Gender Concord in English/Spanish Code-Mixed Determiner Phrases

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ABSTRACT

Bilingualism has raised in popularity in the last decades. Many educative programs aim to create an atmosphere where two or more languages coexist as it happens in real bilingual communities such as the ones in the United States. Multiple linguistic phenomena rise as a consequence of that language contact. One example is the code-switching phenomenon, discussed in this paper, which consists on the change of language in a whole production. This mixture of languages is studied at the level of the Determiner Phrase and Spanish/English bilinguals living in Spain are asked to rate that kind of utterances. The results reveal that eventhough they have contact with both languages, they do not behave as in real bilingual communities when dealing with this type of mixed utterances.

**Keywords:** Code-Switching- Mixed Determiner Phrases –Gender Concord-Spanish/English bilinguals- young adults – Accomodation Hypothesis

El bilingüismo ha crecido en popularidad en las últimas décadas. Muchos programas educativos han sido creados con el fin de instaurar un ambiente de coexistencia de lenguas, como ocurre en muchas comunidades bilingües existentes en Estados Unidos. Muchos fenómenos lingüísticos surgen del contacto de lenguas. Un claro ejemplo es el intercambio de códigos, tema de este estudio, que consiste en la alternancia de lenguas en una misma producción. Esta mezcla será estudiada al nivel del sintagma determinante y bilingües de Español e Inglés juzgarán ese tipo de estructuras. Los resultados revelan que a pesar de tener contacto con ambas lenguas, éstos no se comportan como en las verdaderas comunidades bilingües a la hora de tratar con este tipo de estructuras mixtas.

**Palabras clave:** Alternancia de código- Sintagmas Determinantes mixtos-Concordancia de Género- Bilingües Español/Inglés- Adolescentes- Hipótesis de la Acomodación
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1. INTRODUCTION

Bilinguals, according to the definition given by Mohanty and Perregayx (1997, in Butler and Hakuta, 2004: 115,) are “the individuals or groups of people who obtain communicative skills, with various degrees of proficiency, in oral and/or written forms, in order to interact with speakers of one or more languages in a given society”.

This versatility when dealing with languages, dialects included, has been encouraged all over Europe through a series of programs and councils, e.g. the European Council in Barcelona in 2002, aiming a better performance in at least two languages by impulsing bilingual programs at school. This is just an instance of the increasing importance that the domain of at least two languages has experienced in the last decades.

The bilingual atmosphere that these programs aim is just an example of what happens in bilingual countries or communities such as those present in the United States. These communities, in a great majority of a Spanish heritage, have been the focus of study of many linguists such as Anderson and Toribio (2007), who have dealt more specifically with the phenomena of language mixing that arise in those communities: lexical borrowing and code-switching, being the second the focus of study of our paper.

This paper is divided into seven sections including this one, which is the introductory part. Throughout this study we will present some main ideas about code-switching, concord and the gender systems (section 2). Then, taking into account this previous theoretical foundation, some hypothesis will be posed (section 3). Following it, the participants, the test and the obtained data will be described (sections 4 and 5). Finally, we will discuss the obtained results together with the theoretical background, and some conclusions and ideas for further research will be presented (sections 6 and 7).
2. THEORETICAL FRAMEWORK

For some years now, we have realized how different researchers have been placing the focus of their studies on the language mixing phenomena occurring in bilingual communities like the United States (Anderson and Toribio 2007) where prose narratives that show this mixing as something natural can be found.

“The mercado. Rangel who always made funny jokes and called us pochas, sold us trinkets when we’d saved our pennies or a madrina had been generous.” (Canícula- Norma Cantú in Anderson and Toribio, 2007)

The previous text shows the indifference those speakers have towards mixing both languages, Spanish and English in the same production.

This kind of mixing productions- like the one found in Canícula- are not so extraordinary since they belong to the daily speech in collectivities, such as the existent ones in the United States which were tested by Anderson and Toribio (2007) and Zentella (1981, 2000). In the first mentioned study, Anderson and Toribio tested the acceptability of mixed productions on the part of English/Spanish bilinguals (some of them Spanish heritage speakers). More specifically, they dealt with code-switching (Once upon a time había una niña que se llamaba Caperucita Roja; 2007: 229) and lexical borrowing (Cuando el lobo estaba a punto de comerce a caperucita, apareció el hunter con una escopeta grande; 2007: 228), concluding that lexical borrowing was ranged more positively than code-switching and that their heritage Spanish and Spanish-learning participants evaluated mixing utterances in the same way when the former were thought to behave more positively that the latter while facing mixing samples.

In Zentella (1981, 2000), English/Spanish bilinguals were also the type of participants tested in order to analyze the characteristics of code-switching in children who belonged to bilingual classrooms in which either Spanish or English were used to give the lessons and thus, investigate educational bilingual programs. The results showed a
preference towards English and a use of code-switching to change and relate topics in normal conversations respecting the grammaticality of both English and Spanish.

In this paper we will place our focus on to what extent Spanish/English\textsuperscript{1} bilinguals in an educational context and in a Spanish monolingual community accept certain code-switched structures, whose characteristics will be presented in the following section.

