2019

DP internal codeswitching by Spanish and English bilinguals in the US

Yurena Castaño-Nuñez
West Virginia University, yc0016@mix.wvu.edu

Follow this and additional works at: <https://researchrepository.wvu.edu/etd>

Part of the [Spanish Linguistics Commons](#)

Recommended Citation

Castaño-Nuñez, Yurena, "DP internal codeswitching by Spanish and English bilinguals in the US" (2019). *Graduate Theses, Dissertations, and Problem Reports*. 3891.
<https://researchrepository.wvu.edu/etd/3891>

This Thesis is protected by copyright and/or related rights. It has been brought to you by the The Research Repository @ WVU with permission from the rights-holder(s). You are free to use this Thesis in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you must obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This Thesis has been accepted for inclusion in WVU Graduate Theses, Dissertations, and Problem Reports collection by an authorized administrator of The Research Repository @ WVU. For more information, please contact researchrepository@mail.wvu.edu.

DP internal codeswitching by Spanish and English bilinguals in the US

Yurena Castaño-Nuñez

Thesis submitted to the Eberly College of Arts at West Virginia University

**in partial fulfillment of the requirements for the degree of
Master of Arts in Linguistics**

Sergio Robles-Puente, PhD., Chair

Sandra Stjepanovic, PhD.

Jonah Katz, PhD.

Department of World Languages, Literatures and Linguistics

Morgantown, West Virginia

2019

Keywords: codeswitching, heritage language learners, Spanish, English, linguistics

Copyright 2019 Yurena Castaño-Nuñez

ABSTRACT

DP internal codeswitching by Spanish and English bilinguals in the US

Yurena Castaño-Nuñez

Codeswitching studies the boundaries that exist at all linguistic levels when a speaker switches between two or more languages in a single moment of speech.

- (i) *En el restaurante he pedido la big hamburguesa.*
'At the restaurant I have ordered the big hamburger.'
- (ii) *Juan conoce la highway para llegar a Washington D.C.*
'Juan knows the highway to get to Washington D.C.'
- (iii) *A Carmen no le gustan los pantalones cortos. A ella le gustan los long ones.*
'Carmen doesn't like short pants. She likes the long ones.'

This thesis concentrates on the study of switches between adjectives and Noun Phrases (NPs) (i), determiners and NPs (ii) and ellipsis (iii) in English and Spanish that Heritage Language Learners of Spanish in the US deem acceptable. Previous work by Poplack (1980), Myers-Scotton (1992) or Garner (2009) show that there are constraints and rules that govern the types of switches shown in (i), (ii) and (iii).

The analysis of the Bangor Miami corpus data revealed that DPs are the most codeswitched phrases, while ellipsis is the least one. To verify these findings and to test the constraints and rules stated by the authors mentioned above, two tasks were administered to two groups: 15 Heritage Language Learners of Spanish and, for comparison purposes, 14 native speakers of Spanish, all of them living in the US at the moment of the experiment. The two tasks were an acceptability judgment task with 30 codeswitched sentences and a forced-choice task where a multiple choice was given between 4 codeswitching instances of adjectives and nouns. The results show that Heritage Language Learners find codeswitching more acceptable than native speakers of Spanish do and that preference is given to the agreement of the word order structure and the language of the sentence, that is, when the sentence is in Spanish the word order structure is: NP → N AdjP, without regard to the language of the noun or the adjective.

TABLE OF CONTENTS

1. INTRODUCTION	1
1.2. Codeswitching	1
1.2.1. What is codeswitching?	1
1.2.2. Codeswitching as a domain of linguistic study	3
1.2.3. What is a Heritage Language Learner?	5
1.2.4. Codeswitching and borrowing	8
1.2.5. Types of codeswitching and their constraints.....	13
1.2.5.1 Switches between adjectives and nouns in English and Spanish	15
1.2.5.2. NP ellipsis in Spanish vs. one-substitution in English	21
2. INVESTIGATION	29
2.1. Research questions and hypotheses	29
2.2. Bangor Miami Corpus	30
2.3. Experiment	35
2.3.1. Participants	36
2.3.2. Instruments	46
2.3.3. Results and analysis.....	48
2.3.4. Conclusion and discussion	60
3. References	67
4. Appendices	70

LIST OF FIGURES

Figure 1. Permissible code-switching points. Adapted from Poplack, 1980, p. 568.....	15
Figure 2. Approaches to ellipsis. Adapted from Merchant (2012, p. 6).....	22
Figure 3. Relevant DP structure. Adapted from Ticio (2005, p. 135).....	23
Figure 4. Percentages of time HLL spend speaking English and Spanish in different contexts according to the data from the Language Background Questionnaires.	38
Figure 5. Percentages of time HLL spend speaking English and Spanish according to different age gaps.....	39
Figure 6. Average proficiency of Spanish by HLL.	40
Figure 7. Percentages of time native speakers of Spanish spend speaking English, Spanish and other languages in different contexts according to the data from the Language Background Questionnaires.....	42
Figure 8. Percentages of time native speakers of Spanish spend speaking English, Spanish and other languages according to different age gaps.	43
Figure 9. Average proficiency of English and other language by native speakers of Spanish.	44
Figure 10. Acceptability averages for 3 different types of codeswitching: Adjective (Adj) + N, determiners and the one-substitution by HLLs and SPs.....	49
Figure 11. Total answers according to preference for the forced choice activity by HLLs and SPs.	55
Figure 12. Total answers in forced-choice task by HLLs and SPs regarding the language of the beginning of the sentence.	56
Figure 13. Total answers of HLLs and SPs regarding sentence beginning and English word order.	58
Figure 14. Total answers of HLLs and SPs regarding sentence beginning and Spanish word order.	59

1. INTRODUCTION

1.2. Codeswitching

1.2.1. What is codeswitching¹?

Ethnologue, published by SIL International (Summer Institute of Linguistics), lists 7,099 languages spoken today. Considering the history of our world, languages have been in contact with each other for thousands of years. It is undeniable that at some point those languages have influenced one another in different ways. Languages disappear, develop, differ from one another, are undervalued in favor of another, are used simultaneously, are mixed, etc. Languages change and have done so for centuries.

For this thesis, what is of interest is the aftermath of contact between languages and specifically what happens when two languages in contact are spoken by the same person. In the first section of this thesis the term codeswitching (henceforth CS) will be described together with how it emerged in the 1940s and the evolution it has had since then. Then, Heritage Language Learners (henceforth HLLs) and what makes them special in relation to CS will be discussed. Later on, more structural aspects of CS will be analyzed such as the difference between borrowing and CS, intra- and inter- sentential CS and the constraints that Poplack presented in 1980. In the second section, the investigation for this thesis will be presented, talking first about the Bangor Miami Corpus, then about the specific switches in the experiment and finally the experiment itself will be analyzed and the results will be discussed.

¹ In this thesis the term ‘codeswitching’ (or CS for abbreviation) has been used throughout. Instances of ‘code-switching’ will appear only when directly citing authors who used it like that. All the switches involving Spanish appear in italics.

The process of CS has been taken seriously only for the last few decades. Before then it was considered random and abnormal. In fact, Weinreich, whose work in 1953 is still considered as the basis of the studies about multilingualism and contact between languages, states that CS, or as he puts it “abnormal proneness to switching, has been attributed to persons who, in early childhood, were addressed by the same familiar interlocutors indiscriminately in both languages” (1979, p. 74) and so their parents’ “errors in *both* languages will be transmitted to the next generation” (2011, p. 301). For him the ideal bilingual is someone who “switches from one language to the other according to appropriate changes in the speech situation (interlocutors, topics, etc.), but not in an unchanged speech situation, and certainly not within a single sentence.” (1979, p. 73)

In the decades after Weinreich wrote those words, CS became the focus for many researchers [Poplack (1980), Pfaff (1979), Myers-Scotton (1992), Woolford (1983), Santorini & Mahootian (1995), Gardner-Chloros (2009), Toribio (2001)] and it has developed into a vast and very interesting area for many of them. These linguists deviated from what Weinreich thought to be abnormal and focused on showing that, in fact, switching from one code to another showed high proficiency in both languages rather than just being able to juggle words and structures from both languages. Thus, for example, CS was defined by Gardner-Chloros as the “use of several languages or dialects in the same conversation or sentence by bilingual people” (2009, p. 4). He generalized the process by stating that “it affects practically everyone who is in contact with more than one language or dialect, to a greater or lesser extent” (Gardner-Chloros, 2009, p. 4). Poplack elaborates her definition of CS as “the mixing by bilinguals (or multilinguals), of two or more languages in discourse, often with no change of interlocutor or topic” (2015, p. 918), and she more precisely detailed the term in 1980 when she stated that

“code-switching was categorized according to the degree of integration of items from one language (L1) to the phonological, morphological and syntactic patterns of the other language (L2)” (p. 583). Poplack showed that CS is not just what happens when languages are in contact, but also, that the extent to which it happens varies from one speaker to the next at different sublevels.

It is undeniable that CS is influenced by social factors, such as membership to a group [Bentahila & Davies (1992), Bucholtz & Hall (2005) or Nilep (2006)], but authors such as Poplack (1980), Pfaff (1979) or Myers-Scotton (1992) present an alternative point of view to what Weinreich said about CS being random by showing that there are constraints and rules that govern the switches that happen between two or more languages.

1.2.2. Codeswitching as a domain of linguistic study

Before examining the rules and constraints of CS more closely, the presence of this phenomenon in linguistic literature over decades will be explored and different views that researchers have held about it during that time. Nilep (2006) focused on the sociocultural aspect of CS, as he argues that the work that has been done in language alternation over the last few decades has focused mainly on syntax, morphology and phonology aspects of the language. This focus has highlighted the importance of the structural system for CS, but as Nilep points out, it has left aside the fact that individual speakers with specific characteristics are the ones doing the CS. He emphasized the importance of “the social and cultural functions and meanings of language use” (2006, p. 2) and summarized the history of the emergence of CS.

According to Nilep (2006), the first appearance of CS in linguistic literature was in the 1940s, when George Barker attempted to answer the question, “How does it happen,

for example, that among bilinguals, the ancestral language will be used on one occasion and English on another, and that on certain occasions bilinguals will alternate, without apparent cause, from one language to another?” (1947, p. 185). A few years later, in 1953, Weinreich suggested that bilingual individuals possess two separate linguistic varieties, which they employ on separate occasions, and he proposed that the alternation Barker described was the product of “poor parenting” (Nilep, 2006, p. 5), as people who practiced the alternation between languages frequently had been exposed to such indiscriminate alternation between two languages since early childhood. Vogt (1954) abates what Weinreich had said by explaining what has been mentioned at the beginning of this thesis, that CS is a natural and common process due to language contact and that it was inevitable to switch codes at some point “since no languages we know have been spoken over long periods of time in complete isolation” (1954, p. 368).

Ferguson (1959) first described the phenomenon ‘diglossia’ (the forerunner term to the linguistic analysis of CS) as the existence of a “divergent, highly codified” (p. 336) variety of language used only in particular situations. Fisherman (1967) refined what Ferguson (1959) had said by describing a similar division between unrelated languages, not only varieties of the same language. For example, one variety or language would be used for formal settings, such as at school, at work, in politics, etc., and another would be used for informal settings, such as at home or with friends.

By the end of the 70s and the beginning of the 80s, Erving Goffman described ‘footing’ as a process in interaction very similar to CS. For him, footing was the positioning that an individual takes within an interaction, and he suggested footing as a “useful theory of the multiple positions taken by parties to talk in interaction” (Nilep, 2006, p. 6). From the 80s CS has been an established research area where analyzing the social factors that come into work when switching has been as important as studying the

specific switches that happen at a more structural level (morphological, phonological, syntactical).

1.2.3. What is a Heritage Language Learner?

In the previous sections I have defined what CS is for several authors, how the definition has changed over the decades and the emergence of the term and its implications. Before going into more specific details about the structure of CS, it is necessary to determine which speakers are likely to CS. To codeswitch one needs to have some level of knowledge of at least two languages and be competent in both to some degree [Pfaff (1979)]. A specific profile of speakers who codeswitch related to this study are HLLs of Spanish, where English is the other language they use for communication. But what is an HLL?

Wiley (2001) and Valdés (2001) tried to determine who was a HLL and mentioned how neglected HLLs were until the term became popular in the United States in the late 90s. Before that, the term HLL was limited to educational contexts and it had a pejorative connotation linked to the past. Wiley (2001) mentioned that labels are important because they help us “shape the status of the learners and the languages they are learning” (p. 35). He tried to define the term from four different perspectives: language learners, educational programs, communities and language use.

