CHAPTER 9

Voicing language dominance
Acquiring Spanish by British English/Spanish bilingual children*

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This paper investigates the linguistic performance of a group of English-Spanish bilingual children (N = 44, age range: 10–14) with different degrees of language dominance in their use of the Spanish preposition ‘a’ using a completion task which measures the different conditions that relate to the distribution of this personal (Torrego 1998; Zagona 2002). The children’s performance was compared to a group of monolingual Spanish children of similar age (n = 10, age range: 12–15). All participants had also to complete an ethno-linguistic task which elicits data to address the impact of some external factors (e.g., language dominance and language choices) in language performance. Results revealed that bilingual children were less accurate than monolingual children in the use of the preposition ‘a’, but the two groups showed a similar pattern of errors regardless of their grade of bilingualism. More importantly, their linguistic performance does not seem to be related to any of the external factors included in this study. In line with previous research in the field, we also claim that phenomena involving the syntax-semantics interface are vulnerable in bilingual children irrespective of the grade of bilingualism and external factors (i.e., language dominance and language choice).

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1. Introduction

Bilingualism presumes knowledge of two languages, although most bilinguals tend to have a dominant language.\(^1\) It is therefore important to be mindful of different factors affecting the rate of bilingualism when exploring the performance of bilingual children who are still in development. Sociolinguistic research has explored not only the linguistic factors, but also the social and individual factors that influence the construction of personal identity in a particular bilingual community and the individuals that comprise it. For example, research investigating issues of identity has highlighted the connection between the nature of language influence on the negotiation and performance of identity (e.g. Cameron 2005, 2006; De fina et al. 2006; see Niño-Murcia and Rothman 2008 for Hispanic bilingualism in particular). Linguistic identity has come to be considered the reflection of both the individual and communal identity at the supra-level. In an effort to describe the linguistic patterns of immigrant families, Grosjean (1982) noted that first generation immigrants tended to learn the dominant language as an L2 to attain greater social mobility, which very often resulted in L1 attrition.\(^2\) Second generation speakers, on the other hand, generally grow up in more complex linguistic environments because they are often exposed to both languages from birth and often use two or more languages at work, although this depends on many factors, such as their socio-economical status, and whether they are raised in mixed families. Many of these children, despite being raised by monolingual or bilingual parents of the heritage language, end up either being monolingual speakers of the dominant language of the society or acquire an incomplete system for the heritage language spoken at home (see Montrul in press and literature within). Other bilingual children, in contrast, who live in homes where the minority language is used exclusively or is greatly valued and used in diverse social situations with families and peers, are more likely to attain full bilingual abilities. Other external factors (namely, educational level, social class, age of immigration, and contact with other immigrants from the same language community) are also deterministic factors influencing language use and preferences for bilingual

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1. Following Romaine (2004a), the minority (or subordinate) language will be the language with a non-hegemonic, non-elite status within a particular community; whereas the dominant language will be the hegemonic language. This division may have both numerical and social/political dimensions depending on the linguistic community and the administrative unit in question.

2. Recall that in these populations attrition is argued to not affect narrow syntax properties, but only language use (but see Domínguez and Arche 2008; Cazzoli-Goeta, Rothman and Young-Scholten 2008).
individuals, in particular at a very young age (see Padilla et al. 1991; Romaine 1995; Silva-Corvalán 1994).

In addition to those external factors, other external factors such as language dominance, language choice and language attitudes also condition linguistic performance for bilinguals and multilinguals. As Grosjean claims, “what is essential in the maintenance of the ‘weaker’ (often the minority) language and hence in the development of bilingualism is that the child feels the need to use two languages in everyday life” (1982:175). Indeed the need for language use within a bilingual community is vital insofar as it provides motivation for linguistic maintenance (Watson-Gegeo and Nielsen 2004). Culture and, more importantly for our purposes, linguistic performance/competence is clearly affected by the linguistic environment (i.e., family context/home/institutional environment) in which the bilingual child grows up. Parents often adhere to a particular framework, namely, “one-parent, one-language” (Döpke 1992). However, in practice this framework varies from family-to-family, from parent-to-parent within the family and fluctuates over time. In that regard, some parents believe that speaking the dominant language at home is the best way for their children to learn the language of the dominant culture, which is often reinforced by uninformed common thought and current linguistic policy. Outside the family context, bilingual children have contact with the languages they speak through social events (e.g., with other family members, acquaintances, members of the bilingual community who share the same languages) and through an institutional setting (e.g., schooling which provides significant linguistic exposure in same cases to both the majority and minority languages, but in others to the majority language only). However, the maintenance and linguistic development in bilingual speakers is also affected by their conscious desires and efforts (i.e., language attitudes) to develop their proficiency in the minority language (Romaine 1995; Rothman and Niño-Murcia 2008). Positive or negative attitudes towards the minority language also affect language maintenance of the minority language and linguistic identity (Romaine 2004b). Language attitudes and choices exemplify the linguistic decisions (mostly unconscious) that bilingual speakers are constantly making with respect to how they identify or create distance with respect to either of the languages they speak (i.e., identity construction and performance). A bilingual speaker has the choice of convergence with or divergence from the minority language. More importantly, bilingual speakers have the ability to construct multifarious identities compared with a monolingual speaker who possesses a monolithic one.3

