

The concept of bilingualism has been analyzed for a very long time. Its definitions range from native-like competence in two languages to a minimal proficiency in a second language. Hence one might question why no consensus has been reached in this matter. The authors of this volume imply that there exists a number of theoretical and methodological difficulties raised by older definitions. The notion of bilingualism has to be investigated from different perspectives reflected by the dimensions each individual intends to diagnose. The aim of the book is to review critically the state of the art in the field of bilingualism. The volume reveals the details of empirical studies conducted by scholars from Europe, America and Australia. It depicts a truly interesting spectrum of research topics starting with the educational aspects of bilingualism, such as: bilingual acquisition, bilingual parenting methods and bilingual kindergartens, to reveal various issues of sociolinguistics and even bilingual literature.

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Bilingual Landscape  
of the Contemporary World

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## **A Closer Look at Cross-Linguistic Influence in the Acquisition of Portuguese as a Heritage Language<sup>1</sup>**

### **Introduction**

Heritage speakers (HSs) are second- or third- generation immigrants who are born in the host country or immigrated in their childhood, growing up with two languages: the immigrants' minority language, henceforward called heritage language (HL), and the majority language of the host society. Normally, they have been exposed to their heritage language since birth, as it is the language spoken within the family. Exposure to the majority language may occur also from birth, or at the latest, when the immigrant child enters kindergarten or (pre)school. Therefore, the majority language is often defined as the L2 of heritage speakers; however, commonly the L2 becomes the dominant language of the immigrant child in the course of schooling and socialization, i.e. even though HSs become functional bilinguals who speak both languages in their daily life, they generally feel more comfortable in speaking the majority language. Exposure to the HL is mainly restricted to contact with the vernacular in communication within the family. Formal instruction in the HL is, if at all, limited to extracurricular courses offered once or twice a week in the afternoon or on Saturdays.

As a consequence of dominance shift from the L1 to the L2 that comes along with increasing multifaceted input from the majority language, it is sometimes stated that heritage speakers fail to acquire full competence in the L1 (E. Benmamoun, S. Montrul and M. Polinsky 2013) or develop a divergent HL grammar (Y. Pascual, D. Cabo and J. Rothman 2012). Both extralinguistic and linguistic factors are among the variables that are believed to play a role in the emergence of divergent HL knowledge. Insufficient L1 input may delay the acquisition of the HL, since the heritage child needs more time to gather sufficient positive evidence for the development of certain properties. This idea is in line with input-based

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proposals that link the rate of development of a minority language to the quantity of input the child is exposed to (V. C. M. Gathercole 2007, V. C. M. Gathercole and E. M. Thomas 2009, E. M. Thomas *et al.* 2014).

An exposure to qualitatively different input may further influence heritage language acquisition. Specifically, two different sources are stated to be at the base of qualitatively different input. First, the heritage speaker may be exposed predominantly to language varieties, e.g. colloquial registers, which lack certain structures so that the speaker does not acquire a structure because it is not present in the input. This seems to be the case, for instance, of the inflected infinitive in colloquial Brazilian Portuguese, which explains the poor performance of Brazilian heritage speakers tested by J. Rothman (2007) and A. Pires and J. Rothman (2009). Alternatively, heritage speakers may be exposed to attrited input, provided by their first-generation parents or grandparents, who have commonly lived in the L2 input for several decades (A. Gürel and G. Yilmaz 2011). Also, the lack of schooling, lower literacy skills and metalinguistic awareness of the HL may influence HSS' performance (E. Bylund and M. Diaz 2012; E. Rinke and C. Flores 2014). Additionally, maturational constraints may play a role. It has been shown that the loss of contact with one language in childhood leads to the loss of language skills in various linguistic domains (E. Bylund 2009, C. Flores 2010). If there are sensitive periods for the acquisition of different language domains (as suggested, for instance, by J. M. Meisel 2013), insufficient exposure during the optimal phase of acquisition may lead to an acquisition delay or failure.

In addition, linguistic factors are entangled with the extralinguistic variables listed above. For instance, it has been suggested that extensive L2 exposure accompanied by reduced L1 input makes it difficult for heritage bilinguals to keep properties of their heritage language separate from the dominant L2 system (e.g. binding properties as described by A. Gürel and G. Yilmaz 2011). A. Gürel and G. Yilmaz (2011: 241 *f.*), for instance, claim that dominant L2 transfer can only take place when the L1 and L2 have analogous forms. On the contrary, when the dominant L2 and the heritage language do not share a linguistic property, L2 transfer may not be directly relevant in the acquisition of this property in the HL. In this case, divergent performance of HSS would have to be explained on the basis of language-internal developmental hitches and not as consequence of cross-linguistic influence.

