find it necessary to make a contrastive analysis between instances (6) and (7) so as to see the main properties of verbs which work like *want*—e.g. *would like*, *prefer*, *intend*, *need*, *expect*, *believe*, *beg*, *consider*, *advise*, etc. in that we find an overt subject in the non-finite embedded clause that they select.

2.2 A CONTRAST ENGLISH/CATALAN: CONTROL VERBS vs. ECM VERBS

As we can see in sentences (6) and (7) above, the main verb is the same: *want*; however, unlike the former, the latter contains a lexical subject—as we have already said—which makes their syntactic structures be slightly different. In sentence (6) we have a control clause with the verb *want* working as a control verb. Control verbs take an infinitival complement with a PRO subject:

(6') My boyfriend wants_{CP}[PRO *to sleep*].

PRO is a null-pronoun controlled by the subject of the matrix clause (*my boyfriend*), thus since reference is established by such controller or antecedent in the main clause, we can actually say that *want* works as a subject control predicate—i.e. verbs which take a complement clause (*to sleep*) containing PRO in which PRO is controlled by the subject. The Catalan translation for (6) would be

(6a.) El meu nòvio vol [PRO *dormir*],

whose PRO structure clearly coincides with that in English. On the obverse side of the coin, in (7) we have an exceptional case-marking clause (ECM clause) with the verb (*want*) working as an exceptional case-marking verb (ECM verb). Citing Radford,

complement clauses [like the one italicized in (7)] are exceptional in that their subjects are assigned accusative case by the transitive verb immediately preceding them: what's exceptional about this is that the verb is in a different clause from the subject which it assigns accusative case to. (Radford 2009: 126)

In Radford's chapter on "Null Constituents", the author also refers to such type of clauses as "defective clauses" due to the fact that "ECM complement clauses seem to be TPs which lack the CP layer found in complete clauses" (Radford 2009: 126). Actually, Radford provides evidence which proves his statements. Definitively,

the complement clause [*me to sleep*] is an infinitival TP headed by *to*, and its subject [*me*] is assigned accusative case by the transitive verb [*want*], in accordance with the Case Condition, [which states that] "a noun or a pronoun expression is assigned case by the closest case-assigner which c-commands it (Radford 2009: 124).

In other words, the control clause in (6) is a CP and the ECM clause in (7) is a TP, which makes it possible for the verb *want* to assign case to the embedded subject. The Catalan translation for (7) is

(7a.) El meu nòvio vol *que vagi a dormir*.

In this case, unlike in English—where we had a non-finite embedded clause—we have a finite embedded clause in Catalan.

The conclusion that shall be drawn is that the verb *want* is both a control and an ECM verb in English, but in Catalan such structure does not exist; *voler* does not behave as an ECM verb. Having said this, since Catalan lacks ECM verbs as opposed to English, the prediction here is that in grammaticality judgment tasks Catalan learners of English will make errors in the target language while they are in the process of learning these constructions.

3. SECOND LANGUAGE LEARNING OR L2 ACQUISITION

The linguist Noam Chomsky founded the theory of generative grammar to describe and explain how the syntax of languages works. Actually, this framework has made it possible for researchers to make linguistic contrasts between languages—i.e. comparing the syntax of languages to see in which properties they coincide and in which they differ. This framework has been simplified in the last few decades with the aim of using

only those necessary concepts and terminology to explain and describe the syntax of languages—Chomsky’s *Minimalist Program*.

Universal Grammar assumes that “the essence of all grammars is one and the same for all languages, and that languages vary only within possible and established linguistic limits.” (Llinàs-Grau et al. 2008: 9) Accordingly, universal principles are those shared by all languages, whereas parameters are understood as the limits of variation. As Lydia White states, “the emphasis on parameters allowed L2 researchers to look at variation between languages and the role of language transfer, investigating whether or not parameters of Universal Grammar (UG) can be (re)set in L2 acquisition” (White 2000: 130).

As an example, the Null Subject Parameter states that all sentences must have a subject, either overt—as illustrated in (8a.) and (8b.)—or covert (understood). As (9a.) and (9b.) show, only Catalan allows having the subject unpronounced, so this parameter of linguistic variation is known as the Null Subject Parameter or the pro-drop parameter.

(8) a. *Mary* bought a book.

b. *La Maria* va comprar un llibre.

(9) a. *Bought a book.

b. Va comprar un llibre.

Therefore, we can say that Catalan is a Null Subject language, whereas English is a non-Null Subject language. In case the subject is covert, an element must still occupy its position; *pro*. Making such contrast between (non-)Null Subject languages—e.g. Catalan and English—we shall also distinguish between ‘small’ *pro* and ‘big’ *PRO*. While the former occurs only in finite clauses in Null Subject Languages (e.g. Catalan), as in

(9b.) *pro* va comprar un llibre,

and never in non-Null Subject Languages (e.g. English) as in

(9a.) **pro bought a book*,

the latter occurs as a null pronoun in non-finite clauses both in Catalan and in English, as in

(10) *pro Vull [PRO dormir]*, and

(11) *I want [PRO to sleep]*.

When the two languages have an equivalent *PRO* structure, as in (10) and (11), the prediction is that Catalan speakers will not make errors in the second language, just as I have previously advanced for sentences (6') and (6a.).