In the case of language learners, Wiley (2001) tried to answer the question of who can be considered a legitimate HLL. This author used the term ‘heritage language’ “to refer to immigrant languages, indigenous languages, and colonial languages” (Wiley, 2001, p. 29). Educational programs treated HLLs as bilingual or foreign language learners without realizing the different needs of this specific group of language students. Nowadays, separate programs have been created that have room for language learners with this profile. The community also plays a major role in language education. “A great

deal of heritage language education takes place outside the formal school system” (2001, p. 32), and the programs that support language education through experiences in the community are those that make the effort to ensure that the learning does not become an imposition from outsiders. Wiley (2001) mentions four types of relationships between language varieties that can influence language learning, identified by Horvath and Vaughn (1991): sociolectal, standard plus regional dialects, diglossia and bilingual/multilingual. These four perspectives help us to understand who HLLs are and what their needs are.

For Wiley (2001) the definition that Valdés gives to refer to HLL is the most useful one: “a language student who is raised in a home where a non-English language is spoken, who speaks or at least understands the language, and who is to some degree bilingual in that language and in English” (2001, p. 38). Valdés defines a heritage language as “a language with which individuals have a personal connection” (2001, p. 37). She stresses that for HLLs, the proficiency of the language is not important and what matters is the connection they have to it. Valdés (2001) focuses on the formal instruction and context of heritage languages. She mentions the challenges HLLs pose in a classroom where they already have some knowledge of the target language.

Valdés (2001) talks about HLLs being considered bilinguals. Some scholars believe in what Valdés (2001) calls the mythical bilingual, which refers to an individual with the same exact proficiency in both languages. The chances of encountering an individual with said abilities are minimal (‘mythical’); while a broader concept of bilingualism portrays it as being a continuum, in which the individual has, to some degree, the ability to understand, speak, read or communicate something in two languages, normally, one being superior to the other. For example, if a native speaker of Spanish could understand spoken Polish, he could be classified as a bilingual speaker.

Valdés (2001) also describes the language characteristics of immigrant students. She is concerned with the variety of the language they speak, which many times is not the standard variety. This language also suffers changes during the speakers' presence in the new country until, sometimes, its disappearance. "The high registers of English are used to carry out all the formal/high exchanges, while heritage languages and the informal registers of English are used as the low variety appropriate primarily for casual, informal interactions" (2001, p. 45). This use can aggravate the stigmatized use of the heritage language and the complete rejection of it from the individuals of second generation onwards. Apart from this negative view towards the heritage language, the restricted use of the language to informal contexts, may cause its structural loss, which causes the inheritance of an already marred version of the language. Furthermore, "without active intervention heritage languages are lost over time both in the individuals who speak them and in the community, and they typically die out within three generations" (Brecht & Ingold, 2002).

Valdés (2001) is mainly concerned with the general disagreement that exists in the creation of a specific teaching theory for the individuals who fall under the category of HLLs and she also highlights the need to create a new profession with specialists who are experts in the first and second languages and their different varieties. For this to become true, the first thing to do would be to understand the characteristics of these students. Peyton, Vickie and Winke (2001) group them² into three categories:

- 1) Third- or fourth- generation U.S-born Hispanic students considered to be receptive bilinguals. These students are English dominant and understand almost

² This classification refers only to HLLs of Spanish in the US as mentioned in Peyton, Vickie and Winke (2001), however, it can be extrapolated to HLLs of other languages in other parts of the world.

all spoken Spanish, but they have limited speaking skills in Spanish and do not read or write the language.

2) First- or second-generation bilinguals who possess different degrees of proficiency in English and Spanish. In most cases, these students have received their education in English and have developed few if any literacy skills in Spanish.

3) Recent immigrants to the United States who are Spanish dominant. Their level of English proficiency, the amount of formal education they have had in Spanish, and their literacy skills in Spanish may vary.

Once the characteristics of HLLs have been taken into account, new teaching methods can be developed in order to satisfy their needs, which are not the same that a regular L2 learner has.

1.2.4. Codeswitching and borrowing³

Although the focus of this study is CS, there are other related linguistic phenomena that can derive from language contact situations. When languages are mixed, phenomena such as borrowing or CS are possible outcomes, sometimes reaching the extent of developing new mixed languages, i.e. pidgins and creoles. Pfaff (1979) highlights the importance of distinguishing between borrowing and CS. She states that, although some authors classify CS as a type of borrowing, the two processes make “vastly different claims about the competence of the individual speaker” (p. 295). That is to say, a monolingual speaker could borrow isolated words or phrases from another language and insert them into their speech without needing to know anything about how the linguistic system of that borrowed language works. For a speaker to be able to codeswitch,

³ Due to the little agreement that there is regarding what is CS and what is borrowing, as it is explained in this section, some of the CS examples used in this research, those found in the corpus as well as those used for the experiment, may be considered borrowings by other analysis.

however, one needs to have some degree of knowledge of how the codeswitched languages work as it happens at a deeper level where boundaries between phrases and constituents in both languages are involved. For example, knowing how to combine the switch in English and Spanish where adnominal adjectives in English are prenominal and in Spanish are mostly postnominal. Furthermore, Myers-Scotton states that specifically for lexical entries, even though both are subject to the same procedures, “CS and B(orrowing) forms must be different, since B forms become part of the mental lexicon of the ML [Matrix Language], while CS forms do not” (1997, p. 163). In her book, she further claims that frequency of use by speakers is a reliable criterion to distinguish between the two and supports her claim with evidence showing that borrowings have a higher frequency than CS forms.

Pfaff (1979) also mentions that even though many researchers agree with this distinction, there has not been an agreement yet on how this division could be made. Pfaff (1979) cites what other authors say about the distinction between borrowing and CS to show this disagreement. She starts by mentioning how some authors [Gingràs (1974) and Reyes (1974)] make a distinction between the two terms based on the surface syntax and morphology of a particular expression. Following this division, borrowings happening with single words and switches are defined by Reyes (1974) (as mentioned in Pfaff, 1979) as beginning at “clearly discernible syntactic junctures” and “having their own internal syntactic structure” (p. 296). Reyes (1974) expands the classification of borrowing as ‘spontaneous’ borrowings, which are not morphologically adapted to L1 (1)⁴, and ‘incorporated’ borrowings, which are morphologically adapted to L1 (2).

(1) *Los están bussing pa otra escuela* ‘They are bussing them to another school’

(2) *Taipeo las cartas* ‘I type the letters’

⁴ Examples 1 to 11 are as they appear in Pfaff (1979)

What Pfaff (1979) discovers after this classification is that the definition of switches is not as distinct as Reyes (1974) claims, as it fails to distinguish between the borrowing (3) and the switch (4) which begin at the same syntactic juncture. Also, borrowed idiomatic phrases (5) and English lexical items (6) have their own internal syntactic structures and according to Reyes' classification, only switches have an internal syntactic structure.

(3) *Va a re-enlist* 'He's going to...'

(4) *No van a bring it up in the meeting* 'They are not going to...'

(5) *Lo puso under arrest* 'He put him...'

(6) *Va a ver un state executive committee meeting* 'He's going to see a...'

Pfaff (1979) claims that the fact that there has yet to be any solid settlement between borrowing and CS is because the classification goes beyond the utterance, and social and linguistic variations with all their variables need to be taken into account, which makes for little consensus on this topic.

Another question that Pfaff explores is the one regarding the access speakers have to lexical inventory, both in L1 and L2. That is to say, "Does an L1 equivalent exist? If so, is it also in use in the community? Is the equivalent L1 term known to the individual speaker? Does the individual regard the word as belonging to L1 or to L2?" (1979, p. 297). According to her, it is possible to get the answers we need from cues found in the utterances which determine that the speaker is aware that they are about to codeswitch. These cues are hesitation (7), asides (8), and translations (9) or paraphrases (10).

(7) *Los – los – uh – your muscles a veces react* 'The – the –...sometimes...'

(8) *Tuve que mandar lo que llaman transcript* 'I had to send what they call...'

(9) *Los moles, en español, usted sabe – los animalitos que parecen ratas pero viven enterrados, moles, ¿cómo se dice la palabra?* 'the moles, in Spanish, you

know – the little animals that are like rats except they live underground, moles,
how do you say the word?’

(10) *aptitudes necesarias: taquigrafía, o sea shorthand* ‘required skills:
shorthand, that is...’

(11) *Nosotras dropeamos esta clase* ‘We drop this class’

Pfaff (1979) further describes what she calls functional load as it is connected to the relationship of morphological adaptation and lexical incorporation to the language. Both depend on the marking of the morphology of the functional load of syntactic categories. With respect to it, she emphasizes that authors like Elías-Olivares (1976) or Sobin (1976) have noted that some verbs in English, when codeswitched, are given Spanish tense/aspect and subject-agreement inflection (11), but English adjectives are never inflected for gender and number. This functional constraint on English verbs in Spanish sentences is also observed in other languages by Haugen (1973) and as he points out, this may happen to “supplement the fact that tense is an obligatory category in (at least) the Indo-European languages.” (Pfaff, 1979, p. 298).

Pfaff (1979) also mentions the subcategories of CS that McClure & McClure’s (1975) and Wentz & McClure’s (1977) distinguish: ‘code-mixing’ and ‘code-changing’. They claim code-mixing is when a word or expression in L2 is more axial or it is unknown in the language of discourse (L1), then the switch will occur within constituent boundaries resulting in sentences belonging to L1. Code-changing is a stylistic device used to address a change in the setting where the discourse is taking place. This change takes place between constituent boundaries and results in sentences belonging to L1 and L2 sequentially.

Myers-Scotton’s (1992) main interest, as mentioned above, is that frequency of use by speakers is one of the most reliable factors in determining the status of a form as

borrowing or CS. In her article [Myers-Scotton (1992)] she focuses on the similarities and differences borrowings and CS forms have when their frequency is minimal in a corpus. She claims some borrowings have their origin as CS forms, as “they undergo the same morphosyntactic procedures from the ML [Matrix Language] during language production” (p. 20). She suggests that there is a continuum between the two forms and that the line that divides them and that so many researchers try to prove, is in fact, nonexistent.

While many researchers are so focused on finding the difference between borrowing and CS, Myers-Scotton (1992) talks about a division that exists inside the group of borrowing forms. She distinguishes between core and cultural borrowing forms. On the one hand, cultural borrowings “stand for objects or concepts new to the Matrix language culture” (p. 28) and they become part of the matrix language “*abruptly*” (p. 29); once a speaker has used them, he will most certainly use them again. On the other hand, core borrowings are words that are borrowed because “certain types of contact situations promote desire to identify with the EL [embedded language] culture or at least aspects of it.” (p. 29). Those one-word insertions are something that Matras (2009) has also discussed asking about how we can distinguish and where we draw the line between borrowings and one-word switches. Matras (2009) talks about the different criteria to consider borrowings and codeswitches “arranged on a continuum” (p. 113). He claims that “a considerable degree of ambiguity will therefore always remain in respect of the language mixing patterns of bilinguals and of any single bilingual corpus” (Matras, 2009, p. 114).

1.2.5. Types of codeswitching and their constraints

Although as discussed in the previous section the line that divides CS and borrowing is still blurry, codeswitches have been classified into different types according to the boundaries at which these switches occur.

CS is typically divided into intrasentential and intersentential CS [McSwan (2004), Poplack (2015)]. Grammatical theory is more interested in studying intrasentential codeswitches, “an alternation that occurs below sentential boundaries” (MacSawn, 2004, p. 283), as it defies and adjusts to the boundaries of grammar structures of the languages being switched (12). Intersentential CS happens “between sentences” (MacSawn, 2004, p. 283) and consequently, the complexity of the switches is much less than that of intrasentential ones (13). Thus, the research has been less productive in that area.

(12) Code-Switching among bilinguals *ha sido la fuente de numerosas investigaciones*. ‘...has been the source of numerous studies’. (Toribio, 2001, p. 205)

(13) *Llegamos a los Estados Unidos en los 60*. New York was our home. ‘We arrived in the US in the 60s.’ (Toribio, 2001, p. 205)

The most productive research area has been intrasentential CS, due to its complexity and more challenging grammatical structure. As previously mentioned, by the 1980s it was clear that none of these switches were random and that they were subject to rules and constraints as any other grammatical structure. There was, however, little agreement to which rules these were supposed to be. Poplack (1980) suggested the existence of two syntactic constraints; namely the free morpheme constraint and the equivalence constraint. These two constraints were enough to account for all the examples of CS that the author analyzed.

- (a) The free morpheme constraint: “Codes may be switched after any constituent in discourse provided that constituent is not a bound morpheme” (Poplack, 1980, p. 585). Bound morphemes are those that cannot appear by themselves regardless of meaning and need to be attached to other morphemes to create words. Free morphemes are those that can occur on their own and together with other morphemes they can create lexemes. Instances such as (14) would not be possible because the bound morpheme in Spanish ‘-iendo’ (-ing) is attached to the English root ‘eat’, and bound morphemes cannot be switched. This is true unless the lexical item has been phonologically adapted to the language of the bound morpheme (15).