One major difficulty of HL acquisition research consists, precisely, in separating the effects of cross-linguistic influence, language attrition and divergent acquisition in adult heritage speakers (e.g. A. Albirini and E. Benmamoun 2014, A. Cuza and J. Frank 2015). In fact it is very difficult to determine exactly if problems shown

by adult bilinguals in their minority language are the result: 1) on the one hand, of loss of previously acquired properties of the heritage language in the course of acquisition of the majority language, or are due to the absence of acquisition of certain properties of the heritage language (M. Polinsky 2011); or 2), on the other hand, of transfer effects from the dominant language that hinder or slow down the acquisition of the heritage language or, are due to language-inherent unsteadiness (M. Ben-Rafael 2004, A. Gürel 2008) as a consequence of reduced input to one language.

Thus, in order to tear apart the effects of attrition, incomplete acquisition, cross-linguistic influence or protracted development independent of the dominant language, it is necessary to analyze not only adults, but also children, preferably at different stages of development (M. Polinsky 2011, A. L. Santos and C. Flores *in press*). Furthermore, the comparison of two different majority languages in contact with the target heritage language makes an important contribution in disentangling cross-linguistic influence from other processes, especially if the two majority languages differ with respect to the linguistic domain under analysis.

The present study attempts to circumscribe the effect of cross-linguistic influence in the acquisition of European Portuguese (EP) as a heritage language by comparing two different groups of heritage speakers of EP: Portuguese-French bilingual children, who live in France, and Portuguese-German bilingual children who are growing up in Germany. Particularly, we will focus on the speakers' knowledge of clitic placement in EP for two reasons. First, clitic placement is a complex grammatical domain in EP, which is stabilized late in L1 development (J. Costa, A. Fiéis and M. Lobo 2014). As shown in a previous study on the knowledge of clitic placement by EP heritage speakers living in Germany (C. Flores and P. Barbosa 2014), this domain poses difficulties for bilingual speakers who acquire EP in a minority language context, leading to delayed acquisition of this linguistic property. Second, French and German, the majority languages investigated in the present study, are very distinct with respect to clitics. This allows us to formulate different hypotheses concerning the role of the majority language in the development of this property in the HL.

For the purpose of this paper, we adjusted the data of two independent studies that applied the same method to elicit clitic placement in a Portuguese-French and a Portuguese-German bilingual group (M. Casa Nova 2014, C. Flores and P. Barbosa 2014, respectively). We then compared the results statistically using SPSS, version 19.1. In the next section we provide a brief overview of the linguistic property under investigation and, subsequently, we turn to the data analysis. We start by presenting the participants, the methods and the adjustments made

to the previous studies. Finally, we will present the results and follow up with a discussion in light of the comparison.

### 1. The linguistic phenomenon: clitic placement

In Romance, pronominal object arguments are realized as clitics, i.e. they are unstressed forms that are invariably displaced to a position that is adjacent to the verb carrying main inflection: they either immediately follow the verb or immediately precede it, depending on the syntactic context. In most Romance languages, pronominal clitics immediately precede the verb in finite clauses, as illustrated in the following French example:

- (1) Marie **les** lave.  
*Marie CL washes*  
 'Marie washes them.'

In European Portuguese (henceforth EP), however, a structure equivalent to the French example in (1) (with clitic-verb order; i.e. proclisis) is ruled out and enclisis (i.e. verb-clitic order) is the only option:

- (2) a. \*A Maria **as** lava.  
       *the Marie CL washes*  
       b. A Maria lava-**as**.  
       *the Marie washes-CL*  
       'Marie washes them.'

In French, the proclitic pattern is categorical in finite as well as infinitival clauses. In fact, the only case in which the enclitic pattern is found is in affirmative imperatives. In EP the position of the clitic with respect to the verb varies according to the context in a rather intricate pattern. Thus, enclisis is obligatory when the subject is a referring expression, but it is unacceptable when the subject is a nonreferring expression. Normally, object clitic pronouns occur in enclitic position:

- (3) Ele viu-o.  
       *he saw-CL*  
       'He saw him.'

Proclisis only occurs in the following contexts (P. Barbosa 2000):

- Subordinate clauses introduced by a complementizer.
- In Wh-phrases.

- Whenever Non-specific indefinite QPs, negative QPs, universal QPs or DPs modified by focus particles precede the verbal complex within the minimal CP that contains it.
- In contexts of sentential negation and negative adverbs.
- With aspectual adverbs (see 4).

- (4) O Pedro já / ainda o viu.  
       *the Pedro already / still CL saw*  
       'Pedro already / still saw him.'

In general, clitic placement is not sensitive to the status of the pronominal object: the clitic is subject to the same restrictions regardless of whether it is a direct object, an indirect object or a reflexive pronoun.

The complexity inherent to this phenomenon raises interesting problems for acquisition. This is why it is particularly suited to the topic at hand.

Moreover, this system is radically different from the German pronominal system. In contrast to EP and to French, German lacks pronominal clitics and only has weak and strong pronouns. The position of the object pronoun in relation to the finite verb depends on the pragmatic status of the object (whether it is a topic or (contrastive) focus), on the type of pronoun (strong or weak pronoun) and on the clause type (main or subordinate clause). Thus, the pronoun can immediately precede or follow the verb or other constituents may occur between the verb and the object pronoun (see 5).

