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COMPREHENSION IN CODESWITCHING: DO COMPLEMENTIZERS MATTER?

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ABSTRACT

The term “codeswitching” describes a phenomenon in which multilingual speakers “switch” back and forth between two languages varieties within a single conversational context (e.g., **Yo tengo hambre**, so let’s go get lunch/ I’m hungry, so let’s go get lunch). Some scholars study codeswitching to better understand how the mind juggles two languages at the same time. Studies have shown that there are constraints that restrict the location of a switch, and the constraints that guide codeswitching behavior have been the subject of much ongoing scholarly discussion. In the codeswitching literature, there is a divergence in the findings of studies that have analyzed the grammaticality of Spanish and English complementizers. Some studies have shown that Spanish-English codeswitchers exhibit no preference when producing the complementizer “que" (that) at the point of a codeswitch (e.g., no preference between 'dijo *que* the boy' vs. 'dijo *that* the boy'). Other studies, however, show that Spanish-English bilinguals overwhelmingly preferred using 'que' over ‘that’. To date, no study has accounted for this disparity.

In the present study, two groups of Spanish-English speakers (codeswitchers living in State College, PA and non-switchers living in Granada, Spain) read sentences while their eye movements were recorded. Two factors were manipulated: one factor was the language of the complementizer (que vs. that) and the other one was verb bias (direct object vs. sentential complement). Results revealed that reading for the codeswitchers was not disrupted when they encountered 'que' or 'that.' The non-codeswitchers found 'that' switches to be more difficult to process than 'que' switches. The results suggest that exposure to codeswitching influences processing.

Keywords: codeswitching, bilingualism, verb bias, complementizer, Spanish

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Chapter 1

Introduction

What is Codeswitching?

Codeswitching is a term used in the field of linguistics to describe the alternation of two languages during bilingual speech. Codeswitching takes many forms and is observable in many types of human communication; it is predominantly a spoken phenomenon, though it also occurs in written form and even across linguistic modes (i.e. between a signed language and a spoken language). There are a large number of sociolinguistic factors that contribute to a bilingual's decision to implement a code-switch, and codeswitchers have a vast set of resources available that allow them to combine two or more language systems to structure a discourse, much more so than monolingual speakers (Gardner-Chloros, 2009). Codeswitching is heavily influenced by the syntactic, morphological, pragmatic, semantic, and structural features of each language variety being employed by the speaker. A resultant codeswitch, however, can be considered in different ways. One perspective holds that a switch should not be considered as an isolated amalgamation of relatively parallel structures drawn from two or more language varieties, but rather a variety in itself, with its own independent grammar and rules (Poplack, 1980; Wei, 2009). Other scholars, however, favor a system where a speaker's lexical needs are drawn from the lexical arrays of both languages before being evaluated, then generated, exactly like the systems in monolinguals (MacSwan, 2009). The Matrix Language Frame Model also enjoys popularity among scholars, claiming that all codeswitches consist of a Matrix Language, which dominates the bilingual clause, and an Embedded Language, which adds certain permissible grammatical elements into the clause (Myers-Scotton, 1993a, 1997; as cited in Callahan, 2004b). Such highly debated differences notwithstanding, it is important to note that the ability to speak

multiple languages and the ability to codeswitch are entirely separate skill sets and not necessarily inclusive – a codeswitch requires great dexterity on the part of the speaker to combine two language varieties in such a way that the resulting mixed utterance is comprehensible to the listener (Green & Abutalebi, 2013).

Codeswitching can occur both within and outside of sentential boundaries. An inter-sentential codeswitch is a switch where the speaker alternates between two language varieties at the point of a sentential boundary, defined grammatically as a clause with a subject, a verb, and its required complements (illustrated in (1)), though many sentences don't necessarily fit this definition. Conversely, an intra-sentential codeswitch is a switch that takes place within a clause (see (2) below). Examples of each type of switch, both of which are prevalent among communities of codeswitchers, are provided:

(1) Inter-Sentential Codeswitching (English-Russian)

You should go outside**! Погода сегодня прекрасная.**
You should go outside! WEATHER TODAY FEM-BEAUTIFUL
"You should go outside! The weather is beautiful today."

