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## VIAL

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# The operation of transfer and interlanguage principles: the case of empty categories in the interlanguage of Spanish learners of English 

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#### Abstract

This study investigates the role of transfer and interlanguage principles in the occurrence of empty categories in IL. Two experiments were carried out with a group of 18 learners of English in a natural context and 33 learners who had received formal instruction in English. The results showed that transfer was the most important factor involved in the production of empty categories in all groups. Many cases were the result of the operation of IL transferability principles such as the one-to-one principle. Due to transfer, characteristic IL constructions which do not exist in the L1 or L2 were also produced. Some empty categories resulted from conceptual transfer, the transferring of different conceptual representations of the world from the L1 to the L2. Normally, other SLA phenomena interacted with transfer in the production of empty categories such as simplification or overgeneralization, suggesting that the multiple effects principle may be working. As a consequence, the fossilization of these elements is plausible. This conclusion is reinforced by the fact that many of them were still found in the advanced group of learners.


## Introduction: empty categories in IL

Empty categories in SLA are those elements which are not present in IL, even though they are required in the target language and, sometimes, even in the source language. One example of this common phenomenon is (1) below:

I picked the children from the kindergarden. ("up" is the hypothesised absent element) (Kaplan and Selinker 1997:171).

Recently, empty categories have attracted a lot of interest, mainly due to the possible link between them and fossilization. Consequently, this has also led to the appearance of some research on the very nature of empty categories and their characteristics (Kuteva, Selinker, and Lakshmanan 1996), and of a database
which presents a list of various empty categories taken from different ILs (Selinker 1998). Their persistence in IL has been linked to the multiple effects principle (Selinker and Lakshmanan, 1992; Selinker and Han 1997) which establishes that the simultaneous operation of two or more IL phenomena (one of them normally being transfer) will lead to their permanent stabilization. Both the frequent occurrence of empty categories in IL and their persistence suggest that they are linked to transfer and the multiple effects principle. This study investigates this interrelation by analysing the findings of two experiments carried out with two groups of Spanish learners of English, one made up by 18 mature learners who had acquired English in a natural context and 33 learners of English who had acquired it through formal instruction.

## 2. Overview of transfer and its relation to empty categories

The role of the native language in SLA has been frequently discussed and revised by different SLA theories. Contrastive Analysis studies (Weinreich 1953; Haugen 1956) already maintained that the influence of the L1 was extremely important in SLA: the "errors" produced in situations of language contact were the result of the differences between the languages involved. Error Analysis studies (Corder, 1981) were less simplistic and, although recognising the significance of transfer, also considered other phenomena, such as overgeneralization. In the last two decades a considerable amount of research has been conducted on transfer (Ringbom 1987; Odlin 1989, 2002, 2003; Schachter 1992; Alonso 1999; Jarvis 1999; Schwartz 1999; Scott 1999; Jarvis and Odlin 2000). As a consequence of this, the concept of language transfer has developed significantly and become more sophisticated than in earlier accounts. Ringbom (1987) stressed the importance of similarity and not difference in second language learning. Transfer is not only interference of the L1 or negative transfer. On the contrary, the L1 may facilitate L2 acquisition greatly when both languages are similar. This "entails a relativist approach to second language acquisition." (Odlin 2002:254). Furthermore, Odlin (1989:26) pointed out that transfer is not simply a "falling back on the native language", which would suggest that it is a sort of production strategy only used for communicative purposes when a certain L2 structure is unknown. The L1 also influences comprehension, that is, listening and reading (Odlin, 2002, 2003). Transfer does not imply only the influence of the L1 but also of other known languages and previous ILs. Schachter (1974) revealed that avoidance of certain elements and structures was related to negative transfer. Corder (1981) explained the connection between Interlanguage developmental stages and transfer: if a
certain L1 feature coincides with one characteristic of a natural development pattern, transfer will take place and the IL stage may stabilise for a while. When the L1 feature is the same as that of a later stage in the natural IL development, the L2 learner will skip the earlier stages.

The Interlanguage theory proposed by Selinker $(1972,1992)$ adds some significant contributions to this issue such as the question of selectivity: the IL speaker makes a decision of what will be transferred, and the creation of autonomous blends: elements that do not exist in the L1 or the L2, as the result of establishing wrong interlingual identifications between the two languages.