(14) *EAT – *iendo* “eating” (Poplack, 1980, p. 586)

(15) *Juan está parqueando su coche.* ‘Juan is parking his car.’ (MacSwan, 2004, p. 300)

- (b) The equivalence constraint (EC): “Code-switches will tend to occur at points in discourse where juxtaposition of L1 and L2 elements does not violate a syntactic rule of either language” (Poplack, 1980, p. 586). By this definition, English and Spanish codeswitches only occur and can only occur when the grammar rules are not violated for either language. As seen in Figure 1 below, the dotted lines show points in which switches may occur, the arrows show how both languages map onto each other, and line C shows the actual utterance of the speaker. The codeswitch example in Figure 1 is not violating the EC as it does not violate the syntactic rules for either Spanish or English; it does not cross any boundaries.

A. Eng	I	told him	that	so that	he	would bring it	fast
	↑	↗	↑	↑	↑	↘	↑
B. Spa	(Yo)	le dije	eso	pa' que	(él)	la trajera	ligero
C. CS	I	told him	that	PA' QUE		LA TRAJERA	LIGERO

Figure 1. Permissible code-switching points. Adapted from Poplack, 1980, p. 568.

When the free morpheme constraint and the EC work simultaneously, the utterances are grammatical both in the L1 and the L2, not violating any syntactic rule in either language. These examples of CS indicate that bilinguals are able to recognize the syntactic structure of two languages simultaneously and are competent enough to know how they map onto each other to combine both without violating any syntactic rule for either language. In the time since Poplack proposed these constraints (1980), they have been challenged by authors such as Woolford (1983), Santorini & Mahootian (1995) or Bhatia & Ritchie (2004) raising their validity into question. It is worth mentioning, however, that these were the beginning of rule-governed ideas of CS.

1.2.5.1 Switches between adjectives and nouns in English and Spanish

There is not much consensus [Woolford (1983), Santorini & Mahootian (1995)] regarding the distribution of adnominal adjectives in intrasentential codeswitches, which comes from the lack of agreement on their syntactic status. Due to this, “it should come as no surprise that their distribution has remained one of the single most vexed issues in the study of codeswitching” (Santorini & Mahootian, 1995, p. 3). Different authors have studied these instances of codeswitches and proposed different theories and explanations to account for their distribution.

Woolford (1983) proposes a syntactic theory that would account for these switches. She theorizes about a model in which both grammars of English and Spanish are separate and “each lexicon feeds only the phrase structure created by rules from the

same grammar” (p. 522). That is to say, one can only insert English lexical items at the end of terminal nodes of an English phrase structure, and the same would work for Spanish. When the structures overlap, items from both languages can be inserted freely. As for NPs and adjectives, Woolford’s (1983) theory explains the difference between English and Spanish in this respect. English and Spanish differ in the fact that only Spanish allows N’ to consist of an N followed by an adjective⁵ (16).

(16) $N' \rightarrow N \text{ Adjective}$

Woolford (1983) gives examples such as (17) through (19) to exemplify the restrictions of this syntactic theory.

(17) *the *casa* big (Quintero)

the house big

‘the big house’

(18) *El man *viejo* está *enojado* (Gingràs (1974))

The man old is mad

‘The old man is mad’

(19) *This *abastos* little (Quintero)

This grocery store little

‘This little grocery store’

Sentences (17), (18) and (19) support Woolford’s (1983) idea of only being able to insert lexical items at terminal nodes from the same language as that of the phrase structure. That is, following the tree in (16) N and Adj nodes could only be filled by lexical items of the same language, not allowing the possibility of a switch.

⁵ Although there are prenominal adjectives in Spanish, for this thesis the focus will be on postnominal adjectives.

Santorini & Mahootian (1995) look at the problem from another point of view and analyze adnominal adjectives as phrasal adjuncts. This analysis would account for examples (17) through (19). When adjectives are placed as adjuncts of NPs, adjectives and nouns are terminal nodes of their own phrases, allowing them to be completed by any lexical item of any of the languages being switched.

These authors hold the view that CS instances are subject to the same constraints as any monolingual phrase structure, thus eliminating specific intrasentential CS constraints that Woolford (1983) points out. Their idea also goes against previous work published during the 70's and 80's when the focus turned from the sociolinguistic factors of CS to the more internally grammatical ones [Poplack (1980) and Pfaff (1979)]. They argue that Woolford (1983), though not explicitly, is giving an account for the EC [Poplack (1980)] which does not contemplate switches between languages with pre- and postnominal adjectives and nouns. Santorini & Mahootian (1995) also argue that Bentazi, Rubin and Toribio's (1994) word grammar integrity corollary (20) is just another version of the EC by Poplack (1980) as it "requires both the adjective and the noun to obey the grammars of their respective languages" (p. 20).

(20)⁶ A word of Language X, with Grammar G_x, must obey Grammar G_x.

In their proposal, Bentazi et al. (1994) show that only when adjectives and nouns obey the grammar rules of their respective languages they can be switched.

(21)⁷ *J'ai une voiture mizyaena*

I-have a car nice

'I have a beautiful car'

(French-Tunisian Arabic; Belazi et al., 1994: 232, (27a))

⁶ (20), (21) and (22) are adapted from Santorini & Mahootian (1995, p. 20)

⁷ In (21) and (22) the words in italics are in French and the words in bold are in Tunisian Arabic.

(22) * **ʔand-I karhba belle**

At-I car nice

‘I have a beautiful car’

(Tunisian Arabic-French; Belazi et al., 1994: 232, (27b))

In (21), the rules of French and Tunisian Arabic are followed because in both languages adjectives are postnominal; in contrast, (22) is incorrect because ‘*belle*’ is one of the special adjectives in French that are prenominal. Thus, the sentence would follow Tunisian Arabic’s rules but not those of French, then violating the word grammar integrity corollary which only allows switches when adjectives and nouns follow the rules of their respective languages.

The EC does not allow switches such as (23) as found in Santorini & Mahootian (1995, p. 12) because the switch would be crossing the boundary of the phrase. Following Woolford’s (1983) theory, ‘*pechos*’ and ‘flat’ and ‘*palabras*’ and ‘heavy-duty’ would be terminal nodes of the same phrase structure. Each item being in a different language violates her theory of only allowing lexical items at terminal nodes of the same phrase structure in the same language. Also, Bentazi et al.’s (1994) theory is violated because, although Spanish nouns precede the adjectives they are modified by and in (23a) this is not violated, English adjectives are prenominal and in (23b) they appear after the nouns they are modifying, thus contravening word order English rules.

(23a) *Tenían patas flacas, pechos flat*

They-had legs skinny chests

‘They had skinny legs, flat chests.’ (Poplack, 1980)

(23b) *Las palabras heavy-duty, bien grandes, se me han olvidado*

The words , real big, refl to-me have forgotten

‘I have forgotten the heavy-duty words, the real big ones’ (Poplack, 1980)

Even though Woolford (1983) argues that Spanish has a unique structure as shown in (16) and that codeswitches in (23a,b) are not possible, Santorini & Mahootian (1995) show evidence against it. What propose is that “codeswitching sequences are derived by

substituting or adjoining trees from either of two languages at nodes of trees from the other” (Santorini & Mahootian, 1995, p. 9). They assume that speakers have access to two auxiliary trees: prenominal adjectives (24a) and postnominal adjectives (24b).

(24a)

(24b)

Several authors (Aguirre, 1976; Wentz and McClure, 1976, Bentahila and Davies, 1983 [as mentioned in Santorini & Mahootian (1995)]) proposed that it is the language of the adnominal adjective that will predict the position it takes on the sentence. This analysis accounts for examples like (25) and (26) [from Santorini & Mahootian (1995, p. 11)], where adjectives in English are prenominal and in Italian or French are postnominal.

(25)⁸ *Ma ci stanno dei smart italiani*

‘But there are smart italians’ [Italian-English]

(26) He presented a paper *exceptionnel* (‘exceptional’) [English-French]

Santorini & Mahootian (1995), however, show evidence that this analysis cannot account for the codeswitches in sentences (23a,b). If we consider adnominal adjectives as being phrasal adjuncts rather than heads, examples in (23a,b), (25) and (26) are verified. Following this assumption, NPs and AdjPs can then be filled by lexical items from any of the languages being codeswitched, in other words, the language of an adnominal adjective does not determine the Spanish (N’ → N Adjective) or English (N’ → Adjective N) word order of the noun it modifies, and sentences such as (23b) [syntactic tree in (27)], (25) and (26) are allowed. Thus, allowing “codeswitching between languages with pre- and postnominal adjectives to on occasion give rise to adjectives and

⁸ In (25) the words in italics are in Italian and in (26) in French.

nouns from one language appearing in an order unique to the other” (Santorini & Mahootian, 1995, p. 13).

(27)

Even though, ‘heavy-duty’ is an adjective in English and English is a prenominal language regarding adjectives, if we consider it an adjunct of NP ‘*palabras*’, we can place it to its right, following the syntactic structure of Spanish where adjectives are postnominal (24b). Santorini & Mahootian’s (1995) analysis can account for instances where CS sentences that have different word order for pre- or postnominal adjectives like (28) and (29)⁹.

(28) *la cheerleader pesada*
 the annoying
 ‘The annoying cheerleader’

(29) *un micrófono built-in*
 A microphone
 ‘A built-in microphone’

Once the AdjP is located as an adjunct of the NPs in the syntactic tree (30) (31), the codeswitching does not violate or contravene any rules of the languages being switched and, thus, the sentence is correct.

⁹ Examples (28) and (29) are considered CS because they are not phonologically or morphologically adapted to the target language, in this case, Spanish.

(30)

(31)

1.2.5.2. NP ellipsis in Spanish vs. one-substitution in English

Another interesting sentence structure that can be found when Spanish and English are combined, is NP ellipsis in Spanish (32) and its counterpart in English, one-substitution (33).

(32) *Mi madre no quiere la televisión pequeña, ella quiere la [ellipsis] grande.*

My mom not want the tv small, she wants the [e] big.

‘My mom doesn’t want the small tv, she wants the big one’

(33) I broke my old laptop so I need a new **one**.

When we analyze phrases we get to see the units that form the phrase: prepositions, nouns, adjectives, adverbs, etc.. We can go deeper in the structure of a sentence if we go into semantics and realize how meaning works in unison with phonetics and phonology to make sense of a sentence. With ellipsis, that unity is broken and we cannot ‘see’ the connection between form and meaning. “In ellipsis, there is meaning without form” (Merchant, 2012, p. 2).

There are three questions that arise when talking about ellipsis according to Merchant (2012, p. 4):

- 1) Is there syntax internal to the ellipsis site?
- 2) Is the identity to the antecedent semantic or syntactic?

3) What heads, positions and structures allow ellipsis and what are the locality conditions on the relation between ellipsis and these structures?

To answer these questions, Merchant (2012) presents two different approaches to the study of ellipsis:

Figure 2. Approaches to ellipsis. Adapted from Merchant (2012, p. 6).

As shown in Figure 2, Merchant (2012) proposes two broad approaches to find the answer to how ellipsis works: the nonstructural and the structural approach. The former works under the assumption that meaning is generated in the absence of syntactic structure. The latter argues the existence of syntactic structure that is not pronounced but it is there. Within structural approaches (Figure 2), there are two lines of investigation: PF (Phonological Form) and LF (Logical Form). The first one claims that the syntactic structure is subject to deletion turning it unpronounced and the second one talks about a null lexical item that is not relevant to pronunciation.

Regarding the NP ellipsis in Spanish, Ticio (2005) tries to find evidence and an explanation for how it happens. Her analysis pays attention to two main issues that can be referred to as the General NP ellipsis [the ellipsis that happens with non-definite articles (34)] and the Definite Article (35) in NP ellipsis. This division derives from examples such as:

- (34) *Compramos muchos libros y tú compraste algunos* [e]llipsis
 (we)bought many books and you bought some [e]
- (35) **Compramos un libro y tú compraste el* [e]
 (we)bought a book and you bought the [e]

While in sentence (34) the NP is elided leaving an indefinite article as a remnant, elision in (35) is not possible because of the presence of the definite article ‘*el*’ (the). In order to account for these examples, Ticio (2005) proposes a theory where she assumes the structure of DP in Figure 3 as well as that NP ellipsis involves PF deletion.

Figure 3. Relevant DP structure. Adapted from Ticio (2005, p. 135).