At this point, considering L2 acquisition, among the topics Lydia White discusses in her research I am especially interested in the kind of grammatical knowledge that the English L2 learner starts out with once the acquisition of the mother tongue has finished. Actually, the final state in the acquisition of the L1 has been claimed to coincide with the L2 initial state. At this point, White postulates five hypotheses on the L2 initial state distinguished according to the degree of involvement of the L1 grammar (which can be either full, partial or inexistent) and the extent to which we have access to UG (which can also be full, partial or inexistent). Concepts such as 'access' to UG or 'parameter resetting' are crucial in L2 acquisition, but my research project only provides us with evidence of transfer, as no parameter of the type + or – ECM has been claimed to exist. Notwithstanding, I shall say that among the five theories Lydia White suggests, I declare myself in support of full transfer/full access, since I consider that the L2 initial state must certainly be constituted or at least influenced by the L1 knowledge. Besides this, I also assume that we have access to UG and thus restructuring when we learn that the L1 properties do not coincide with those of the L2. Having said that, with regard to transfer, which is our main object of study, White found out that two students

with different mother tongues will differ in the way they treat the same second language they may be learning, and this can only be due to transfer from each learner's L1 properties. Particularly, the author discovered that

the interlanguage grammars of French-speaking and Spanish-speaking learners of English differ, with the Spanish speakers at different stages in the acquisition process treating English as if it were a null subject language, while the French speakers did not do so. (White 2000: 141)

Accordingly, the reason why French speakers did not treat English as if it was a Null Subject language is that French, just as English, is also a Non-Null Subject language. By contrast, since Spanish, just as Catalan, is a Null Subject language—see instances (9b.) and (10)—learners mistakenly treat English in relation to the properties of their mother tongue, which in this case do not coincide. Thus, my project is not related to a parameter, but to the lack of ECM verbs in Catalan, which leads me to predict that learners will assume that ECM verbs have the same properties as the lexical equivalent Catalan verbs.

4. METHODOLOGY

As we all know, in everyday speech we continuously make errors; however, in order to understand the nature of such errors, we shall first bear in mind Chomsky's distinction between 'competence' and 'performance'. For instance, we might be distracted by some noise or momentary thought that may come to our mind and this may lead us to produce an ungrammatical utterance, but such inference would clearly have nothing to do with "the 'all-time' steady-state knowledge which is the speaker's mental grammar"—i.e. competence—but rather with "the 'real-time' use of that grammar in the comprehension or production of utterances"—i.e. performance (Hawkins 2001: 23). Accordingly, errors of performance occur randomly and we can correct them instantaneously since we are aware of them when they occur. By contrast,

errors of competence are those we make when learning a language, have a systematic character and are thus the ones of concern by both linguists and teachers.

When we learn a second language we all have our mother tongue—e.g. its grammatical and syntactic structures—as reference, so in order to construct what we believe to be a grammatical structure in the second language, we might draw our conclusions from that of our mother tongue. Given this, in order to analyze the learners’ production of the L2, researchers must use different kinds of guided elicitation tasks requiring learners to manipulate sentences (e.g. making one sentence out of two), or translate sentences from the mother tongue into the L2 and vice versa. However, due to the fact that L2 speakers might not exhibit some grammatical knowledge that the researcher may be specially interested in, ‘metalinguistic techniques’ have been used to solve such problem. For instance, a metalinguistic technique would consist of presenting a series of random sentences, some grammatical and some ungrammatical, “with speakers asked to record whether they feel them to be grammatical or ungrammatical, [or] they may consist of pairs or triples of sentences, with subjects being asked to indicate preference.” (Hawkins 2001: 23)

Grammaticality judgement tasks entail the learner assessing sentences instead of producing them. Therefore, researchers are provided with information about the linguistic knowledge of the learner in a much controlled way, grammatical competence being inevitably exhibited. Having said that, I have decided to rely on Hawkins’ metalinguistic tasks and conduct a grammaticality judgment task focusing on the syntactic structures of certain Catalan and English embedded clauses. First, I will select a control group of 13 native English speakers so as to evaluate feasibility of my experiment, and then I will carry out the corresponding grammaticality judgment task large-scale to an experimental group. In fact, by testing the design of my quantitative

study to a control group prior to performance, I will see whether I need to adjust it to provide the appropriate larger-scale sample.

My experimental group is formed by 15 Catalan native speakers learning English in the elementary/pre-intermediate level, so that they begin to be familiar with embedded clauses. The task will consist of a list of 24 embedded clauses in Catalan and of their equivalences in English, 1/3 of which being ‘distractors’ so that the subjects do not become aware of the kind of data I aim at analyzing. Each embedded clause in Catalan will have two English translations; one grammatical and another one ungrammatical. Then, the students will be given the choices of selecting both English sentences—in case they think the two of them are grammatical—or only one. Moreover, if the former case occurs, they will also have the chance to select the sentence that might sound more natural to them, and will be able to add possible comments or clarification of their responses (see Appendix 2).