- (5) Ich weiß, dass Paulo **ihn** gestern nicht traf.  
       *I know that Paulo HIM yesterday not met*  
       'I know that Paulo did not meet him yesterday.'

### 2. The acquisition of clitic pronouns by monolingual children

The acquisition of clitic placement by monolingual children of EP was studied by J. Costa, A. Fiéis and M. Lobo (2014). In order to test the behavior of the monolingual acquirers of EP, the authors set up an elicited production task which they applied to two different age groups: monolingual Portuguese speaking children in pre-school and school age, between 5 and 6 years old, and a control group made up of 20 adults. In general, the study showed that the speakers did not use proclisis in contexts that require enclisis in the target grammar. The reverse case, that is, the use of enclisis in contexts that require proclisis in the target grammar was attested in every group, and was particularly frequent in the groups of younger children. The authors concluded that there was a tendency to overgeneralize enclisis in

EP until advanced stages of development. Moreover, they observed that there is a hierarchy in the order of acquisition of the different contexts of proclisis, with negation being acquired first and quantified subjects acquired last. The authors propose that delayed acquisition of proclisis is due to the inherent complexity of clitic placement in the language. This topic is explored here, with a focus on the acquisition of clitics in a language contact situation.

The acquisition of pronominal clitic placement in French has been studied, by instance, by T. Gräter (2006), C. Hamann *et al.* (1996) and C. Jakubowicz and C. Rigau (2000). All authors say that clitic misplacement is virtually non-existent in French child language, i.e. monolingual French children hardly produce enclisis instead of proclisis. A hypothetical sentence like (6) is conspicuously absent from child French.

- (6) \*Elle mange la.  
*she eat CL*  
 'She is eating it.' (T. Gräter 2006: 25)

### 3. The study

#### 3.1 Participants

A total of 36 children/teenagers aged between 7 and 15 participated in the present study: two groups of bilingual speakers and one control group of monolingual children. The monolingual group included 12 participants in the age span between 7 and 12 years (mean = 8.67; Standard Deviation / SD = 1.61). All children were born in Portugal, never lived abroad and do not speak other languages, except for English, which they learn as a foreign language at school. The monolingual group is broadly the same of C. Flores and P. Barbosas (2014) study (with one exception).

The experimental groups comprised two bilingual groups: one of Portuguese-German bilinguals who live in Germany and another of Portuguese-French bilingual children who live in France. The biographic information about the bilingual speakers was collected through a sociolinguistic questionnaire, which was completed during an interview with the participant and a teacher or parent.

The group of Portuguese-German bilinguals, already described in C. Flores and P. Barbosa (2014), included 12 children/teenagers, aged between 7 and 15 (mean = 10.83; SD = 2.62). All children are heritage speakers of EP from Portuguese families with an immigration background. Nine participants were born in Germany; the other three immigrated with their parents before the age of 2.

The biographic-linguistic background of the participants included in this group is very similar. In all cases, Portuguese is the preferred home language,

but German is also spoken within the families, especially between siblings. The participants attend public German schools and indicate German as being the language they use more and feel most comfortable with. Their contact with Portuguese is mostly on an oral basis, through communication within the family and the community of Portuguese migrants living in the same city (Hamburg and Stuttgart in Germany). The speakers also have contact with Portuguese during the holidays spent in Portugal and, less frequently, through Portuguese TV. Additionally, ten participants are or were enrolled in heritage language programs, sponsored by the Portuguese government through the *Camões Institute*<sup>2</sup>, but the time span of heritage language instruction differs significantly within the group<sup>3</sup>.

The data of the EP heritage children who live in France was collected by M. Casa Nova (2014). In order to have identical linguistic backgrounds as the Portuguese-German bilinguals and the same number of participants, the original group of 18 participants was reduced to 12. All children tested by M. Casa Nova (2014) who had one French parent (instead of two Portuguese parents) were excluded from the present analysis. The remaining Portuguese-French bilinguals are between 8 and 12 years old, so their mean age (9.58%; SD = 1.38) is slightly lower than in the Portuguese-German group. The linguistic background of the HS living in France is very similar to the ones living in Germany. One child was born in Portugal but immigrated to France by the age of three. All other participants were born in France to Portuguese immigrant families living in Champigny-sur-Marne, near Paris. The children attend public French schools and are predominantly exposed to the majority language French. The exposure to Portuguese is limited to communication within the family. However, 10 out of 12 children speak more French to their parents than Portuguese, so that more intensive contact with the heritage language is provided by the grandparents who also live in France. All children visit Portugal annually during the summer holidays. Like the Portuguese-German bilinguals, most Portuguese-French bilinguals (10 out of 12) are or were enrolled in heritage language programs sponsored by the Portuguese Ministry for Education. All 36 children have similar socio-economic status, belonging to lower middle-class families.

<sup>2</sup> Available at: <<http://www.instituto-camoes.pt/>>.

