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THE INTERPRETATION OF OVERT AND NULL PRONOUNS IN NON-NATIVE SPANISH*

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Abstract

At advanced levels of proficiency L2 learners can achieve native-like competence (e.g., Kanno, 1997; Pérez-Leroux & Glass, 1997, 1999). However, other studies report that learners only achieve near-native competence and show representational deficits despite long immersion in the L2 (Hawkins, 2000; Sorace, 1993). Interestingly, these claims derive from different types of property within Universal Grammar (UG). The former studies focus on universal principles, whereas the latter investigate properties which UG allows to vary (within limits) and attribute lack of native-like competence to L1 influence on the L2. An interesting question is whether this is the expected pattern in SLA: that advanced L2 speakers will always show native-like competence where principles are involved, but persistently fossilise on language-specific differences.

In this study a principle and a language-specific property in the acquisition of non-native Spanish are considered. In particular, I investigate two pronominal constraints: the Overt Pronoun Constraint (OPC) (Montalbetti, 1984, 1986) and the Contrastive Focus Constraint (CFC).

An experiment was designed to compare sensitivity to both constructions in advanced learners of Spanish (Greek natives and English natives). Results suggest that both non-native groups' behaviour towards OPC constructions is not different from Spanish native speakers, whereas only English natives differ from Spanish natives in CFC constructions. If the OPC is a principle of UG, as has been claimed, this supports the prediction that advanced learners can achieve native-like competence on properties which differ from the L1 but derive from universal principles of grammar design. By contrast, the problems which English, but not Greek, speakers have with the CFC support the claim that language-specific properties are potential targets for fossilisation.

1. Introduction

Recent Second Language Acquisition (SLA) studies report that highly proficient L2 learners do not necessarily achieve near-native competence even with long immersion in the target language. That is, post-childhood end-state grammars are characterised by optionality

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(Parodi, 2001), incomplete/divergent representations (Sorace, 1993), fossilised steady-states (Lardiere, 1998) and persistent selective fossilisation (Franceschina, 2001; Hawkins, 2000, 2001).

There are, however, other studies showing that L2 learners can construct native-like representations of constructions which are underdetermined by the L2 input and which are not instantiated in their L1, posing a typical poverty-of-the-stimulus problem for the learner (e.g., Kanno, 1997, 1998; Marsden, 1998; Pérez-Leroux & Glass, 1997, 1999).

In this paper I discuss a case where both kinds of phenomena turn out to be displayed: overt and null pronouns in non-native Spanish. First, I will describe the distribution of overt and null pronominal subjects in Spanish and how it is constrained by the phenomena under investigation (the OPC and the CFC). Then, SLA studies dealing with these phenomena will be reviewed. Finally, I report on an experimental study conducted to ascertain learners' different knowledge of the two phenomena in L2 and L3 Spanish. The aim of this study is, therefore, to trace the source of such divergence in learners' knowledge.

2. Distribution of overt/null pronouns in Spanish

It is well known that in null-subject languages like Spanish and Greek, overt pronominal subjects (e.g., *él* 'he', *ella* 'she'; *aftos* 'he', *afti* 'she') can be either overtly realised, (1a) and (2a), or optionally dropped, (1b) and (2b). However, non null-subject languages permit only overt pronouns (3a) in finite clauses².

- | | | |
|--------|-----------------------------------|-----------|
| (1) a. | <i>Él/ella</i> tiene poco dinero | (Spanish) |
| | b. <i>pro</i> tiene poco dinero | |
| (2) a. | <i>Aftos/afti</i> ehei liga lefta | (Greek) |
| | b. <i>pro</i> ehei liga lefta | |
| (3) a. | He/she has little money | (English) |
| | b. * <i>pro</i> has little money | |

It seems reasonable to assume *a priori* that overt and null pronouns are in free alternation in null-subject languages. However, there are two constraints on pronominal subjects, namely, the Overt Pronoun Constraint and the Contrastive Focus Constraint.