2.1. THE CODE-SWITCHING PHENOMENON

The code-switching (CS) phenomenon, using Meisel's (1994: 415, in Cantone, 2005) words, is 'the ability to select the language according to the interlocutor, the situational context, the topic of conversation, and so forth, and to change languages within an interactional sequence in accordance with sociolinguistic rules and without violating specific grammatical constraints', that is, the ability bilingual speakers have to mix their languages depending on the context. An example of CS can be 'La house de Pedro is near Tony's' where we can see how English and Spanish are mixed in one utterance. A distinction can be made, depending on the location of the mixed element: we can talk of intrasentential CS- placed within an utterance, e.g. ‘siempre está criticizing lo que hago’- and of extrasentential or intersentential CS- placed within a discourse, e.g. Have you heard of La Llorona legend? Mi abuelita me la contó de pequeña-.

CS can be confused with lexical borrowing, mentioned in the previous section, since both phenomena share the same origin as they emerge whenever two or more languages come into contact. Nevertheless, they differ in the sense that lexical borrowing is less controversial since it deals with the insertion and acceptance of a term or structure in a foreign language due to the lack of lexicon or to the transference of it, implying a cultural adaptation as happens, for instance, with the English word break that can be found as breca (Anderson and Toribio, 2007) or the word parking that has been transferred from English into Spanish and that nowadays is of common use; CS is more controversial since the

\textsuperscript{1} In this paper, the term "Spanish/English bilingual" is used to refer to sequential bilinguals whose mother tongue is Spanish (L1) and have learned English as their second language in an educational context.
mixture in this phenomenon involves a blend of languages that, according to Chomsky (1981, 1995), is restrained by the Universal Grammar’s innate principles.

Some authors (Di Sciullo et al. 1986, Belazi et al. 1994, Chan 1999, among others) have tried to support this statement and to explain the nature of the CS phenomenon with different constraints (i.e. the Government Constraint, the Functional Head Constraint and the Head Selection Constraint, etc.), all of them with no success because they respectively disallowed the mixing between content words and their complements- between a verb and its object-, between functional heads, as determiners, and their complements- denied by Di Sciullo et al. (1986)-, and because the need of a more general constraint- the condition of the meeting of the selectional requirements was not enough to allow the mixing, that is, the fact of a head selecting its complement is not enough to explain the process of CS.

Since this previous literature on CS did not clear up the mixing nature or simply denied the mixing occurring in this phenomenon though they were thought to regulate it, another researchers (Radford et al. 2007, Cantone and Müller 2008, among others) have continued the task of looking for the motivations and regulations for these occurrences to be produced by bilingual speakers. More specifically, they have posed two main possibilities of regulation: the existence of a Third Grammar as a result of the blend of the grammars of the two languages involved, or just the performance of the two separate grammars jointly. The Third Grammar would suppose the creation of a completely new grammar from the basis of the rules of the languages involved (or the previously mentioned constraints), and thus, it would perfectly regulate this phenomenon as the rules of the languages involve would control their own mixing.

Nevertheless, some grammarians (Poplack, 1980; MacSwan, 1997, 1999, 2000) have denied the existence of a Third Grammar as they found real data that contradicted it pointing to the possibility of the interaction of the codes of the two languages (Cantone et Müller, 2008): on one side, Poplack (1980), testing a group of Puerto Ricans in New York, proved the possibility of an Equivalence constraint by which mixing is licensed where the juxtaposition of both languages does not violate any syntactic rule, e.g. ‘Tell Larry que se calle la boca’.
At the same time, MacSwan (1999, 2000) argued against applying specific rules to CS and refuted the possibility of a Third Grammar controlling it by proposing a model of bilingual mind that had two separate lexicons. Hence, as there is no need of a separate lexicon -the Third Grammar-, the only constraints that regulate this phenomenon are those of the lexicons and that ensures a complete feature matching in the code-switched utterance. For instance, whenever an example of intrasentential code-switching is found, as in Determiner Phrases (DPs), the parts involved must match in features: e.g. number, person, gender. That is, the features must be the same despite the fact that they belong to a different language. This feature matching can be illustrated by this example: *el gato* [Masculine, Singular] and *the cat* [Singular], as a result of a CS at the level of the DP, would result in *el cat* in which the number (singular) and the gender (masculine in the Determiner) features match.

As this paper deals with CS in DPs, the next sections will show how the features matching in this type of CS work when Spanish and English are the languages involved in the mixing.

### 2.2. Concord in Mixed Determiner Phrases

Concord according to Radford et al. (2007: 241) is “the operation by which an adnominal adjective or determiner and a noun they modify are made to agree in respect of their shared gender and number features”, that is, whenever two languages came into contact in a mixed DP, the features are made to match. This can be seen clearly in this example taken from Radford et al. (2007):

\[
(1) \text{Una [fem., sg.]} \quad \text{mariposa [fem., sg.]} \quad \text{(Spanish)}
\]
\[
A \quad [\text{sg.}] \quad \text{butterfly [sg.]} \quad \text{(English)}
\]

Fem. = Feminine; sg. = singular

---

2 Following the Minimalist Approach of Chomsky (1997) which states that the mental architecture of a language is divided into the lexicon and the computational system, MacSwan (1997) develops a model of the bilingual mind’s architecture in which there were two separate lexicons and phonological components- those of the inner languages- and a shared Computational System.
As seen in (1), Spanish marks with a final —a the singular-feminine and a concord mixed utterance would be *a mariposa* in which the number features are matched.