<sup>3</sup> M. Casa Nova (2014) and C. Flores and P. Barbosa (2014) did not find effects of instruction on the knowledge of clitic placement in their bilingual groups, so we did not consider instruction in this comparative study.

### 3.2 Method

The test given to the participants consisted of an oral sentence reordering task with written support. The choice for a sentence reordering task is related to the fact that EP is a null object language, so that open clitic elicitation tasks allow the participants to omit the accusative or dative clitic. In this task, all items were given to the child in a random, non-linear presentation and the participants were instructed to use all given items. In order to reduce the effects of syntactic complexity, cognitive demands of the task and working memory, each sentence had a maximum of 4 items to be ordered (subject, clitic, verb, adverbial). The children were presented a story on a computer screen with two characters, a Portuguese boy and a foreign girl who had difficulties in constructing sentences in Portuguese. While the researcher assumed the role of the boy by reading his sentences aloud, the participant had to assume the role of the girl and 'help' her put the words together. The task was performed orally and had no limitations of time.

The version applied to the Portuguese-German group contained 18 test items and was more centered on proclisis placement (12 proclisis conditions: 4 enclisis conditions; two distractors), since it aimed at analyzing the bilinguals' knowledge of the different contexts for proclisis. Due to the nature of French, a predominantly proclitic language, the test given to the Portuguese-French group contained 22 items equally distributed among proclitic and enclitic conditions (10 items each; two distractors). The present comparative analysis is centered on the common proclitic items. Additionally, in a second step, the results of the Portuguese-French bilinguals in the enclitic conditions are discussed separately.

Three types of proclitic contexts were established:

- Constructions with sentential negation and negative adverbs:
  - (7) O João nunca **o** comprou.  
the João never CL bought  
'João never bought it.'
- Subordinate clauses:
  - (8) Eu disse que ele **as** comprou.  
I said that he CL bought  
'I said that he bought them.'
- Clauses introduced by adverbs or quantifiers
  - (9) Alguém **os** levou.  
someone CL took  
'Someone took them.'

Only accusative and reflexive clitics were used, combined with four different person/number categories (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> person singular and 1<sup>st</sup> person plural). The use of the clitic allomorphs *no/na* or *lo/la* was prevented by excluding verbal forms that end with vibrant consonants and nasals.

### 3.3 Research questions and predictions

The general question we want to answer in this study is the following:

1. Which role does the majority language play in the acquisition of the syntax of the heritage language?

In order to answer this general question, we formulated several specific research questions and predictions:

2. Does the presence of an analogous syntactic property in the majority language lead to cross-linguistic influence in contrast to a language pair that does not share this property, as suggested by A. Gürel and G. Yilmaz (2011)? And if this is the case, does cross-linguistic influence manifest itself as a facilitation effect?

If there is a facilitation effect, i.e. positive transfer from the dominant language, Portuguese-French heritage children will show less difficulties in producing proclitic constructions in EP than Portuguese-German bilinguals. French has a predominant proclitic pattern, whereas German does not have clitics at all. An advantage in the French group would mean that the Portuguese-French bilinguals acquire the Portuguese proclisis triggers with the support of French syntax.

If, on the other hand, Portuguese-French bilinguals show similar difficulties in producing proclitic constructions as the Portuguese-German bilinguals, then cross-linguistic influence does not play a predominant role in the acquisition of the heritage language syntax. Difficulties may be related to language-internal processes, such as complexity and an extended period of clitic omission, that are also known to be at play in monolingual acquisition, since also monolingual EP children struggle to acquire all the contexts for proclisis.

Furthermore, in native EP there is a well-attested tendency to replace proclisis by enclisis in early stages of clitic production. In the initial stages, EP children overgeneralize enclisis. If cross-linguistic influence is at play, Portuguese-French heritage children will substitute proclisis by enclisis at lower rates than monolingual EP children and Portuguese-German bilinguals, since enclisis is rare in the French grammar and misplacement errors absent in the acquisition of French.

3. In the case that the presence of proclisis in the French grammar facilitates the acquisition of proclisis in EP, is this facilitation effect shown in overall higher

rates of accuracy in the Portuguese-French group, or is it correlated with the acquisition speed, i.e. do Portuguese-French bilinguals acquire proclisis faster than Portuguese-German bilinguals?

If cross-linguistic influence operates in terms of speed of acquisition, then Portuguese-French bilinguals will, indeed, show higher rates of accuracy at younger age stages of development than Portuguese-German bilinguals.

4. Do older children produce higher rates of proclisis than younger children in the bilingual groups, i.e. are heritage children in the age span 7 to 15 still acquiring proclisis placement, or do they show a decline of proclisis production?