My predictions are that the Catalan L2 learners of English find the equivalences in English by bearing in mind what the syntactic structures in their mother tongue, Catalan, look like—i.e. by transfer. There will be three possibilities:

1. When the two languages have an equivalent PRO structure, no errors will be expected: “pro Vull [PRO dormir]” = “I want [PRO to sleep]”.
2. When the two languages have an equivalent finite clause, no errors will be expected: “Sé QUE ella ÉS feliç” = “I know THAT she IS happy”.
3. When English does not have an equivalent finite clause, errors will be expected: “Vull QUE en Peter VINGUI” = “*I want THAT Peter COMES”, which are instances (1b.) and (1c.) we provided at the beginning.

5. RESULTS AND DISCUSSION

5.1 RESULTS OF THE CONTROL GROUP

As I have already explained in section 4, for the grammaticality judgment task of the control group I have selected 24 sentences 1/3 of which being ‘distractors’. The ‘distractors’ are a set of sentences I have randomly included in the experiment for the natives not to notice what I aimed at evaluating: ECM verbs and clauses, whose structure does not exist in Catalan, thus leading to transfer errors. Accordingly, I tried to look for other sentences that were similar syntactically speaking and of the same length as the rest. These sentences are 3, 5, 8, 11, 15, 17, 20, and 23 (see Appendix 1). This way I made sure they would not notice a pattern they could follow, which would indeed interfere in the results. Regarding the selection of subjects of the control group, I have counted on 12 American natives I am particularly in touch with and 1 more British native I met at the university. With respect to the 24 sentences with ECM clauses, as in 2. Sarah would like *John to cook tonight* (see Appendix 1), I only selected those which all the natives agreed on accepting as correct between 85%-100%. It is for validity purposes that I have not finally selected those sentences whose percentages covered less than 85%, since it was of my interest to obtain sentences which were clearly representative of the ECM type of syntactic structure.

5.1.1 SENTENCES BETWEEN 85%-100%

For sentences 2, 6, 7, 12, and 21 all the thirteen native subjects (100%) accepted those sentences which had an ECM structure:

2. Sarah would like *John to cook tonight*,

6. They expected *us to be late*,

7. I need *you to stay with me*,

12. Her boyfriend wants *her to go to America with him*, and

21. Do you expect *her to phone*?

According to this, all these sentences proved to be perfectly suitable for my experiment.

For sentences 18 and 22, 92% of the subjects accepted the ECM structures rather than those with a finite clause:

18. A. Roger would like that Karen lent him some money.

B. Roger would like *Karen to lend him some money*.

22. A. We consider *him to be unsuitable*.

B. We consider that he is unsuitable.

This is interesting, since for 22 I had expected the natives to accept both sentences as correct, and there was only 1 subject who also accepted the *that*-clause structure, still pointing out that A sounds more natural.

For sentences 1 and 19, 85% of the subjects accepted the ECM structures (A) as correct:

1. A. I think that the policeman wants *the man to move his car*.

B. I think that the policeman wants that the man moves his car

19. A. I beg *you to call my mother*.

B. I beg that you call my mother.

With regard to sentence 1, one of the subjects pointed out that most people use *police officer* nowadays so it is not gender specific—e.g. My daughter is a police officer, not a policeman. Therefore, I decided to use *police officer* rather than *policeman* for the final experiment to the Catalan learners of English. As what is for sentence 19, there was only one subject (8%) who accepted the finite clause (B), and one more (8%) who accepted both but considered A to be more natural.

Still, there is an issue I shall clarify about sentences 4, 9 and 10. Despite the fact that these sentences seem to exhibit an ECM syntactic structure, the verbs *tell* and *ask*

are certainly not ECM predicates, but object control verbs. That is to say, they are 3-place predicates whose PRO subject is controlled by the object of the verb in the matrix clause:

- 4. I asked *the shop assistant* [*PRO to help me*],
- 9. I didn't tell *Allan* [*PRO to go home*],
- 10. I asked *Fred* [*PRO to be quiet*].

For sentence 4, the three arguments that the verb *ask* has are *I*, *the shop assistant* and *to help me*. Regarding sentence 9, the three arguments that the verb *tell* has are *I*, *Allan*, and *to go home*. Likewise, for sentence 10 the three arguments that the verb *want* has are *I*, *Fred* and *to be quiet*. Each of these sentences could certainly be paraphrased by including a finite clause. This would actually be the appropriate way to provide equivalence for both:

- I asked the shop assistant *if he could help me*,
- I didn't tell Alan *that he should go home*,
- I asked Fred *if he could be quiet*.

Therefore, these three options that I included in the experiment of the control group

- 4. B. I asked that the shop assistant helped me,
- 9. A. I didn't tell Alan that he went home,
- 10. B. I asked Fred that he was quiet.

have been substituted by the previous paraphrasing. Having said this, I shall note that ECM verbs are 2-place predicates, so they have two arguments instead of three, which is the case for object control verbs. Nevertheless, since these sets of sentences would also allow me to draw conclusions with regard to transfer, and since I have obtained a high percentage of agreement on the part of the natives in accepting one particular option of these set of sentences, I have decided to include them in the experimental

group, making the corresponding exchange in the options with finite clauses (4B, 9A and 10B).

