

# Full Access and Age Effects in Adult Bilingualism: An Investigation of Spanish Accusative Clitics and Word Order

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## 1. Introduction

This study is part of a larger research project contrasting adult L2 learners (late bilinguals) and adult bilingual speakers of minority languages (early bilinguals) of low-to-intermediate proficiency in Spanish. Our overall aim is to understand the role of *age of acquisition* in *incomplete* adult bilingual grammars in a variety of grammatical areas, especially those that are notoriously problematic for L2 learners of Spanish.

A comparison of these two types of bilinguals is significant to falsify theories of L2 competence which maintain that late bilinguals differ from monolingual and bilingual children with respect to access to Universal Grammar, such as the positions maintained by Bley-Vroman (1989) (the Fundamental Difference Hypothesis) or by Meisel (1997). These theories predict that early bilinguals, who received input during the age of early syntactic development, should show evidence of early parameter setting even in their weaker language, whereas late bilinguals, who received input after puberty, should show no evidence of parameter resetting in the L2. By contrast, theories of Full Access, which pose that even if there is L1 influence, Universal Grammar is operative regardless of age of acquisition (see White 2003), predict that parameter resetting is possible in adult postpuberty bilinguals. To address these issues, we report preliminary results from two experiments conducted to test the acquisition of clitic pronouns and alternative word orders in Spanish using different but complementary methodologies.

## 2. Accusative clitics

In Spanish, clitic pronouns precede finite verbs, as shown in (1b) and (2), and follow non-finite verbs, as shown in (3). (The opposite word orders with finite and non-finite verbs are ungrammatical.)

- (1) a. Patricia vio a mi abuela/ la película.  
Patricia saw A my grandmother/the movie  
'Patricia saw my grandmother/the movie.'
- b. Patricia la vio./ \*Patricia vio la.  
Patricia her/it saw  
'Patricia saw it.'
- (2) Juan lo mira todos los días./ \*Juan mira lo todos los días.  
'Juan watches it everyday.'
- (3) Ana canta la canción sin entenderla bien./ \*Ana canta la canción sin la entender bien.  
'Ana sings that song without understanding it well.'

In restructuring contexts, that is when there is a sequence of a (modal) finite verb and an infinitive as in (4), object clitics can stay low after the infinitive or climb up before the conjugated verb. Unlike in French, the clitic in Spanish cannot appear in between the finite verb and the infinitive.

- (4) Olga lo puede comprar./ Olga puede comprarlo./ \*Olga puede lo comprar.  
 ‘Olga can buy it.’

Spanish topicalizes objects in clitic left dislocation constructions, as in (5). In this construction, clitic doubling is obligatory in most dialects of Spanish.

- (5) Juan tiene las carpetas en la oficina./ Las carpetas las tiene Juan en la oficina.  
 ‘Juan has the folders in the office’/ the folders them has Juan in the office.’

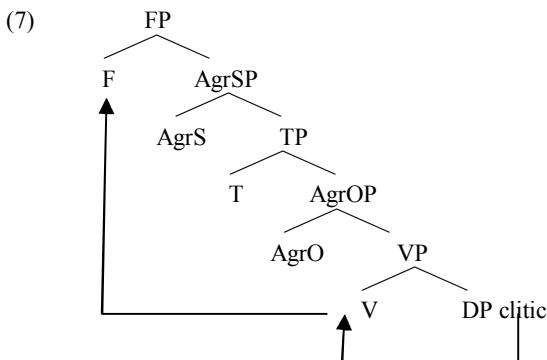
While L2 learners of Spanish are taught and learn clitic pronouns, there is evidence that alternative word orders are potentially confusing at first. VanPatten and Cadierno (1993) reported that instructed beginner/intermediate English-speaking learners have difficulty interpreting the argument structure of sentences with clitics and these Spanish alternative word orders, particularly when the clitic precedes the verb and is in sentence initial position, as in (6):

- (6) Lo besa la mujer.  
 him kisses the woman  
 ‘The woman kisses him.’

It appears that beginning L2 learners often adopt an SVO processing strategy, which causes them to incorrectly interpret sentence initial object clitics as subject pronouns (*\*He kisses the woman*). VanPatten and Cadierno implicitly claim that English-speaking L2 learners initially treat object clitics in sentence initial position as subject pronouns.