Some transferability principles are also important for this theory. One of them is the transfer to somewhere principle, first proposed by Andersen (1983). According to it, transfer is likely to take place when an L1 element or structure is compatible with natural acquisition principles and, at the same time, the L2 input may originate a generalization from the L1. An example of this principle is the transfer of SVO order by English learners of French or Spanish in the acquisition of clitic pronouns. In Romance languages clitic pronouns precede the verb contradicting their basic SVO order. English learners transfer their L1 word order pattern because it is compatible with the natural order of acquisition and they find evidence of that order in the L2 input. Andersen also assumes that the one-to-one principle, which states that IL speakers make simple one to one correspondences of the type: one meaning to one form, is related to transfer to somewhere.

However, differences between the L1 and the L2 are also important; the nowhere principle (Kellerman 1995) points out that when certain differences between the L1 and the L2 are not perceived by the IL speaker, transfer will also take place. This principle involves mainly those cases in which the world is conceptualised in such a different way in the L1 and the L2 that the learner has no place where to transfer the L1 concept because no identification with anything from the L2 is possible. Related to this, conceptual transfer (Jarvis 1999; Jarvis and Odlin 2000) implies that IL learners possess a cognitive view of the world which may differ from that of the L2. Very often, what is transferred to the L2 is the L1 cognitive system. Language structure also affects habitual thought (Pederson et alia, 1998). This type of transfer is reflected on different linguistic levels, for example, the semantic system but also the grammar, as in the case of articles.

From all these principles, it can only be assumed that transfer is a very complex issue, especially if we take into account that it often operates simultaneously with other phenomena. According to the multiple effects
principle (MEP), proposed by Selinker and Lakshmanan (1992:198) this has a significant consequence: stabilization and possible fossilization of the elements and structures involved. Transfer is assumed to be involved when several factors interact in SLA. It may even be obligatory for fossilization to occur in SLA, that is, transfer would be in operation in those L2 areas that are never acquired. In order to investigate fossilization and the multiple effects principle, Selinker and Lakshmanan (1992), and Selinker and Han (1997) suggest that it is necessary to identify structures and elements that seem to stabilize and fossilize in IL and investigate why and how this occurs through longitudinal studies. One of the structures they propose are empty categories, as they often persist in IL and are, therefore, clear candidates for fossilization. Also, there are reasons to believe that empty categories are, at least in many cases, related to transfer.

From these studies on transfer, it can be concluded that, like this phenomenon, the production of empty categories is a selection process. This assumption is supported by the fact that not all elements can be empty categories and some candidates are not always empty in IL. They are influenced, like in the process of transfer as a whole, by the interaction of multiple factors.

It is evident that questions such as language similarity and difference will be relevant for the production of empty categories. It seems to be true that having the same or similar grammatical structures facilitates their acquisition. Yet, on other occasions, this fact leads to the opposite effect. The IL learner is constantly looking for similarities between the L1 and the L2 due to the importance of previous linguistic knowledge. Thus, it seems logical that they will recognise in the L2 input various grammatical elements like articles, subjects, objects, prepositions and auxiliaries that also exist in their L1 and will associate them directly with the L1 items. But the rules of use of these elements are often specific of each language. When the L2 learner tries to establish correspondences between the L1 and the L2, following transferability principles such as the one-to-one principle, it is very plausible that certain elements which are obligatory in the L2 do not exist in the L1; as a consequence, the transfer of the L1 structure may result into an empty category. Therefore, it can be predicted that, in the case of subject pronouns, a Spanish learner of English might assume that they are not always necessary because in the L1 they are left out (Ruiz de Zarobe 2003); likewise, as regards articles, auxiliaries or prepositions, their rules of use may be easily taken for granted.

Looking for similarity often implies a search for simplification: the assumption that subject pronouns are not necessary in the L2, as in the L1, resulting into empty categories, may lead to a similar one in relation to object pronouns on the grounds of internal similarity and simplification. According to

Odlin (1989:34), there is a "relation between transfer, overgeneralization, simplification and other SLA behaviours". Among these SLA behaviours, we find other ones, such as those following universal acquisitional principles. The omission of certain grammatical categories, namely, auxiliaries, subjects, objects, articles and prepositions are common in the first stages of first language acquisition. The coincidence of the L1 pattern (as happens in Spanish with the omission of subjects, articles and prepositions in some contexts) with these universal developmental stages may reinforce transfer and cause the stabilization of some empty categories in a certain IL stage.

From all this, it follows that the production of empty categories is associated with negative rather than positive transfer (which would prevent them from occurring). Negative transfer is more than just producing IL structures that are errors from the L2 point of view, as shown in the phenomenon of avoidance. If it is proved that some empty categories are also avoided in IL in other contexts, being substituted for other different types of structures, then it could be demonstrated that transfer is directly related to their occurrence. Dagut and Laufer (1985), in a study with Hebrew learners of English, found that phrasal verbs are often avoided in their IL because of the differences between both languages concerning these elements, which do not exist in Hebrew.