2.1. Overt Pronoun Constraint (OPC)

In null-subject languages, an overt pronoun in an embedded clause cannot be bound by a quantified expression in a main clause whenever the alternation overt/null pronoun is

² As an anonymous DWPL points out, null subjects are occasionally permitted in English. Indeed, English null pronouns may sporadically occur in 'diary contexts' in matrix clauses (Haegeman, 1990), but they are certainly not permitted in embedded clauses (Nuñez del Prado *et al.*, 1994). In Spanish, null subjects are permitted both in matrix and subordinate clauses.

possible. This restriction is known as the Overt Pronoun Constraint (OPC) (Montalbetti, 1984, 1986).

Consider (4a) and (4b), where the overt pronoun *él/aftos* ‘he’ and the null pronoun *pro* could be in free alternation. The OPC, however, disallows *él/aftos* to take the quantified determiner phrase (QDP) *cada estudiante/o kathe mathitis* ‘each student’ as a possible antecedent. Only *pro* can act as a bound variable here. In this case, the previous context biases an interpretation where the QDP and the subject of the following embedded clause are coreferential. Note that in (4b) the QDP *each student* can indeed bind the overt pronoun *he* as there is no overt/null alternation in English (i.e., *pro* is not allowed in English).

- (4) **Context:** The government has published a report about students’ financial situation. The report concludes that...
- a. *cada estudiante_i dice *él_i/pro_i que tiene poco dinero.* (Spanish)
 - b. *o kathe mathitis_i lei *aftos_i/pro_i ehi liga lefta.* (Greek)
 - c. *each student_i says that he_i/*pro_i has little money.* (English)

The strong claim about the OPC is that it seems to be a universal invariant for the following reasons:

- (i) Similar effects can be found in other pro-drop Romance languages like Portuguese, Italian, Greek (Montalbetti, 1984, 1986) and in typologically unrelated languages like Chinese (Xu, 1986) and Japanese and Korean (Kanno, 1997).
- (ii) In learnability theory, the OPC represents a typical case of a poverty of the stimulus phenomenon, since the ungrammatical construction [**QDP_i ... overt_i*] is not present in the Spanish input (neither in L1 acquisition nor in L2 acquisition). Input in the form of positive evidence alone does not contain ungrammatical expressions. Therefore, OPC knowledge must be part of UG principles (see Pérez-Leroux & Glass, 1997, for discussion).
- (iii) OPC constructions are never explained in textbooks (Kanno, 1997; Marsden, 1998, 2001; Pérez-Leroux & Glass, 1997, 1999). Therefore, instruction can be discarded as the source of knowledge of OPC.

2.2. Contrastive Focus Constraint (CFC)

In contrast to (4), the context in (5) biases an interpretation where the overt pronoun *él/aftos* ‘he’ is coreferential with one of the discourse referents (*Mr López* or *Ms García*), and not with the QDP (*cada estudiante/o kathe mathitis*).

- (5) **Context:** Mr López_j and Ms García_k work at the university and at a famous publishers. However...
- a. *cada estudiante_i dice que él_j/*pro_j tiene poco dinero.* (Spanish)
 - b. *o kathe mathitis_i lei aftos_j/*pro_j ehi liga lefta.* (Greek)
 - c. *each student_i says that he_j/*pro_j has little money.* (English)

Although there is a potential alternation here between an overt pronoun and *pro*, contrastive focus environments in Spanish (and Greek) require an overt pronoun (Pérez-Leroux & Glass, 1997). Furthermore, because one of the referential antecedents, *Mr López*, is specified for [+masculine] and the other, *Ms García*, is specified for [–masculine], the overt pronoun *él/aftos* ‘he’ or *ella/afti* ‘she’ is required, depending on whether we want to focus on *Mr López* or *Ms García*. A null pronoun *pro* would cause ambiguity since it can be specified for either [±masculine] simultaneously and, therefore, neither of the discourse referents can be contrastively focused.