### 3. Theoretical assumptions

Following the basic tenets of Chomsky (1995), we assume that parameters are in the lexicon. Under this view, languages differ in the inventory of functional categories (with their associated features and feature values) they instantiate in their grammars. That is, we will assume that in Romance languages clitic pronouns head their own functional projections, as in Uriagereka (1995). According to this analysis Romance clitics raise from AgrOP to a functional projection FP, located above AgrS and somewhere in the CP, to check referential features, as shown in (7). Movement to F is determined by morphophonological and prosodic considerations, and to license an associated *pro*. The position of clitics with respect to the finiteness of the verb in Spanish and other Romance varieties is also related to the strength of Agr features on finite and non-finite verbs in Spanish.



While the specific details of the analysis are not relevant to the present study, what is crucial for our purposes is the assumption that there is an important parametric difference between Spanish and

English, because English lacks clitic projections. This raises the question of whether L2 learners who are late bilinguals can acquire functional projections that are not instantiated in their L1 grammars.

#### 4. Previous studies of Spanish clitics in L1 and L2 acquisition

Normally developing monolingual children produce object clitics around age two. Some studies have reported incidents of clitic/object omission errors (Fujino and Sano 2002), while others have reported gender agreement errors with clitics (Domínguez 2003). The interesting finding is that children hardly ever make clitic placement errors with finite and non-finite verbs. Object fronting and clitic left dislocations (*i.e.*, topicalizations), being part of the left-periphery, emerge soon afterwards, before age 3 (Grinstead 2004).

The situation in L2 acquisition is somewhat different. Several studies of intermediate and advanced L2 learners of Spanish have reported that L2 learners eventually acquire clitic pronouns in Spanish. However, L2 learners whose L1 is French, which also has clitic pronouns, and hence clitic projections; should show “transfer” effects, although errors should be minimal. In fact, French learners of Spanish frequently make clitic placement errors, especially at very beginning stages. Clitic placement errors have also been observed in English-speaking learners of Spanish, even though English is assumed to lack clitics (Liceras 1985, Bruhn-Garavito and Montrul 1996, Duffield and White 1999). As for adult early bilinguals, Montrul (2004) reported that intermediate and advanced Spanish heritage speakers have solid knowledge of accusative and dative clitics and their placement in Spanish, behaving like monolingual native speakers in this respect.

#### 5. Theories of L2 acquisition

A perennial debate in generative approaches to L2 acquisition centers around the nature of L2 grammars acquired after a critical period, or whether L2 grammars are acquired through the same language specific mechanisms assumed to characterize L1 acquisition by children. Another related question is whether L2 learners acquire the *same* linguistic competence as native speakers, especially in cases where their native language does not include a given property instantiated in the target language, such as a principle, a parameter, or a specific functional category. In general terms, these theories are broadly classified into three main positions—*Full Access*, *Partial Access* and *No Access*—according to whether and how Universal Grammar is involved. (See White 2003 for a more comprehensive overview of these theories.)

According to *Full Access* views, L2 learners can acquire functional projections, features and feature values that are not part of their L1 (Schwartz and Sprouse 1996, Epstein, Flynn and Martohardjono 1996, Lardiere 1998, White 1996, Prévost and White 2000) at any age. Proponents of the *Partial Access* views contend that adult L2 learners can only learn properties of the L2 that are also instantiated in their L1, but cannot learn beyond that (Bley-Vroman 1989, Schachter 1990, Hawkins and Chan 1997). Finally, the *No Access* position maintains that adult L2 acquisition does not involve UG or parameter setting at all (Meisel 1997). While monolingual and bilingual first language acquisition does involve access to UG (Meisel 2001), adult L2 learners learn a second language through other general learning mechanisms. What the *Partial* and *No Access* views have in common is the assumption that full access to UG is not possible due to an age effect caused by a critical/sensitive period.

While theories of *Full Access* predict no differences between early and late bilinguals with regards to potential level of linguistic attainment, theories of *Partial* and *No Access* predict an advantage for early bilinguals. Based on these theories, our predictions for the present study are as follows:

- If English-speaking late bilinguals (postpuberty L2 learners) have no access or partial access to Universal Grammar, due to the late onset of their acquisition, and cannot transfer clitic projections from English, they should be unable to acquire clitics (*i.e.*, AgrO and FP) and clitic placement in Spanish. (Alternatively, they could learn to use clitics through general learning mechanisms, or use “misanalysis” to appear to acquire clitics.)