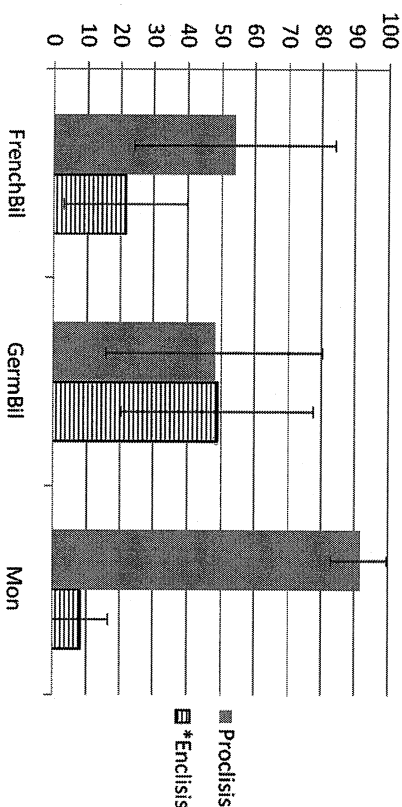
If older children in all groups present higher rates of proclisis than younger children, we can exclude the conclusion that attrition is at play in the development of this property. This allows us to disentangle cross-linguistic influence from attrition, an issue that is commonly presented as not being dissociable (E. Benmamoun, S. Montrul and M. Polinsky 2013, A. Gürel and G. Yilmaz 2011, M. Polinsky 2011).

### 3.4 Results

We will start by presenting intergroup comparisons based on overall accuracy rates in the proclisis contexts. We will then look at age differences and, finally, we will focus on the results of the additional enclisis task, performed only by the Portuguese-French group.

Figure 1 presents the mean rate of accurate proclisis and deviant enclisis production by the three groups. Since the variables are not normally distributed, the statistical analysis is based on non-parametrical tests.

Figure 1. Mean rate of accurate proclisis and deviant enclisis in comparison (with SD)



As already reported by C. Flores and P. Barbosa (2014), the monolingual EP children show an overall high rate of accurate proclisis production, which ranges between 80% and 100% (mean = 91.67%; SD = 8.35%). The seven children who do not use proclisis in all required contexts produce always the enclitic word order (mean = 8.33%; SD = 8.35%). The results indicate that the monolingual EP children have a very robust knowledge of proclitic constructions, even though there is some variation expressed in the use of enclisis instead of proclisis in some cases.

In the group of the Portuguese-German bilingual children, the accurate use of proclisis varies between 0% and 90% (mean = 48.33%; SD = 32.15). Similarly to the monolingual children, the Portuguese-German bilinguals tend to use enclisis in the cases when they do not produce proclisis (49.17% of enclisis; SD = 28.75). Only 2.5% of the experimental items correspond to the cases where the participants passed and did not complete the exercise. In this group, no participant reaches ceiling results, but three participants fall within the accuracy rate of the monolingual group, by producing 80%–90% of proclisis. As will be discussed below, these are the cases of older participants. The youngest child only uses enclitic constructions and three children produce only up to 20% of proclisis. The other participants lay within these accuracy values.

Also the Portuguese-French bilingual group presents high rates of variation. The rate of accurate production of proclisis also varies between 0% and 90% (mean = 54.17%; SD = 29.99). No participant reaches ceiling performance, but four children fall within the accuracy value of the monolinguals (80%–90%). Two children do not use proclisis at all (in this case, also the younger ones). The other 6 participants present accuracy rates of 40% to 70%.

If we look at the alternative responses, i.e. what the participants produce when they do not produce proclisis, the picture in this group is slightly different from the previous cases. While the monolingual and the Portuguese-German bilinguals tend to produce enclisis when they do not use proclitic constructions, the Portuguese-French bilinguals only produce 21.67% of enclitic word order (SD = 18.50). The other cases correspond to failure in performing the exercise. There is one case of omission of the clitic pronoun.

For the statistical analysis, we started by applying a Kruskal-Wallis test, which shows that there are significant differences between the three groups regarding the production of proclisis in this task ( $H(2) = 17.410, p < .001$ ). Follow-up Mann-Whitney tests with Bonferroni correction (so that the significance level is 0.17) indicate that the difference lies between the bilingual groups and the monolingual group (Mon vs. Germ Bil:  $U = 11.500, p < .001$ ; Mon vs. French Bil:  $U = 9.500, p < .001$ ), but not between both bilingual groups ( $U = 66.500, p = .749$ ). Thus,

the Portuguese-German and the Portuguese-French children show very similar performance in this grammatical domain, which is significantly lower than the monolinguals' performance.

Regarding the use of enclisis instead of the required proclisis order, the bilingual groups differ, however, as shown above. A Mann-Whitney test corroborates that the difference between both bilingual groups concerning the ungrammatical use of enclisis is significant ( $U = 30.500, p < .017$ ). Additionally, a Wilcoxon signed-rank test for related samples indicates that the difference between the use of proclisis and enclisis is significant in the Portuguese-French group ( $Z = -2.166, p < .05$ ), but not in the Portuguese-German group ( $Z = -0.045, p = .964$ ).