3. However, for a contrastive view on that see Cameron (2005, 2006) and De fina et al. (2006). They argue that monolinguals do not have monolithic linguistic identities since “identity” is perceived as a fluid entity that is in a constant state of re-negotiation.
The constant/conscious choice that bilingual speakers are making in speaking one language or the other in different linguistics situations is a clear indication of their own identities (Zentella 1997). As Wei (2000) proposes, language choices are an indication of alternative interpersonal relationships.

Having just reviewed some of the basic conceptual notions with regards to bilingualism, now we turn our attention to the situation of bilingualism in the UK. Bilingualism is an increasingly wide-spread phenomenon in Europe and in the UK, and according to the National Centre for Language, more than 300 languages are spoken in London schools. In clear contrast to other bilingual situations (i.e., the USA) where bilingualism is viewed with a negative stigma (Grosjean 1982) compounded by the global status of English as a lingua franca and the economic power of the United States, minority languages in the UK enjoy the similar social status at the community level as English. There are no precise statistics on the distribution or the number of bilingual English/Spanish speakers in the UK, but we estimate that the Spanish community is one of the smallest non-English speaking groups inside or outside institutional settings (e.g., schools). Children tend to achieve similar grades at school as English monolingual children. However, children from bilingual families must learn the dominant language in order to take advantage of full integration in all social-economic domains. Since bilingual linguistic performance is related to exposure to language and social experiences in both languages, the external conditions under which bilinguals come into contact with the dominant language – English, in this case – have a great effect on the performance (i.e., use) and competence of their primary/minority language. For instance, Suárez-Orozco and Suárez-Orozco (2001) found that native language use at home correlates with linguistic performance rate in English at school. Although research in this area has been limited, there are some indications (Paradis and Navarro 2003, for instance) that these external factors (i.e., language input) are likely

4 Throughout the present paper, when we are referring to the “Spanish” speakers, we are referring to Spanish people descended from the Iberian Peninsula. There are no figures available which directly indicate the number of bilinguals in the population in the UK. Census data on the different ethnic groups give some indication of the linguistic minorities in the UK. Questions on language use have been included in recent census (1991 and 2001), but there are limited to the main indigenous languages (i.e., Welsh, Scottish Gaelic and Irish Gaelic). As mentioned above, the Spanish community in the UK is rather small compared to similar communities in other European countries (i.e., France, Germany or Switzerland). That said, when considering the Hispanic population as a whole regardless of their origin, Cazzoli-Goeta and Young-Scholten (2007) offer statistics suggesting roughly 700,000 to 1,000,000 Hispanics are residing in the UK.
to affect outcomes for both monolingual and bilingual children (see Rothman 2007 for such outcomes in adult heritage language competence). In particular, Paradis and Navarro (2003) studied the role of parental input by two monolingual Spanish children and one English-Spanish bilingual child in the acquisition of subject pronouns. This study showed that the Spanish/English bilingual child produced a higher rate of inappropriate subject pronouns than their Spanish monolingual peers. However, the dataset of this study was very small and the children were exposed to different varieties of Spanish, e.g., one parent spoke a Caribbean dialect, in which the switch-reference and focus use of subjects, is not limiting in the first place. However, although these findings do not provide conclusive evidence that parental input predetermines children’s output, they indicate infelicitous application of the pragmatic/discourse conditions which regulate their realization by the child.

In this paper, we explore the performance of school-aged simultaneous British English-Spanish bilinguals who have been raised in a predominantly English society, namely within the United Kingdom. In particular, we investigate the linguistic performance of English-Spanish bilinguals with different degrees of language dominance via a linguistic task. In keeping with the overall theme of the present volume, we present ethno-linguistic data from the children that can address the impact of external factors (e.g., language spoken at home, school and social events) in language performance. We hypothesize that the amount of exposure to either English or Spanish outside and inside the home and the quality of the language input received at school (e.g., number of years of education in the minority language) would support the dual/simultaneous complete linguistic development. Furthermore, we work under the hypothesis that linguistic identities and consequently linguistic performance by bilingual speakers would mirror their language choices.

This chapter is set up as follows. The next section presents the linguistic analysis that formed the basis of our experimental study. Next, we present the methodology and results of the present study. Finally, we discuss our findings in relation to the aforementioned external factors that could affect their linguistic performance.