One of her first assumptions is that ellipsis can only affect lower segments of NP in Figure 3, which means that NP ellipsis permits elements generated outside the lower NP to be left stranded. This way, and following the structure in Figure 3, Adjuncts (36a), PostN(ominal) Adjectives (36b), Possessors (36c), Agents (36d) and R(elational)-Adjectives (36e) will be expected to be seen as remnants, while PreN(ominal) Adjectives (36f), and OBJ will not be able to be observed as remnants:

- (36)¹⁰ a. *Compramos bastantes libros para regalo y uno [e] [para consulta]_{adjunct}*
 (we)bought several books to gift and a [e] to consult
- b. *Compramos varios libros azules y uno [e] rojo.*
 we(bought) several books blue and a [e] red
- c. *Compramos varios libros de Luis y uno [e] [de María]_{poss}*
 (we)bought several books of Luis and a [e] of María
- d. *Compramos varios libros de Cervantes y uno [e] [de Borges]_{ag}*
 (we)bought several books of Cervantes and a [e] of Borges
- e. *Compramos varias novelas policiacas y una [e] romántica.*
 (we)bought several books police and a [e] romantic
- f. **Ayer vi a la verdadera terrorista y a la supuesta [e].*
 yesterday (I)saw to the true terrorist and to the alleged [e]
 ‘Yesterday, I saw the true terrorist and the alleged one’

With her proposal and structure in Figure 3, Ticio (2005) accounts for data where NP ellipsis with PostN Adjectives remnants is possible but it is not with PreN Adjectives remnants. As the latter are base-generated at the specifier position of NPs, they must undergo ellipsis. In contrast, PostN Adjectives are generated as adjuncts, so they are out of the ellipsis site and can remain after NP ellipsis. Her proposal, however, runs into a problem with OBJs. In (37) OBJ is left stranded after NP ellipsis, even though, it is part of the lower segment of the NP and it should have been elided with it. To account for this situation, Ticio (2005) assumes that OBJ in sentences like (37) is generated somewhere else and moves before the ellipsis targets the lower segments of NP at PF. That is, the NP moves at the moment when phonetic interpretation is assign to the sentence (Hornstein, Nunes & Grohmann, 2005, p. 22).

- (37) *Compramos varios libros de Matemáticas y alguno [e] [de Física]_{OBJ}*
 (we)bought several books of Math and some of Physics

¹⁰ Examples (36 a, b, c, d, e, f) and (37) as they appear in Ticio (2005, p. 136)

English counterpart of NP ellipsis in Spanish involves a different process: one-substitution. While English has restrictions regarding which sentences can undergo one-substitution (or insertion), it is mostly the case that ‘one’ is inserted in the NP position within DP, as illustrated in (38).

(38) I like that car, but I prefer [this one].

In (38) ‘one’ is inserted in the target DP of the sentence substituting the noun ‘car’ of the antecedent DP. This kind of substitution has some constraints as Llombart-Huesca (2002) points out:

- a) It is not possible with mass nouns.

(39)¹¹ *I bought old furniture and new one.

- b) It cannot be preceded by a quantifier or numeral unless an adjective is present.

(40) *many ones / many green ones.

- c) It can only appear in contexts of restrictive modification

(41) Did you read the book? Yes, I read the *one/book.

Llombart-Huesca (2002) argues that one-substitution involves NP ellipsis as it is inserted in the same position and both are in complementary distribution. She points out that “the similarities in the set of properties displayed by both constructions [NP ellipsis

¹¹ Examples (39), (40) and (41) are as they appear in Llombart-Huesca (2002, p. 60)

and one-substitution] could then suggest that we are dealing with different manifestations of the same underlying construction” (2002, p. 62).

Llombart-Huesca (2002) describes six different ways in which both constructions (NP ellipsis and one-substitution) behave in the same manner:

1. NP ellipsis and one-substitution can appear in subordinate clauses where the main clause contains the antecedent DP.

(42)¹² I prefer this car, although I liked those ec¹³, too.

I prefer this car, although I liked the pink one, too.

2. The order of the target and the antecedent DP can be reversed, only when the target DP is in the subordinate clause and the antecedent is in the main clause.

(43) Although I liked these ec better, I bought the pink car.

*I bought these ec, although I liked the pink car

(44) Although I liked the blue one better, I bought the pink car.

*I bought the blue one, although I like the pink car better

3. Both constructions can occur in a separate clause of that containing the antecedent.

(45) Which car do you like?

I like these ec.

(46) Which car do you like?

I like the pink one.

4. The antecedent does not need to be linguistically expressed.

(47) (looking at some cars) Do you like those ec?

(48) (at a car dealer's) Which one do you like?

I like the pink one.

¹² Examples (42) through (57) as they appear in Llombart-Huesca (2002, p. 62-65)

¹³ Empty NP

5. The complement of the NP cannot be left stranded after the elision and it cannot co-occur with ‘one’(49), while adjuncts (50) can. This is connected to the explanation of NP ellipsis in Spanish by Ticio (2005).

(49) *I talked with these students of physics and with these ec of chemistry.

*I met the student of physics but I didn’t meet the one of chemistry.

(50) I talked with these students of physics and with these ec from Italy.

I met the student from Germany but I didn’t meet the one from Italy.

6. Both constructions can be interpreted in a number of ways. In (51) both sentences could be interpreted as Jack seeing Julie’s picture of Janet’s cat or her own picture of her own cat.

(51) I saw Janet’s picture of her cat and Jack saw Julie’s ec.

I saw Janet’s beautiful picture of her cat and Jack saw Julie’s ugly one.

According to Llombart-Huesca (2002), these constructions are particularly interesting since they behave similarly in some contexts and very differently in others; which consequently renders codeswitching between them to be particularly interesting. This author talks about NP ellipsis and one-substitution working in complementary distribution, which means, that they are in mutually exclusive contexts.

(52) I like the blue car but I don’t like the pink one.

*I like the blue car but I don’t like the pink ec.

‘One’ must also appear with singular demonstratives (53) and NP ellipsis with plural demonstratives (54), except when there is an adjective with the plural demonstrative (55).

(53) I like this car but I don’t like that one

*I like your car but I prefer that.

(54) I like these shirts but I don’t like those ec.

*I like these cars but I don’t like those ones.

(55) I like these shirts but I don’t like those red ones/*ec.

After possessives (56) and quantifiers ('many', 'some', numerals, etc.) (57) the empty NP is only acceptable.

(56) I like your car, but I don't like mine ec / *my one.

I like Mary's apartment but I don't like Pete's ec / *one.

(57) All the students took the exam, but many / some / three (*ones) failed.

Following Llombart-Huesca's proposal (2002) and the evidence shown, NP ellipsis and one-substitution display some similarities as well as differences. Together with Ticio's theory of NP ellipsis in Spanish (2005), it is evident that Spanish and English deal in different manners with the same kind of process.

Starting from the idea of Poplack's constraints (1980), and the studies by Santorini & Mahootian (1995), Ticio (2005) and Llombart-Huesca (2002) the following section is an account of the investigation itself, that is, the experiment that was designed to test the constraints and the steps that were followed to do so. Before designing a test targeting specific CS instances, the Bangor Miami corpus was used as a real data recording from conversations of Spanish-English bilingual speakers in Miami, Florida (USA). This corpus was consulted to check the validity of the constraints and also to find out which CS type was the most common for Spanish-English bilinguals. After consulting the Bangor Miami corpus, the experiment was designed to grade the acceptability of CS instances by HLLs regarding DP internal CS with determiners, nouns and adjectives and the combination of NP ellipsis in Spanish and the one-substitution in English. Part of the research was also devoted to answering the question of preference. That is to say, apart from testing the acceptability of CS utterances by HLLs, the aim was also to discover if preference was given to the prevalence of the language of the sentence, the language of the preceding word or the word order structure particular to the language (Spanish NP → N AdjP or English NP → AdjP N). For this particular research, apart from the group of

HLLs living in the US as bilingual speakers of English and Spanish, a group of Spanish native speakers with L2 English and currently living in the US was also tested for comparison purposes.

2. INVESTIGATION

2.1. Research questions and hypotheses

Taking into account the constraints that Poplack (1980) established as the basis of a rule-governed theory for CS and what Santorini & Mahootian (1995), Ticio (2005) and Llombart-Huesca (2002) proposed regarding specific switches, it is hypothesized that the Bangor Miami corpus will reflect the complexity of the NP ellipsis and the one-substitution and codeswitched examples with both constructions will not be very recurrent. It is expected that speakers in the Bangor Miami corpus will deal with codeswitching with NP ellipsis and one-substitution by not mixing any of the two structures and maintaining them syntactically loyal to the language they are uttered in. That is, both structures will be kept intact when codeswitching is involved. Where DPs are involved, it is predicted that the Bangor Miami corpus will reflect that complexity of the switch between adjectives and nouns by speakers avoiding it almost completely. This means that it is not likely that adjective and noun switches will be found in the corpus. Regarding the barrier between NPs and DPs, that is, between the determiner and the NP, as it is a more straightforward switch than that of adjectives and nouns, it is predicted that many examples like (58) and (59) will be found.

(58) *Nosotros fuimos a una* house. ‘We went to a house’.

(59) I decided not to buy the *carro* (car).

In order to shed more light to what the Bangor Miami corpus exposes, a group of speakers will be asked to participate in a test where they will judge the acceptability of several Spanish-English codeswitched utterances and show preference for Spanish and English adjective-noun switch order. It is hypothesized that in the case of NP ellipsis and one-substitution participants will not accept CS when the insertion of ‘one’ violates the structure of Spanish and the deletion of it violates the structure of English.

Regarding the DP structure of a codeswitched utterance, it is predicted that following what Santorini & Mahootian (1995) mentioned in their article, the acceptability of codeswitched utterances involving adjectives and nouns will reflect that AdjPs are behaving as adjuncts of NPs, thus, allowing the insertion of lexical items from either language, English or Spanish, at the end of terminal nodes (60) (61).

(60) *En el restaurante he pedido las big hamburguesas.*

‘At the restaurant I have ordered the big burgers’

(61) I give my mum the blue *flores* (flowers)

It is also predicted that the language of the sentence will affect the acceptability of the codeswitched sentence. That is to say, if the sentence is in Spanish, the acceptability will prevail towards the adjective and noun word order of Spanish (62) in the DP and the same will be expected for a sentence in English (63).

(62) *La profesora enseña unas subjects aburridas*

‘The teacher teaches boring subjects’

(63) A *verde* (green) truck passed me on the right

2.2. Bangor Miami Corpus

The Bangor Miami corpus was used to determine the kind of CS instances had already been collected in the field and the conclusions that could be drawn from them so as to design the experiment accordingly. The Bangor Miami corpus of Spanish-English

bilingual speech was recorded and transcribed between 2008 and 2011 as part of a research project. It consists of 56 audio recordings and their corresponding transcriptions between two or more speakers (a total of 84) living in Miami, Florida (USA). The corpus has a total of 242,475 words from 35 hours of recordings. The recordings were made at a convenient place for the subjects where an informal conversation between friends, family or colleagues was favorable. After the recordings, speakers were asked to fill out a background information form regarding their age, gender, location of places lived, etc., that was used for the sociolinguistic analysis of the gathered data.

For the current study, 27 transcriptions (11,695 clauses) of 39 speakers in total with an average of 31.3 years of age were analyzed. It was revealed that the most common CS (68 examples in 27 conversations) in the Bangor Miami corpus is the switch inside DPs where determiners, adjectives and nouns were switched in a variation of ways. Apart from DPs, in the corpus other types of CS were found as well. The way in which they are displayed is the same as used in the corpus; the first tier is the transcription of what was said, the second is an English word-by-word glossary except for the words that are already in English in the original utterance, and the third is a translation of what the sentence would be like in English.

Inside Verbal Phrases (VPs) many different instances of CS were found (32 times). In sentence (64) verbs '*levántate*' and 'go' are coordinated by the conjunction 'and' appearing one in Spanish and the other one in English. In (65) we see a verb in the present progressive in which the auxiliary is in Spanish as the rest of the sentence '*estaban*', but the main verb in the gerund is being switched to English 'recording'. This switch between the auxiliary and the main verb, is not common and only a few instances of this were found ('*ha* (has) warm up', 'I can't *mantener* (maintain)'). Examples like (66) and (67) were very common regarding the switch of subjects and VPs. Another very

common example of CS that was found in the corpus were the predicates as in (68) and (69).

(64) *Ni aunque te quedes conmigo le digo levántate* and go to class.

Nor though you stay with-me him tell raise

‘Even if you stay with me, I tell him get up and go to class.’

(65) *Yo no sabía que a Maria la estaban* recording *también*.

I not knew that to Maria her were too

‘I didn’t know that they were recording Maria as well.’

(66) *Porque Jamie* has one track mind.

Because Jamie

‘Because Jamie has one track mind.’

(67) *My sister-in-law quiere que haga...*

wants that I-do

‘My sister-in-law wants me to do...’

(68) *Son como* waterproof

Are like

‘They are like waterproof.’

(69) *Hay algunas que son* very close friends of yours or no?

There-are some that are

‘There are some that are very close friends of yours or no?’

CS in Prepositions Phrases (PPs) was also common in the corpus were only prepositions were switched (70), or the whole PP was switched (71). Some of this PPs worked as predicates (72).