(2) Intra-Sentential Codeswitching (Spanish-English)

Él me dijo que **he was hungry so I went and bought him a sandwich**, el pobre.
HE D.O1SG SAID THAT D.ART POOR
"He told me he was hungry so I went and bought him a sandwich, the poor guy."

It is evident in the examples provided that there are a number of linguistic similarities across the codeswitches, even between languages as dissimilar as Russian and English. The fundamental characteristic that allows these two languages to be switched is the fact that there are surface structure similarities between them. This idea of "sameness" is a critical one, as there must be some idea of language equivalence (or at the very least, correspondence) that guides the speaker

and allows two distinct languages to be molded into one grammatical phrase (Sebba, 2009). The difficulty in codeswitching, however, lies not only in the identification and incorporation of these relative similarities, but also in the avoidance or resolution of the multitudinous differences between Languages A and B. In (1), the Russian sentence "The weather is beautiful today" contains only a noun, adjective, and an adverb, and the consequent literal translation, while perhaps understood, would sound entirely atypical to an English monolingual. What, then, could be the impetus for such a cognitively complex task as producing a codeswitched sentence from two dissimilar languages when multilinguals could easily choose to employ just one at a time?

Why do bilinguals codeswitch?

In the past, codeswitching was regarded by many as a simple mixture of two independent languages and used as an avenue through which multilinguals made up for gaps in their lexicon. Popular concepts of codeswitched dialects such as "Spanglish" or "Franglais" are representative of the mistaken idea that codeswitching occurs when a multilingual lacks grammatical competence in one or more of their languages. However, evidence has overwhelmingly shown that this is simply not the case. Firstly, the "accommodation" notion of codeswitching ignores the productivity that comes along with being able to combine multiple language systems. Rather than accounting for a deficit, codeswitchers can utilize their entire lexicon in a variety of creative ways to express humor, cultural identity, and social caste, circumvent semantic differences between languages, relate ideas that are perhaps untranslatable or considered inexact in Language B as opposed to Language A, and much more. Secondly, the idea that codeswitching represents a means of compensation for inadequacies in a speaker's languages represents an examination of codeswitching from a largely monolingual perspective. In terms of global population, monolinguals are outnumbered by their multilingual counterparts, suggesting that

multilingualism, or at least bilingualism, is the norm from which cases of codeswitching should be considered (Tucker, 1999). It is then unlikely that, if a speaker chose to codeswitch, the decision would be a result of known inadequacies in their accessible native languages. Thirdly, there are firmly established rules that govern switching that are unique to each blend of language varieties, affecting the syntax and phonology of each variety. The following example, taken from (Sebba, 2009) illustrates a codeswitch between French and Arabic:

(3) Gender in French and Arabic

(French-Arabic)
cette xubza
this-FEM bread
"this bread"

(French)
ce pain
this-MAS bread
"this bread"

The examples in (3) show grammatical agreement between the gender of the determiner and the noun. Both French and Arabic mark grammatical gender on nouns – in each language, it represents a grammatical category. However, while the gender of certain nouns may seem obvious at first (e.g. "man", "son", "bull"), the majority of nouns in both French and Arabic have a gender that is largely arbitrarily assigned. These two systems of gender may have isolated points of overlap, but on the whole the genders of each and every noun must be learned individually by the speaker. If the speaker in (3) were to have used only French, a different determiner ("ce") would have been utilized to match the masculine gender of the French word "pain". What the speaker chose to do, however, was match the gender of the French determiner to the gender of the corresponding Arabic feminine noun "xubza", thus combining the gender systems of both languages in a grammatically valid way. Bentahila and Davies (1983) provided

an explanation for this conformation to agreement, saying that "switching is freely permitted at all boundaries above that of a word, subject only to the condition that it entails no violation of the subcategorization restrictions on the particular lexical items of either language" (as cited in Sebba, 2009; Poplack, 1980). The French determiner "cette" is then necessary in the context of a codeswitch to fulfill grammatical agreement with the feminine "xubza". Sebba (2009) goes on to explain that violations of such conditions are deemed "odd" by comprehenders.