Transfer to nowhere (Kellerman 1995), as explained in the previous section, also stressed the importance of difference for transfer. Empty categories may be related to this principle to the extent that, being mainly of a grammatical nature, the different conceptual world that is behind them will not be easily perceived by the IL speaker. This lack of awareness of the subtle differences that the native language causes in its particular "shaping" of experience may influence the occurrence of some empty categories, especially prepositions and particles of phrasal verbs.

Kuteva, Selinker and Lakshmanan (1996:46), in a discussion of the omission of particles in phrasal verbs by IL speakers, remind us that the "elements UP, OFF, and OUT are perfectivity markers..." They associate the difficulty in the acquisition of these particles with the unpredictability of the input, as the same particle changes its meaning when it is combined with different verbs. However, while this is clearly an important factor, it may be that the different conceptualisation of the idea of telicity and perfectivity in the L1 and the L2 also causes a great deal of problems in their acquisition. In Spanish this concept is never expressed by a particle but it may be implicit in a lexical word or a tense. A Spanish learner will probably transfer this conceptual view of telicity to IL, resulting into the occurrence of an empty category.

Prepositions also underlie important conceptual differences between languages. Jarvis and Odlin (2000) point out that in English the same prepositions are used to express both goal and location relations. Spanish emphasizes the end point or result of an action, while English the manner in which the action took place: Él cruzó el río vs. He went across the river. This brings about important differences in the use of prepositions: in Spanish they are used less frequently.

From all this, it is predicted that transfer will be involved in the production of many types of empty categories (e.g. pronouns, prepositions, articles, particles of phrasal verbs) and that other issues will interact with transfer in their production (e.g. simplification). Two experiments with Spanish learners of English will be analysed in order to investigate these assumptions and determine the real significance and involvement of transfer in the production of empty categories.

## 3. The experiments

The results of two experiments will be analysed in order to investigate the significance of transfer in the production of empty categories. The first experiment was conducted with 18 Spanish speakers of English, all immigrants who had been living in London for over 20 years. The second experiment was carried out with 33 Spanish learners of English, who had not had much exposure to English and had learned it mainly in the classroom. The students were divided into three groups according to their proficiency: beginners, intermediate and advanced. As the amount of exposure to English in the two experiments and the level of proficiency in the second one differ significantly, a comparison can be drawn between them to establish whether empty categories still persist in the most proficient learners and in those with more exposure to the L2. There was also a control group of 10 native speakers of English in order to compare their performance with that of the non-native speakers.

### 3.1. Subjects

The control group consisted of 10 subjects from different parts of England, all native speakers of English. They were final year students at the Department of Spanish and Portuguese at the University of Leeds. Their age ranged from 21 to 23 .

The subjects of the first experiment were 18 Spanish immigrants who had arrived in England already as adults (the youngest of them was 16, the oldest 34). Their age ranged from 40 to 70. They had been living in England for at least 20 years. They had never received a great amount of formal instruction. Most of them had attended English classes for a few months or one/two years at their arrival but they had stopped studying it afterwards. Although they had mainly Spanish friends they all had been exposed to English significantly, mainly through their work.

The second set of interviews was conducted with 33 Spanish learners of English who were studying at the University of Santiago de Compostela. Some of the subjects were doing English as part of their degree and the rest of them were studying English at the Centre of Modern Languages at the university. The subjects were divided into three different groups of 11 students, according to the results of the standard test: beginners, intermediate and advanced. Most informants were in their twenties. However, the youngest was 18 and the oldest 50. They had been studying English for a minimum of 3 years and a maximum of 14. Most of them had taken it as their obligatory foreign language at school. More than half of the students had been to an English speaking country although they had not lived there for over 2 years. Only one of them had lived there for 4 years when she was younger.