3. A review of native-like competence in L2 end-states: the role of UG and L1

It has been known for some time that English learners of Spanish can acquire the overt/null pronoun alternation from the earliest stages of acquisition (e.g., Al-Kasey & Pérez-Leroux, 1998; Liceras, 1989, 1997; Lozano, forthcoming; Phinney, 1987). However, it is still debatable whether learners’ knowledge of the overt/null distribution is similar to the knowledge of Spanish natives.

Pérez-Leroux & Glass (1997) investigated adult acquisition of the distribution of overt/null pronominal subjects in L2 Spanish by natives of English. Subjects had had a minimum of 7 years of exposure to Spanish and were considered very advanced (n=12) or near natives (n=4). A control group (n=18) of Spanish natives also participated in the study. Two tests were administered to subjects, (i) OPC environments and (ii) CFC environments. In the OPC condition, 4 sentences biased for a [QDP_i ... NULL_i] joint interpretation and the other 4 for a [QDP_i ... OVERT_j] disjoint interpretation.

The joint-interpretation results indicate that learners used significantly more null subjects (88%) than overt subjects (0%), as the OPC predicts. The disjoint-interpretation results indicate that learners used significantly more overt subjects than in the joint-condition story (34% vs. 0%). Pérez-Leroux & Glass (1997:159) conclude that ‘these results indicate a sensitivity to OPC effects in the grammar of highly fluent L2 speakers of Spanish.’

Crucially, OPC effects are not instantiated in English (since English does not allow null pronouns), hence the impossibility of assuming language transfer.

Since the possibility that lower proficiency-level learners may not be sensitive to the OPC cannot be excluded, Pérez-Leroux & Glass (1999) replicated their 1997 experiment with learners of elementary, intermediate and advanced proficiency levels. Results confirmed their previous (1997) findings. This supports the claim that ‘the OPC is operative at all stages in the acquisition of Spanish.’ (Pérez-Leroux & Glass, 1999:235).

In CFC contexts (Pérez-Leroux & Glass, 1997), results show that both groups’ grammatical usage of overt pronouns (36% natives, 20% learners) is lower than the ungrammatical use of null pronouns (54% natives, 61% learners). The authors acknowledge that ‘these percentages [...] fall short from the idealized intuition that the target response was unequivocally the overt pronoun.’ (Pérez-Leroux & Glass, 1997:159). Thus, this last result does not settle the issue of whether L1 influence on language-specific constructions like the

experimental groups (learners) consisted of Greek natives and English natives.⁶ The Spanish control group consisted of peninsular Spanish natives (mainland Spain) and South-American Spanish-speaking natives (Argentina, Mexico and Venezuela). The English native group consisted of British English native speakers. These were undergraduates at the University of Essex (UK), where they were tested. The Greek native group consisted of Greek natives studying Spanish at several institutions in Athens (University of Athens, Estudio Español and Centro de Lengua Española). Only learners with a proficiency level of $\geq 80\%$ (advanced) were included in the study.⁷

Table 1: Subjects

Group	Number	Language configuration		
Spanish natives	n=9	L1 Spanish		
English natives	n=19	L1 English	L2 Spanish	
Greek natives	n=20	L1 Greek	L2 English	L3 Spanish

6. Method

An acceptability judgement test (AJT) was used. Subjects had to judge whether a given sentence was more or less *acceptable* (as opposed to *grammatical*). Each stimulus consisted of a contextualising sentence (12) and two target sentences, (12a) and (12b).⁸ Each target sentence was accompanied by a 5-point Likert rating scale. Value +2 corresponded to *completely* acceptable and value -2 *completely* unacceptable.

(12) El señor López y la señora García trabajan en la universidad y en una famosa editorial.
No obstante...

(a) cada estudiante dice que él tiene poco dinero. -2 -1 0 +1 +2

(b) cada estudiante dice que tiene poco dinero. -2 -1 0 +1 +2

‘Mr López and Ms García work at the university and at a famous publishers.
However...’