(70) *Desmenuzado con* stuffing

Shredded with

‘Shredded with stuffing’

(71) *El dinero ese que nos van a dar* with the taxes

The money that that us going to give

‘That money they are going to give us with the taxes’

(72) *Él es* from Chicago

He is

‘He is from Chicago’

Other CS examples that were often found were conjunctions (73a,b), adverbs (74a,b), subordinate clauses (75a,b), discourse markers (76a,b), tags (77) and numerals (78a,b).

(73) a) *Pero* (but) it was completely different.

b) And *yo no lo iba a invitar*

I not him was-going to invite

‘And I was not going to invite him’

(74) a) His wife works *también* (too).

b) *Sí* (yes), I have a room

(75) a) He was telling me *que quiere grabar el programa ese*

that wants record the program that

‘He was telling me that he wants to record that program’

b) *Tenía que ir al súper* cause I had no milk

I-had that go to-the market

‘I had to go to the market cause I had no milk’

(76) a) *Es que es* like

is that is

‘It’s like’

b) *Está, well, estoy de acuerdo*

is am in agreement

‘It is, well, I agree’

(77) But they sold their house, *verdad* (right)?

(78) a) Subió (it-went up) *two degrees*

b) Acá decía *seventy four*

here said

‘Here, it said seventy four’

Sentences from (79) to (83) are some of the examples found featuring different kinds of DP codeswitches.

(79) a) *El* (the) food festival

b) *un* (a) roommate

- (80) *la cheerleader pesada*
the annoying
‘The annoying cheerleader’
- (81) *un micrófono built-in*
A microphone
‘A built-in microphone’
- (82) *Mi carro tiene* heated seats
My car has
‘My car has heated seats’
- (83) a) I did all my *trabajo* (work)
b) Maybe I can take some *agüitas* (water) to you

In (79a,b) the switch occurs between the determiners ‘*el*’ and ‘*un*’ and the rest of the NP. In (82) there is no determiner, but still there is a switch between English ‘heated seats’ and the rest of the sentence in Spanish. And in (83a,b) we have a similar switch to the example in (79) but with the switches in reverse, the determiners in English ‘my’ and ‘some’ and the nouns (Ns) in Spanish ‘*trabajo*’ and ‘*agüitas*’. Examples (80) and (81) show the difference in word order between English and Spanish with adjectives and Ns together with a switch variation. As was predicted in the hypothesis, the switch between adjectives and nouns in English and Spanish was not very common in the corpus. In fact, switches like (80) and (81) are a rarity. They present a terminal node of a phrase structure that only allows postnominal adjectives in Spanish, with English lexicon. It could be argued that the word ‘cheerleader’ in (80) is already so adapted to Spanish that it has become part of the lexicon and, therefore, this example could not be considered as CS. The switch between determiners and nouns, however, is very common and one of the most productive one.

Only one instance of CS involving Spanish NP ellipsis and English one-substitution was found (84) and the rest of the examples where NP ellipsis (85) (86) or

one-substitution (87) (88) was found, no CS was involved. The structure of both constructions was intact.

(84) *Sí, pero no los big ones.* ‘Yes, but not the big ones’

(85) *Estos son los [e] problemáticos.*

‘These are the problematic ones’

(86) *Él trabaja para el [e] flaquito.*

‘He works for the skinny one’

(87) The little one you showed me.

(88) That one was super cute.

As was predicted, the switch between NP ellipsis in Spanish and one-substitution in English is not present in the corpus but for example (84), which means that when bilingual speakers deal with these constructions, they decide to leave them syntactically loyal to the language they are uttered in.

As was mentioned earlier, the most codeswitched example found in this corpus was the one happening inside DPs and because of that they became the center of the test that was administered to the subjects. Also, it was interesting to see that in the Bangor Miami corpus sentences (65), (79), (80), (81) and (83) were found to contradict the EC Poplack (1980).

2.3. Experiment

After analyzing the CS examples found in the Bangor Miami corpus, a test was devised to further the research into three specific codeswitches that were observed to a certain degree in the corpus: the codeswitch between adjectives and nouns (89); between determiners, both definite and indefinite, and NPs (90) (91); and English one-substitution coupled together with Spanish NP ellipsis (84) to (88).

(89) *La cheerleader pesada*

‘the annoying cheerleader’

(90) *Wild Oats es un healthy store*

‘Wild Oats is a healthy store’

(91) *Nosotros íbamos a hacer el orientation*

‘We were going to do orientation’

In the following sections the participants of the experiment will be described in detail. They were chosen for the experiment according to their language background profile. The main target group included HLLs of Spanish, however, a second group of native speakers of Spanish also took part in the experiment for comparison purposes. Later on, a description of the instruments used for the experiment will be given. The Language Background Questionnaire was administered in order to get information about their proficiency in English and Spanish, the time the participants devoted to speaking either language and in which contexts. Also, examples from the test that participants completed will be displayed. Then, the results will be analyzed in detail regarding each type of codeswitching. Finally, this section will end with the conclusions obtained from the analysis of the results.

2.3.1. Participants

29 participants in total took part in the experiment. 15 of them were HLLs and 14 native speakers of Spanish (SPs) with English as their L2. The data for this section was obtained from the Language Background Questionnaire. It summarizes the amount of time the participants use English and Spanish in different contexts and according to different age gaps and it also rates the proficiency they have in these languages.

HLLs were chosen for this experiment because, as mentioned in section 1, they are prone to CS and show a knowledge of rules about boundary sites that are appropriate for it to happen.

All 15 participants, 7 males and 8 females, were between 19 and 28 years of age¹⁴ and were born in the United States, except for one participant who was born in Mexico but moved to the US at the age of 1 and another participant who was born in Canada but moved to the US at the age of 3. Also, at least one of the parents is from a Spanish speaking country except with two of the participants, one of them specified that her father had been born in Panama but had been raised in the US, therefore, they still had a connection with the Hispanic world. When it is the case that only one of the parents is from a Hispanic country, the participants specified that the other is from the US, or as it happens in one case, from Germany.

When asked about the percentage of time they spend speaking in English or Spanish in four different contexts (at home, at university, at work and in social contexts), what all the HLLs have in common is that they only speak English and Spanish. Only one of the participants answered that he uses a language other than English or Spanish 10% of the time in the context of university, which could be associated as being an L3 language student. The total percentage of time the participants used speaking either English or Spanish is shown in Figure 4 below¹⁵.

¹⁴ An average of 21.8 years of age.

¹⁵ The section of 'other' was omitted from Figure 4 as it is of no relevance for the results being discussed.

Figure 4. Percentages of time HLL spend speaking English and Spanish in different contexts according to the data from the Language Background Questionnaires.

As we can see from the percentages in Figure 4, the HLLs speak on average more Spanish at home than in other contexts. The most heterogeneous answer is the one about the usage of language at work (standard deviation: 32.69) which could be associated with those who work in a mainly Spanish-speaking environment against those who speak in a mainly or only English-speaking environment. Also, the most spoken language in all four contexts is English, which should not come as a surprise, as these are subjects who live in the United States. On average, the HLLs of this experiment spend 74.1% of their time speaking in English and 25.6% in Spanish.

Participants were also asked to range the percentage of time they spend speaking in English, Spanish or other language according to different age gaps: from age 1 to age 5, from age 6 to age 12, from age 13 to age 18 and from age 18 to the present. As with the answers regarding different contexts, we find again that these participants only speak

English and Spanish¹⁶. As Figure 5 shows below, the amount of Spanish was greater at a very early age (age 1-5) and then decreased in favor of English showing stability throughout the rest of their lives. These numbers, together with the numbers shown in Figure 4, could be related to the fact that participants start school and they spend less time at home with Spanish-speaking relatives.

Figure 5. Percentages of time HLL spend speaking English and Spanish according to different age gaps.

Finally, participants were asked to grade their own proficiency in writing, speaking, reading and listening in Spanish, English and other language if they had any in a scale from 1 to 4 [1: Beginner; 2: Intermediate Low; 3: Intermediate High; 4: High (native)]. As all of them are native speakers of English, all of them graded 4 their proficiency in said language, therefore, only the data from their proficiency in Spanish has been included. In addition, one participant graded his proficiency in an L3 as

¹⁶ There is one participant who answered that she spent 25% of her time from age 1 to 5 speaking German, however, being the only one, this information will be omitted from the following analysis.

beginner, but this will not be shown in the graphic as it is not relevant for this thesis. The results are as shown in Figure 6 below.

Figure 6. Average proficiency of Spanish by HLL.

The numbers shown in Figure 6 are the averages of proficiency the participants graded for the four different skills¹⁷. When interpreting these data, it is important to have in mind that HLLs are not typical L2 learners, and as they do not fall in the same category, (as it was mentioned in section 1.2.3 of this thesis) they cannot be constrained by the same rules and definitions as those studying an L2. In connection to CS, Zentella (1997) explains that “Spanish-English bilinguals demonstrate a shared knowledge of rules about appropriate boundary sites for Spanish-English linkages that distinguishes their code switching from the transfer-laden speech of second-language learners” (p. 116).

Averages on Figure 6 show that HLLs believe that they have a far better proficiency in their listening skill (receptive skill) than any of the other three. This may be understood as having more exposure to the language thanks to that personal connection

¹⁷ Standard deviations were the following: writing 0.72; speaking 0.63; reading 0.70 and listening 0.41.

they have to it, for example, having a Hispanic family. The other three skills (writing, speaking and reading) are graded similarly by the subjects. It is interesting to see that the highest ranked of the three skills is the ability to communicate orally in Spanish, which as mentioned before, is a clear indication why HLLs differ from typical L2 learners. “Relatively few people can express themselves as freely, as accurately, as subtly in a second language as in their native tongue” (Davies, 1976, p. 441). However, HLLs with their personal connection to the language have more opportunities to practice their oral and auditory skills.

14 native speakers of Spanish (SPs) with English as their L2 completed the same Background Language Questionnaire for comparative purposes. These subjects were 4 males and 10 females and all of them were living in the United States at the time of the study. Their ages¹⁸ ranged from 22 to 42 and all of them had been born in Spanish-speaking countries. Participants’ ages ranged between the ages of 22 to 42. The averages of the time SPs spent speaking a language in different contexts is shown in Figure 7.

¹⁸ An average of 26.7 years of age.

Figure 7. Percentages of time native speakers of Spanish spend speaking English, Spanish and other languages in different contexts according to the data from the Language Background Questionnaires.

In the context of home, native speakers of Spanish speak an average of 97% Spanish and a 3% of other languages. This is reflected in the Language Background Questionnaire as two participants answered that each of them speaks 30% and 10% in another language different from English and Spanish at home. This group studied English as an L2 at school and university which explains the results for the academic context. While in the US, they were working as teaching assistants (TAs) of Spanish at West Virginia University, which would account for the high percentage of Spanish in their work environment. Also, the fact that in social contexts they still show low uses of English could be explained due to the fact that some of these participants have spent as little as a year in the US and they might have answered this question having in mind their social context back in their country of origin. In general, these participants spend an average of 24.5% of their time speaking in English, 73.8% in Spanish and 1.3% in other language.

Figure 8¹⁹ the percentage of time they spend speaking different languages at different age gaps. We also notice that the percentage of English increases as the participants grew up and further their studies in English, and although during teenage years the percentage of ‘other language’ decreases to a 2.1%, we can see the interest to use it resurfacing at a later age.

Figure 8. Percentages of time native speakers of Spanish spend speaking English, Spanish and other languages according to different age gaps.

The chart in Figure 9 shows SPs’ proficiency in English (and other languages if applicable)²⁰.

¹⁹ In this graph we notice the presence of the category of ‘other’ to specify a language that was taught at school as the native language or bilingual, such as Basque in the Basque Country (Spain) and Guaraní in Paraguay.

²⁰ Only 8 out of the 14 participants ranked their proficiency for the ‘other language’ category. The results shown in the chart in Figure 9 for the ‘other’ category are of 8 out of the 14 participants.

Figure 9. Average proficiency of English and other language by native speakers of Spanish.

The averages²¹ in Figure 9 show that the participants in this group rate their proficiency in English as intermediate high and with consistency for the 4 different skills. This could be the case because the education these participants received in English was a formal one and in their countries of origin English is contemplated as a mandatory subject at school allowing them to practice more consistently and increasingly throughout the years. In addition, those participants who speak a third language in this group show an intermediate low competence in ‘other language’ that is also very consistent for the 4 different skills.

All the findings regarding the subjects and the information extracted from the Language Background Questionnaire have been summarized in Table 1.

²¹ Standard deviations were the following: writing: 0.61; speaking: 0.46; reading: 0.51; listening: 0.63.