- By contrast, proficiency-matched adult early bilinguals (heritage speakers), who received input early in childhood, should have solid knowledge of clitics and word order in Spanish like native speakers, because this knowledge is acquired quite early in normally developing monolingual Spanish-speaking children.

## 6. The study

*Participants:* Thirty-five bilinguals and 15 monolingual native speakers from Spain, Argentina and Mexico participated in two experiments. The bilinguals were undergraduate students enrolled in lower division Spanish classes at a major research university in the Midwest. The bilingual group was split into two groups based on age of onset of bilingualism. One group consisted of 19 English-speaking L2 learners of Spanish of low-to-intermediate proficiency in the language. Their mean age of onset of Spanish learning and first exposure to the language was 13.7. The other group consisted of 16 proficiency and age-matched early bilinguals. These were English-dominant heritage speakers of Mexican Spanish born, raised and schooled in the US. These bilinguals spoke Spanish at home in early childhood and began exposure to English during the period of early syntactic development (birth to 4–5). At the time of testing, they reported that English was their dominant language and Spanish their weaker language. All participants, including the native speakers, took the vocabulary and cloze sections of a standardized Spanish proficiency test (DELE) to establish a baseline of overall proficiency in the language. Because the purpose of our study was to detect a potential age effect in incomplete bilingual grammars rather than at endstate, to be part of this study the bilinguals had to score below 60% on this test.

### *Experiment 1*

In experiment 1, the bilinguals and the monolinguals completed a web-based off-line grammaticality judgment task. The task consisted of 90 sentences with accusative and dative clitics (45 grammatical and 45 ungrammatical), like those in (1)–(6) (i.e., clitics with finite, nonfinite and restructuring verbs and clitic-left dislocations, sentences with clitics in subject position *\*La cocina buenas empanadas*, and other ungrammatical sentences to counterbalance the conditions). Sentences were presented in randomized order. Each sentence was followed by a 5-point likert scale, ranging from 1 = totally ungrammatical to 5 = perfectly grammatical. Subjects were instructed to read each sentence and to follow their intuitions to rate each sentence on the scale as quickly as possible. No reaction times were measured, and subjects were not asked to correct ungrammatical sentences.

### *Results*

Mean judgment scores per sentence type were submitted to statistical analysis. To compare means within groups one way ANOVAs were computed. Contrasts between grammatical and ungrammatical sentences within groups were computed through paired-samples t-tests. Figure 1 presents the results of ungrammatical sentences with accusative clitics in subject position, such as *\*La cocina buenas empanadas*. 'Her cooks good meat pastries.' Although all groups judged these sentences closer to the 1-point of the scale (unacceptable), there was a significant difference between groups ( $F(2,47) = 8.320$ ,  $p < 0.001$ ). The mean judgment score of the late bilingual (L2) group was different from that of the control group, but the mean judgment score of the early bilingual (HS) group was no different from the mean judgment score of control group and the late bilingual (L2) group.

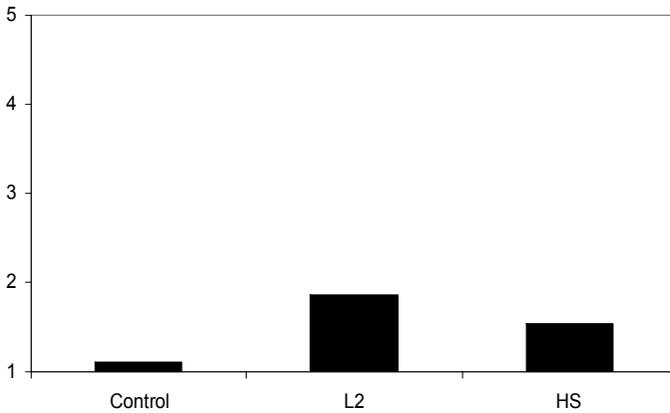


Figure 1. GJT: Mean judgment score on ungrammatical sentences with clitics in subject position.

Figure 2 contrasts grammatical and ungrammatical sentences with finite verbs, to see whether bilinguals know that clitics must be placed before finite verbs (*Mario lo compró ayer* vs. *\*Mario comprólo ayer*). All groups showed the same pattern of response: they accepted grammatical sentences and rejected ungrammatical sentences, and the mean judgment score was significant at the .05 level for the three groups. There was a significant difference between the control and the bilingual groups with the grammatical ( $F(2,47) = 4.830, p < 0.013$ ) and with the ungrammatical sentences ( $F(2,47) = 6.047, p < 0.005$ ), but no statistical difference between the two bilingual groups.