2. Linguistic analysis

The present paper follows the line of enquiry outlined in the previous section by looking at the use of the personal preposition \( a \) – often referred to as an overt accusative Case marker – in direct objects noun phrases (NPs) in Spanish which
relates to the syntax-semantics interface\(^5\) (namely, definiteness/specificity of the NP, animacy/agentivity of the subject, and verb semantics, cf. Torrego 1998; Zagona 2002).

There is a cluster of properties which are responsible for Spanish accusative objects being marked by the dative preposition \(a\). The first property relates to specificity and definiteness. Objects marked by \(a\) in Spanish are necessarily interpreted as specific and definite as shown in (1a) and (1b) below.

\[
\begin{align*}
(1) \quad \text{a. } & \text{Busco } a \text{ la secretaria.} \\
& \text{I.am.looking.for pRT the (specific) secretary} \\
& \text{‘I am looking for the secretary.’} \\
\text{b. } & \text{Busco } una \text{ secretaria.} \\
& \text{I.am.looking.for a secretary} \\
& \text{‘I am looking for any secretary.’}
\end{align*}
\]

The second property relates to the animacy of the object. In Spanish, \(a\) is restricted to animate accusative objects, as illustrated in (2a) and (2b) below, and this is irrespective of the specificity and definiteness of the object. That is, inanimate objects such as el hospital as in (2b) do not take the preposition \(a\).

\[
\begin{align*}
(2) \quad \text{a. } & \text{Ayer visité } a \text{ los vecinos.} \\
& \text{yesterday I.visited pRT the neighbors} \\
& \text{‘Yesterday, I visited the neighbors.’} \\
\text{b. } & \text{Ayer visité el hospital.} \\
& \text{yesterday I.visited the hospital} \\
& \text{‘Yesterday, I visited the hospital.’}
\end{align*}
\]

The third property relates to the \(\theta\)-role of the subject (Torrego 1998), which necessarily relates to the \(v\) head, as being responsible for theta assignment to the subject. Details aside, Torrego argues that the sensitivity of objects marked with \(a\) to the thematic nature of the subject can be accredited to the \(v\)-VP structure. Hence,

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5. Following a modular view of mental linguistic architecture along the lines of Reinhart (2006) sub-modular components (for instance, morphology, syntax, semantics, the lexicon, phonology and so on), which join to form the mental grammar, are located such that they are narrowly unique components; nevertheless, these components must interface with each other to accomplish the task of encoding and decoding linguistic information. The aspects at which these sub-modules integrate information are known as interfaces (e.g., syntax-semantics, syntax-pragmatics [discourse], morphology-phonology, and so on). While some linguistic properties are condensed within specific sub-modules, the narrow syntax for instance, other properties require cross-sub-modular integration. These latter properties are known as interface properties.
the preposition *a* is compulsory with verbs that take an agent or cause as subject as in (3a), but not in (3b).

(3) a. *El paciente reclamaba a una enfermera.*

the patient demanded PRT a nurse

‘The patient demanded a nurse.’

b. *La situación reclamaba a una enfermera.*

the situation demanded PRT a nurse

‘The situation demanded a nurse.’

In (3a) the object of the transitive verb is overly marked by the preposition *a* because the subject of ‘reclamar’ demand is agentive. (3b) is ungrammatical because here the subject of ‘reclamar’ demand is not agentive.

The fourth property relates to the aspectual class of the predicate. Following Travis (1992), Torrego claims that object raising seems to affect the aspectual behavior of predicates. That is, marking of accusative objects either morphologically or structurally relates to (inherent/lexical) aspect (Comrie 1976). Aspect is relevant for verbs, predicates, and whole sentences. Verbs are classified depending on whether or not they have an endpoint (telic vs. atelic) together with the contrast between stative vs. dynamic and durative vs. punctual. One of the factors that determine the use of the preposition *a* with accusative objects is the aspectual class of the verb. Following Vendler’s (1967) and Dowty’s (1979) classification of verbs, there are two basic categories events and states, which are further subdivided into activities (e.g., ‘walk’ caminar), statives (e.g., ‘know’ conocer), accomplishments (e.g., ‘build’ construir), and achievements (e.g., ‘find’ encontrar). In principle, events (accomplishments and achievements) inherently indicate an end in time (telic), whereas states and activities do not (atelic). Objects of verbs classified as accomplishments and achievements are therefore telic, (e.g., ‘become drunk’ emborrachar) and require the object of the sentence to be marked with the preposition *a* regardless of whether or not the subject of the predicated is animate (4a)–(4b).

(4) a. *Pedro emborrachó a los invitados.*

Pedro made.drunk PRT the guests

‘Pedro made the guests drunk.’

b. *El vino emborrachó a varios invitados.*

the wine made.drunk PRT several guests

‘The wine made several guests drunk.’