‘each student says that he has little money’

‘each student says that has little money’

The AJT test consisted of twelve target sentences (6 OPC, 6 CFC) and twelve distractors. Two training stimuli were placed at the beginning of the test plus two stimuli at the end were used to control for tiredness effects on learners.

⁶ Note that OPC and CFC constructions are operative in L1 Greek but not in L1 English. These cross-linguistic differences enabled us to test the role of UG and L1 transfer in non-native Spanish acquisition.

⁷ The Spanish placement test used was the University of Wisconsin Placement Test, Form 96M (University of Wisconsin, 1998). An extra placement test in English, the Oxford Placement test (Allan, 1992), was administered to Greek natives. The threshold was ≥ 80 .

⁸ Note that if the contextualising sentence is not provided, both target sentences (*a* and *b*) are grammatical in adult Spanish. Therefore, in order to bias towards one interpretation (overt or null pronoun in the embedded clause), a context is needed.

Target stimuli were constructed following a factorial design (Table 2) to ensure that subjects were not reacting to OPC or CFC constructions randomly. While an overt pronoun is ungrammatical in OPC cases, it is grammatical in CFC cases. In this way, it was ensured that subjects were not rejecting overt pronouns in all contexts.

Table 2: Test design (target stimuli)

	indices (joint=OPC/disjoint=CFC)	
pronoun (overt/null)	*QDP _i ...OVERT _i	QDP _i ...OVERT _i
	QDP _i ...NULL _i	*QDP _i ...NULL _i

The type of pronominal subject in the embedded clause was either an overt third person pronoun (50% of the time *él* ‘he’ and 50% *ella* ‘she’), or a null pronoun *pro*. The type of binding between the matrix QDP and the subordinate overt/null pronominal subject was of two types: joint coreference (OPC constructions) and disjoint coreference (CFC constructions).

Three universal quantifiers were used for each condition, namely, *todo el mundo* ‘everybody’, *cada X* ‘each X’ and *ningún X* ‘no X’. Each of these appeared twice in each condition.

In order to avoid extraneous variables, several measures were taken. Presentational effects were avoided by using (i) overt pronouns 50% of the time in the *a* sentence, and 50% of the time in the *b* sentence and (ii) two versions of the test with the same sentences but different sequential order. Sentences were also randomised in each version of the test, following Cowart’s (1997) ‘blocking’ procedure. Vocabulary was also controlled, including beginners’ vocabulary only (González et al., 1995) so that learners could clearly understand the sentences. The target sentence length was also controlled. It never exceeded nine words.

The completed and usable tests were finally coded in the statistical package Excel (version 97) and analysed in SPSS (version 9.0).

7. Results

Before analysing the data with the help of inferential statistics, we checked whether our subjects’ sample was normally distributed. The one-sample Kolmogorov-Smirnov test showed that our sample did not differ statistically from the Normal distribution ($p \geq 0.05$ for each group in each condition). Thus, it can be safely assumed that our sample was normally distributed.

7.1. OPC results

As the error bar chart in Figure 1 shows, there are two constructions in the OPC condition—the grammatical construction [QDP_i ... NULL_i] where the quantified expression is bound by a null pronoun, and the ungrammatical condition [*QDP_i ... OVERT_i] where the quantified expression is bound by an overt pronoun. The Y axis scale represents the mean acceptance rate for each group in the Likert scale (from -2 to +2).