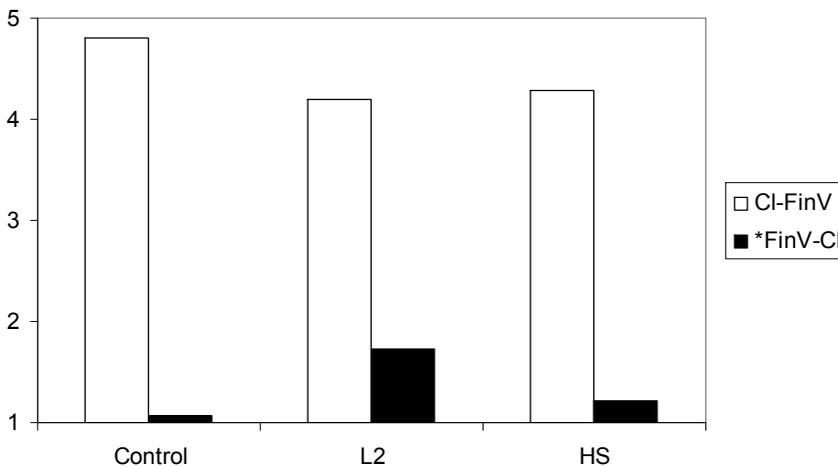


Figure 2. GJT: Mean judgment scores on sentences with finite verbs and pre-verbal and postverbal clitics.

Figure 3 presents the mean judgment scores of sentences with clitics and non-finite verbs, to see whether bilinguals know that clitics follow non-finite verbs (*Aprenderlo es fácil* vs. *\*Lo aprender es fácil*). All groups accepted grammatical clitic placement (*Aprenderlo es fácil*) and rejected the ungrammatical one (*\*Lo aprender es fácil*). There were differences between the control and the bilingual groups with the non-finV-Cl order ( $F(2,47) = 5.538, p < 0.007$ ) and the \*Cl-non-finV order ( $F(2,47) = 7.300, p < 0.002$ ). There were no differences between the early and late bilinguals.

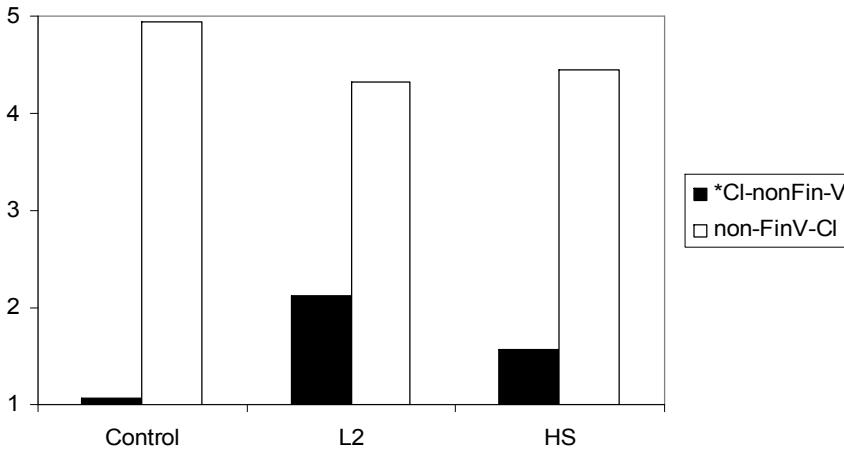


Figure 3. GJT: Mean judgment scores on sentences with non-finite verbs and pre-verbal and postverbal clitics.

Figure 4 displays the mean judgment scores of sentences with clitics in restructuring contexts. Recall that with these constructions, clitics precede the conjugated verb (*Lo quiero comprar*), or follow the infinitive (*Quiero comprarlo*), but cannot appear between the finite verb and the infinitive (*\*Quiero lo comprar*). Results show that all groups are aware of these patterns: all groups accepted clitics before the conjugated modal (ModInf1) and after the infinitive (ModInf3), and rejected the clitic between the two verbs (\*ModInf2).