6. Telic predicates require the object to be marked with *a* regardless of the animacy of the subject but not regardless of the animacy of the object: *Dios creó el (*al) unicornio* versus *Dios creó a Évá.*
In contrast, with stative and activity verbs \(a\) is required only when the subject is animate, as shown in (5a) and (5b) below. Here, the marked accusative on the object carries an intentional reading of the subject, a reading that is lacking in the corresponding sentence with structural case (Torrego 1998).

\[
(5) \quad \begin{align*}
\text{a. } & \quad \text{Inés conoce varios artistas.} \\
& \quad \text{Ines knows various artists} \\
& \quad \text{‘Ines knows various artists.’}
\end{align*}
\]

\[
\begin{align*}
\text{b. } & \quad \text{El cine conoce varios artistas} \\
& \quad \text{the cinema knows various artists} \\
& \quad \text{‘The cinema knows various artists.’}
\end{align*}
\]

Summarizing, the essential interplay of syntactic and semantic factors that govern the distribution of personal \(a\) is listed in the following.

1. The object is [+specific] and [+animate]
2. The subject is [+animate] (which covers the cases with stative and activity verbs)
3. The subject is CAUSE (which only happens when the predicate is an accomplishment/achievement).

It is clear, then, that in addition to narrow syntactic properties, semantic features play a role in the realization of NP objects in Spanish (that is, marked accusative case are instances of lexical case controlled by interpretable, semantic features). In contrast to Spanish which possesses marked inherent accusative case via the use of preposition \(a\), English only possesses structural accusative case, that is, NP direct objects are not preceded or marked by a preposition. Having described the linguistic aspect relevant to the present study, in the next section we outline the empirical study itself.

3. The present study

To our knowledge, very little attention has been paid to the study of bilingualism of Spanish migrants in the UK. This research was carried out within this understudied population looking at linguistic development of the minority language and how this relates to the social and cultural context. We hypothesized that linguistic performance of our school-aged bilingual children would be closely related to their linguistic environment and their language choices. The particular relationship between the preferred/dominant language at home and other linguistic contexts (e.g., school, social events and so on) and the language of the community...
would act as benchmarks for bilingual performance, and presumably competence as well. The research questions that guide the present chapter are as follows.

1. Is there a significant difference in the linguistic performance of school-age English-Spanish bilingual children in the UK compared to a monolingual group of Spanish children in Spain?
2. Which external sociolinguistic factors influence the linguistic performance of the bilingual children?

3.1 Participants

Forty four English-Spanish bilingual children and 10 monolingual Spanish children participated in this study. The bilingual children were recruited from several mainstream English schools in the London city area and come from families of Spanish migrant origin, mostly from Galicia and Andalusia. The monolingual children were recruited from a mainstream secondary school in Spain. The bilingual children had a mean age of 12.5 (range: 10–14, SD = 1.4), and were slightly younger than the monolingual children who had a mean age of 13.6 (range: 12–15, SD = 1.2) (t (52) = 2.295, p < .05).

All children completed two written placement tests in Spanish, which consisted of the vocabulary and cloze sections of a Spanish proficiency test standardized for adults (Diploma Español de Lengua Extranjera [DELE]). This was to determine the participants’ level of proficiency and showed that the monolingual children had a slightly higher accuracy (mean accuracy: 79%, range: 68–88, SD: 6.1) compared to the bilingual children (mean accuracy: 72.8%, range: 46–90, SD: 9.9), and this difference was approaching significance (t (52) = 1.892, p = .06).

To address our research questions, we devised a linguistic task together with an ethno-linguistic questionnaire that addresses the external aspects of bilingualism. The responses from the ethno-linguistic questionnaire reflect how the children’s bilingualism was obtained, developed outside and inside home and is currently sustained. Parents of these children manage to organize the linguistic needs of their children (e.g., formal education) in different ways, with a view to...
linguistic, social and cultural maintenance. In some cases the one-parent one language model is used, whereas in others both parents speak Spanish at home.

The ethno-linguistic questionnaire elicited information about linguistic and demographic variables together with information regarding exposure to languages at home, at social events and at schools. The language use and language exposure variables from the questionnaire were represented on a 5-point scale where 5 = only English, 4 = mostly in English, 3 = equal amounts of English and Spanish, 2 = mostly Spanish, 1 = only Spanish. High values represent using English more than Spanish; low values, on the contrary, represent using Spanish more than English; middle values (i.e., 3) represent a balanced use of the two languages. Parents were also asked to indicate how many years of education their children had in each language. Table 1 shows the results from the ethno-linguistic questionnaire for the bilingual children.