### 3.4.1 The age factor

Since previous studies on heritage EP have shown significant age effects in the age span between 7 and 15/16 (C. Flores and P. Barbosa 2014, C. Flores *et al.* 2016), in a second step we analyzed the speakers' responses by age. For this purpose, three age intervals were defined: the first interval comprised 7-8 year-olds, the second interval 9-10 year-olds and the third age span included the participants who were 11 or older.

Figure 2 shows the mean percentage of accurate responses (i.e. accurate use of proclisis) per age interval in the three groups.

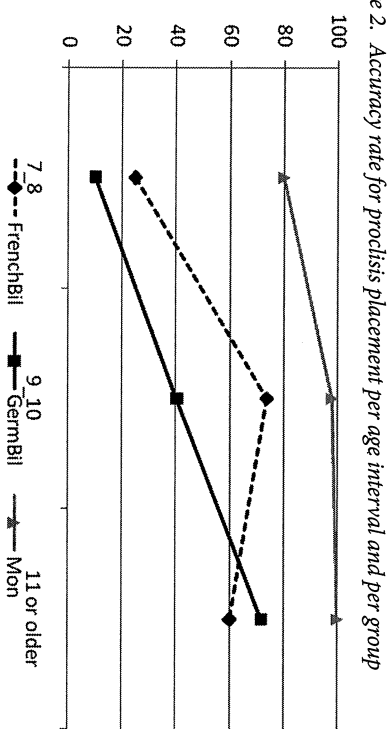


Figure 2. Accuracy rate for proclisis placement per age interval and per group

Several observations have to be made concerning the results presented in Figure 2. The first is related with the monolingual group, which shows an increasing performance from the youngest to the oldest age intervals. The 7-8 year-olds produce 80% of accurate proclisis, the 9-10 year-olds 98% and the older participants reach

ceiling performance. A Spearman correlation coefficient ( $r_s$ ) was computed to assess the relationship between the accurate use of proclisis and the age intervals. The results show a positive correlation between the two variables ( $r_s = .664, p = .019$ ). This corroborates J. Costa, A. Fiéis and M. Lobo's (2014) findings that knowledge of proclisis is stabilized late in native acquisition of EP.

Also the Portuguese-German bilinguals produce increasing rates of proclisis as they get older. While the youngest children only produce 10% of proclisis, this value increases to 40% in the age span of 9-10 years and reaches 72% in the older participants. A Spearman correlation coefficient ( $r_s$ ) confirms that also in this group there is a significant positive correlation between the accurate use of proclisis and age ( $r_s = .833, p = .001$ ).

The case of the Portuguese-French bilinguals is slightly different, since in this group there is a considerable age effect from the first to the second age interval, but not from the second to the third. The 7-8 year-olds produce 25% of proclisis, while the 9-10 year-olds use 74% of proclitic constructions. This value decreases slightly to 60% in the oldest child group. Consequently, a Spearman correlation coefficient ( $r_s$ ) shows no significant correlation between both variables in this group ( $r_s = .513, p = .088$ ).

### 3.4.2 The Portuguese-French bilinguals' results in enclisis conditions

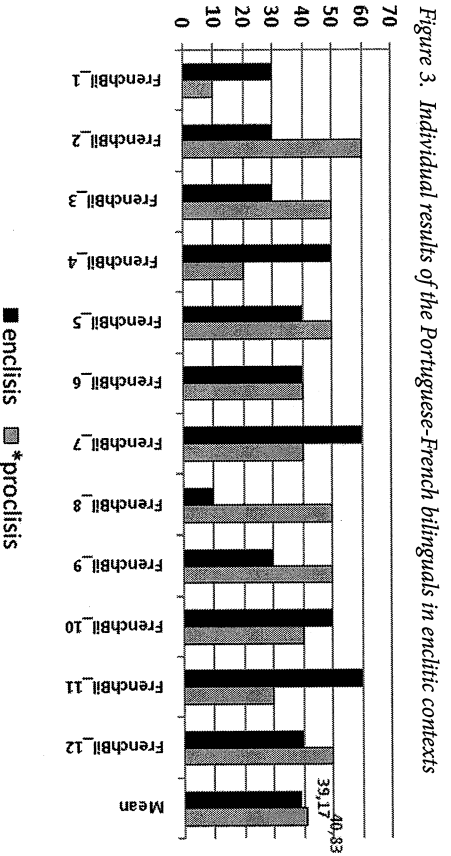
Finally we will focus only on the bilingual Portuguese-French group and analyze their performance in an additional enclitic condition. This decision is related to the observation that the Portuguese-French children did not show a clear tendency to use enclisis whenever they did not produce proclisis, as observed in the monolingual and in the Portuguese-German group. This indicates that Portuguese-French children might not only have problems with proclitic triggers, but also with enclitic structures, a fact that is not observed in native acquisition of EP. Consequently, the test applied to the Portuguese-French children by M. Casa Nova (2014) contained 10 items which required the use of enclisis<sup>4</sup>, namely SVO and null subject sentences (see 10).