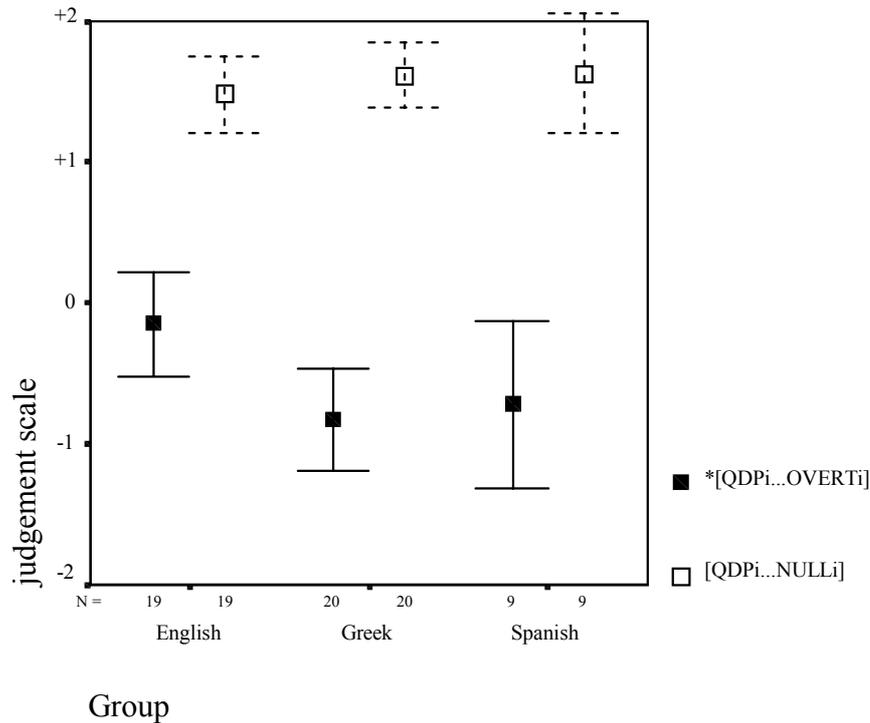


Figure 1: OPC results: acceptance rates of overt/null pronoun

The error bar chart (Figure 1) clearly shows that each group discriminates between the ungrammatical construction (overt pronoun) and the grammatical construction (null pronoun). A paired-samples t-test confirmed this. Each pair (grammatical vs. ungrammatical construction) is statistically significant for each group ($p < 0.01$ for each comparison). This suggests that Spanish natives as well as learners discriminate between the grammatical and the ungrammatical constructions, since all groups disfavour an overt pronoun interpretation (hence the negative values) and prefer a null pronoun interpretation (positive values), as Table 3 shows. This is what the OPC theory predicts.

Table 3: Mean acceptance rates of overt/null pronouns in OPC contexts

	English	Greek	Spanish
overt	-0.15	-0.82	-0.72
null	1.48	1.61	1.62

Between-group comparisons (one-way ANOVA with post-hoc Tukey HSD tests) were performed. Each group of learners was compared against the Spanish native performance. Results revealed the following:

- (i) For the grammatical construction (null pronoun), there are no significant differences between each group of learners and the Spanish natives ($F(2,45)=0.395, p=0.68$).
- (ii) For the ungrammatical construction (overt pronoun), there are significant differences ($F(2,45)=4.059, p=0.02$). Post-hoc tests reveal that there is a difference between

English and Greek natives ($p=0.02$). However, we are only interested in comparing learners against the Spanish native norm. Further comparisons show that each group of learners is not different from Spanish natives.

English = Spanish ($p=0.169$)

Greek = Spanish ($p=0.942$)

All these between-group comparisons indicate that the English speakers and the Greek speakers do not differ from Spanish natives. This suggests that learners are sensitive to the OPC.

7.2. CFC results

Figure 2 shows the acceptance rates of overt/null pronouns for the CFC condition. As can be observed, the overt pronoun construction, $[QDP_i \dots OVERT_j]$, is now grammatical, whereas the null pronoun construction, $[*QDP_i \dots NULL_j]$, is ungrammatical.