Since, also according to MacSwan (1999, 2000), we are dealing with the lexicon, we have to say that matching between the features should occur in the syntactic and the Phonological Form (PF³) representations of the syntactic result of the interaction between lexicon and syntax. The lexicon’s grammatical features, which are going to be taken into account when matching the components in a structure, enter the syntax they can be of an interpretable or uninterpretable nature, that is, they may contribute to the meaning of the word or they may not have semantic importance. To ensure the feature matching and following Chomsky’s Minimalist Approach and structure of the language (1995) -thought and speech systems- the uninterpretable features must be deleted to ensure the concord, matching with complete constituents, that is, with the same person, number and gender features as the other part has. As seen in (1), the features chosen are the gender feminine ending ‘—a’ which matches the gender in Spanish.

As this paper deals with concord in mixed DPs, the feature matching is expected to happen between the determiner (D) and the noun (N) that accompanies it in any language. Moreover, Chomsky’s Minimalist Approach (1997) must be taken into account at this point since, according to this theory approach, in DPs the D is the head of the phrase and so it is the one which transfers the gender and number features to the N so that both parts can match (e.g. in *la casa* the feminine determiner is transferring the singular and feminine features to *casa* making the whole phrase to match).

This gender concord in mixed English/Spanish DPs, also found in (1), will be further analyzed in section 2.4. Although we consider necessary to make some observations about how the gender system works in both languages.

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³ The acronym PF is widely used to refer to the Phonological Form, which, together with the Semantic Form, conform the two components in which the semantic structure is divided. Both correspond respectively to the thought systems and the speech systems (Radford et al., 2007).
2.3. Gender systems in English and Spanish

Gender, according to the definition included in *A Comprehensive Grammar of the English Language* (Quirk et al., 1985: 314), is “a grammatical classification of nouns, pronouns, or other words in the noun phrase, according to certain meaning-related distinctions, especially a distinction related to the sex of the referent”.

As we can see from the definition, gender is an innate feature that is sometimes related to the sexuality of the object, person, animal that the word represents. In the quote, the gender feature is attributed mainly to Ns and pronouns as it is referring to the Noun Phrase (NP). Nevertheless, as it is mentioned at the end of the previous section, we are following the Minimalist Approach and so we are talking about DPs whose head is not a N as in the NP, but a D, that is where the gender feature resides is found.

As Huddleston and Pullum (2002: 323) state, the gender feature in some languages such as Romance languages (Spanish, German and Russian, gender has an important role in syntax that English lacks. In fact, it is not important since in this language there is no inflectional gender category. However, some reminiscences of that gender feature can be found in the third person singular pronouns (*he* for masculine, *she* for feminine, *it* for neuter).

Gender distinctions in English can also be made within animate Ns by the sexual condition and sometimes using lexical devices to indicate sex such as *male/man*, *female/woman* (e.g. *male/female elephant*) or derivation (e.g. *actor/actress*). Nevertheless, inanimate objects do not generally receive any kind of gender marking (e.g. *car, house, shower*). So in some animate English Ns we can state that even though there is no special gender marking feature in the words that indicates their gender, we can talk about the presence of a covert gender feature which may not be visible in the morphology of the word.

On the contrary, in Spanish, all Ns, no matter if they are animate or inanimate, are classified into masculine or feminine, the two existent gender classifications, and most times this is indicated by an overt gender marking, that is, the gender is visible in each
word. There are main distinctions in the classification of gender in the words depending on their ending and on their semantic specifications - animate, inanimate.

We can take a look at table 1 (taken from Montrul et al. 2013) to understand the paradigm of gender agreement in Spanish:

<table>
<thead>
<tr>
<th>Table 1. The Spanish Gender Paradigm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canonical</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td><strong>Masculine</strong></td>
</tr>
<tr>
<td>libro “book”</td>
</tr>
<tr>
<td>puente “bridge”</td>
</tr>
<tr>
<td>techo “roof”</td>
</tr>
<tr>
<td>diente “tooth”</td>
</tr>
<tr>
<td><strong>Feminine</strong></td>
</tr>
<tr>
<td>mesa “table”</td>
</tr>
<tr>
<td>noche “night”</td>
</tr>
<tr>
<td>casa “house”</td>
</tr>
<tr>
<td>nube “cloud”</td>
</tr>
</tbody>
</table>

Table 1 shows the typical (or canonical) word-endings assigned to each gender and the unusual (or non-canonical) endings when referring to feminine and masculine words. The great majority of the Spanish feminine words end in –a, and the masculine ones do so in –o although there is a minority that, despite ending in –a or in –o, their gender is not feminine nor masculine, respectively, (e.g. planeta which is a masculine N ending in –a, the feminine mark). Nevertheless, both genders share the ending in –e and the ending in a certain consonant (e.g. noche and piel).

But, as it happens in English, there are animate words that show sex or semantic gender such as niño and niña (boy and girl), gato and gata (male cat and female cat). These kinds of Ns have a common root and change its ending depending on the sex of the object.