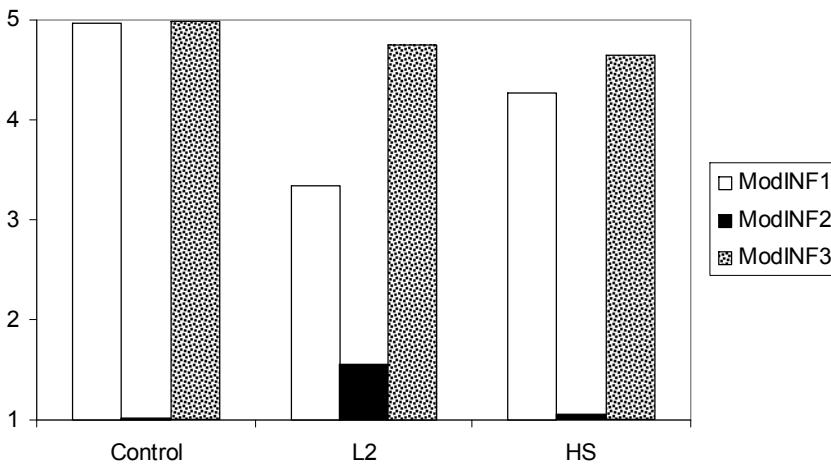


Figure 4. GJT: Mean judgment scores on sentences with restructuring verbs (finite verb + infinitive) and clitics.

There were significant differences between the three groups in clitic climbing constructions, or ModInf1 ( $F(2,47) = 19.462, p < 0.0001$ ), but no differences between groups with clitics after infinitives (ModInf3). The L2 learners accepted more ungrammatical sentences (\*ModInf2) than the HS and control groups ( $F(2,47) = 5.782, p < 0.006$ ), who did not differ from each other.

Figure 5 contrasts SVO (*Juan compró ese libro*) vs. O-cl-VS (*Ese libro lo compró Juan*), or clitic left dislocations, where the direct object is topicalized. Both sentences are grammatical in Spanish.

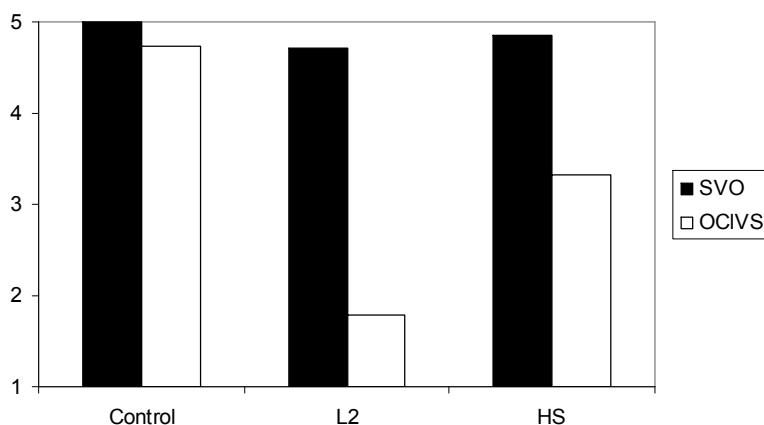


Figure 5. Mean judgment scores on SVO and O-Cl-V-S sentences with accusative clitics.

All groups accepted SVO sentences close to ceiling (*i.e.*, 5-point mark), and there were no significant differences between groups. While the control group treated topicalizations as acceptable as SVO sentences, the bilingual groups judged them significantly less acceptable (L2:  $t = 11.345$ ,  $p < 0.0001$ ; HS:  $t = 4.662$ ,  $p < 0.002$ ) than SVO structures. The early bilinguals, however, were closer to the control group because they judged clitic left dislocations significantly more acceptable than the late bilinguals ( $F(2,47) = 46.716$ ,  $p < 0.0001$ ).

To summarize, the results of the off-line grammaticality judgment task showed that early and late bilinguals know that clitic pronouns are not subjects. Both groups had comparable knowledge of clitic placement with finite and non-finite verbs, and in restructuring contexts. In this respect, and despite the fact that the bilinguals tested here are of low-to-intermediate proficiency in the language, they displayed the patterns of response of the monolingual control group. That is, all groups knew that clitics precede finite verbs and follow non-finite verbs. Where early and late bilinguals differed significantly was in their acceptance of clitic left dislocations (O-cl-V-S) (*Ese libro lo compró Juan*), which are grammatical in Spanish: here, the early bilinguals (HSs) rated these sentences statistically more acceptable than the L2 learners. Based on these findings, the question that arises is whether late bilinguals have difficulty processing sentences that do not follow the SVO order, such as sentences with sentence initial clitics and topicalizations.