Table 1. Results from the sociolinguistic questionnaire for the bilingual children

<table>
<thead>
<tr>
<th>Years of education in Spanish</th>
<th>Language spoken at home</th>
<th>Language spoken at school</th>
<th>Language spoken at other events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>4.41</td>
<td>2.93</td>
<td>3.7</td>
</tr>
<tr>
<td>SD</td>
<td>.816</td>
<td>1.3</td>
<td>.7</td>
</tr>
<tr>
<td>Range</td>
<td>3–6</td>
<td>1–5</td>
<td>2–5</td>
</tr>
</tbody>
</table>

As far as input at home is concerned, 7 children spoke only Spanish at home, 10 spoke mainly Spanish, 11 spoke both Spanish and English, 11 spoke mainly English and 5 spoke only English. At school, 1 child spoke mainly Spanish, 16 spoke both Spanish and English, 22 spoke mainly English, and 6 only English. All but one child bilingual went to mainstream English schools, so use of Spanish at school was in the children’s interaction with their peers. In other events, 3 children spoke mainly Spanish, 28 spoke both languages, 12 spoke mainly English, and 1 child spoke only English. See Appendix for individual data.

3.2 Material and procedure

To test the children’s knowledge of the distribution of the personal preposition a we used a completion task consisting of 42 experimental sentences ranging over 6 conditions (all the aforementioned properties from Section 2) as shown in Table 2 below, and 6 control items (i.e., the control condition 7).
There were 6 items for conditions 1–5 and 12 for condition 6 (6 with [+human] subject and 6 with [−human] subject). The 6 control items did not involve the preposition a, and involved a variety of aspects of the Spanish language, for example, the omission of function words, such as articles and conjunctions. For conditions 4, 5 and 6 the inherent aspectual class of the verb was determined taking into consideration the distinctions [+/− telic, [+/-] stative and [+/- punctual]. All sentences included a gap; participants were asked to fill in the gaps with one word or leave the gaps empty. It was explicitly mentioned that they do not have to fill all gaps. Examples (6) and (7) are sample items for this task.

(6) Juan persigue ____ los presos que se han fugado de la cárcel.
(\(a\) is obligatory)
Juan chases ____ the prisoners that have escaped from the prison.

(7) La universidad necesita ____ estudiantes extranjeros para cubrir las plazas libres.
(\(a\) should not be used)
The university needs ____ more foreign students in order to cover all unfilled places.

The vocabulary used in designing the experimental items of the completion task was familiar to the participants. Participants were allowed to take as much as they needed to complete the task; nevertheless, all participants completed it within 45 minutes. In order to avoid any comprehension problems as to what they were expected to do, instructions were given verbally in English by their teacher and in writing (and in the case of the Spanish monolingual children the instructions were given in Spanish in the same manner). Children were told to read each sentence and to fill in the gaps with the first word(s) that came to their mind (that is, their “first intuition”), and that they were not allowed to change or modify their answers.
3.3 Results

One bilingual child scored 0 (zero) percent in the control condition (condition 7) correct, and was thus excluded from further analyses because it was not clear whether s/he understood the task. The results from the remaining data are given in Figure 1 below.

![Figure 1. Mean accuracy of bilingual and monolingual children (in percentage)](image)

Table 3 shows mean accuracy, standard deviation (SD) and range.

<table>
<thead>
<tr>
<th></th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bilingual</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>children</td>
<td>Mean</td>
<td>72.5</td>
<td>76</td>
<td>50</td>
<td>56.2</td>
<td>40.7</td>
<td>67.6</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>25.9</td>
<td>20.7</td>
<td>23.3</td>
<td>26.5</td>
<td>21.3</td>
<td>29.9</td>
</tr>
<tr>
<td>[N = 43]</td>
<td>Range</td>
<td>0–100</td>
<td>33–100</td>
<td>0–100</td>
<td>0–100</td>
<td>0–100</td>
<td>0–100</td>
</tr>
<tr>
<td><strong>Monolingual</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>children</td>
<td>Mean</td>
<td>85</td>
<td>88.3</td>
<td>56.7</td>
<td>65</td>
<td>41.7</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>9.5</td>
<td>8.1</td>
<td>14.1</td>
<td>16.6</td>
<td>19.6</td>
<td>7.7</td>
</tr>
<tr>
<td>[N = 10]</td>
<td>Range</td>
<td>67–100</td>
<td>83–100</td>
<td>33–83</td>
<td>50–100</td>
<td>17–83</td>
<td>75–100</td>
</tr>
</tbody>
</table>