5.1.2 SENTENCES BELOW 85%

For sentences 13 and 24, nine of the subjects (69%) accepted those options which did not exhibit an ECM structure; that is to say, they did not accept A and B respectively:

13. A. I believe Claudia *to be innocent*.

B. I believe that Claudia is innocent.

24. A. Elisabeth suggested that we go to the beach.

B. Elisabeth suggested *us to go to the beach*.

However, with respect to sentence 13, the other four subjects (31%), who accepted both sentences, pointed out that B sounds slightly more natural or that it is more likely to be used. Consequently, I have interpreted this as if the 100% of the natives had actually chosen the sentence with the finite clause, which is the reason why I am going to include this sentence in the final experiment. I assume that despite the fact that some of the subjects accept both sentences, all the natives actually prefer not to use an ECM structure in this case, which makes this sentence perfectly equivalent to the Catalan structure. Therefore, errors will not be expected by the learners. Regarding sentence 24, the other four subjects (31%) only accepted the ECM structure. Therefore, since there is not a high percentage that proves agreement from most of the subjects, I have decided to do without this sentence.

For sentence 14,

14. A. We would prefer that you were there.

B. We would prefer *you to be there*.

four subjects (31%) accepted A, six subjects (46%) accepted B and the last three subjects (23%) accepted both sentences. Apart from this, those who accepted both A

and B as correct, considered A slightly less direct and B slightly more natural, so we could include them with those subjects who preferred B, and then the final percentage would change to 69%. Still, this is not a high percentage of agreement among the subjects, and that is why I have not included this sentence in the final experiment.

For sentence 16,

16. A. We didn't intend *him to hurt you*.

B. We didn't intend that he hurt you.

six subjects (46%) accepted sentence A, whereas six other subjects (46%) accepted the one with *that*-clause. There was only one subject (8%) who considered neither A nor B to be correct. Instead, s/he would say: We didn't intend *for him to hurt you*. Having said this, since the percentages do not prove this sentence to be representative enough, I have not used it for the experimental group.

Definitively, I have decided not to use sentences 14, 16 and 24 (see Appendix 1) due to the fact that they are not representative enough. Accordingly, the final experiment consists of 21 sentences; 13 evaluative sentences and 8 'distractors'. Nevertheless, in order to be able to obtain absolute, perfect numbers and percentages, I need 14 evaluative sentences and 7 distractors. As a consequence, I have also omitted 'distractor' 15 and added the following pair of sentences exhibiting an ECM clause:

A. Any teacher wants that her students do their homework.

B. Any teacher wants her students *to do their homework*.

Finally, the reason why I have chosen to use the verb *want* is that, as we have seen in sentence 12, 100% of subjects have accepted the ECM structure with this verb, so we have evidence that it is absolutely representative for the type of syntactic structure I am evaluating (see Appendix 2 for the final experiment).

5.2 RESULTS OF THE EXPERIMENTAL GROUP

As I have already said in the previous section, for the grammaticality judgment task of the experimental group I have selected 21 sentences, 1/3 of which being ‘distractors’. With regard to the selection of subjects of the experimental group, I have counted on a group of 13 secondary school Catalan learners of English as a foreign language from the ‘British House’ English academy in Rubí (Barcelona). According to the outcome of the results, the following division of sentences has been made: sentences between 60%-100%, sentences below 60%, and ‘distractors’. For those sentences whose percentages range from 60 to 100% it has been assumed that transfer from the Catalan language plays a major role in relation to the criteria that students have followed to accept one sentence or other as correct, whereas for those sentences below 60% it has been assumed that transfer plays a minor role, due to the fact that percentages lean towards those sentences whose syntactic structure differs from the mother tongue of the learners. Having said this, considering those options where transfer plays a major role, students have focused on the parallelism between English and Catalan syntactic structures in order to opt for one option or other. Indeed, most students who accepted both options or hesitated relied on such parallelism to make their final decision. Moreover, as it is going to be explained in section 5.2.3, students have also focused on the parallelism between lexical items to make their choices, as in

11. L’home va decidir *dir la veritat*

A. The man decided to *speak the truth*

B. The man decided to *say the truth*,

where 100% of the subjects have accepted option B, relying on the fact that the English verb *say* accords with the Catalan verb ‘*dir*’.

5.2.1 SENTENCES BETWEEN 60%-100%

Percentages of acceptance ranging from 60-100% include sentences 1, 2, 4, 6, 10, 12, 13, 15, 19, and 21, which correspond to the English equivalence for the Catalan syntactic structure—i.e. finite clauses:

1. I think that the police officer wants *that the man moves his car*,
2. Sarah would like *that John cooked tonight*,
4. I asked the shop assistant *if he could help me*,
6. They expected *that we were late*,
10. I asked Fred *if he could be quiet*,
12. Her boyfriend wants *that she goes to America with him*,
13. I believe *that Claudia is innocent*,
15. Roger would like *that Karen lent him some money*,
19. We consider *that he is unsuitable*, and
21. Any teacher wants *that her students do their homework*.

According to this, since most of the sentences in this experiment have been judged not to be ECM structures, as opposed to most of the sentences in the experiment to the English natives, my hypothesis that Catalan learners of English as L2 make *transfer* errors where the syntactic structures of Catalan and English embedded clauses do not coincide is proved, transfer playing indeed a major role.

Sentences 13, 21 and 15 exhibit the highest percentages of transfer, with 100%, 85% and 77% of students opting for the options with finite clauses, just as in Catalan.