	HLLs	Native speakers of Spanish
Background information	<ul style="list-style-type: none"> -15 participants (7M/8F): 19-25 age -Born in US (except 2 who were brought to US under the age of 3) -One or both parents are Hispanic -Only English & Spanish 	<ul style="list-style-type: none"> -14 participants (4M/10F): 22-42 age -Born in Hispanic country (Spain or Latin America) -Currently living in US. Longest period 4 years and shortest 1. -Spanish, English and other language
Percentage of time using a language in different contexts	<p><u>Spanish</u></p> <ul style="list-style-type: none"> -Greater percentage at home due to personal connection -At work less homogeneous answers (Stdev: 32.69) due to Spanish or English work environments. <p><u>General averages</u></p> <p>English: 74.1%</p> <p>Spanish: 25.6%</p>	<p><u>English</u> and <u>Spanish</u> at university 50/50 due to further studies in English.</p> <ul style="list-style-type: none"> -At work more Spanish due to being Spanish TAs <p><u>Other</u>: at home and social contexts under 3%</p> <p><u>General averages</u></p> <p>English 24.5%</p> <p>Spanish: 73.8%</p> <p>Other: 1.3%</p>
Percentage of time using a language in different age gaps	<ul style="list-style-type: none"> -Use more Spanish at a younger age (1-5) because they spend more time at home. -When they start school, work and more social life outside the family home (age 6+) > more English 	<ul style="list-style-type: none"> -Start using English at the age of 6, when starting school and increasing their use throughout the years. -Other language use at school in bilingual communities (i.e. Basque and Guaraní)
Proficiency in a language	<p><u>Spanish</u></p> <p>Listening: Intermediate high almost native (3.8)</p> <p>Other skills: intermediate low-high</p> <p>Having a Hispanic family gives them more opportunities to practice their listening and speaking skills</p>	<p><u>English</u></p> <p>Intermediate high consistency for 4 skills (thanks to formal education)</p> <p><u>Other</u> (only 8 participants)</p> <p>Intermediate low consistency</p>

Table 1. Summary of the information about the participants and the data extracted from the Language Background Questionnaire.

2.3.2. Instruments

All 29 participants were asked to complete different tasks involving English and Spanish CS. These tasks involved DP internal CS utterances involving determiners, adjectives and nouns and Spanish NP ellipsis and English one-substitution CS examples. First, the subjects were asked to answer a Language Background Questionnaire (Appendix A) and then they performed a test involving English and Spanish CS (Appendix B)²².

The first task of this test was used to rate the acceptability of 30 sentences with CS in them²³. Participants grade them with a scale from 1 to 4 [1: Completely acceptable; 2: Acceptable in some contexts; 3: Acceptable in many contexts; 4: Perfectly acceptable]. The codeswitches belonged to three different categories: there were 8 switches between adjectives and nouns (92) & (93), 8 between definite and indefinite determiners and the following NPs (94) & (95); and 8 with ellipsis in Spanish and English (96) & (97). For all of these codeswitched sentences there were four starting in English and four starting in Spanish.

Furthermore, 6 distractors were included in the test. The examples from (92) to (97) are some of the utterances the participants found in the test.

(92) I don't like the days *grises* (gray) in winter

(93) *Nosotros comemos una ensalada* tasty

‘We eat a tasty salad.’

(94) *Juan conoce la* highway *para llegar a* Washington D.C.

‘Juan knows the highway to get to Washington D.C.’

(95) My cousin writes *un* scientific article for publication

‘My cousin writes a scientific article for publication’

²² Participants were asked not to go back and change their answers once they had chosen them in order for the results to be as intuitive as possible.

²³ The sentences in the test were created by the author of this thesis.

(96) *A Carmen no le gustan los pantalones cortos. A ella le gustan los long ones.*

‘Carmen doesn’t like short pants. She likes the long ones.’

(97) His grandfather sings many songs. He sings the *tradicionales* ones.

‘His grandfather sings many songs. He sings the traditional ones.’

The second task was a forced-choice activity where the participants had to choose between four answers for 16 sentences (same version of the sentence, 8 beginning in Spanish and 8 in English). The choices were between adjectives and nouns and different variations taking into account language and word order: Adjective English + N Spanish [English word order] (98a), N Spanish + adjective English [Spanish word order] (98b); adjective Spanish + N English [English word order] (98c); N English + adjective Spanish [Spanish word order] (98d).

(98) *Yo vivo en la _____* / I live in the _____

(a) big *casa*

(b) *casa* big

(c) *grande* house

(d) house *grande*

This second activity was designed in order to find out the intuitions of HLLs and SPs regarding switches between adjectives and noun. This was a forced-choice activity because, even though, in the Bangor Miami corpus switches involving adjectives and nouns are very uncommon, the aim was to discover the perception participants had towards a rare CS construction involving adjectives and nouns.

2.3.3. Results and analysis

Once the data was collected, it was analyzed for any patterns that may have emerged. In this section, first the results of the grading task are presented and then the results of the forced-choice task.

In Table 2 the total average of acceptability for all 30 English and Spanish CS sentences shows that HLLs grade any type of CS more acceptable than SPs do. When divided into different types of CS (Figure 10) HLLs still grade each of the three different types of CS more acceptable than SPs do.

	Average	Standard deviation
HLLs	2.31	1.04
SPs	2.11	1.10

Table 2. Total average and standard deviation of HLLs and SPs acceptability towards codeswitching

When analyzed separately, Figure 10 below, it is observed that the biggest disagreement in grading acceptability between HLLs and SPs is with determiners and NPs (0.33 difference) followed closely by the one-substitution (0.21 difference). Both groups grade switches between adjectives and nouns almost equally (un)acceptable.

Figure 10. Acceptability averages for 3 different types of codeswitching: Adjective (Adj) + N, determiners and the one-substitution by HLLs and SPs.

In the following paragraphs the CS patterns, if any, that were found will be analyzed in three different sections²⁴. The first part will analyze the answers that participants gave to switches between adjectives and nouns, the second one will be about switches between determiners and NPs, and finally, the results of switches regarding one-substitution in English and NP ellipsis in Spanish will be analyzed.

❖ CS between adjectives and nouns (Adj+N)

HLLs and SPs agree in grading the same sentence, number 13²⁵ (shown below), as the most acceptable one in the test (Appendix B). This sentence shows the acceptability of CS when the language of the sentence is Spanish, the word order is also Spanish-like (N+Adj) and the N is in English and the adjective in Spanish. SPs also chose sentence number 5 (shown below) as acceptable as number 13.

²⁴ The graphs in which all the results are displayed are included in Appendix C.

²⁵ These numbers correspond to the numbers each sentence has in the actual test (Appendix B).

The only difference between numbers 13 and 5 is that the language of the noun and the adjective is reversed.

13. *La profesora enseña unas subjects aburridas*

‘The teacher teaches boring subjects’

5. *Nosotros comemos una ensalada tasty.*

‘we eat a tasty salad’

Regarding the least acceptable CS type, HLLs and SPs do not show agreement with respect to which sentence is the least acceptable, but the results show that both groups rate as unacceptable the combination between different language for the sentence and the word order of the adjectives and Ns. That is to say, neither group accepts the combination of a sentence in English with an adjective-noun CS, but with a Spanish-like word order. The same is true for sentences in Spanish with an adjective-noun CS, but with an English-like word order. This is consistent with having chosen numbers 13 and 5 as their most acceptable sentences and shows preference for the language’s word order over the language of adjectives and nouns. HLLs chose number 25 as the least acceptable and SPs chose number 9.

25. I don’t like the days *grises* (gray) in winter

9. *Mario compra el barato car*

‘Mario buys the cheap car’

❖ CS between determiners and NPs

With reference to determiners and NPs the results show that there is no agreement whatsoever between HLLs and SPs with respect to which sentence is the most acceptable and which one is the most unacceptable. We can see, however, a clear pattern regarding the boundaries that both groups deem acceptable to cross. For

both groups the acceptable ones are those that maintain the same language for the determiner and the whole sentence, allowing the NP to be switched to the other language. HLLs chose sentence 22 and SPs sentence 10:

22. I have been given a *cepillo de dientes eléctrico* for Christmas.

‘I have been given an electric toothbrush for Christmas.’

10. *Juan conoce la* highway *para llegar a Washington D.C.*

‘Juan knows the highway to get to Washington D.C.’

Consistently, both groups show unacceptability towards the sentences that cross the boundary between the language of the sentence and the determiner. That is, both groups chose as unacceptable the sentences that only switched the determiner into the other language. HLLs chose sentences 18 and 29 and SPs chose sentence 6 as unacceptable.

18. *Las* (the) high temperatures of summer could become dangerous.

29. My cousin writes *un* (a) scientific article for publication.

6. *Maria canta a canción de Taylor Swift para la competición.*

‘Maria sings a Taylor Swift’s song for the competition’

Traditionally, determiners have been included inside NPs [NP: (Det) N] (99). Nevertheless, for the last few decades, following the X’-theory it has been proven that determiners form their own DP and take an NP as their complement [DP: Det NP] (100), which is often referred to as DP Hypothesis [Abney (1987), among others]. The results obtained here are evidence supporting the DP Hypothesis. As DPs are placed outside of NPs, the switch between languages with determiners and NPs does not occur inside the NP as would have happened with the syntactic tree in (99).

(99)

(100)

❖ CS between one-substitution in English and NP ellipsis in Spanish

This section was interesting to analyze due to the fact that English and Spanish have different procedures to deal with the same type of construction. Results show that HLLs and SPs agree in sentence number 3 being the most acceptable of all, where one-substitution happens although the sentence is in Spanish and the adjective appears in English. Coincidentally, this type of switch is the only one that appeared in the Bangor Miami corpus regarding this structure. There was no pattern for unacceptability in this type of CS by HLLs and SPs.

3. *A Carmen no le gustan los pantalones cortos. A ella le gustan los long ones.*

‘Carmen doesn’t like short pants. She likes the long ones.’

Also, there is a contrast between sentence number 3 being the most acceptable for HLLs and sentence number 16 being the least acceptable.

16. His grandfather sings many songs. He sings the *tradicionales* (traditional) ones.

Both sentences having the same syntactic tree, we can see the contrast between what is acceptable (101), the switch between the determiner and the NP (please refer to previous section about determiners and NPs) and, what is not acceptable (102), the switch between the adjective and the noun when the whole sentence is in English except for the adjective.

(101)

(102)

The fact that sentence number 16 is the least accepted can also account for the general acceptability (third most accepted) by both groups of speakers of sentence 21. In this sentence we have the same construction as in sentence 16, except for the fact that sentence 21 does not insert ‘one’ after the adjective. The acceptability of sentence 21 as opposed to number 16, could be explained by the fact that once the switch is made to the Spanish adjective (*científicos*, *tradicionales*), the insertion of ‘one’ is not well accepted.

21. Pamela likes buying books. She prefers *los* (the) *científicos* (scientific).

Thanks to the results obtained by the first task of the test, the following things can be concluded:

- a. When it comes to adjectives and nouns, there is preference of word order. This means that if the sentence is in Spanish, it is preferred to have first the noun and then the adjective (no matter the language of the items). If the sentence is in English the adjective needs to come before the noun to be acceptable.
- b. When it comes to determiners and NPs, the determiner must be in the language of the rest of the sentence and only the NP can be switched. If the determiner is the only item switched, the sentence turns out unacceptable.

c. When it comes to NP ellipsis in Spanish and one-substitution in English, though the pattern for this switch was the least clear, the tendency is to accept sentence when the switch does not involve adding ‘one’ after the adjective in Spanish or leaving the adjective in English without adding ‘one’ after it. This means that both constructions keep the syntactic structures of each language.

Secondly, I am presenting the data obtained from the second task where participants had to complete a multiple choice activity with 16 sentences. For this activity a total of 240 answers by 15 HLLs and 224 answers by 14 SPs were analyzed. As a reminder, the choices for this activity were as follows (Appendix B) [see example (98)]:

- A) Adjective English + N Spanish [English word order]
- B) N Spanish + adjective English [Spanish word order]
- C) Adjective Spanish + N English [English word order]
- D) N English + adjective Spanish [Spanish word order]

In this activity the goal was discover if preference was given to the word order of the adjective and the noun according to the language of the sentence or if preference was given to the language of the ‘next word’. As it has been stated before, the switch between adjectives and nouns is the least acceptable and common one between speakers who codeswitch, therefore, some of the options that were given for this activity sounded forced. Several of the participants informed me that many of these sentences sounded very unnatural and the choice was not to decide what sounded better, but rather, deciding what sounded the least worse.

Figure 11. Total answers according to preference for the forced choice activity by HLLs and SPs.

As we can see in Figure 11, the general trend, not only for HLLs but also for SPs, is a clear preference for adjectives in English followed by and a noun in Spanish in an English-like word order (NP [AdjP N] ‘big *casa*’)²⁶. Also, it is curious to see, that even though HLLs and SPs have very different profiles regarding language, both of them have answered similarly regarding their preferences. The least frequently chosen answer is where the adjective is in Spanish and the noun in English in an English-like word order (NP [AdjP N] ‘*grande* house’)²⁷. As was mentioned in a previous section (1.2.5.1), Santorini & Mahootian (1995) explained that adjectives should be treated as phrasal adjuncts and this way codeswitches involving adjectives and nouns in Spanish and English work. Then, and as results show, syntactic trees that would be more common in this regard would be (103a,b) where the determiner can be either in Spanish or English.