Codeswitching versus Borrowing

Whereas codeswitching is the act of switching between two language varieties in a single conversational context, linguistic borrowing refers to the incorporation of foreign loan words into a language. Though this may appear to be an unimpressive distinction on the surface, the fundamental processes that govern each phenomenon are quite dissimilar and merit elaboration. Loan words are words taken from other languages and adapted directly into the new language's lexicon without being translated (Dako, 2002; Poplack, 1980). Some common examples in English are "café", "kindergarten", and "whiskey", which are loan words from French, German, and Scotch/Irish Gaelic, respectively. These words, however, are not considered to be French, German, or Gaelic when utilized, but rather words that are now an imported part of the English lexicon. Because loan words are typically incorporated to fill gaps in a language's lexicon, there is no linguistic exchange. Words like "kindergarten" move from the language of origin (i.e. German) to the host language (i.e. English), but the language of origin receives no novel input. It is the simple insertion of an element from Language A into Language B; despite slight phonological adaptation, the loan word undergoes no other change, and functions more as a simple label for a previously foreign concept. Codeswitching, however, is the fluid incorporation of each language variety's elements utilized at the discretion of the speaker, and is

much more productive than borrowing. Whereas in the case of loan words the foreign element is considered to have been appropriated to the host language's lexicon, codeswitching engages two language varieties simultaneously and actively translates elements to best express the message of the speaker. This appropriation is often evident in the pronunciation of the loan word, and marks one of the more clear differences between codeswitching and borrowing (Callahan, 2004). The Spanish word "burrito" has certainly entered the English lexicon, but has undergone phonological adaptation in order to better fit the speech sounds of its new host language: the Spanish alveolar trill ("r") and voiceless dental stop ("t̪") have given way to the American alveolar approximant ("ɹ") and voiced alveolar stop ("d"), which are not native to the Spanish language. The phonologies of both languages, however, are utilized when codeswitching; elements from each language do not phonetically deviate from the native pronunciation (MacSwan, 2009).

Myers-Scotton (1997) outlines some common subclasses of borrowing, one of which is known as "cultural borrowing". In cultural borrowing, a speaker will extract a word from Language A in a situationally specific context when no suitable translation exists in Language B (as cited in Callahan, 2004). Example (4) demonstrates the utility of cultural borrowing, in this case using English and Russian, as the speaker extracts a Russian word to express annoyance in the absence of an appropriate English equivalent:

(4) Cultural Borrowing (Russian-English)
I don't dislike Sarah, she is just a *pochemushka* sometimes.
"I don't dislike Sarah, she is just a *person who generally asks too many questions* sometimes."

Another type of borrowing, known as "nonce borrowings", can be broadly defined as a sporadic word used to temporarily fill a lexical gap (Lipski, 2005; Stammers & Deuchar, 2011). Whereas loan words are generally accepted words used frequently by a population, nonce borrowing is

opportunistic and exists to fill a singular gap in an isolated context. These borrowings lack the frequency that so characterizes other types of borrowing because they are entirely situational – invented, utilized once, and then discarded, never truly being imported and normalized into a host language's lexicon. Consider the following example of Welsh speech incorporating an inserted English concept:

(5) Nonce Borrowing (Welsh-English)
Os wnei di power-walk-*io fydda chdi fath â*
if do.2s.NONPAST PRON.2s power-walk.NONFIN be.2s.FUT PRON.2s kind with
"If you power-walk, you'll, like …"

(Stammers, R., & Deuchar, M. 2011, p. 3)

Although this may appear to be an instance of cultural borrowing, there is a key difference. As opposed to inserting the word "power-walk" into Welsh, this speaker has chosen to go one step farther, turning it into a verb and then conjugating it in order to describe the potential action of the listener. It can be reasonably assumed that the word "powerwalk*io*" has not been absorbed and therefore is not generally accepted in the Welsh lexicon, despite the fact that it can be understood by Welsh-English bilinguals.

Types of Codeswitches

Codeswitching, like borrowing, represents a remarkably broad linguistic phenomenon. It is pragmatic, therefore, to subcategorize it into types so that it can be more precisely defined and studied. Three of the most commonly accepted types of codeswitching are: conversational, situational, and metaphorical (Blom and Gumperz, 1972, as cited in Callahan, 2004). Conversational codeswitching is the use of two languages in the same speech event, either at the intra-sentential or inter-sentential level. In situational codeswitching, however, the speaker

alternates their language based off of their environment. Speaking Language B at the workplace and then returning home and speaking in Language A with one's family is a classic example of how a bilingual can use both languages in different domains. Metaphorical codeswitching is generally used when speakers switch languages in order to "evoke elements of a certain domain" (Callahan, 2004, p.17). At the surface level, metaphorical codeswitching may strongly resemble conversational codeswitching, but the goals of metaphorical codeswitching are unique. As Callahan explains, the idea of metaphorical codeswitching is often captured in the dialogues of immigrants who must use the language of their host country to discuss ideas and concepts that simply do not exist in their own (Callahan, 2004, p.18).