13. Crec que la Clàudia és innocent.

A. I believe Claudia to be innocent.

B. I believe *that Claudia is innocent*.

21. Qualsevol mestra vol que els seus estudiants facin els deures.

A. Any teacher wants *that her students do their homework*.

B. Any teacher wants her students to do their homework.

15. A en Roger li agradaria que la Karen li deixés diners.

A. Roger would like *that Karen lent him some money*.

B. Roger would like Karen to lend him some money.

It is worth mentioning how, for sentence 13, all Catalan students rejected the typical English syntactic structure, which, as I have mentioned does not exist in their mother tongue. Actually, this is the clearest and most noticeable instance of ECM in the whole experiment.

For sentences 1, 4, 10, 12, and 19, 69% of the subjects also coincided in accepting the options which parallel with the finite clauses in Catalan.

1. Crec que el policia vol que el senyor mogui el cotxe.

A. I think that the police officer wants the man to move his car.

B. I think that the police officer wants *that the man moves his car*.

4. Li vaig demanar al dependent si em podia ajudar.

A. I asked the shop assistant to help me.

B. I asked the shop assistant *if he could help me*.

10. Li vaig demanar a en Fred si podia callar.

A. I asked Fred to be quiet.

B. I asked Fred *if he could be quiet*.

12. El seu nòvio vol que vagi a Amèrica amb ell.

A. Her boyfriend wants *that she goes to America with him*.

B. Her boyfriend wants her to go to America with him.

Precisely, for sentence 1, two of the subjects highlighted the syntactic equivalence between *that the man* and '*que el senyor*'. For sentence 12, there was actually a prior 54% of subjects who accepted A, but there were also two students (15%) who accepted both A and B as correct, clarifying that they would rather opt for option A. Sentences 4 and 10 are those exhibiting object control clauses—as I already clarified in section 5.1.1. Despite this, it is interesting to note that the subjects seem to have relied on the parallelism between English *if* and Catalan '*si*'.

Finally, the 62% of subjects accepting the options with *that*-clauses, thus implying a major role of transfer, correspond to sentences 2 and 6:

2. A la Sara li agradaria que en Joan cuinés aquesta nit.

A. Sarah would like John to cook tonight.

B. Sarah would like *that John cooked tonight*.

6. Esperaven que féssim tard.

A. They expected *that we were late*.

B. They expected us to be late.

5.2.2 SENTENCES BELOW 60%

For sentences 7, 9, 16, 18 the subjects have rather opted for the English options including ECM clauses—leaving the 31%, 15%, and 38% for both sentences 16 and 18 to the options with *that*-clauses:

7. Necessito que et quedis amb mi.

A. I need *you to stay with me*.

B. I need that you stay with me.

9. No li vaig dir a l'Alan que marxés a casa.

A. I didn't tell Alan that he should go home.

B. I didn't tell *Alan to go home*.

16. Et prego que truquis la meva mare.

A. I beg *you to call my mother*.

B. I beg that you call my mother.

18. Esperes que et truqui?

A. Do you expect *her to phone*?

B. Do you expect that she phones?

For sentence 7, the 46% of the subjects preferred the ECM structure rather than the option with the finite clause as in Catalan. One of the three subjects who accepted both A and B considered A to sound more natural, whereas the other two subjects prefer B. Having said this, in this case transfer influence is minor. For sentence 9, 54% also preferred the option with the non-finite clause—i.e. B, which is an object control. Two of the four subjects who accepted both A and B as correct considered B to sound more natural, whereas the other 2 preferred A. In this case, the reason why the subjects have discarded the option with the finite clause seems to have been the presence of the modal *should*, since they certainly have not found its equivalence in the Catalan translation. Definitively, for sentences 16 and 18, 62% of the subjects correctly accepted A rather than B, whereas only 38% of them preferred the option syntactically equivalent to the Catalan structure. Thus, transfer plays a minor role in all this cases.

5.2.3 DISTRACTORS

‘Distractors’ include sentences 3, 5, 8, 11, 14, 17, 20. For these sentences, most subjects have basically relied on the similarity between lexical items in both languages—e.g. prepositions, verbs, etc.—rather than on the syntactic structures the sentences exhibit, since in most cases they actually coincide. Thus, despite not being my object of study, these examples also serve as proof that there is transfer from the mother tongue, and this is the reason why I have decided to comment on them.

As it has been mentioned in section 5.2 commenting on ‘lexical transfer’, for sentence 11, all subjects (100%) accepted B rather than A, owing to the fact that Catalan learners of English may not know that *to speak the truth* is an idiomatic expression in English:

11. L’home va decidir dir la veritat.

A. The man decided to speak the truth.

B. The man decided *to say the truth*.

For sentence 14, most subjects (92%) also preferred the English option with the verb in infinitive, as in Catalan, assuming that ‘sortir’ is associated to *to go out*. In this case, Catalan learners of English might not know that English speakers say: to prohibit someone *from doing* something. Thus, transfer clearly plays a major role here, too.