### 3.2. Materials and procedures

Firstly, tests (Allan 1999) were administered to assess the subjects' proficiency in English. Thus the students were divided into three proficiency groups: beginners, intermediate and advanced. However, in the first experiment the results were such that they had to be considered not scientifically reliable, or that the subjects had performed below chance, or that they had been unable to complete them. The subjects' background -they were people who had not received a lot of education, especially in languages- made it impossible to use reliable proficiency tests with them. Thus, the IL data obtained in the experiment were used in a more qualitative way in order to decide about their proficiency. It was found that in terms of their grammar and pronunciation, their level of proficiency could be classified as characteristic of a beginner or a low intermediate stage. However, their fluency was considerable in all cases. As regards pronunciation, it was very influenced by Spanish: the vocalic system was that of Spanish, one of the consonants in some clusters (/kt/, /ds/, /ts/) and many final consonants were often not pronounced. Their grammar was characterised by a basic verb system with a predominance of the present tense, few auxiliaries
and perfect forms were used, irregular verb forms were made regular. The pronoun system was very different from that of the L2: fewer pronouns were used; there was also a frequent confusion in the third person pronouns and possessives. Their IL lacked some obligatory prepositions in the L2 (like directional to) and transferred L1 prepositions, which were often different from the L2, especially in relation to those required by some verbs. Finally, the syntactic structures used were very basic: not many relative and embedded sentences were produced; the sentences tended to be simple or coordinated. A limited set of conjunctions were used such as but or and.

The subjects were interviewed and audio recorded for about half an hour. They were asked questions about general issues regarding their personal life. In the case of the first experiment, the interviews took place in London in February 2001, at the subjects' homes and also in the Spanish school in Portobello; in the second experiment, they were conducted in May and June 2001 at the Universidad of Santiago de Compostela. The interviews with the control group were at the Department of Spanish and Portuguese at the University of Leeds in November 2002. The aim of the interviews was to obtain sufficient data that allowed an analysis of possible empty categories in their IL. More than the topic itself, it was important to obtain a representative sample of oral data. However, it was also important for the study to record spontaneous speech which reflected as closely as possible their oral performance in their second language. Thus, some questions had to do with their family friends, hobbies, future and holidays. The subjects of experiment I were also asked about their experiences in the country (the problems they had, their feelings about England, their work, their exposure to English and how they had learnt it) and the students about their classes, university and general experiences as students living on their own. An extract from one interview can be found in an appendix at the end of this article.

The interview was carefully prepared beforehand and a questionnaire of possible questions and topics was elaborated, following sociolinguistic fieldwork (Larsen-Freeman and Long 1991). The list of questions was obviously never present at the time of the interview since it would deprive it of spontaneity. Rather, it was used as a general guidance for the interview to prevent the interview from getting stagnate.

Once the material was collected the interviews were carefully and literally transcribed. After the transcription of the data, the subjects' IL was analysed and double checked by English native speakers to ensure that all the empty categories considered would be really contemplated as such by native speakers.

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### 3.3. The results

The results from the two experiments showed that transfer was the most important factor involved in the production of empty categories: in experiment I with the immigrants' group, it operated in $50 \%$ of the empty categories found and in the students' group in $67 \%$ of all cases. The importance of differences between groups in the cases of transfer was also statistically tested. ANOVA showed that they were very significant among groups ( $\mathrm{F}=12.916, \mathrm{p}=.000$ ), as the immigrants' and beginners' groups produced a considerably higher amount of empty categories. There were also significant differences between the advanced and intermediate group ( $\mathrm{t}=2.270, \mathrm{p}=.037$ ), the intermediate and the beginners ( $\mathrm{t}=4.236, \mathrm{p}=.001$ ) but not between the immigrants' and the beginners' group $(\mathrm{t}=1.970, \mathrm{p}=.065)$. Figures 1 and 2 below offer the percentage of cases of transfer for both groups in comparison with other factors related to empty categories' production.

Figure 1: Factors involved in empty categories in the immigrants' group


Figure 2: Factors causing empty categories in students group in percentages


When the students' group is divided according to their language proficiency, the incidence of transfer does not change significantly in any group: in the beginners' group it accounts for $67 \%$ of all cases, in the intermediate and in the advanced for $64 \%$.

As regards differences among groups, its role seems to be more significant in the students' group. However, this does not mean that the immigrants are not also transferring considerably when they produce empty categories. On the contrary, the total amount of empty categories motivated by transfer in this group was 377 . The reason for the lower incidence of transfer in comparison with the students' group is that simplification strategies, mainly related to the verb system (production of empty auxiliaries) are also very important in the immigrants' group. This is due to the fact that these informants acquired the L2 in a natural context with little formal instruction. In their need to communicate as fast and effectively as possible, they started producing only the lexical verb, which is more important in order to be understood, and not the auxiliaries, whose meaning could be replaced by other lexical grammatical categories such as adverbs. As communication was not, generally, blocked, they persisted in this use of lexical verbs and auxiliaries hardly developed. As a consequence, the weight transfer has in this group is lower than in the students' group.

It is noticeable that the incidence of transfer in the production of empty categories hardly decreases in the advanced group, showing that there is a strong relationship between them. Also, the fact that very proficient students are still transferring significantly in these cases seems to indicate that transfer plays a role in the possible stabilization of these elements.