Chapter 2

Constraints on Codeswitching

Linear Approaches

One of the challenges for researchers who study codeswitching is scientifically accounting for the variety of linguistic parameters and rules that codeswitchers exhibit when switching. It is for this reason that linguists often try to focus on a small set of phenomena within one or two sets of language varieties when trying to establish these parameters; it would be unrealistic to try to create a set of rules that address the entirety of all codeswitching across every language variety in the world. Codeswitching itself is typically approached from one of two syntactic perspectives as established by Appel and Muysken: linear and structural (1987: 123-5, as cited in Boumans, 1998). Linear approaches to codeswitching syntax focus on which word categories and elements can and cannot be switched at certain points, and word order ultimately accounts for any patterns found (Boumans, 1998). A variety of authors employed this perspective to explain codeswitching phenomena, but one of the most well-known examples of linear constraints in the literature comes from Shana Poplack. Poplack (1980) analyzed the speech of Spanish-English bilinguals residing in a Puerto Rican neighborhood of New York City utilizing this method, and detailed two constraints to codeswitching: the bound morpheme constraint and the equivalence constraint. The bound morpheme constraint states that a switch can occur after any constituent part of an utterance provided that the part is not a bound morpheme (i.e. a morpheme that, by itself, carries no semantic meaning and therefore cannot stand alone, such as the plural marker "s" in the word "cats"). Poplack provides an example

where a Spanish-English bilingual could, hypothetically, execute a switch in the middle of a word to produce the following:

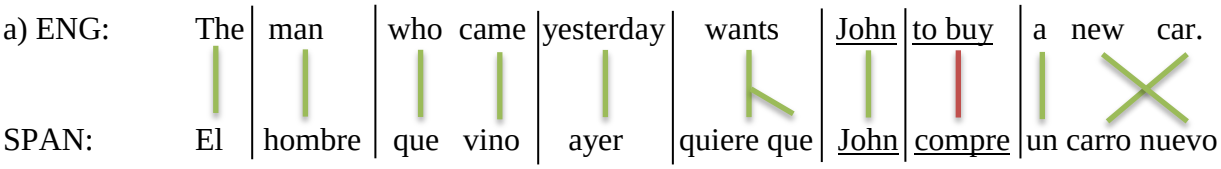
(6) Bound Morpheme Constraint

*EAT - iendo
"Eating"

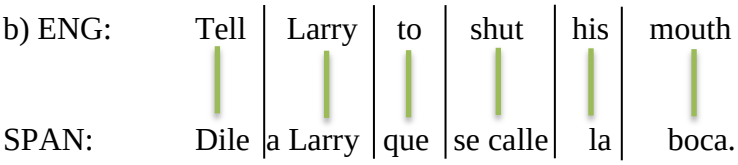
(Poplack, 1980, p. 6)

In (6), the Spanish bound morpheme *–iendo*("-ing") has been attached to the English root "eat", and Poplack (1980) attests that this type of switch is simply not employed or recorded in any recorded codeswitching literature, indicating its ungrammaticality. The equivalence constraint is broader, however, indicating that a switch is more likely to take place at a juncture in the discourse where the juxtaposition of L_1 and L_2 elements would not violate the syntax of either language. Conversely, this means that a switch will probably not occur in places where the syntactic rules of the L_1 and L_2 do not match up.

(7) Equivalence Constraint



SWITCH: *El MAN que CAME ayer WANTS JOHN comprar A CAR nuevo.



SWITCH: Tell Larry QUE SE CALLE LA BOCA.