While the gender feature in Spanish is overt and detected through a mark at the end of the word and, as we stated in the previous section, the D is the one that transfer N the gender features, in the case of English, the D cannot transfer gender features since it is not marked for gender and so N cannot be assigned gender inside the DP the same way as it occurs in Spanish. It would be interesting, then, to analyze how both languages interact in Spanish/English mixed DPs in terms of gender, which will be the main topic of the next section.
2.4. Spanish-English code-switching at the level of the determiner phrase

As seen in the previous sections, Spanish DPs reach the feature matching in terms of gender due to the fact that Spanish D as *el* or *la* transfers it to the N reaching the concordance. On the contrary, in English, neither Ds nor inanimate Ns show gender, so the gender feature is not assigned to the N leaving it ungendered.

This situation gives rise to a conflict in the sense that we are not capable to substitute the term in English or Spanish for its complete equivalent as both languages do not have the same uninterpretable features in terms of gender (*the*uninterpretable + *casa*interpretable (Fem)) (Radford et al. 2007; Cantone and Müller 2008; MacSwan 1999, 2000).

In order to find a solution to this mismatch, we can look at the Accommodation Hypothesis posed and tested by Radford et al. (2007). This hypothesis proposes that the D, which is the head of the DP, assigns gender to the N in terms of the gender of the equivalent of that word in the language of the D, that is if the D is in Spanish and the N is in English, the speaker searches the Spanish equivalent of the English term and assign the gender.

In the case of a Spanish D in the mixed DP, the determiner will assign gender to the English N, taking as a reference its equivalent in Spanish. That is, in ‘*La house*’ *house* would receive feminine gender from *la* as the Spanish equivalent of *house* is *casa*, a feminine N. In the case of the DPs where the D is in English, as it is an ungendered language and it could not assign gender to the Spanish N, this mixing would be avoided because of the lack of gender of one of the components, the one of the ungendered language. Nevertheless, the English D, in order to allow the matching, is assigned an honorary gender which, in most cases, is masculine by default. That is, in ‘*the perro*’ *the* is ungendered and it would be assigned the masculine case in order to match the gender feature within the DP.

Regarding this matching of language features, Fernández Fuertes et al. (2002 in Cantone and Müller, 2008) and Liceras et al. (2005 in Cantone and Müller, 2008) also claimed that bilingual children- the type of participants of their studies- whose languages differ in terms of uninterpretable features (as English and Spanish), tend to change the word
from the less transparent language\(^4\) (English, as it does not carry gender) into the more clear one (Spanish).

Taking into account the statements established in the previous references and in order to observe how bilingual Spanish/English speakers perceive this type of mixed DPs in terms of gender concord, we will present the proposals of our own study in the next sections.

3. HYPOTHESIS

In the above mentioned literature, the proposals were based on research about bilingual children (Radford et al. 2007, Cantone and Müller 2008, among others) or adults (Anderson and Toribio 2007). Nevertheless, we want to check if Radford et al.’s proposal, the Accommodation Hypothesis, can be verified in data from young adults or teenagers.

Taken that within DPs the D is the one which assigns number and gender to the N (section 2.2), with which it has to match, the participants our study are expected to look at the D in order to search for the gender of the words since their L1 is Spanish and this language has a gender system that they master and, besides, a transparent language as gender is concerned. Thus, the participants will behave more positively in those examples that have a Spanish D assigning gender than in those in which the D is English and gender does not appear since the overt gender mark visible in the Spanish D facilitates instigates the participants to imagine a gender matching between the D and the N, no matter the language the second item is.

Moreover, the fact that they can easily observe a feature matching is important because in Spanish syntax, any Spanish D or N must respectively assign or be assigned gender and cannot be left ungendered as its nature is of overt gender.

Therefore, when dealing with code-switched English/Spanish DPs it is expected that, as shown in the Accommodation Hypothesis (Radford et al., 2007), our participants will search a feature matching. In the case of the DPs with a Spanish D, they will look for

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\(^4\) The term transparent language is used to refer to those languages whose inflection is richer and it is so present in the grammar, as for example in Spanish, where the gender feature is shown through a mark at the end of the word (Table 1). An example of a less transparent language would be English.
the equivalent Spanish N of the English word to assign gender. So their behavior towards utterances such as *el dog* (*el* = masculine D; *dog* = *perro* = masculine N), in which there is gender matching, will be more positive in detriment of the mismatching ones like *el door* (*el* = masculine D.; *door* = *puerta* = feminine N). This result is expected as in Radford et. al (2007) because of the need of a feature matching inside the DP claimed by MacSwan (1999, 2000).

In the case of the DPs formed by an English D and a Spanish N, we expect that the higher the input received in English, the more positive reaction towards this kind of mixed DPs. Given that English Ds do not assign gender to Ns, that great exposure to English would suppose a familiarization and acceptance of the Spanish N remaining ungendered.

On the contrary, the less input received the more Spanish gender influence the participants will show, as there would be a greater rejection towards code-switched DPs, this reaction being provoked, as we interpret it, by the need of the Spanish N to be gendered and to receive that feature from the D.