C1 = +animate, +specific, C2 = −animate, +/-specific, C3 = +animate, −specific, C4 = stative/activity verb, +human subject, C5 = stative/activity verb, −human subject, C6 = accomplishment/achievement verb, +/-human subject, C7 = control condition
A repeated measures ANOVA with the factors “group” (bilingual, monolingual) as the between-subjects variable, and “sentence type” (7 conditions) as within-subjects variable showed a main effect for “group” ($F(1, 51) = 6.547, p = .01$). Bilingual children were overall less accurate than monolingual children. There was also a main effect of “sentence type” ($F(6, 306) = 29.724, p < .001$) reflecting differences between the experimental conditions, but there was no significant interaction between “group” and “sentence type” ($F(6, 306) = .943, p > .1$). This shows that although bilingual children were less accurate than monolingual children, the two groups showed a similar pattern of performance in the experimental conditions. Pair-wise comparisons using Bonferroni correction showed that monolingual and bilingual children were more accurate in the control items$^9$ (condition 7) that did not involve the preposition $a$, compared to all experimental conditions (conditions 1 to 6) (all $p$ values $< .001$). Conditions 1 (78.7%), 2 (82.2%), and 6 (78.8%) showed higher accuracy than conditions 3 (53.3%), 4 (60.6%), and 5 (41.2%) (all $p$ values $< .01$), and there was no significant difference between conditions 1, 2, and 6. Finally, children were more accurate in condition 3 than in condition 5 ($p < .05$), but there was no significant difference between conditions 3 versus 4 and 4 versus 5.

To investigate individual variation within each group of participants, we calculated how many participants performed above chance level in each group and each condition, as shown in Table 4.

<table>
<thead>
<tr>
<th></th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilingual children [N = 43]</td>
<td>79%</td>
<td>84%</td>
<td>28%</td>
<td>42%</td>
<td>21%</td>
<td>60%</td>
<td>100%</td>
</tr>
<tr>
<td>Monolingual children [N = 10]</td>
<td>100%</td>
<td>100%</td>
<td>40%</td>
<td>60%</td>
<td>20%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

C1 = +animate, +specific, C2 = −animate, +/−specific, C3 = +animate, −specific, C4 = stative/activity verb, +human subject, C5 = stative/activity verb, −human subject, C6 = accomplishment/achievement verb, +/−human subject, C7 = control condition

The two groups showed a very similar pattern. The majority of the participants in both groups scored above chance in conditions 1, 2, 6, and 7. In addition, the majority of the monolingual participants performed above chance also in condition 4. In the case of the bilingual children, their performance was below chance in condition 3, 4 and 5. The individual results corroborate the group results presented above.

$^9$ Recall there were 7 filler sentences in total which measured different aspects of the Spanish grammar, but none of them were targeting the syntax-semantic interface. These results, although tentative, show bilingual children are as accurate as monolingual children which strengthen our general claim for the selective vulnerability of interface domains in bilingual acquisition.
To investigate whether the groups of participants showed more errors of omission or commission, we averaged the conditions requiring the preposition *a* (C1, C4, C6) and the conditions requiring leaving a gap, as shown in Table 5, and conducted a repeated measures ANOVA with the factors “group” (bilingual, monolingual) as between-subjects variable, and “error type” (omission, commission) as within-subjects variable.

**Table 5.** Percentage of errors of omission vs. commission

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<th>omission</th>
<th>commission</th>
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<td><strong>Bilingual</strong></td>
<td>Mean</td>
<td>34.6</td>
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<td>children</td>
<td>SD</td>
<td>23.8</td>
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<td></td>
<td>Range</td>
<td>6–100</td>
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<tr>
<td><strong>Monolingual</strong></td>
<td>Mean</td>
<td>20</td>
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<tr>
<td>children</td>
<td>SD</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>0–31</td>
</tr>
</tbody>
</table>

This showed a main effect of “group” (F(1, 51) = 5.963, p < .05) reflecting a higher error rate in bilingual children. A main effect of “error type” (F(1,51) = 7.901, p < .01) revealed that children made more errors of commission than errors of omission. The lack of a significant interaction between “group” and “error type” shows that both groups of children showed the same error pattern. It should be noted that the higher error of commission could not be attributed to a strategy of the children to fill in all gaps.\(^\text{10}\) If this was the case, we would expect to find an even higher rate of commission errors. In addition, they would have produced errors of commission also in the control items, which they did not do (commission errors in bilingual children = 4.7%, monolingual children = 0%).

To investigate a possible relationship between the amount of input the bilingual children had in Spanish and English and their accuracy in the use of the preposition *a*, we conducted correlations between the language input at home, school, in other events and the performance of the children in the experimental conditions. This showed that there was no correlation between the performance of the children in the experimental conditions and the language input at home (all p values > .1), the language input at school (all p values > .1), and the years of education.

\(^\text{10}\) Instructions for the completion of the task were clearly stated in English and in Spanish, and from the results on condition 7, it is clear that all participants understood what they were supposed to do.
in Spanish (all p values > .1). There was only a weak negative correlation between language used in other events and condition 4 \( r (41) = -0.316, p < .05 \).\(^{11}\)

To investigate a possible relationship between the children’s performance in the use of the preposition \( a \), their age, and language proficiency in Spanish we conducted correlations between their performance in the experimental conditions, their language proficiency, and their age for both the monolingual and bilingual children. For the monolingual children there was no correlation between their proficiency in Spanish and their performance in the experimental conditions (all p values > .1), no correlation between their age and their performance in experimental conditions 1, 2, 3, 4, and 6 (all p values > .1), but there was a positive correlation between the performance of the children in condition 5 and their age \( r (8) = 0.803, p < .01 \). On the other hand, for the bilingual children there was no correlation between their age and their performance in all experimental conditions (all p values > .1), but there was a positive correlation between their proficiency in Spanish and their performance in condition 4 \( r (41) = 0.379, p < .01 \), condition 6 \( r (41) = 0.447, p < .01 \), and in the control condition 7 \( r (41) = 0.455, p < .01 \).