## Experiment 2

We conducted a second experiment with the same participants using an on-line visual picture-sentence matching task. The procedure was as follows. Participants were presented with two pictures, A and B, on a computer screen with a sentence underneath. The pictures were taken from the Spanish textbook *Sabías que?* (VanPatten, Lee and Ballman 1992, 2<sup>nd</sup> edition) and VanPatten (1996). They depicted the same action, but with the participants reversed (e.g., *a boy calling his parents* vs. *the parents calling their son*). Participants had to decide as quickly as possible which picture the sentence described, by pressing A or B on the keyboard. The time (in milliseconds) was measured from the presentation of the slide until the participant made a decision and pressed the A or B key. The target pairs of pictures appeared 4 times, with one of the following sentences with alternative word orders underneath. The task included 20 target sentences (5 of each), 10 distracter and 10 filler items.

A

B

a. *Lo llaman por teléfono sus padres.* (CI-V-S)  
 him call by phone his parents

b. *Juan llama por teléfono a sus padres.* (S-V-O)  
 Juan calls by phone A his parents.

c. *Sus padres lo llaman por teléfono.* (S-CI-V)  
 his parents him call by phone

d. *A sus padres los llama Juan por teléfono.* (O-CI-V-S)  
 A his parents them call Juan by phone

## Results

The two dependent variables in this task were accuracy and reaction times. Before submitting the data to statistical analysis the raw data was examined to detect potential outliers. One subject in the control group, 3 subjects in the L2 group, and 2 subjects in the heritage speaker group were dropped due to the high error rate (more than 25%) and longer RT means (above 2 standard deviations from the mean for the group). Thus, the results kept for this experiment came from 14 controls, 16 L2 learners and 14 heritage speakers. Distracter items, which were included to make sure participants understood the task, were also examined for accuracy and RTs for the remaining subjects. Mean accuracy on distracters was as follows: control group 100%, L2 learners 97% and heritage speakers 98%. There was no statistical difference between these means ( $F(2, 41) = 1.886, p < 0.166$ ). As for mean RTs on distracters, these were 2408 for the control group, 3072 for the L2 group and 2469 for the heritage speaker group. The mean RTs of the control and the heritage speaker groups did not differ from each other, while the mean RT of the L2 group was statistically longer than the means of the control and heritage speaker groups.

Table 1 shows the overall mean accuracy and the overall mean RT on correct responses for the experimental sentences. There was a significant difference between groups in accuracy ( $F(2,41) = 12.012, p < 0.001$ ) and in RTs ( $F(2,41) = 9.129, p < 0.001$ ). In terms of accuracy, the two bilingual groups did not differ from each other, but they differed from the control group. As for speed, the control and the early bilinguals did not differ from each other, but they both differed from the L2 learners (late bilinguals).

Table 1: Overall mean and standard deviations for RT and accuracy on the 4 experimental sentence types combined

	Accuracy		RTs	
Control	94.5%	(5.4)	3766	(596)
L2	80.7%	(9.8)	5055	(759)
HS	80.7%	(13.8)	4120	(783)

Figure 6 and Figure 7 show the mean accuracy and mean RTs for the four experimental sentence types. A repeated measures ANOVA on accuracy revealed a main effect for sentence type ( $F(3,41) = 28.856, p < 0.0001$ ), for group ( $F(2,41) = 16.135, p < 0.0001$ ), and a group by sentence type interaction ( $F(6,41) = 7.671, p < 0.0001$ ). Except for the SVO type, the L2 group was significantly more inaccurate than

the control and the heritage speakers with the three sentence types containing clitics (S-CI-V, CI-V-S and O-CI-V-S). (There were no differences between groups with the SVO sentences ( $F(2,41) = 2.263$ ,  $p < .119$ ).