- (10) Ontem eu/ Ø vi-a ali.  
Yesterday I saw-CL there  
'Yesterday I saw her there.'

4 The test applied by C. Flores and P. Barbosa (2014) to monolingual and Portuguese-German bilinguals only had 4 items which required enclisis, so we decided not to run statistical comparisons. Both groups performed at ceiling in the enclisis condition.



Figure 3 shows the individual results of the Portuguese-French children in the enclitic conditions. Note that in these conditions the use of proclisis is ungrammatical.

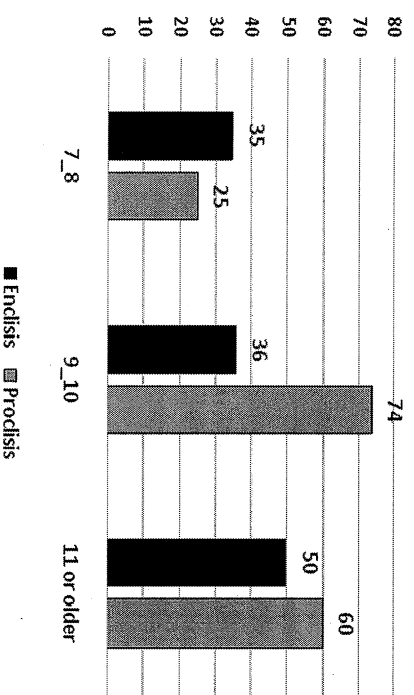


In this condition the rate of accuracy ranges from 10% to 60%; the mean rate is 39.17%;  $SD = 14.43$ ). Five children use more grammatical enclitic than ungrammatical proclitic structures; one child (FrenchBil\_6) produces the same number of enclisis and proclisis; the other six children use more ungrammatical proclisis than accurate enclisis in these enclitic contexts. The mean of ungrammatical proclisis is about 40.83% ( $SD = 14.43$ ), so it is very close to the grammatical use of enclisis. A Wilcoxon signed-rank test for related samples indicates that the difference between the use of enclisis and proclisis in enclitic constructions is not significant ( $Z = -.179$ ,  $p = .858$ ).

If we now compare the rate of accuracy in both conditions (the proclitic and the enclitic contexts), we conclude that, contrary to what is described for native EP acquisition and was also confirmed by C. Flores and P. Barbosa (2014) for Portuguese-German bilinguals, the Portuguese-French bilingual speakers do not perform better in enclitic than in proclitic contexts. The rate of accuracy is even lower in the enclisis contexts than in the proclisis conditions (39.17% vs. 54.17%). A Wilcoxon signed-rank test for related samples indicates that the difference between the accuracy rate in both contexts is not significant ( $Z = -1.338$ ,  $p = .181$ ).

Additionally, Figure 4 shows the Portuguese-French bilinguals' results in enclitic and proclitic conditions organized per age intervals:

Figure 4. Portuguese-French bilinguals' accuracy rate by age interval (proclitic and enclitic conditions)



The results show increasing accuracy in the enclitic conditions, from the younger up to the older children (35%–50%). However, only in the youngest age span children are better in enclitic than in proclitic contexts. Older Portuguese-French bilinguals show better performance when proclisis placement is required, a fact definitely not attested in studies on native EP acquisition.

## Conclusion

In this chapter we presented and compared data from heritage children of European Portuguese with two distinct majority languages, French and German, in order to analyze the role of cross-linguistic influence on the knowledge of clitic placement in Portuguese. While French has clitic pronouns and shares with EP the proclitic pattern, German lacks clitics at all. Our general research question asks, thus, if the majority language plays a role in the acquisition of clitic placement in the heritage language. If this is the case, the French and the German-speaking groups will show different results on the experimental tasks designed to elicit clitic placement.

In order to answer this general question we formulated several specific questions and predictions. The first is concerned with the role of positive transfer from French in the acquisition of the proclitic pattern. As shown by J. Costa, A. Fiéis and M. Lobo (2014), in monolingual EP the proclitic contexts are harder to acquire than the enclitic pattern. Since French has a predominant proclitic pattern, we hypothesized that the Portuguese-French bilinguals may transfer the analogous proclitic pattern from their dominant language and, thus, acquire the Portuguese proclisis

trigger with support of French syntax, showing high rates of accurate proclisis. In this case, the majority language would facilitate the acquisition of a complex issue of the HLs syntax. The results, however, do not support the hypothesis of direct transfer from French. The Portuguese-French group does not differ significantly from the Portuguese-German group concerning the use of proclisis. Both groups present similar mean rates of accuracy, close to 50% (see Figure 4). Concomitantly, this also means that the absence of a similar structure in the majority language, as it is the case of German, does not obscure the acquisition of clitics in the HL. They acquire this property in a similar fashion as bilingual children who are in contact with a language that bears this property. This observation is in line with the widely accepted claim that bilingual children who are exposed to two languages from very early acquire two separate linguistic systems, i.e. they do not directly transfer the syntactic properties of one system into the other (J. M. Meisel 1989).