As regards types of empty categories, empty pronouns were the most influenced by transfer (in all groups this factor was involved in over $95 \%$ of them) and the most frequent in all groups, representing $72 \%$ of all cases of transfer in the immigrants' group, $71 \%$ in the beginners', $54 \%$ in the intermediate and $64 \%$ in the advanced. They also seem to persist in IL as a considerable amount is still produced by the advanced group ( $42 \%$ of empty categories are pronouns in this group). It was also found that there was a significant relation between the type of empty category and the factor causing it (e.g. most cases of pronouns were caused by transfer) as a chi-square test shows in the case of the immigrants' group (chi-square $=1226.48, \mathrm{p}=.000$ ) and in the students' group (chi-square $=777.495, \mathrm{p}=.000$ ).

Subject empty pronouns accounted for $74 \%$ of all empty pronouns in the immigrants group, $62 \%$ in the beginners', $52 \%$ in the intermediate and advanced. An example is (2) below:
(2) /e/ work there for six months ("I" is the hypothesised /e/ or empty category)

They involved inanimate subjects in $58 \%$ of empty subjects in the immigrants' group, $71 \%$ in the beginners', $67 \%$ in the intermediate and $50 \%$ in the advanced. An example is given in (3) below:
(3) /e/ depends which part of England (where "it" is the hypothesised /e/)

Empty object pronouns were $26 \%$ of empty pronouns in the immigrants' group, $38 \%$ in the beginners', and $48 \%$ in the other two groups. Example (4) below illustrates this type of empty categories:
(4) You find /e/ nearly every day ("it" is the hypothesised /e/)

Empty pronouns were much more frequent in the group of immigrants and in the least proficient group. The fact that the percentage of subject pronouns was lower in the immigrants' group is not surprising, as subjects are more frequent than objects (sentences must have subjects but not all verbs are transitive). As a consequence, the high amount of empty objects in the most proficient groups is even more relevant: they persist while empty subjects decrease considerably. Inanimate empty subjects were very frequent in the beginners' and intermediate groups. According to previous studies (White 1986; Ruiz de Zarobe 2003), they are harder to acquire, as Spanish does not allow overt inanimate pronouns. The reason why in the advanced group as many empty personal as inanimate subject pronouns were found will be explained in the next section.

Other important types of empty categories were also significantly influenced by transfer, especially empty prepositions such as (5) below:
(5) Listening /e/ music (where "to" is the hypothesised empty category)

Transfer was related to the production of $31 \%$ of empty prepositions in the immigrants' group, $37 \%$ in the beginners', $67 \%$ in the intermediate and $69 \%$ in the advanced. The considerably higher amount of empty prepositions related to transfer in the most proficient groups is explained, on the one hand, because other factors, mainly overgeneralization, motivate them in the other groups. Overgeneralization decreases with more proficiency, probably as a direct consequence of formal instruction; those cases in which transfer is involved persist. On the other hand, over $30 \%$ of these empty prepositions in the advanced group were related to the production of more sophisticated structures, which involve preposition stranding, that is, those constructions, not allowed in Spanish, in which the preposition does not precede its object but stands on its own such as (6) below:
(6) If she hasn't got anyone else to go /e/ ("with" is the hypothesised /e/)

As regards empty articles such as (7) below:
(7) You enjoy yourself as /e/ young man (where "a" is the hypothesised /e/).
they were motivated by transfer in $57 \%$ of their occurrences in the immigrants' group, $46 \%$ in the group of beginners, $41 \%$ in the intermediate group and $38 \%$ in the advanced.

Unlike with prepositions, the percentage of articles motivated by transfer does not increase but goes down slightly. This can be explained by the complexity of English article rules, which is resistant to instruction, resulting into the persistence of overgeneralization strategies. However, transfer is still significant throughout all groups.

Other less frequent empty categories were also caused by transfer in all groups such as particles of phrasal verbs, verbs, nouns, adjectives, adverbs and infinitival to as shown, respectively, in (8), (9), (10), (11), (12) and (13) below:
(8) He goes quickly without taking his clothes /e/ ("off" is the hypothesised /e/)
(9) After I /e/ back to Stambore again (where "go" is the hypothesised /e/).
(10) They always were taking /e/ of me ("care" is the hypothesised /e/).
(11) How old are you? Fifty six years /e/. ("old" is the hypothesised (e/).

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(12) I don't think /e/ ("so" is the hypothesised /e/).
(13) They want /e/ speak English ("to" is the hypothesised /e/).