All these assumptions are thought to be proved through a task where the attitude of the participants towards mixed DPs in terms of gender concord is exhibited. Both the participants and the task are described in detail in the next section.

4. METHODOLOGY

4.1. PARTICIPANTS

The participants tested in this study are Spanish/English bilingual students that have learned English as their second language in an educational context and have Spanish as their mother tongue, so they can be classified as sequential bilinguals, following the terminology of Butler and Hakuta (2004).

The group of participants is formed by twenty boys and girls of the age of 14 to 16, currently -on average- on their 3rd E.S.O. academic year (Ninth grade or Tenth Year in the Spanish Secondary School). The vast majority of the students -seventeen of them- resides in Guardo (Palencia), and attends the local high school “I.E.S. de Guardo”. The other three participants live and study in Valladolid in “I.E.S. el Pinar de la Rubia”.

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For the purpose of this study, the participants have been divided into two groups of ten people each according to the quantity and quality of input received in English. In order to do so, a pre-test questionnaire (see Appendix 1) was used. Group A is formed by students who receive more input as they course C.L.I.L. subjects; group B is constituted by students who only receive input through their English lessons at high school.

Table 2. Quantity of input received by Group A (hours per week).

<table>
<thead>
<tr>
<th>Group A (10 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curricular</td>
</tr>
<tr>
<td>English</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Extracurricular</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>C.L.I.L. Subjects</td>
</tr>
<tr>
<td>Music: 2 h</td>
</tr>
<tr>
<td>Sciences: 2h</td>
</tr>
<tr>
<td>Technology: 2h</td>
</tr>
<tr>
<td>P.E.: 2h</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
</tr>
</tbody>
</table>

Group A receives an amount of 7 hours of English per week. The subjects in which this language is involved are English language, Technology and Physical Education (P.E.) - in the case of “I.E.S. de Guardo” students- or Sciences and Music- in the case of the students in Valladolid. Moreover, the 30% percent of group A takes extracurricular classes on English from 2 to 3 hours per week.

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5 C.L.I.L. or Content and Language Integrated Language is defined by Marsh (1994) as the ‘situations where subjects, or parts of subjects, are taught through a foreign language with dual-focused aims, namely the learning of content, and the simultaneous learning of a foreign language’. This kind of learning process is currently applied to the educational bilingual programs in many schools and high schools.
Table 3. Quantity of input received by Group B (hours per week).

<table>
<thead>
<tr>
<th></th>
<th>Curricular</th>
<th>Extracurricular</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>3 hours</td>
<td>2 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(only the 30% of the group)</td>
</tr>
<tr>
<td>C.L.I.L. Subjects</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td><strong>3 hours</strong></td>
<td></td>
</tr>
</tbody>
</table>

Group B only receives English input in their English language lessons at high school which supposes only 3 hours per week. As it occurs in the other group, extracurricular English classes are taken by 30% of the group and a 10% assures that watches British or American television programs at least 2 hours a week.

4.2. Procedure

The compilation of data was carried out in three different sessions. In all of them, the students were explained in a nutshell what code-switching is through a simple example of a N-N compound which was *pirate boat* within a DP. They were told that, in some bilingual communities, the speakers produce indifferently a *pirate barco* and *un boat pirata*. Then they were given the pre-test and the test - both described in the next section – with the instructions to carry them out.

4.3. The Test

Both groups of participants, A and B were tested with two kinds of tests: a pre-test about their languages knowledge and an acceptability judgment task.

The pre-test (see Appendix I) consists on an anonymous⁶ questionnaire in which the students are asked about their age, sex, place of residence, academic year, the name of the

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⁶ Students were assigned a number which had to figure in each pre-test and task. Thus, the characteristics and the results of each participant could be matched.
high school they attend and if they are on a bilingual education program. After that, students have to answer some questions about their language knowledge which consisted in the number of languages that they speak, how long they have been speaking them, where they learned them, the frequency and the context of use of those languages. Moreover, extracurricular courses on languages or preparation courses for official language exams are taken into account. They also have to value their reading, speaking and listening skills in the languages they have previously mentioned.

After this pre-test, the students begin to answer the acceptability judgment task\(^7\) (see Appendix II for a sample of the test) which consists of two parts: the first part includes a practice set composed of eight sentences with mixed DPs that are accompanied by pictures illustrating the main idea of each of them. Under the sentences, four grading emoticons are placed, providing the adolescents with a rating scale of four options to describe their acceptance level towards the statements: excellent, very good, bad and very bad; two categories for the acceptance- excellent and very good- and two to show rejection- bad and very bad. So the participants have to choose only one of these four options when reading a sentence like *Where is the fish?* – *El pez está in the water*.

The second part was the actual acceptability judgment task composed by thirty concord code-switched sentences: 24 experimental sentences and 6 fillers or distractors. The experimental sentences were statements written in Spanish and in English in which we could find the CS phenomenon inside the DP. The provided DPs exemplified the four different combinations between a Spanish D and an English N (as shown in Table 4) and the two possible combinations between the English D ‘the’ and a Spanish N (as shown in Table 5). The sentences that involved the Spanish D were written in Spanish (i.e. except for the English N, all the other words in the sentence were written in Spanish), and the same happened with the ones that had the D in English (i.e. except for the Spanish N, all the other words in the sentence were written in English).