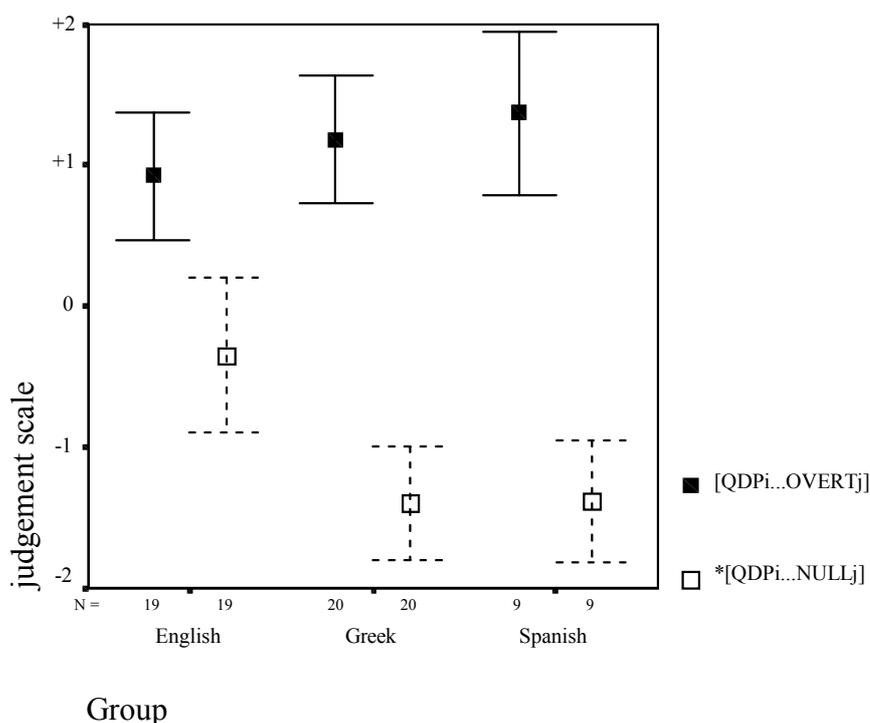


Figure 2: CFC results: acceptance rates of overt/null pronoun

Within-group comparisons for each group (paired samples t-test) reveals that each pair (grammatical vs. ungrammatical construction) is statistically significant for each group ($p<0.01$ for each comparison). Similarly to what occurred in the OPC condition, natives as well as learners distinguish between the grammatical and ungrammatical CFC constructions with degrees of acceptance above and below zero respectively (see Table 4).

Table 4: Mean acceptance rates of overt/null pronouns in CFC contexts

	English	Greek	Spanish
overt	0.92	1.18	1.37
null	-0.35	-1.40	-1.39

As with the results in the OPC condition, between-group comparisons were performed (one-way ANOVA with post-hoc Tukey HSD comparisons). Each group of learners was compared against the Spanish natives' performance. Comparisons revealed the following:

- (i) In the grammatical construction, (overt pronoun), there were no significant differences between groups ($F(2,45)=0.806$, $p=0.45$). The same occurred in the OPC condition.
- (ii) In the ungrammatical construction, (null pronoun), there was a significant difference ($F(2,45)=7.047$, $p<0.01$). Post-hoc revealed a significant difference between English-Spanish but no significant difference between Greek-Spanish:
 English \neq Spanish ($p=0.025$)
 Greek = Spanish ($p=1.000$)

8. Discussion

The OPC results are compatible with previous findings (Kanno, 1997, 1998; Marsden, 1998; Pérez-Leroux & Glass, 1997, 1999). Greek speakers behave like Spanish natives, discriminating between grammatical and ungrammatical OPC constructions. Since such constructions are operative in Greek, it could be argued that Greek speakers' knowledge of the OPC derives from their L1. But, crucially, English learners also behave like Spanish natives, even though the OPC is not operative in English. In short, both groups of learners show knowledge of the OPC to the same statistical extent as Spanish natives do.

Recall that OPC constructions are (i) never explained in textbooks and (ii) they represent a typical poverty of stimulus phenomenon. The most viable explanation seems to be to propose that L2/L3 learners' knowledge of OPC phenomena is constrained by a principle of UG, as predicted in (8).