The production of these categories was not as significant in any group. They become rare when proficiency increases: only 6 were produced by the 11 informants of the advanced group. It must be taken into account that some of these elements such as some adverbs or phrasal verbs are not so frequent in speech as, for example, subjects. Moreover, in the case of phrasal verbs they were avoided by the informants because they do not exist in their L1. Other cases such as empty nouns or adjectives are lexical categories and, normally, were only realised as empty when the meaning of the structure was obvious as in (11).

## 4. Empty categories, types of transfer and interlanguage principles.

From the previous section it can be concluded that transfer acts significantly in all groups and across most types of empty categories. It is evident that there exists a significant link between them. In fact, empty categories constitute a very good example of how transfer operates in IL. An overview of some of the examples of empty categories found in the experiments illustrates various manifestations of transfer, which reveal the complexity of this phenomenon.

The most obvious cases of transfer in empty categories are probably those in which L2 learners simply produce, for example, empty prepositions, because in their L1 they are not required. This is what happens in cases such as (5) above: Listening le/ music. The equivalent Spanish verb "escuchar" does not take a preposition. As a consequence of not perceiving the differences between the two languages, no preposition occurs in the L2 learner's IL.

On other occasions, transfer is not so straightforward, as empty object pronouns show. In both English and Spanish objects must be used with transitive verbs. Therefore, no empty objects should be expected. However, there is a difference in the placement of pronouns between the two languages: in English they follow the verb, in Spanish they precede it. Initially, the L2 learner fails to perceive the object pronouns placed after the verb and goes through a stage in which they are not produced. After all, in Spanish, omission of subject pronouns is very common, the assumption that object pronouns could also be omitted should not be surprising. Ironically, one IL principle which normally causes positive transfer, transfer to somewhere (Andersen, 1983) may confuse the L2 learner even more and prompt the production of empty object pronouns.

According to this principle, if an L1 element or structure agrees with the natural acquisition order and there is plenty of evidence in the input that it is the same in the L2, transfer will take place. This occurs with the transfer of the basic order SVO. However, pronoun placement differs. The L2 learner would not expect to find this difference as there is plenty of evidence in the input that word order in the two languages follows the same rules. As a result, this failure to perceive the L2 pronouns may occur. However, it is difficult to account for the difficulty in overcoming this difference: the results of the experiment show that the advanced learners produced as many empty object as subject pronouns, although subject pronouns are more common. This suggests that empty object pronouns do not decrease at the same rate. The reason is that other issues interact with transfer making it harder for the L1 learner to move to a different IL stage. In the case of pronouns, pragmatic rules are also acting. In IL, especially in their earlier stages, there is a tendency towards a restricted or simplified use of elements. Zero anaphora is often used and pronouns do not take place. If the element is easily recovered from the context because it has been previously mentioned zero anaphora persists even when the L2 does not allow it. Once more, the Spanish L1 option of allowing zero anaphora with subjects reinforces this IL feature. Besides, non-lexical words are the ones usually realised as empty because they are not so crucial in communication. They can be left out without preventing communication from being successful. In this way, the production of empty categories are the result of a selection process, considered by Selinker (1992) as one of the main characteristics of transfer. Not all words or elements are produced as empty categories, the L2 learner chooses which ones will be.

The involvement of pragmatics and the use of zero anaphora explains why, in the advanced group, empty subjects still occur at a significant rate, especially if compared with other empty categories. One unexpected finding in the experiments was that the same number of empty personal and inanimate pronouns were produced by the advanced learners. It could be expected that more empty inanimate subjects would occur like in the other groups because it is the obligatory option in Spanish. A plausible answer to this is that the differences between the two languages play a lesser role at this stage and pragmatic issues become more important. As a result, no differences exist in the production of empty subjects; pragmatic recoverability becomes crucial and affects all types of subjects in the same way.

Empty pronouns are not the only example of the interaction of different phenomena with transfer. It can be considered this to be the norm. Actually, in all empty categories a rule of semantic simplification would apply, that is, those words lacking lexical content are prone to be realised as empty in IL. This realisation would be triggered by other phenomena such as transfer.

Numerous examples of empty categories in which several principles work in tandem are found in IL. More issues than those considered above are often involved in the production of empty subject pronouns, such as phonetic differences between the L1 and the L2. In Spanish the cluster/ts/, present in the frequent contraction "it's", is not possible. The L2 learners, especially those with no or little formal instruction may not even be aware that there is an impersonal subject pronoun in the contraction normally used in colloquial speech. Even if they are, they won't be able to produce it. This causes the transfer of the Spanish option and the higher number of empty pronouns related to the English contraction. The results support this hypothesis, as in the beginners' group, which has had less contact and experience with the L2, 43\% of empty subject pronouns involve this construction and in the immigrants' group $33 \%$ while in the intermediate $23 \%$ and in the advanced $22 \%$ (only 7 cases among all informants).