14. La meva mare em va prohibir sortir.

A. My mother prohibited me from going out.

B. My mother prohibited me *to go out*.

For sentences 3 and 20, 62% of subjects have also focused on lexical items and selected those options which parallel with the Catalan translations:

3. La Maria em mira quan parlo amb ella.

A. Mary looks at me when I talk to her.

B. Mary looks at me when I talk *with her*.

20. Recordo comprar aquell llibre quan tenia 12 anys.

A. I remember buying that book when I was 12 years old.

B. I remember *to buy* that book when I was 12 years old.

For sentence 3 there was actually a prior 46% of transfer, though the two subjects who accepted both sentences would rather opt for option B. As we can see, the English preposition *with* is identical to the Catalan preposition ‘amb’ in the former. Likewise,

the English verb *to buy* in the infinitive form is directly associated to the Catalan verb ‘comprar’.

For sentences 5, 8, and 17 percentages show that transfer plays a minor role, since only two subjects for option 17 and three subjects for options 5 and 8 have selected the sentences whose lexical items would be identical to those in their mother tongue.

5. Arribaré tard al meu examen d’anglès.

A. I am going to *arrive* late for my English exam.

B. I am going to be late for my English exam.

8. Aniran al cinema aquesta nit.

A. They are going to the cinema tonight.

B. They are going to the cinema *this night*.

17. En Guillem no pot cometre cap error a la reunió.

A. William can’t *commit* a mistake at the meeting.

B. William can’t make a mistake at the meeting.

In 5, subjects were expected to make the comparison between verbs *arrive* and ‘arribar’, in 8 they were expected to compare *this night* with ‘aquesta nit’, and in 17 the Catalan learners were expected to make the parallelism between the verbs *commit* and ‘cometre’. This would have taken them to accept options A, B and A respectively, transfer playing thus a major role. Nevertheless, in these cases most subjects seem to know that in English *to be late* means ‘arribar tard’, that they say *tonight* for ‘aquesta nit’ and that *make a mistake* is a collocation in English. Therefore, transfer is almost inexistent here.

6. CONCLUSIONS

In this piece of research, we have been able to observe that transfer from the mother tongue plays a major role in the process of acquiring a second language. Specifically,

the issue of transfer has been applied to Catalan learners of English, who were expected to make transfer errors where English and Catalan embedded finite and non-finite clauses do not coincide. In particular, my object of study was ECM clauses, whose syntactic structure is not found in Catalan. In order to test my hypothesis, a grammaticality judgment task including 14 English sentences with ECM and finite *that*-clauses and 7 ‘distractors’, together with their corresponding translations in Catalan, has been addressed to secondary school Catalan learners of English.

In general terms, the results have proved my assumptions. The percentages for transfer in 10 out of the former 14 sentences with ECM and *that*-clauses have ranged from 60% to 100%. That is to say, most students have preferred those English sentences with finite clauses instead of the ECM structures, implying that transfer plays indeed a major role. According to this, most Catalan speakers would rely on the syntactic structure of sentences from their mother tongue in order to select either the English option with an ECM clause or the one with the finite clause introduced by the conjunction *that*; Catalan ‘que’. Considering the results from the ‘distractors’, transfer has played a major role in 4 out of 7 sentences. In these cases, however, the subjects have not made their choices out of their knowledge and comparison of syntax, but they have rather relied on the lexicon. That is to say, they have focused on the parallelism between certain function and content words such as prepositions or verbs in both languages so as to choose one option or the other.

Definitively, for those cases where the learners have hesitated in making their selection probably due to a lack of knowledge of the L2, most of them seem to have looked for some sort of equivalence—either syntactic or lexical—among both English and Catalan, hence choosing the option which was more similar to their mother tongue.

Having said this, L2 learners make transfer mistakes from their L1 in the stages where the language acquisition process has not been completed.

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APPENDIX 1

CONTROL GROUP RESULTS AND SAMPLE OF THE EXPERIMENT

Sentences	Accepted as correct	Considered correct by the English natives			Comments
1	A	A: 11 (85%)	B: 2 (15%)	Both: 0	A: <i>police officer</i> instead of <i>policeman</i> .
2	A	A: 13 (100%)	B: 0	Both: 0	
3	A	A: 8 (62%)	B: 3 (23%)	Both: 2 (15%)	This is a 'distractor'. 1 of the two subjects who accept both A and B as correct considers A to sound more natural.
4	A	A: 13 (100%)	B: 0	Both: 0	
5	B	A: 0	B: 11 (85%)	Both: 2 (15%)	This is a 'distractor'.
6	B	A: 0	B: 13 (100%)	Both: 0	
7	A	A: 13 (100%)	B: 0	Both: 0	
8	A	A: 12 (92%)	B: 0	Both: 1 (8%)	This is a 'distractor'. 1 of the subjects accepts both A and B as grammatical but considers A to sound more natural. 1 other subject points out that in the US they say <i>movies</i> and not <i>cinema</i> .
9	B	A: 0	B: 13 (100%)	Both: 0	
10	A	A: 13 (100%)	B: 0	Both: 0	
11	A	A: 11 (85%)	B: 1 (8%)	Both: 1 (8%)	This is a 'distractor'. 1 of the subjects accepts A and B as correct but considers A to sound more natural. 1 other subject thinks that A is correct, but s/he'd rather say <i>the man decided to tell the truth</i> .
12	B	A: 0	B: 13 (100%)	Both: 0	
13	B	A: 0	B: 9 (69%)	Both: 4 (31%)	3 of the subjects who accept A and B as correct consider B to sound slightly more natural or to be more likely to be used.