4. General discussion

This study examined factors related to language use of bilingual children and their influence on linguistic performance in Spanish. In particular, we sought to investigate possible predictors for the linguistic performance of Spanish in 44 school-aged bilingual children compared to a group of 10 Spanish monolingual school-aged children. The overall results indicate that bilingual children were less

\(^{11}\) We agree with one of the reviewers on the fact that the null results on the correlation between amount of exposure and linguistic performance are quite disappointing and go against our own predictions that some (or all) sociolinguistic variables under consideration and discussed at length in the first part of the paper should have predicted some kind of language performance. However, the size and nature of the sample may play a part on such findings. Looking closer at the data provided in Table 1, one can notice a rather balanced exposure to both languages and, therefore, it is not completely unexpected that amount of exposure was not a significant predictor. In addition, even though the experimental sample was fairly large \( N = 44 \) participants in total), it is very heterogeneous in terms of relative exposure to the two languages. Future research studies would benefit by the inclusion of much bigger and clearly defined groups (e.g., 30 children with mostly English, 30 with mostly Spanish, 30 with similar exposure, which would allow such correlations to be carried out. For those readers interested in pursuing that type of research, see Gathercole (2007) where different levels of exposure to Welsh and English inside and outside the home are explored.
accurate than monolingual children; however, the two groups showed a similar pattern of performance in all experimental conditions that regulate the use of personal preposition *a*: they performed better in condition 2 ([–animate, [+specific]: –*a*) (82.2%) followed by conditions 1 ([+animate], [+specific]: +*a*) and 6 (accomplishment/achievement verb, [+–human subject]: +*a*) (78.7% in both conditions) and they performed worst in conditions 5 (stative/activity verb, [–human subject]: –*a*) (41.2%), 3 ([+animate], [–specific]: –*a*) (53.3%) and 4 (stative/activity verb, [+human subject]: +*a*) (60.6%). These findings are corroborated by the individual performances showing the same pattern of errors (i.e., more errors of commission than omission). Furthermore, our results from the analyses conducted between their linguistic performance and some external factors (i.e., language use and language exposure) demonstrate that linguistic performance is not determined by any of the external factors that we included in this study.

Let us now turn to the research questions addressed in this paper, repeated here.

1. Is there a significant difference in the linguistic performance of school-aged English-Spanish bilingual children in the UK compared to a monolingual group of Spanish children in Spain?

2. Which external sociolinguistic factors influence the linguistic performance of the bilingual children?

In answering question one, and in light of current bilingual and SLA findings we predicted that we would find significant differences between the two groups of school-aged children which ultimately relate to difficulties acquiring phenomena relating to the syntax-semantic interface.¹² Both groups of school-aged children showed a low performance in some of the conditions of our experimental task. This indicates their difficulty in acquiring structures involving the syntax-semantics interface. Recall that recent linguistic research maintaining a modular structure of mental grammatical representation envisions linguistic information as being both encapsulated as well as cross-modular, in the sense that various linguistic and cognitive domains must integrate information for particular properties (Bos, Hollebrandese and Sleeman 2004; Jackendoff 2002; Reinhart 2006). This modular/interface approach has proven particularly helpful in SLA and bilingualism.

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¹² Recent research has proposed that structures involving the interfaces (e.g., syntax-pragmatics and syntax-semantics) are particularly vulnerable to processes such as attrition, fossilization, and incomplete L2 acquisition. The vulnerability was proven in various acquisitional scenarios, i.e., bilingual acquisition, adult L2 acquisition, and language loss or attrition (Guijarro-Fuentes and Marinis 2007; Sorace 2004; Serratrice, Sorace and Paoli 2004; Tsimpli, Sorace, Heycock and Filiaci 2004, 2004; White in press).
research that seeks to explain the delay or ultimate non-convergence of particular properties; interface areas (for instance, syntax/pragmatics and syntax/semantics) are particularly vulnerable to attrition, fossilization and incomplete acquisition in bilingualism and second language (L2) acquisition (Montrul in press; Serratrice, Sorace and Paoli 2004; Sorace 2004; Tsimpli, Sorace, Heycock and Filiaci 2004). Serratrice et al. (2004) and Sorace (2004) made the claim that structures involving syntax proper are by and large easier to acquire and less vulnerable than the ones involving the interfaces.