\(^7\) The acceptability judgment task was designed jointly by the Language Acquisition Research Lab of the University of Ottawa (Canada) and the Language Acquisition Lab of the University of Valladolid (Spain), who allowed me to use it to carry out the present study.
Table 4. Examples of Concord Spanish D and English N

<table>
<thead>
<tr>
<th>Matching (n=6)</th>
<th>Non-Matching (n=6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fem. (3) Fem. D-Fem. N (n=3)</td>
<td>La niña ha roto <em>la chair.</em></td>
</tr>
</tbody>
</table>

As shown in Table 4, the sentences that involve the mixing between a Spanish D and an English N are a total of 12 and are divided into two main categories determined by the gender of the D: masculine and feminine, 6 sentences of each. In turn, these two categories are split into two, matching and non-matching - 3 sentences of each; that is to say, examples of situations in which the Spanish D and the Spanish translation equivalent of the English N concord in gender and occasions in which this does not happen.

Table 5. Examples of Concord English D and Spanish N

<table>
<thead>
<tr>
<th>English Determiner+ Spanish Noun (n=12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(5) Masculine Noun (n=6)</td>
</tr>
<tr>
<td>The house is in <em>the bosque.</em></td>
</tr>
<tr>
<td>I go to the beach in <em>the verano.</em></td>
</tr>
</tbody>
</table>

Table 5 shows statements that include DPs in which the English definite D ‘the’ is accompanied by a Spanish N. A subdivision is made into those Ns which are feminine and those which are masculine. In this case we have 12 sentences, half of each type. As English is a non-gendered language, gender features are not assigned to the Spanish Ns by the D *the*, as in the situation depicted in (5) (with masculine Ns such as *bosque* and *verano*) and (6) (with feminine Ns such as *lluvia* and *comida*).

Once both groups had taken the pre-test, they were grouped into Group A and Group B, and so were their tasks. The answers were classified and grouped in charts in
order to facilitate the comparison of the results. The data obtained from the task is presented in the next section.

5. ANALYSIS OF THE DATA

The results have been classified in terms of three variables: the type of mixed DP (previously explained in 4.3.), the group they belong to—group A or group B—and the attitude towards those mixed DPs, classifying the responses given into good (grouping excellent and very good answers) and bad (grouping bad and very bad answers).

The analysis of the data begins with the reaction of both groups when facing matching code-switched DPs such as the ones presented in table 3. The results of the reaction of both groups are described in tables 6 and 7.

Table 6. Group A’s responses in matching DPs.

<table>
<thead>
<tr>
<th></th>
<th>Good</th>
<th>Bad</th>
<th>Nº of Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>MM</td>
<td>9 (30%)</td>
<td>21 (70%)</td>
<td>30 (100%)</td>
</tr>
<tr>
<td>FF</td>
<td>10 (33%)</td>
<td>20 (66%)</td>
<td>30 (100%)</td>
</tr>
</tbody>
</table>

Table 7. Group B’s responses in matching DPs.

<table>
<thead>
<tr>
<th></th>
<th>Good</th>
<th>Bad</th>
<th>Nº of Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>MM</td>
<td>10 (33%)</td>
<td>20 (66%)</td>
<td>30 (100%)</td>
</tr>
<tr>
<td>FF</td>
<td>5 (17%)</td>
<td>25 (83%)</td>
<td>30 (100%)</td>
</tr>
</tbody>
</table>

Table 6 shows the number of positive and negative answers of group A towards the sentences that had a mixed determiner phrase in which the gender feature matched in

---

8 The number of answers of this chart is calculated from a total of 30 answers per type, i.e. the first column and line indicates that group A gave 9 good answers out of 30 sentences provided for Masculine D-Masculine N matching DPs.
masculine (MM) and in feminine (FF), e.g. *el plano* and *la puerta*, respectively. As for the MM DPs, there is a great rejection since 21 (70%) of the 30 possible answers are for the *Bad* option. This is repeated in the FF DPs, where the opposition continues having 20 (66%) answers out of 30 for the *Bad* option. In both cases the difference between *Good* and *Bad* answers are significant (*p*-value < 0.05⁹), that is the great majority of students in group A oppose to matching mixed DPs.

Regarding the answers of group B for the same type of mixed DPs, this group of participants showed a significant rejection towards them as 20 (66%) out of 30 answers were negative in the case of the MM masculine gender whereas there were 25 (83%) out of 30 for the feminine FF (*p*-value < 0.05).

Nevertheless, despite the rejection of DPs like *el plano* or *la puerta* by both groups, there is not a significant difference between them (*p*-value = 0.39) since the negative reaction is unanimous.

Having described the answers of both groups towards matching mixed DPs, it is the time to look for their reactions when facing non-matching ones such as *el mano* or *la reloj*, where the masculine D together with a feminine N (MF) and vice-versa (FM) are found. These results are shown in tables 8 and 9 for each group, respectively.