Another example of interaction of phenomena is the production of empty prepositions in preposition stranding constructions, those in which the preposition is placed at the end of the phrase, apart from its object, as found in example (6) above: "If she hasn't got anyone else to go /e/." On the one hand, the L2 speaker tries to reproduce a target structure that has been learnt or taken from the input; on the other hand, transfer from Spanish also takes place, as no preposition can licence a null object, that is, a preposition is not allowed to stand on its own in Spanish. The failure to perceive the L2 preposition is not only motivated by the structural differences between the two languages but also by the distance between the preposition and its object. Slobin (1973) proposed some operating principles or universal language processing strategies that act in language acquisition, based on the acquisition of up to 40 different native languages. One of them states that the interruption or rearrangement of a linguistic unit must be avoided. Discontinuous elements are harder to process (Slobin 1973: 199-200). The result is a characteristic IL element, which does not exist in the L1 or L2 but is in between them, another important feature of IL.

Sometimes, it is difficult to determine whether transfer is directly involved in the occurrence of the empty category or is motivated by a different process. In (14) below:
(14) We didn't suffer because /e/ our family ("of" is the hypothesised /e/)
the empty category may be related to two different phenomena. On the one hand, it can be a transfer from Spanish; as in the equivalent Spanish structure the preposition por would be normally used. Thus the IL one-to-one principle would apply and a wrong equivalence would be established between this one
word preposition and the English conjunction because. The preposition would be left out. But, at the same time, there may be an overgeneralization from the causal conjunction introducing an embedded cause clause, which does not take a preposition. It is very plausible that both phenomena take place simultaneously and reinforce each other. Something similar to this occurs in cases in which transfer interacts with simplification as in (15) and (16) below:
(15) For how long /e/ you stay here? ("will" is the hypothesised /e/)
(16) What /e/ you like? ("do" is the hypothesised /e/).

Both cases are examples of transfer as the future tense is formed in Spanish by adding a morpheme to the verb root and not with a modal verb. Besides, the simple present tense is also possible in Spanish in (15). In (16) there is nothing equivalent to "do" support to form questions in Spanish; this is done, normally, by inverting the position of subject and object. But apart from transfer, it must be taken into account that the simplification of the verb system and auxiliaries is another common feature of IL. Lexical verbs are normally used along with other forms such as adverbs that replace the semantic content added by auxiliaries.

The simultaneous operation of various phenomena plays an important role in Selinker's IL theory. The multiple effects principle proposed by Selinker and Lakshmanan (1992) states that when several phenomena work simultaneously in IL, the structures involved cannot be destabilized using "consciousness raising strategies", that is, they are beyond the learner's control, even after receiving corrective feedback and explicit instruction about them. As a consequence, fossilization will occur. This may explain why the empty categories considered above were still found in the IL of advanced L2 learners.

Another manifestation of transfer is avoidance (Schachter 1974). The avoidance of certain L2 structures was the responsible for the fact that not many types of certain empty categories were found in the experiments. One example involves the above mentioned preposition stranding structures, which were mainly produced by the advanced learners and the immigrants' group. Another one is that of phrasal verbs, which were constantly avoided by all groups, including the advanced. Phrasal verbs also reveal another type of transfer: conceptual transfer (Jarvis 1999). An example of an empty category such as (8) above: "And he goes quickly without taking his clothes /e/", is also a straightforward case of transfer: in Spanish phrasal verbs simply don't exist, so the Spanish speakers will tend to use just a lexical verb and avoid the particle. But the differences between the two languages imply something more complex; they underlie two different ways of representing and conceptualising reality. In

Spanish the one word lexical verb that is used, focuses on the result of the action, this is what the Spanish verb quitar would show; the action is presented as finished. English uses a lexical verb that establishes the general action and a particle (a preposition or adverb) which indicates the manner of that action and makes the meaning more precise (on vs. off, in vs. out, etc.); the action is presented not as a result but as an ongoing action. This type of transfer is especially interesting when instead of an empty preposition we have an empty verb, as in example (9) above: "After I /e/ back to Stambore again". Here the result interpretation that the Spanish verb usually has is transferred to an English preposition associated with this idea of result. As a consequence, an empty verb is produced.