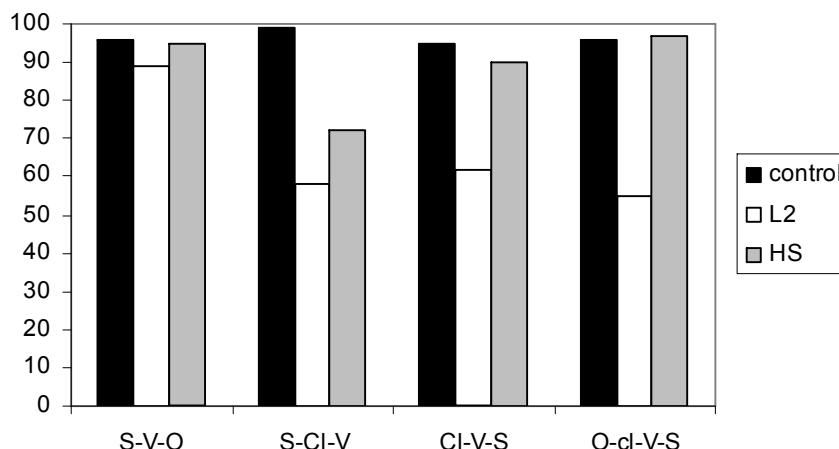


Figure 6. Visual picture-sentence matching task. Mean accuracy scores on sentences with accusative clitics. (Correct responses only).

The statistical analysis on reaction times presents a similar pattern. A repeated measures ANOVA yielded a significant main effect for group ( $F(2,41) = 12.200$ ,  $p < 0.0001$ ), for sentence type ( $F(3,41) = 25.692$ ,  $p < 0.0001$ ) and a sentence by group interaction ( $F(6,41) = 2.200$ ,  $p < 0.048$ ). According to a post-hoc Tukey procedure, the control and the early bilingual (HS) groups were not different from each other, while the L2 group was significantly slower on all sentences containing clitics. As with the accuracy scores, the mean RTs between groups for the SVO sentences were not significantly different from each other ( $F(2,41) = .311$ ,  $p < 0.735$ ).

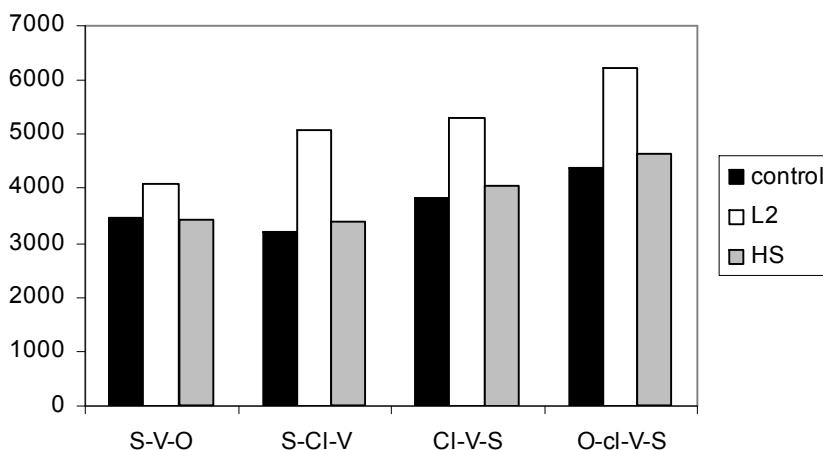


Figure 7. Visual picture-sentence matching task. Mean reaction times (in msec.) on sentences with clitics.

To summarize, the results of the on-line visual picture matching task showed an advantage for early bilinguals over late bilinguals with all sentences with clitics. The early bilinguals were more similar to the late bilinguals in overall accuracy but very similar to the monolingual control group in reaction times. That is, the early bilinguals and the monolinguals also showed faster latencies than late

bilinguals with all sentences containing clitics, and especially with sentences containing objects in sentence initial position (clitics or topicalizations).

## 7. Discussion

The purpose of this preliminary study was to investigate whether early bilinguals (heritage speakers) have more native-like knowledge than late (postpuberty) bilinguals (L2 learners) of Spanish clitics and alternative word order due to the fact that they were exposed to naturalistic input early in childhood. Current theories of L2 competence within the generative tradition make different claims about the potential linguistic competence attainable by late bilinguals. While theories of *Full Access* predict no differences between early and late bilinguals with regards to potential level of linguistic attainment, theories of *Partial* and *No Access* predict an advantage for early bilinguals. Two experiments were conducted to test these predictions.