<table>
<thead>
<tr>
<th>Table 8. Group A’s responses in non-matching DPs.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group A</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
</tr>
<tr>
<td><strong>MF</strong></td>
</tr>
<tr>
<td><strong>FM</strong></td>
</tr>
</tbody>
</table>

⁹ The analysis performed for this study is based on the *Contrast of proportions*, where a *p*-value higher than 0.05 indicates that the difference of percentages is not significant, while a *p*-value smaller than 0.05 means the opposite, that is, that the differences of percentages is significant.
Table 9. Group B’s responses in non-matching DPs.

<table>
<thead>
<tr>
<th></th>
<th>Good</th>
<th>Bad</th>
<th>Nº of Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>MF</td>
<td>2 (6%)</td>
<td>28 (94%)</td>
<td>30 (100%)</td>
</tr>
<tr>
<td>FM</td>
<td>6 (20%)</td>
<td>24 (80%)</td>
<td>30 (100%)</td>
</tr>
</tbody>
</table>

Table 8 shows the results of group A that concerning non-matching DPs. The number of negative answers has increased in comparison with the answers showed in table 5 being now up to 28 (94%) out of 30 in the case of MF combination and up to 27 (90%) for the FM one. Hence, group A completely rejects non-matching DPs, being significant enough the difference between positive and negative answers \((p\text{-value} < 0.05)\) for both kinds of non-matching DPs.

As group A did, table 9 shows the massive opposition of group B towards the non-matching DPs such as *el window* or *la tree*. A total of 28 (94%) negative answers out of 30 for the MF mismatch and 24 (80%) out of 30 in the case of the FM mismatch define the annoyance of this group with this kind of structures. Hence, it is significant \((p\text{-value} < 0.05)\) the existent difference between the favorable and unfavorable responses inside group B.

As in the matching DPs, group A and group B exhibit a similar behavior when rating this kind of utterances, being the rejection their common answer. So, there is no significant \((p\text{-value} > 0.05)\) difference between both group’s answers.

Finally, the last pair of tables shows the responses of both group A and B towards a different kind of mixed DPs: the one with the English determiner *the* accompanied by a masculine or feminine Spanish N, as in *the suelo* or *the comida*. 
Table 10. Group A’s responses in the+ Spanish Noun DPs.

<table>
<thead>
<tr>
<th></th>
<th>Good</th>
<th>Bad</th>
<th>Nº of Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE+M</td>
<td>24 (40%)</td>
<td>36 (60%)</td>
<td>60 (100%)</td>
</tr>
<tr>
<td>THE+F</td>
<td>22 (37%)</td>
<td>38 (63%)</td>
<td>60 (100%)</td>
</tr>
</tbody>
</table>

Table 10 shows Group A’s answers when dealing with this last kind of DPs. The number of Bad answers continues being greater in opposition of the Good answers. A total of 36 (60%) out of 60 and 38 (63%) out of 60, for ‘the+ masculine noun’ and ‘the+ feminine noun’ respectively, pose the rejection as their major answer, with indifference of the gender of the Spanish N. It is also significant (p-value < 0.05) the difference within positive and negative responses within the group in both options.

Table 11. Group B’s responses towards The+ Spanish Noun DPs.

<table>
<thead>
<tr>
<th></th>
<th>Good</th>
<th>Bad</th>
<th>Nº of Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE+M</td>
<td>18 (30%)</td>
<td>42 (70%)</td>
<td>60 (100%)</td>
</tr>
<tr>
<td>THE+F</td>
<td>16 (27%)</td>
<td>44 (73%)</td>
<td>60 (100%)</td>
</tr>
</tbody>
</table>

Table 11 illustrates group B’s positive and negative responses towards this last kind of mixed DPs. The ‘bad’ category received 42 (70%) of the 60 possible answers in the case of the masculine N and 44 (73%) of the 60 possible answers when the N was feminine. These results show a significant rejection (p-value < 0.05) of group B’s participants towards this kind of structures.

When comparing Group A and Group B’s responses in English D + Spanish N mixed DPs, both groups exhibit an equal behavior since there is no significant difference neither in the answers for the masculine N (p-value=0,12) nor for those of the feminine N (p-value = 0,11).
Finally, having been presented the data of the test, it is left if our hypotheses have been successful or if on the contrary none of them have been accomplished. How we interpret the results described above will be part of the content of the next section.

6. DISCUSSION

Following the Minimalist Approach (Chomsky, 1997) according to which the D was the head of the so named Determiner Phrase, the D is the element in the phrase which transfers the gender and number features to the N. Since the participants were Spanish/English bilinguals whose mother tongue is Spanish, they perfectly know how gender works in their language (section 2.3.) and thus, they were expected to assign gender to those English Ns in the case of the ‘Spanish D-English N’ kind of mixed DPs. This would have meant a complete acceptance of the matching DPs as the participants would have avoided the fact that it is a mixed DP, only focusing on the determiner. Nevertheless, a significant minority accept the MM and FF matching DPs. The participants did not match thinking on the gender the Spanish D can assign, they directly disliked the mixture.

As for the gender mark that is overt in Spanish D and English D lacks, all participants were expected to search for the gender feature matching by looking at the head of the DP. When both groups had to deal with ‘The + Spanish noun’ DPs, they rejected all the sentences containing this kind of mixing.