However, overall, the bilingual groups do show lower results than the monolingual children regarding the production of proclisis. We think that these difficulties are related to the amount of input which bilingual children are exposed to and the timing of acquisition of the target property. As shown, for instance, by S. Unsworth *et al.* (2014), for late-acquired properties, development presents long stages of instability and mastery. This may be due to the fact that the quantity of input that bilingual children receive at the stage when late-acquired properties are stabilized in L1 development is too restricted to foster the same rate of development, leading, therefore, to a more delayed acquisition process.

The assumption of differentiated linguistic systems in bilingual development, however, does not rule out the hypothesis that the languages are in contact in the bilingual brain and may indeed influence each other, even though not in form of direct transfer of one system into the other. As shown by J. Paradis and F. Genesee (1996), for instance, cross-linguistic influence may play a role in bilingual's rate of development in comparison with a monolingual's, leading to acceleration or delay. The influence may also merely reflect an online interaction between the two languages in performance, rather than affect competence.

Our data support the idea that the bilingual's language systems are not totally immune to cross-linguistic influence, particularly in the case of analogous structures, as suggested by A. Gürel and G. Yilmaz (2011). This is clearly shown by looking at the results concerning enclisis. As described above, in native EP there is a well-attested tendency to replace proclisis by enclisis in the early stages of clitic production, i.e. whenever EP children do not produce the proclitic pattern, they produce enclisis. This tendency is confirmed by the results of the monolingual and the Portuguese-German groups, who substitute proclisis by enclisis, and at a significantly higher

rate in the case of the Portuguese-German bilinguals. This tendency, however, is not this evident in the case of the Portuguese-French bilingual children. They substitute proclisis by enclisis at a significantly lower rate than monolingual EP children and Portuguese-German bilinguals (see Figures 3 and 4). This can only be explained by the fact that enclisis is rare in the French grammar and misplacement errors, i.e. the use of enclisis instead of proclisis, are not attested in the acquisition of French (T. Grüter 2006). Thus, Portuguese-French bilinguals seem to avoid a pattern that is almost inexistent in their dominant language. This observation is confirmed by the results of the enclisis conditions. Contrary to what is described for monolingual EP (J. Costa, A. Fléis and M. Lobo 2014) and Portuguese-German bilinguals (C. Flores and P. Barbosa 2014), heritage Portuguese in contact with French does exhibit the substitution of enclisis by proclisis, a fact that can only be attributed to negative influence from the French grammar.

A further specific research question regards the rate of acquisition of the target property. We observed that, overall, bilingual children show a delay concerning the acquisition of proclisis, which we attribute to its complexity and restricted input. Direct transfer of the French grammar into the Portuguese system has been ruled out, since the Francophone children fail to use proclisis in all required contexts. However, in the case of the Francophone bilinguals, a facilitation effect may be correlated with the speed of acquisition, i.e. Portuguese-French bilinguals may acquire the contexts for proclisis faster than Portuguese-German bilinguals due to the dominant language. Indeed, our results seem to confirm that cross-linguistic influence may operate in terms of speed of acquisition. The Portuguese-French bilingual children show higher rates of accuracy than the Portuguese-German bilinguals in the age group of 7-8 and 9-10. It is only in the highest age span (older than 11 years) that the Francophone children do not show any advantages. This seems to indicate that they acquire the property faster but maintain difficulties in mastering it, even in more advanced stages of language development and despite the surface overlap with French.

Additionally, this study allows us to disentangle cross-linguistic influence from language attrition. We have demonstrated that both Portuguese-German and Portuguese-French bilinguals show age differences concerning the use of proclisis. The youngest children of both groups show considerably lower rates of proclisis use than the oldest children, signaling that in the analyzed age span bilingual children are still acquiring this property. Even though in the Francophone group this development is not as linear as in the German-speaking group, the observed age differences contradict the idea that attrition is at play in the development of this property. Thus, comparing children at different ages is crucial for separating

cross-linguistic influence from language attrition, an issue that is often claimed not to be dissociable (E. Benmamoun, S. Montrul and M. Polinsky 2013).

Summing up, the comparison between heritage speakers whose majority language is French and heritage speakers with German as majority language reveals that the presence of the overlapping structure in the dominant language, in this case the pre-verbal placement of clitic pronouns, does not lead necessarily to direct transfer of this property from the dominant into the heritage language. Language-internal factors, such as complexity and timing of acquisition, together with language-external factors, such as amount of input, may interact to a similar degree in the developmental process in both language combinations: in the pair that lacks the property (Portuguese-German) and in the pair that shows the overlapping structure (Portuguese-French). Cross-linguistic influence may, however, have an impact on the rate of acquisition, i.e. the structural overlap may accelerate the acquisition as proposed by several authors (e.g. J. Paradis and F. Genesee 1996). It may also protract the mastery of the structure that is rare in the dominant language, i.e. the use of enclisis in the Portuguese-French group.

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