²⁶ Standard deviation: 3.54

²⁷ The standard deviation in this case is 1.36, which indicates even more agreement not to choose this answer as a suitable CS option than showing preference for answers such as ‘big *casa*’.

(103a)

(103b)

Figure 12 presents more detailed results considering the language in which the sentence is written. Something to take into account when interpreting the results is that in this task participants were presented with the same sentence beginning in English and Spanish which allows us to identify what combinations are better.

Figure 12. Total answers in forced-choice task by HLLs and SPs regarding the language of the beginning of the sentence.

In this case, we can see that the participants chose more frequently the answer where the adjective is in English followed by the noun in Spanish, when the sentence began in English, thus, agreeing the language of the sentence and its word order, as (104) shows below.

(104) We skate on the frozen *río* (river) in winter.

For the answers where the noun is in Spanish or English followed by the adjective in the other language, participants chose them more often when the sentence began in Spanish (105) and (106), which is consistent with what happened in (104), that is, agreeing the word order structure of the adjective and noun to the language of the sentence.

(105) *Las ventanas opaque del salón no dejan pasar la luz*

‘The opaque windows of the living room don’t let light shine through’

(106) *No me gustan los shoes rojos*

‘I don’t like the red shoes’

Some participants noted that their intuition told them that when the sentence began in Spanish the next word had to be in Spanish (either adjective or noun) and the same in English. The examples in (105) and (106), however, show that priority is given to word order agreement over the language of the next word. That is to say, in (105) the sentence starts in Spanish and the noun is also in Spanish and it follows the word order of Spanish. Notwithstanding, in (106) the sentence also begins in Spanish and the word order of the adjective and noun is that of Spanish, but the noun is in English. If they were giving preference to the language of the next word, this sentence would have been ‘*zapatos* (shoes) red’.

Figure 12 shows the combined results for HLLs and SPs. Since preferences are given to the word order of adjective and nouns according to the language of the sentence, Figures 13 and 14 present separate results for these same combinations but the data from

HLLs and SPs is separated to allow a comparison study regarding the preference of CS according to the word order structure by each group of participants.

Figure 13. Total answers of HLLs and SPs regarding sentence beginning and English word order.

Figure 13 is showing the number of times answers with English word order (NP→ AdjP N) were chosen by HLLs and SPs respectively according to the language of the beginning of the sentence. Figure 14 below is showing the same kind of information regarding answers with Spanish word order (NP→ N AdjP). As numbers show, HLLs chose 75 times answers like ‘big *casa*’ (AdjEng+NSpa) when the sentence began in English and 45 times when the sentence began in Spanish. The same can be observed for the other three combinations shown in Figure 13. The first thing we see in these results is that both, HLLs and SPs, have the same type of intuition and preference regarding language choice and CS word order combinations. Secondly, there is a clear preference for choosing answers like ‘big *casa*’ (AdjEng+NSpa) and ‘*grande* house’ (AdjSpa+NEng) that have an English word order when the sentence begins in English

(107) (108), and between both, the most chosen one is the former, ‘big *casa*’ (AdjEng+NSpa).

(107) I put the books on the sturdy *mesa* (table). (AdjEng+NSpa)

(108) I put the books on the *robusta* (sturdy) table. (AdjSpa+NEng)

Figure 14. Total answers of HLLs and SPs regarding sentence beginning and Spanish word order.

In Figure 14 we examine the number of times answers with Spanish word order (NP→ N AdjP) were chosen by HLLs and SPs respectively according to the language of the beginning of the sentence. As with previous Figures, we see that both HLLs and SPs have the same preference for choosing a word order switch combination and the language of the sentence. In this case, participants showed preference for codeswitches with a Spanish word order (NP→ N AdjP) when the sentence started in Spanish (109) (110).

(109) *Puse los libros en la mesa sturdy.* (NSpa+AdjEng)

‘I put the books on the sturdy table’

(110) *Puse los libros en la table robusta* (sturdy). (NEng+AdjSpa)

2.3.4. Conclusion and discussion

By analyzing the Bangor Miami corpus, it was discovered that the most codeswitched utterance happened inside DPs where determiners, adjectives and nouns were switched in different ways. It was also observed that the CS between Spanish NP ellipsis and English one-substitution was not common at all. In fact, only one example of this kind was found (*'los (the) big ones'*) where the sentence was in Spanish and the adjective in English plus one-substitution. The analysis of the Bangor Miami corpus was done in order to collect data from real recordings of Spanish and English bilinguals and to be able to draft the test accordingly. The test for the experiment was designed in two parts. For the first part, participants had to complete an acceptability judgement task of 30 Spanish and English codeswitched utterances. These codeswitched utterances were examples of switches inside DPs (determiners, nouns and adjectives) and NP ellipsis in Spanish and one-substitution in English. For the second part, participants had to choose in a multiple choice activity the best answer that fit the sentence. This was a forced choice task and participants were asked to make the choice between different examples of adjectives and nouns switches with the sentences beginning in English and Spanish. These tasks were designed to check if the switches displayed in the Bangor Miami corpus and the theories by Poplack (1980), Santorini & Mahootian (1995), Ticio (2005) or Llobart-Huesca (2002) were verifiable.

According to the results, HLLs show more acceptability (table 2) towards CS than SPs do. This contrast could be the result of different language background profiles. That is, on the one hand, HLLs are more susceptible to CS because they have grown in a Hispanic family in a country where the official language is English, thus, being exposed to both languages constantly and specially at home. On the other hand, SPs have only been exposed to living in an English-speaking country for the last few years and they

have learnt this language as an L2 in academic contexts and never using it at home as the language for communication. The results gathered about acceptability also show agreement with what was found in the Bangor Miami corpus. The most unacceptable type of CS is the one between adjectives and nouns (111) (112) (Figure 10), which was expected as it was the least found in the Bangor Miami corpus and according to Santorini & Mahootian (1995) there is lack of consensus regarding the distribution of adnominal adjectives in intrasentential codeswitches and “it has remained one of the single most vexed issues in the study of codeswitching” (1995, p. 3).

(111) *En el restaurante hemos pedido las big hamburguesas*

‘At the restaurant we have ordered the big burgers’

(112) I give my mum the blue *flores* (flowers)

It is, however, still acceptable for many of the participants, which supports what Santorini & Mahootian (1995) theorized about adjectives being phrasal adjuncts of NPs. This way, the terminal nodes of each phrase could be inserted by an item in any of the languages. Thus, the fact that it is acceptable to codeswitch between adjectives and nouns goes against Wooldford (1983) theory that departs from Poplack’s constraint (1980) where adjectives were part of the NPs and it was the head which established the language for the whole phrase.

The most acceptable and common CS type is the one between determiners and NP, which is evidence of the DP Hypothesis [Abney (1987)] of X’-theory where determiners form their own DP and take NPs as complements (113).

(113)

This was the case even when the sentence was in Spanish and only the determiner was in English (114) or the sentence in English and only the determiner in Spanish (115).

(114) *A mi hermano le gusta the carro rojo*

‘My brother likes the red car’.

(115) *Las (the) high temperatures of summer could become dangerous.*

Results also show that participants do not generally accept switches between Spanish NP ellipsis or English one-substitution (Figure 10). This was expected due to the fact that this type of CS was virtually absent in the Bangor Miami corpus and only one example was found (116). Coincidentally, HLLs and SPs agree that the most acceptable CS utterance is (117), which is the same type of CS that appears in the Bangor Miami corpus.

(116) *Sí, pero no los big ones.* ‘Yes, but not the big ones’

(117) *A Carmen no le gustan los pantalones cortos. A ella le gustan los long ones.*
‘Carmen doesn’t like short pants. She likes the long ones.’

The unacceptability towards this type of CS follows Poplack’s EC (1980) that states that switches will occur “where juxtaposition of L1 and L2 elements does not violate a syntactic rule of either language” (Poplack, 1980, p. 586). As both constructions [NP ellipsis and one-substitution] work in different manners, the switching between them, can cause problems following Poplack’s (1980) constraint. Llombart-Huesca (2002) shows that NP ellipsis and one-substitution are in complementary distribution and both cannot appear in the same contexts which can also confirm the low acceptability rating that this type of CS had in the test.

The conclusions that can be drawn from the results of the second task are related to preference of language or word order. The forced choice task focused on the least acceptable type of CS, that between nouns and adjectives, and made participants choose between different combinations of nouns and adjectives in English and Spanish. Also, for

every sentence in Spanish, the same 4 choices were given for its translation in English. As it has been mentioned throughout the analysis of the results, the general tendency for both groups, HLLs and SPs, is that of preferring the word order structure of Spanish when the sentence is in Spanish (118) and the word order structure of English when the language of the sentence is English (119) (Figures 12, 13 and 14).

(118) *Puse los libros en la table robusta.*

‘I put the books on the sturdy table’

(119) We skate on the frozen *río* (river) in winter.

This shows that they prefer the word order and language of the sentence agreement over having same language words next to each other as some participants noted while they were completing the test. It is important to highlight that even though both groups rejected having the adjective in Spanish followed by the noun in English [i.e. *traviesos* (naughty) kids] in the forced-choice task regardless of the language of the sentence (Figure 11), HLLs chose this answer 28 times less than the next least answered category, which means that very few people chose that answer compared to the next least chosen one. This shows rejection by HLLs towards this construction. SPs chose that same answer (i.e. *traviesos* (naughty) kids) as their least acceptable one as well, but the answers from the other two next least chosen categories followed closely. That is, the option of NEng+AdjSpa was chosen 36 times, the option NSpa+AdjEng 31 times and AdjSpa+NEng 28 times. This could be interpreted as SPs answers being more homogeneous regarding what they think is less acceptable in codeswitching. This rejection towards constructions such as ‘*traviesos* (naughty) kids’, shows the avoidance to choose the adjective in Spanish. This could be explained, as was perceived by several participants, as not knowing the meaning of the adjective in Spanish. This happened especially with the adjective ‘*opacas* (opaque)’. When they had to choose different codeswitched combinations of the words ‘opaque windows’ more than 10 participants chose the combination NSpa+AdjEng

(*ventanas* (windows) opaque) with the sentence in Spanish. This construction is the only instance where an answer other than the most acceptable combination, AdjEng+NSpa, has been chosen more than 10 times when the sentence is not in English. It is possible that HLLs were trying to avoid the adjective *opacas* in Spanish as it posed some kind of difficulty. For HLLs there are two pair of sentences (one in Spanish and the other one in English) where the same option for the codeswitched words was chosen: AdjEng+NSpa (120) and (121).

(120) *Yo vivo en la* / I live in the __[big *casa* (house)]

(121) *Me quedé atrapado en las* / I got stuck in the __[revolving *puertas* (doors)]

These two examples go against the pattern of preferring word order structure agreeing with the language of the sentence because both, in English and Spanish, chose having the adjective in English and the noun in Spanish following the word order of English. SPs, however, chose having the adjective in English and the noun in Spanish, but only when the sentence begins in English, more than 10 times.

To sum up, although the number of subjects is limited, current results support Santorini & Mahootian's (1995) theory of adjectives being phrasal adjuncts of NPs and not as complements of nouns. Results show some grade of acceptability towards this type of switch where items from English or Spanish are inserted at the terminal nodes of each phrase. Thanks to the results of the experiment it was also discovered that apart from inserting lexical items from both languages, participants give preference to the word order of the language of the sentence. This means that if a sentence is in Spanish, the preference is towards the switch that displays the postnominal adjectives (122) and if the sentence is in English, participants prefer the switch with adnominal adjectives (123). This is the case regardless of the language in which those nouns and adjectives are.

(122) *Caminé por el bosque* green / forest *verde*

(123) I walked through the green *bosque / verde* forest

Results from the experiment also support the DP Hypothesis [Abney (1987)] where determiners form their own DP allowing them to be switched with full NPs. This is supported by the switch between determiners and NPs being the most frequent CS type in the Bangor Miami corpus and the most acceptable one in the first task of the experiment for this thesis. Results also show that there is no clear pattern of acceptability when it comes to CS between Spanish NP ellipsis and English one-substitution. As was pointed out by Llobart-Huesca (2002), these two constructions are found in complementary distribution and therefore cannot appear in the same contexts. HLLs and SPs agree that (117) is the most acceptable one, which coincidentally, is the only example that was found in the Bangor Miami corpus (116). Evidence from the test indicates that when the switch is done to the Spanish adjective, the insertion of ‘one’ is not well accepted as shown in (124) and (125). Participants accepted (124) while they rejected (125).

(124) She prefers *los científicos* (the scientific).

(125) He sings the *tradicionales* (traditional) ones.