The CFC results are similar to the OPC results but they differ in one vital respect. Greek learners behave similarly to Spanish natives in both the grammatical and the ungrammatical conditions. This is predicted in (11) since (i) *pro* is an existent category in their Greek L1 and (ii) the feature specification of *pro* is identical in Greek and Spanish. In short, Greek natives will not show any representational deficits. English speakers also behave similarly to Spanish natives in the grammatical condition, but not in the ungrammatical one. Even though English natives correctly reject ungrammatical *pro* in CFC contexts, their rejection rates are significantly weaker than those of the Spanish natives (i.e., they accept more *pro* than Spanish natives in contexts where its interpretation is infelicitous).

In native Spanish, CFC contexts require one of the two referents (either *Mr López* or *Ms García*) to be focused contrastively, hence the need for an overt pronoun specified for [+masc] or [-masc]. A null pronoun *pro*, however, causes ambiguity because it can be simultaneously interpreted as [\pm masc]. As (11) predicted, English natives' low rejection of ungrammatical *pro* suggests that their grammatical knowledge allows an option with the least restrictively specified set of features, namely [\pm masc].

There is some circumstantial evidence to support the claim that such lack of restrictiveness⁹ could be due to pronominal feature specification in their L1. Examples (13)-(15) were gathered from different sources and all of them correspond to adult English grammars.

- (13) *The speaker_i* in the sample seems to make particular mistakes in this part of *their_i* utterances. (Linguistics exam, 10/7/01)
- (14) Complete the appropriate sections of the report form and pass it on to *your supervisor_i* for *their_i* comments. (Official letter, 12/6/01)
- (15) *Everyone_i* knows it, don't *they_i*? (Southern English radio station, 21/6/01)

The referential DPs *the speaker* (13) and *your supervisor* (14), and the quantified DP *everyone* (15) are, in principle, specified for [\pm masculine] since the sex of the referent in the discourse is unknown. Likewise, the corresponding pronouns *their* (13)-(14) and *they* (15) are specified for [\pm masculine], which is the least restrictive option. Certainly, the use of *he* or *she* would restrict the choice of antecedent to [+masculine] or [-masculine] respectively.

These observations are purely circumstantial and need further research to corroborate whether the use of a [\pm masculine] pronoun like *they*, instead of a more restrictive pronoun like [+masculine] *he* or [-masculine] *she*, is part of adult English grammars.

While the conclusions presented here are an attempt to argue that both UG and the L1 can be the source of knowledge in adult language learning, their validity is certainly subject to methodological limitations. Only interpretational tasks were used, which says nothing of the learners' production of pronominal subjects. There are, however, production data on OPC and CFC constructions, which also support the claim that UG constrains the interpretation of pronominal subjects in OPC contexts (Pérez-Leroux & Glass, 1997).

9. Conclusion

The present study examined the interpretation of overt and null pronouns in OPC and CFC contexts by learners of Spanish as an L2 and L3. OPC constructions are determined by universal principles, whereas CFC constructions are determined by language-specific features. Results suggest that learners of Spanish obey the OPC despite both their L1 and their L2 configuration. Thus, the universality of the OPC does not cause representational deficits or fossilisation at end-states. However, learners' knowledge of the CFC is conditioned by their L1, which can cause persistent fossilisation if L1 features do not match L2/L3 features.

By themselves, these conclusions are relatively modest; particularly, the CFC results as it has been known for several decades that the L1 is the privileged source of transfer in SLA. But our proposal goes beyond this well-known fact. We maintain that UG constrains L2 and L3 adult grammars with respect to principles like the OPC. However, knowledge of CFC constructions is influenced by the learners' L1. In light of these considerations, it seems

⁹ The economy principle (Chomsky, 1995) requires representations to be minimal, with no superfluous symbols. It is plausible to propose that the grammar of English advanced learners of Spanish is constrained by this general principle in CFC constructions.

reasonable to conclude that the L1 is the key to representational deficits at advanced levels of proficiency.

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