14	B	A: 4 (31%)	B: 6 (46%)	Both: 3 (23%)	2 of the subjects who accept both A and B as grammatical consider B to sound slightly more natural. The British subject points out that A is less direct.
15	A	A: 11 (85%)	B: 0	Both: 0	This is a 'distractor'. 1 subject (8%) found the sentence ambiguous: S/he wondered whether I meant that <i>she helps out (assists) or just goes to class (attends)</i> . The British subject (8%) accepts both pointing out that they have different meaning.
16	A	A: 6 (46%)	B: 6 (46%)	Both: 0	1 of the subjects (8%) considers neither A nor B to be grammatical. Instead, s/he would say <i>We didn't intend for him to hurt you</i> .
17	A	A: 11 (85%)	B: 2 (15%)	Both: 0	This is a 'distractor'.
18	B	A: 1 (8%)	B: 12 (92%)	Both: 0	
19	A	A: 11 (85%)	B: 1 (8%)	Both: 1 (8%)	1 of the subjects accepts both A and B as grammatical but considers A to sound more natural.
20	B	A: 0	B: 12 (92%)	Both: 1 (8%)	This is a 'distractor'. 1 of the subjects accepts both A and B as grammatical but considers B to sound more natural.
21	A	A: 13 (100%)	B: 0	Both: 0	
22	A	A: 12 (92%)	B: 0	Both: 1 (8%)	1 of the subjects accepts both A and B as grammatical but does not comment on which sounds more natural.
23	A	A: 13 (100%)	B: 0	Both: 0	This is a 'distractor'.
24	A	A: 9 (69%)	B: 4 (31%)		Only 4 subjects accept the option with the non-finite clause.

GRAMMATICALITY JUDGMENT TASK

Pay attention to the following pairs of sentences and decide whether they are correct or incorrect. In case that you think both sentences sound fine, say which of the two sounds more natural to you (if there is one that does). You can also add possible comments or clarification for your answers.

- 1 A. I think that the policeman wants the man to move his car.
 B. I think that the policeman wants that the man moves his car.
- 2 A. Sarah would like John to cook tonight.
 B. Sarah would like that John cooked tonight.
- 3 A. Mary looks at me when I talk to her.
 B. Mary looks at me when I talk with her.
- 4 A. I asked the shop assistant to help me.
 B. I asked that the shop assistant helped me.
- 5 A. I am going to arrive late for my English exam.
 B. I am going to be late for my English exam.
- 6 A. They expected that we were late.
 B. They expected us to be late.
- 7 A. I need you to stay with me.
 B. I need that you stay with me.
- 8 A. They are going to the cinema tonight.
 B. They are going to the cinema this night.
- 9 A. I didn't tell Alan that he went home.
 B. I didn't tell Alan to go home.
- 10 A. I asked Fred to be quiet.
 B. I asked Fred that he was quiet.
- 11 A. The man decided to speak the truth.
 B. The man decided to say the truth.
- 12 A. Her boyfriend wants that she goes to America with him.
 B. Her boyfriend wants her to go to America with him.

- 13 A. I believe Claudia to be innocent.
B. I believe that Claudia is innocent.
- 14 A. We would prefer that you were there.
B. We would prefer you to be there.
- 15 A. She attends French classes every Tuesday.
B. She assists French classes every Tuesday.
- 16 A. We didn't intend him to hurt you.
B. We didn't intend that he hurt you.
- 17 A. My mother prohibited me from going out.
B. My mother prohibited me to go out.
- 18 A. Roger would like that Karen lent him some money.
B. Roger would like Karen to lend him some money.
- 19 A. I beg you to call my mother.
B. I beg that you call my mother.
- 20 A. William can't commit a mistake at the meeting.
B. William can't make a mistake at the meeting.
- 21 A. Do you expect her to phone?
B. Do you expect that she phones?
- 22 A. We consider him to be unsuitable.
B. We consider that he is unsuitable.
- 23 A. I remember buying that book when I was 12 years old.
B. I remember to buy that book when I was 12 years old.
- 24 A. Elisabeth suggested that we go to the beach.
B. Elisabeth suggested us to go to the beach.

APPENDIX 2

EXPERIMENTAL GROUP RESULTS AND SAMPLE OF THE EXPERIMENT

Sentences	Non-ECM structure	Considered correct by the Catalan learners of English as L2			Comments
1	B	A: 4 (31%)	B: 9 (69%)	Both: 0	2 of the subjects who accept B actually highlight the syntactic equivalence between <i>that the man</i> and ' <i>que el senyor.</i> '
2		A: 5 (38%)	B: 8 (62%)	Both: 0	
3	B	A: 5 (38%)	B: 6 (46%)	Both: 2 (16%)	This is a 'distractor'. The two subjects who accept both A and B as correct consider that they would rather use B.
4	B	A: 4 (31%)	B: 9 (69%)	Both: 0	
5		A: 3 (23%)	B: 10 (77%)	Both: 0	This is a 'distractor'.
6	A	A: 8 (62%)	B: 5 (38%)	Both: 0	
7	B	A: 6 (46%)	B: 4 (31%)	Both: 3 (23%)	1 of the subjects who accept both A and B as correct considers A to sound more natural, whereas the other 2 subjects prefer B.
8		A: 10 (77%)	B: 3 (23%)	Both: 0	This is a 'distractor'.
9	A	A: 2 (15%)	B: 7 (54%)	Both: 4 (31%)	2 of the subjects who accept both A and B as correct consider B to sound more natural, whereas the other 2 prefer A.
10	B	A: 4 (31%)	B: 9 (69%)	Both: 0	