These prove that NP ellipsis and one-substitution are loyal to the language in which the word is uttered and to the language of the sentence. This means that in the case of NP ellipsis, adjectives in Spanish will not accept the insertion of ‘one’ afterwards, but will be accepted if they are left with NP ellipsis, even though the sentence is in English and one-substitution is required in said language.

It is interesting to mention as well that even though SPs, HLLs and the Spanish and English bilinguals from the Bangor Miami corpus have very different backgrounds, the results show agreement towards what is acceptable and what is not in English and Spanish CS. For example, the Hispanic community in West Virginia is very small and the opportunities HLLs have to speak Spanish outside their homes is virtually non-

existent. In Miami, however, the Hispanic community is much larger and Spanish is the language of communication for many outside their homes. Thus, the amount of Spanish speakers from Miami use is much larger than the participants of this research. This can prove that the idea of acceptability towards Spanish and English CS regarding the examples analyzed in this research does not depend on the amount of CS a speaker engages in.

Based on current results, it would be very interesting to analyze the results of a much wider sample of subjects from different language backgrounds to see if the agreement persists or if there is indeed an influence of the language background and the community in which CS is practiced. It would also be very curious to check what would happen if we analyzed HLLs of English whose main language is Spanish and English native speakers who also speak Spanish as their L2. That is to say, although this study has concentrated on HLL of Spanish, future research should analyze data from the ‘opposite’ type of speakers of the ones in this experiment. Having Spanish as the main language for HLLs could change some of the answers from the acceptability judgement test, or it could actually show the same exact results which could shed some light into how grammars from Spanish and English intertwine when bilingual speakers codeswitch. It is predicted that both groups would show the same patterns as current results with some exceptions. For example, HLLs in the experiment of this thesis showed that some of the adjectives in Spanish were difficult to understand and that made them choose a certain type of answer. If the same test is used for both groups, then it would be expected that HLLs of English would not have that same problem with Spanish, but maybe some problems with words in English.

3. References

- Abney, Steven. (1987). The English noun phrase in its sentential aspect.
Cambridge MA: MIT Doctoral Dissertation
- Bangor Miami Corpus (2011). Retrieved from <http://bangortalk.org.uk/> [January 14, 2019]
- Bentahila, A., & Davies, E. E. (1992). Code-switching and language dominance. In *Advances in psychology* (Vol. 83, pp. 443-458). North-Holland.
- Brecht, R. D., & Ingold, C. W. (2002). Tapping a National Resource: Heritage Languages in the United States. ERIC Digest.
- Bucholtz, M., & Hall, K. (2005). Identity and interaction: A sociocultural linguistic approach. *Discourse studies*, 7(4-5), 585-614.
- Davies, N. (1976). Receptive versus Productive Skills in Foreign Language Learning. *The Modern Language Journal*, 60(8), 440-443. doi:10.2307/326052
- Ethnologue <https://www.ethnologue.com/> (Feb 16, 2018, 12:16pm)
<https://www.ethnologue.com/guides/how-many-languages>
- Ferguson, C. A. (1959). Diglossia. *word*, 15(2), 325-340.
- Gardner-Chloros, P. (2009). *Code-switching*. Retrieved from <https://ebookcentral.proquest.com> [2-23-2018 12:29]
- Hornstein, N., Nunes, J., & Grohmann, K. K. (2005). *Understanding minimalism*. Cambridge University Press.
- Llombart-Huesca, A. (2002). Anaphoric One and NP-Ellipsis. *Studia Linguistica*, 56(1), 59-89.

- MacSwan, J. (2004). Code Switching and Grammatical Theory. In T. K. Bhatia & W. C. Ritchie (Eds.), *The Handbook of Bilingualism* (p. 283-311). Blackwell Publishing Ltd.
- Matras, Y. (2009). *Language contact*. Cambridge University Press.
- Merchant, J. (2012). *Ellipsis*. Syntax: An international handbook of contemporary syntactic research, ed. by Tibor Kiss and Artemis Alexiadou, Berlin: Walter de Gruyter.
- Myers-Scotton, C. (1992). Comparing codeswitching and borrowing. *Journal of Multilingual & Multicultural Development*, 13(1-2), 19-39.
- Myers-Scotton, C. (1997). *Duelling languages: Grammatical structure in codeswitching*. Oxford University Press.
- Nilep, C. (2006). "Code switching" in sociocultural linguistics. *Colorado Research in Linguistics*, 19(1), 1.
- Peyton, J. K. L., Vickie, W., & Winke, p. (2001). Spanish for Spanish Speakers: Developing Dual Language Proficiency. ERIC Digest.
- Pfaff, C. W. (1979). Constraints on language mixing: intrasentential code-switching and borrowing in Spanish/English. *Language*, 291-318.
- Poplack, S. (2015). Code-switching (linguistic). *International encyclopedia of the social and behavioral sciences*, 918-925.
- Poplack, S. (1980). Sometimes I'll start a sentence in Spanish y TERMINO EN ESPAÑOL: toward a typology of code-switching. *Linguistics*, 18(7-8), 581-618.
- Toribio, A. J. (2001). On the emergence of bilingual code-switching competence. *Bilingualism: Language and Cognition*, 4(3), 203-231. DOI: 10.1017/S1366728901000414
- Santorini, B. & Mahootian, S. (1995). Codeswitching and the syntactic status of adnominal adjectives. *Lingua* 96 (1995) 1-27.

Valdés, G. (2001). Heritage language students: Profiles and possibilities. In J. K. Peyton, D. A. Ranard, & S. McGinnis (Eds.), *Heritage languages in America: Preserving a national resource* (pp. 37-77). Washington, DC & McHenry, IL: Center for Applied Linguistics & Delta Systems. [Taken from: <http://www.cal.org/heritage/index.html>]

Vogt, H. (1954). Language contacts. *Word*, 10(2-3), 365-374.

Woolford, E. (1983). Bilingual Code-Switching and Syntactic Theory. *Linguistic Inquiry*, 14(3), 520-536.

Weinreich, U. (1979). *Languages in contact : findings and problems*. Retrieved from <https://ebookcentral.proquest.com> [2/23/2018 11.57am]

Weinreich, U. (2011). *Languages in contact : french, german and romansh in twentieth-century switzerland*. Retrieved from <https://ebookcentral.proquest.com> [2/23/2018, 11:12am]

Wiley, T. G. (2001). On defining heritage languages and their speakers. In J. K. Peyton, D. A. Ranard, & S. McGinnis (Eds.), *Heritage languages in America: Preserving a national resource* (pp. 29-36). Washington, DC & McHenry, IL: Center for Applied Linguistics & Delta Systems. [Taken from: <http://www.cal.org/heritage/index.html>]

Zentella, A. C. (1997). *Growing up bilingual: Puerto Rican children in New York*. Blackwell Publishers Inc.

4. Appendices

(A) Language Background Questionnaire

Participant Number _____

Age: _____

Sex:

M

☐

F

☐

PNTA

☐

What is your country of birth? _____

How old were you when you came to the US (write 0 if born in the US)? _____

What is the country of birth of your parents (if other than US)? _____

What language(s) do you speak in the following contexts?

- At home, with family:

English	%	Spanish	%	Other	%
---------	---	---------	---	-------	---

- At school/university:

English	%	Spanish	%	Other	%
---------	---	---------	---	-------	---

- At work:

English	%	Spanish	%	Other	%
---------	---	---------	---	-------	---

- In social contexts:

English	%	Spanish	%	Other	%
---------	---	---------	---	-------	---

From age 1 to age 5 what language(s) do/did you speak? (time in %)

English _____ % Spanish _____ % Other (specify) _____ %

From age 6 to age 12 what language(s) do/did you speak? (time in %)

English _____ % Spanish _____ % Other (specify) _____ %

From age 13 to age 18 what language(s) do/did you speak? (time in %)

English _____ % Spanish _____ % Other (specify) _____ %

From age 18 to the present what language(s) do you speak? (time in %)

English _____ % Spanish _____ % Other (specify) _____ %

Rate your proficiency in Spanish and English (writing, speaking, reading, listening):

[1: Beginner 2: Intermediate low 3: Intermediate high 4: high (native)]

	Writing	Speaking	Reading	Listening
English				
Spanish				
Other				

→ In this test you will find 30 utterances that alternate between Spanish and English. For the utterances below, please mark from 1 to 4 the grade of acceptability each utterance has for you. If the utterance sounds unacceptable check box 1, if it sounds perfectly acceptable, check box 4. If the utterance sounds acceptable in some contexts check box 2 and if it sounds acceptable in many contexts, check box 3.

1	Completely unacceptable (<i>I would never say this</i>)
2	Acceptable in some contexts (<i>I have heard this but I wouldn't say it</i>)
3	Acceptable in many contexts (<i>I have heard this and I would use it</i>)
4	Perfectly acceptable (<i>I say this</i>)

There is no right or wrong answer; I am looking for the intuition you have of each utterance. Once you have made a choice, do not go back and change your answer, continue answering the following questions.

1. En el restaurante hemos pedido las big hamburguesas	1	2	3	4
2. A mi hermano le gusta the carro rojo	1	2	3	4
3. A Carmen no le gustan los pantalones cortos. A ella le gustan los long ones.	1	2	3	4
4. Entonces, are we going to the zoo on Friday?	1	2	3	4
5. Nosotros comemos una ensalada tasty	1	2	3	4
6. Marta canta a canción de Taylor Swift para la competición.	1	2	3	4
7. Alejandro wants to buy a bike. He likes la azul one.	1	2	3	4
8. Pero, he didn't know where he was going.	1	2	3	4
9. Mario compra el barato car.	1	2	3	4
10. Juan conoce la highway para llegar a Washington D.C.	1	2	3	4
11. Mi madre quiere un sofá. Ella compra the big one.	1	2	3	4
12. Carlos mandó un mensaje so she could come to the party	1	2	3	4
13. La profesora enseña unas subjects aburridas	1	2	3	4
14. Carlos compra un present por el cumpleaños de su hermano.	1	2	3	4
15. I give my mom the blue flores	1	2	3	4
16. His grandfather sings many songs. He sings the tradicionales ones.	1	2	3	4
17. Carla fue a la discoteca without her girlfriend porque estaban enfadadas.	1	2	3	4
18. Las high temperatures of summer could become dangerous	1	2	3	4

19. Quiero estudiar medicina at the University	1	2	3	4
20. A verde truck passed me on the right	1	2	3	4
21. Pamela likes buying books. She prefers los científicos.	1	2	3	4
22. I have been given a cepillo de dientes eléctrico for Christmas.	1	2	3	4
23. I don't think I'll pass this exam. No he estudiado lo suficiente.	1	2	3	4
24. Mario compra muchas manzanas en el supermercado. Él compra las red.	1	2	3	4
25. I don't like the days grises in winter.	1	2	3	4
26. Estamos eligiendo las sillas para el salón. Nos gustan the rojas.	1	2	3	4
27. The libro for Spanish class is very expensive.	1	2	3	4
28. Sara lleva puestos unos calcetines. Ella lleva puestos the blue.	1	2	3	4
29. My cousin writes un scientific article for publication	1	2	3	4
30. They are travelling in a tren fast	1	2	3	4

→ Choose the most acceptable combination (16 items):

1. Yo vivo en la _____

- a) big casa b) casa big c) grande house d) house grande

2. I don't like the _____

- a) red zapatos b) zapatos red c) rojos shoes d) shoes rojos

3. The _____ ran away from school.

- a) naughty niños b) niños naughty c) traviesos kids d) kids traviesos

4. Las _____ del salón no dejan pasar la luz.

- a) opaque ventanas b) ventanas opaque c) opacas windows d) windows opacas

5. Me quedé atrapado en las _____.

- a) revolving puertas b) puertas revolving c) giratorias doors d) doors giratorias

6. I live in the _____

- a) big casa b) casa big c) grande house d) house grande

7. I put the books on the _____.

- a) sturdy mesa b) mesa sturdy c) robusta table d) table robusta

8. We skate on the _____ in winter.

- a) frozen río b) río frozen c) congelado river d) river congelado

9. The _____ in the living room don't let light shine through.

a) opaque ventanas b) ventanas opaque c) opacas windows d) windows opacas

10. I got stuck in the_____

a) revolving puertas b) puertas revolving c) giratorias doors d) doors giratorias

11.No me gustan los _____

a) red zapatos b) zapatos red c) rojos shoes d) shoes rojos

12. Caminé por el _____.

a) green bosque b) bosque green c) verde forest d) forest verde

13.Los _____ se escaparon del colegio.

a) naughty niños b) niños naughty c) traviesos kids d) kids traviesos

14.Patinamos en el_____en invierno.

a) frozen río b) río frozen c) congelado river d) river congelado

15.Puse los libros en la_____.

a) sturdy mesa b) mesa sturdy c) robusta table d) table robusta

16.I walked through the _____.

a) green bosque b) bosque green c) verde forest d) forest verde

(C) Results of task 1 of the acceptability judgement test

Averages of HLLs and SPs answers for the one substitution