This seems to annoy the participants of this study that as Spaniards feel the need of having that N assigned gender, and in this kind of utterances it does not happen. One possibility to solve this problem was the students to react according the Accommodation Hypothesis.

Following this theory posed by Radford et al. (2007), the participants were thought to accept the matching DPs and reject the non-matching ones. The results of the non-matching items do corroborate it since the great majority of the participants have rejected that kind of utterances. Nevertheless, the matching DPs were also denied by them and thus, this theory and also the hypothesis proposed at the beginning are contradicted.
They should have looked for the Spanish equivalent of the English word and then, having assigned it gender, they could have seen if there was a matching or non-matching of features, accepting the matching ones such as *la casa*. The participants deviated from this theory regardless the quantity of input they receive in English.

Moreover, according to MacSwan (1999, 2000), the feature matching should have been accomplished. Since we took the Accommodation Hypothesis as a referent, the feature matching cannot be accomplished without the Spanish equivalent. Nevertheless, though the participants perfectly know the equivalent of the English term, they just claimed their dislike towards any type of mixed utterances, negating both the matched and the mismatched DPs.

As we have previously mentioned, this result could be due to the necessity of the Spanish N of being gendered which, as being mixed with an ungendered D in English, cannot acquire that feature in that position. This partially corroborates what MacSwan (1999, 2000) said about the necessity of feature matching as the participants reject this kind of mixing because this process- the gender matching- does not take place. So, we can affirm that these Spanish participants tend to prefer matching.

On the other hand, and providing a different approach to the interpretation of the results obtained from our study, we would like to state that the participants of the previous literature (Radford et al., 2007; Cantone et Müller, 2005) were all English/Spanish bilinguals and according to the bilinguals’ classification made by Butler and Hakuta (2004) they were simultaneous bilinguals, that is, they have learned both languages in a parallel process. On the contrary, the participants of this study are sequential bilinguals that have acquired English as their second language in an educational and, what is more important, monolingual context. This difference can be an influential factor for the denial of all the mixed DPs since they do not have both languages at the same level and they live in a linguistic context where mixture does not occur.

For this reason, we consider that one decisive factor that could have influenced the unexpected results is the monolingual background. In other studies such as the one of Radford et al. (2007) or Cantone et Müller’s (2005), the participants had a bilingual ambience at home where they had referents of both languages in their paternal figures. In
this study, monolingualism reigns in our participants’ homes: their parents just speak Spanish. So the only possible contact with bilingualism is the one they had inside the class, at high school and only 7 or 3 hours a week (as it was indicated in table 2).

The monolingual ambience is also present outdoors since they live in a country, Spain, where the predominant language is Spanish and in the region of Castilla y León, where no dialect is known. Participants in studies such as Anderson and Toribio’s (2007) live in a bilingual background such as the United States, where the multicultural ambience instigates the plurilingualism, and live inside a community of Spanish heritage speakers who also have English as their first language. Hence, they are used to mixed utterances whereas our participants are not. Since the students do not have any contact with this kind of structures- mixed utterances-, they just deny the mixture as a possibility. In this way, monolingual utterances are only viable for them.

The age-rate is the last aspect that might have had an influence on the given results. The majority of studies are performed with children (Radford et al., 2007; Cantone et Müller, 2005) who accepted the mixed utterances. This could be due to the fact that they have an immature grammar that, together with the lack of vocabulary, makes them accept those utterances. Adults, who do not have an immature grammar, were also tested (Anderson and Toribio 2007) and they accepted mixed utterances. Nevertheless, we are dealing with a group in the middle of both age-rated groups of tested speakers who are not expected to have an immature grammar as children and not the same accuracy on the English language as an adult. As they are in a mid-point, it is possible that they would have needed more amount of input in order to end up accepting mixing as a normal production.
7. CONCLUSIONS

In the previous sections, we have seen how the tested Spanish/English sequential bilinguals rejected mixed utterances, no matter if they had a feature matching or not or if the N was left ungendered or not. Thus, Accommodation Hypothesis has not been accomplished since it claimed that these participants would have looked to the Spanish equivalent of the English N in order to reach a matching of features. This has not been the participants’ attitude since all the mixed DPs that are presented to them are rated within the *bad* category.

So it is left for further research, if the same results would have appeared with another age-rate of participants, being the ones tested sequential bilingual adults who have received more input than our adolescents and that may fulfill what Accommodation Hypothesis (Radford et al., 2007) states.

Another possibility is to test sequential bilinguals that live in a bilingual country such as Canada in order to look for their attitude towards concord mixed DPs. They could present a better attitude since they would be used to them in a bilingual atmosphere. Nevertheless, this can be the aim of further analysis.
8. REFERENCES


Appendix II. Sample questions of the text.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where is the milk?</td>
<td>La leche está en el glass.</td>
</tr>
<tr>
<td>Where is the teddy bear?</td>
<td>El osito is in the box.</td>
</tr>
<tr>
<td>Where is the train?</td>
<td>The train is on the puente.</td>
</tr>
<tr>
<td>¿Dónde está el sol?</td>
<td>The sun is in the cielo.</td>
</tr>
<tr>
<td>¿Dónde está el niño?</td>
<td>El niño está en el plane.</td>
</tr>
</tbody>
</table>