11		A: 0	B: 13 (100%)	Both: 0	This is a 'distractor', but I shall point out that all the subjects accept B rather than A, actually due to transfer (<i>say</i> = 'dir'). Catalan speakers probably don't know that <i>to speak the truth</i> is an idiomatic expression in English.
12	A	A: 7 (54%)	B: 4 (31%)	Both: 2 (15%)	The 2 subjects who accept both A and B as correct prefer to use A.
13	B	A: 0	B: 13 (100%)	Both: 0	In this case, all the subjects prefer the option with the finite clause, just as in Catalan.
14		A: 1 (8%)	B: 12 (92%)	Both: 0	This is a 'distractor'. Still, most subjects prefer the option with the verb in infinitive, as in Catalan (<i>to go out</i> = 'sortir').
15	A	A: 10 (77%)	B: 3 (23%)	Both: 0	Most subjects accept the option with the non-finite clause, just as in Catalan.
16	B	A: 8 (62%)	B: 5 (38%)		
17		A: 2 (15%)	B: 11 (85%)	Both: 0	This is a 'distractor'.
18	B	A: 8 (62%)	B: 5 (38%)	Both: 0	
19	B	A: 4 (31%)	B: 8 (62%)	Both: 1 (7%)	1 of the subjects accepts both A and B as grammatical but considers B to sound more natural.
20		A: 5 (38%)	B: 7 (54%)	Both: 1 (8%)	This is a 'distractor'. 1 of the subjects accepts both A and B as grammatical but considers B to sound more natural.
21	A	A: 11 (85%)	B: 2 (15%)	Both: 0	

GRAMMATICALITY JUDGMENT TASK

Pay attention to the following pairs of sentences and decide whether they are correct or incorrect. In case that you think both sentences sound fine, say which of the two sounds more natural to you (if there is one that does). You can also add possible comments or clarification for your answers.

1. Crec que el policia vol que el senyor mogui el cotxe.
A. I think that the police officer wants the man to move his car.
B. I think that the police officer wants that the man moves his car.

2. A la Sara li agradaria que en Joan cuinés aquesta nit.
A. Sarah would like John to cook tonight.
B. Sarah would like that John cooked tonight.

3. La Maria em mira quan parlo amb ella.
A. Mary looks at me when I talk to her.
B. Mary looks at me when I talk with her.

4. Li vaig demanar al dependent si em podia ajudar.
A. I asked the shop assistant to help me.
B. I asked the shop assistant if he could help me.

5. Arribaré tard al meu examen d'anglés.
A. I am going to arrive late for my English exam.
B. I am going to be late for my English exam.

6. Esperaven que féssim tard.
A. They expected that we were late.
B. They expected us to be late.

7. Necessito que et quedis amb mi.
A. I need you to stay with me.
B. I need that you stay with me.

8. Aniran al cinema aquesta nit.
- A. They are going to the cinema tonight.
 - B. They are going to the cinema this night.
9. No li vaig dir a l'Alan que marxés a casa.
- A. I didn't tell Alan that he should go home.
 - B. I didn't tell Alan to go home.
10. Li vaig demanar a en Fred si podia callar.
- A. I asked Fred to be quiet.
 - B. I asked Fred if he could be quiet.
11. L'home va decidir dir la veritat.
- A. The man decided to speak the truth.
 - B. The man decided to say the truth.
12. El seu nòvio vol que vagi a Amèrica amb ell.
- A. Her boyfriend wants that she goes to America with him.
 - B. Her boyfriend wants her to go to America with him.
13. Crec que la Clàudia és innocent.
- A. I believe Claudia to be innocent.
 - B. I believe that Claudia is innocent.
14. La meva mare em va prohibir sortir.
- A. My mother prohibited me from going out.
 - B. My mother prohibited me to go out.
15. A en Roger li agradaria que la Karen li deixés diners.
- A. Roger would like that Karen lent him some money.
 - B. Roger would like Karen to lend him some money.

16. Et prego que truquis la meva mare.
A. I beg you to call my mother.
B. I beg that you call my mother.
17. En Guillem no pot cometre cap error a la reunió.
A. William can't commit a mistake at the meeting.
B. William can't make a mistake at the meeting.
18. Esperes que et truqui?
A. Do you expect her to phone?
B. Do you expect that she phones?
19. Considerem que és inadequat
A. We consider him to be unsuitable.
B. We consider that he is unsuitable.
20. Recordo comprar aquell llibre quan tenia 12 anys.
A. I remember buying that book when I was 12 years old.
B. I remember to buy that book when I was 12 years old.
21. Qualsevol mestra vol que els seus estudiants facin els deures.
A. Any teacher wants that her students do their homework.
B. Any teacher wants her students to do their homework.