The overall results of the off-line grammaticality judgment task testing grammatical and ungrammatical sentences with clitics and clitic placement showed that early and late bilinguals performed alike. Even though the late bilinguals were more inaccurate than the early bilinguals at rejecting sentences in some conditions, the two bilingual groups showed the same pattern of responses as the monolingual control group; that is, they correctly accepted grammatical sentences and correctly rejected ungrammatical sentences with ungrammatical word orders. In short, all groups knew that clitics precede finite verbs and follow non-finite verbs in Spanish. This pattern of responses is consistent with the hypothesis of Full Access to Universal Grammar, as many other previous studies of the acquisition of clitic projections by English and French-speaking learners of Spanish and French have found (Bruhn-Garavito and Montrul 1996; Duffield and White 1999 for Spanish, and White 1996; Duffield et al. 2002 for French). Thus, L2 learners whose first language lacks clitics (i.e., English speakers) are able to acquire new functional projections not instantiated in their language, contrary to what the *No Access* and *Partial Access* views claim.

Nevertheless, a clear age effect, or an advantage for early bilinguals, was found with clitic left dislocations, which the late bilinguals judged less acceptable than the early bilinguals. Since clitic left dislocations fall within the domain of the syntax-pragmatics (information structure) interface, this result could be attributed to a delay of acquisition of the left-periphery in L2 learners but not in early bilinguals, especially given the fact that the participants tested here were of low-to-intermediate proficiency in the language.

The discrepancy found with clitic left dislocations in the off-line task was further demonstrated in the second experiment, which utilized an on-line measure (visual picture-sentence matching task) to assess processing of sentences with clitics and alternative word orders. The overall finding of this experiment was that while the two bilingual groups were comparable in their accuracy scores on the experimental sentence types, the mean RT responses of the early bilinguals (heritage speakers) were faster than those of the late bilinguals, and not different from those of the monolingual control group, with all the sentence types containing clitics and objects (NP or clitic) in sentence initial position. Such substantial advantage for early bilinguals in sentence processing, which was clearly revealed in the on-line task but not so much in the off-line grammaticality judgment task, strongly suggests that early bilinguals appear to have more native-like knowledge of clitics than late bilinguals, even when they have low-to-intermediate proficiency in the language. This may be due to the fact that the clitic system was acquired early in childhood, before age 4, as in monolingual children. By contrast, late bilinguals, who have been exposed to Spanish in a classroom setting, may have more metalinguistic knowledge of Spanish word order at this point in their development, and are still in the process of acquiring the Spanish clitic system.

There are two possible ways, both compatible in our view, to interpret these results. Within a generative perspective these results indicate that while L2 learners have acquired new functional categories (clitic projections) in Spanish, they have not yet acquired the specific features that regulate clitic left-dislocations and other structures related to the information-structure of sentences (Rizzi 1997, Sánchez 2003). Since we tested low-intermediate levels of proficiency, it is an open question whether these differences between early and late bilinguals will disappear at the advanced level. Thus, L2 learners have partially reset parameters, while early bilinguals have all parameters in place. (This result

is still compatible with Full Access because the learners are of low proficiency). The other possibility we want to entertain takes into account the cognitive distinction between declarative and procedural linguistic knowledge. It could be the case that L2 learners know about Spanish clitics because they have learned and practiced them in the classroom, using explicit instruction and metalinguistic knowledge. The early bilinguals are more accurate and faster on clitic-left dislocations, as if their linguistic knowledge were more automatic. Similar findings (i.e., early bilinguals faster than late bilinguals and closer to monolinguals) and differences between early and late French-English bilinguals are reported by Guillemon and Grosjean (2001) in their study of gender agreement in French using a psycholinguistic methodology. Whether such metalinguistic (or declarative) knowledge will become more automatic as proficiency increases is an open question that needs to be tested empirically with more advanced L2 speakers and early bilinguals, although it may be entirely possible (Green 2004).

In conclusion, it is possible to overcome the grammatical blueprint of the L1 in postpuberty L2 acquisition (or late bilingualism) (Schwartz and Sprouse 1996), but it may take some time. While both early and late bilinguals demonstrated some knowledge of Spanish clitics, the nature of such knowledge at this early stage of development may be quite different. L2 learners may have partially reset the clitic-related parameters at this stage. This knowledge of clitics appears to be implicit in early bilinguals but more explicit in late bilinguals (see Paradis 2004). Despite incomplete acquisition of the weaker language, exposure to a language early in childhood may bring added advantages to achieve automaticity of acquired linguistic knowledge in early bilinguals, especially with structures that are acquired very early in childhood, like clitic placement and topicalizations.

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