The differences observed between the bilingual and the monolingual children in our study may reflect different transitional stages in language development of the bilingual and monolingual children. Ultimately, bilingual performance and competence does not seem to depend on a variety of factors such as language choice and language aptitude at large (a point to which we return later). The absence of these linguistic properties in their dominant community language (i.e., English) of the bilinguals might have determined the development of the construction under investigation since there is no a match in the two systems. That is, the fact that English does not possess inherent case, coupled with the fact that the semantic features are not very salient in the linguistic contexts, could have affected the rate of acquisition. The perceptual saliency (i.e., lack of transparency in the input) of the personal a can be another factor affecting its acquisition. This argument can also be applied to adult learners of Spanish as L2 who also seem to have difficulties in acquiring the semantic constraints related to the use of personal a. In a different paper (Guijarro-Fuentes and Marinis 2007), we argued about a link between complexity and the order of emergence of the semantic constraints related to the personal preposition a.

Given that the monolingual children in our study also showed a low performance in some experimental conditions, an important question that needs to be addressed is whether this low performance is due to a problem with the task. To address this possibility, in Guijarro-Fuentes and Marinis (2007) we tested a group of adult native speakers of Spanish with the same task and found that native speakers showed an accuracy rate of 88 percent or above in all experimental conditions. This rules out the possibility that low performance in monolingual children is due to a problem with the task. A possible reason for the low performance in some of the L1 children is that the use of the preposition a in some conditions is part of a formal register that is acquired later and is connected to schooling. If this is the case, we would predict older L1 children to perform similarly to adults. This is an empirical issue that needs to be tested in future research, but it is highly relevant for child L2 and heritage speakers’ acquisition research because if this is true, it has serious implications for the role of literacy in grammatical development (Rothman 2007). Besides, taking into consideration the results from the
group of adult native speakers from our previous study, it is clear that this type of limitation by the children would require more time for its acquisition and maybe even more than other "pure" syntactic properties. However, we leave this issue for future research.

Let us now address our second main research question, that is, which external/social factors could be responsible for the performance of the bilingual children. We hypothesized that language dominance/preference and type of input in a bilingual setting could play a significant part in modeling bilinguals' performance. This predicted a different pattern of performance in the children whose dominant language is Spanish compared to the children whose dominant language is English based on previous findings showing that there is a relationship between the amount of input in one language and the child's performance (Paradis and Navarro 2003; amongst others). Contrary to our predictions, bilingual children with very little Spanish input at home showed a similar pattern to bilingual children with Spanish as the home language. Furthermore, in our study we did not find lower accuracy in the performance of children from families in which the parent-child communication occurs in English. Therefore, it seems that the performance of the bilinguals under investigation in the specific phenomenon (acquisition of the preposition $a$) does not seem to be sensitive to family, social and communal influences. However, the bilingual children's performance seemed to rely more on their proficiency in Spanish.

One way of explaining this pattern of results would be by saying that similar performances from all English/Spanish bilinguals seem to indicate that parents/families value the use and maintenance of both language profiles and cultures. Unlike other bilingual communities in the USA and Canada, both languages – English and Spanish – are attributed the same status in the UK. We claim that becoming more or less proficient in either Spanish or English ultimately reflects the support at school and social support/parental use. Another possibility is that there was not enough variation in the sociolinguistic questionnaire results given that we used 5-point scales. Small variation in the scores could have led to the non-significant correlation between the language input and performance in the preposition $a$. Therefore, the lack of a correlation between input and performance should be interpreted with caution. We do not wish to discard the possibility that with a different and larger group of bilinguals (maybe older children) in a different community and with a large variation of input the individuals' linguistic performance could be affected by language dominance (see footnote 10), by other external factors (i.e., choice, attitudes), language identity and culture maintenance (Cameron 2005).
5. Concluding remarks

We can conclude then that in our study individuals’ bilingual linguistic performance does not represent multiple individual grammars affected by all external dimensions of social identity – e.g., background, language choices (Cameron 2005, 2006). Different bilingual speakers may define themselves by contrast with speakers and linguistic characteristics of their peers and of themselves compared to other monolingual speakers. Our claims are in keeping with previous research that posits that social identities are not stable or fixed, but rather are constructed in particular contexts in response to individual practices. However, British English-Spanish bilinguals’ linguistic performance on an interface phenomenon in Spanish does not mirror the ways and contexts in which they use their languages. Although bilingual children were less accurate than monolingual children, their accuracy in the use of the preposition a did not correlate strongly with any of the external factors measured.

More research is needed to better understand the influence of external factors on the acquisition of interface phenomena in bilingual children. Future studies should investigate other external variables that may affect linguistic performance in school-aged bilinguals and should also address developmental issues by investigating the impact of external factors over time using longitudinal data.

References


## Appendix

Individual data from the ethno-linguistic questionnaire

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<th>Language spoken at school</th>
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