Something similar occurs in cases associated with another transfer principle: transfer to nowhere (Kellerman 1995). Very frequent empty adjectives such as that in (12) above: "How old are you? Fifty six years /e/" illustrate the difficulty to transfer certain conceptual structures into the L2. In Spanish age is expressed, in a way, as a possession the person has: that is why the verb tener is used. In English, age is expressed as a characteristic or quality in a person, that is why both the verb to be and the adjective old are used. The actual age (" 24 ") modifies the adjective old to specify the age. The target language underlies a different conceptual representation, which is very difficult to acquire, even in very basic structures like this which, despite being learnt and used quite early, persist in IL and were even found in the intermediate group in experiment II.

## 5. Conclusions

The findings of the two experiments carried out with Spanish learners of English in different contexts of acquisition demonstrate that empty categories are governed by IL principles and are heavily influenced by transfer. Similarly, they are the result of a selection process made by the L2 learner. Transfer is involved in the majority of cases of empty categories across all groups. This occurs to such an extent that most manifestations of transfer can be found in different examples of them. Empty categories are produced as a consequence of applying principles such as the one-to-one principle. As found by previous scholars (Selinker and Lakshmanan 1992), transfer often works simultaneously with other phenomena. In most cases of empty categories, several issues are in operation (semantic and grammatical simplification, overgeneralization, phonetic differences between L1 and L2, easy recoverability of the antecedent) All of them underlie semantic simplification: only words with no lexical content and which are not absolutely necessary for communication to be successful are
candidates to be realised as empty categories. If this condition applies, they will be triggered mainly by transfer but also by other phenomena such as overgeneralization. The various factors acting at the same time (overgeneralization, simplification, phonetic and pragmatics issues) reinforce each other to the point that IL fossilization may occur, as the multiple effects principle establishes. Avoidance also takes place with some elements normally related to empty categories such as preposition stranding constructions or phrasal verbs. Finally, some types of empty categories such as empty phrasal verbs or verbs are also the result of another complex types of transfer: conceptual transfer, which underlies a different representation of reality. From all this, it can be concluded that empty categories reflect the operation of transfer and other SLA principles in IL in a very significant way.

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## APPENDIX: EXTRACT FROM AN INTERVIEW

## Subject 13. Intermediate group

I: How old are you?
S: I'm 23 and I'm in my last year and I am from Orense and I have one brother and three sisters but they are all older than me and very, very old. My, my older sister has 42 so she could be my mother instead of my sister, so we have a huge difference among us, so am practically the son, daughter, daughter of my mother, I live with my mother and we are alone.

I: How long have you been learning English?
S: From school, from primary school, since I had three years. But the things you learn in primary school are very easy and even boring, they are no very interesting things that help you to learn and you (xxx xxx), they are very kind of soft, introductions to the primary language, so I, I became interest in English about, when I was more or less 14 years. And I think + since + that age I, I put all my emphasis in learning English but.
I: So you were born in Orense, weren't you?
S: Yes.
I: And what languages do you speak?
S: Spanish and English.
I: And English, OK, great. And have you ever been to an English speaking country?
S: Yes, I have been in Edinburgh, in, when I was 18 years old and I was in, I have been in Dublin when I was 17 but I go one month.
I: For one month each time.
S: And I visit London one week in Easter for, for the Institute.
I: So you have been to an English speaking country about three times.
S: Yes, but not very integrated.
I: So, when did you go to Dublin? In summer?
S: Yes, in July.
I: And what did you do there?
S: I was with a family and in, in their, her house and in Dublin I have, I had a good time. I was with other Spanish students and we went to a school.

In the mornings we had lessons, lessons and in the afternoons we had visits, visits to, to towns near Dublin, to museums, to theatres and all kind of activities and then, at night we had, some nights we had free time so we can met the other students and go around. We were very young, so we basically did nothing at all. It was a good experience.

I: When you went out where did you go?
S: To pubs, some, some of us went to pubs but others didn't because my group, we, we were very ( $\mathrm{x} x \mathrm{x}$ ) and we dressed up and we made up to, to appear, to have an older appearance and to, to be able to go to the pubs because there if you under 21 or younger than 19 in, in many places you have to, to do, to do, to give the appearance of, you have more age that you really have but.

I: That was when you went to Dublin, where did you say you had been to?
S: Dublin and Edinburgh.
I: Ok, so Edinburg, what about Edinburgh?
S: I had, I had more luck with my family because the, the, the woman of my, let's say my mother was a very young woman and they (xxx) and she had common interests with me and we talk a lots about many things and I spent more, most of the time in, at home because I like very much that woman and she, I learnt a lot with her.

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