(Poplack, 1980)

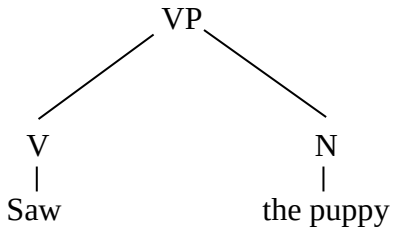
The difference in grammaticality between these two codeswitched sentences is evidenced by the equivalence constraint. Both sentences make use of a verb phrase and a verb phrase complement, which require an infinitive complementizer in English. In Spanish, however, one must use a subjunctive complementizer with such verbs, as exhibited in both Spanish examples (7a, b). Because the English infinitive complementizer rule was transferred over into Spanish in (7a), we see a structure that could not have been produced by Spanish grammar, making the switch as a whole ungrammatical. The codeswitch in (7b), however, adheres to the syntactic rules of both languages, conserving its grammaticality.

Hierarchical Approaches

Whereas the linear approaches favored by Poplack (1980) examine codeswitching at a word-by-word basis, others have endeavored to define codeswitching syntax using terms of structural hierarchy, or the level of dependency between words. There are a variety of methods proposed by various researchers within the literature, but we will endeavor to analyze two of the most influential approaches. The Government Constraint proposed by Di Sciullo, Muysken, and Singh (1986) groups elements of an utterance in government relations and forbids switches between elements that hold this relation. Certain elements, known as heads, govern their constituent parts and are therefore intrinsically linked to them. For example, the head "VP" (verb phrase) governs its constituent parts "V" (verb) and "N" (noun). Such examples are usually presented in what's known as a tree diagram, which clearly illustrates the hierarchical nature of the constituent elements.

(8) Government Tree Diagram

VP: "saw the puppy"
V: "saw"
N: "the puppy"



The ability or inability to execute a codeswitch under the Government Constraint then depends on the government relations within the utterance. In this case, switching language varieties between "saw" and "the puppy" would be disallowed as they are both governed by the same head – VP. Therefore, a codeswitch should be entirely permissible when executed between two elements that lack government relation, and this will be explored later in the thesis.

Belazi, Rubin, and Toribio (1994) applied another syntactic theory, known as the x-bar theory, to the comprehension of codeswitching constraints and generated the Functional Head Constraint. The Functional Head Constraint, like the Government Constraint, deals with heads: specifically, functional and lexical heads. Lexical heads consist of words that contain a significant amount of semantic content, namely, nouns, verbs, adjectives, and prepositions. Functional heads consist of all other words and grammatical inflections, such as determiners ("the", "a") or conjunctions ("that", "but"), among other categories. According to the Functional Head Constraint, when a functional head takes a complement, the complement must be in the same language as the head itself. Because this constraint is concerned with a head's status as either functional or lexical as opposed to the general government relations employed by the Government Constraint, the two theories often produce contrasting permissible switches (that is, what may be permitted by one is disallowed by the other, and vice versa). Complementizers represent one such contrasting prediction. The Government Constraint holds that a complementizer is not governed by the same head as the complement itself, which theoretically permits switching in such examples as "*Ella me dijo que* she knew" (She told me that she knew).

The functional head constraint, on the other hand, forbids such a switch at the point of a complementizer. I will be further examining this apparent divergence in the complementizer structure in the present study.

The Present Study

Researchers are able to glean insight into the phenomena and rules of codeswitching by studying naturally produced switches. One method available to researchers is analyzing intra-sentential codeswitches, which are by nature rather fluid and typically unaffected by interruptions (Dussias 2003; Dussias 2010). These switches can provide glimpses into the cognitive workings of bilinguals in a naturalistic way. In the present study I will be studying the comprehension of codeswitches as opposed to production. Codeswitching is most often an oral phenomenon, therefore although it is logical to examine codeswitching from a production standpoint, one must also take into account that for every produced switch there is a comprehender who must understand it. The production of a codeswitch is entirely under the control of the speaker, but if executed in a naturalistic way it is always comprehended by the listener. This requires a great degree of cognitive dexterity, implying that codeswitchers have access to some sort of information that facilitates their processing. Because codeswitchers typically exhibit no problems when comprehending switches despite being unable to control the location and type of the switch itself, codeswitchers could be sensitive to distributional patterns they encounter in production. Those who switch, then, may be sensitive to what other codeswitchers produce in order to facilitate the comprehension of future codeswitches.

There is an observation in the codeswitching literature that when a main sentence (also known as a matrix sentence) is followed by an embedded sentence and conjoined by a connector

(complementizer), the connector appears sometimes in English and sometimes in Spanish. Dussias (2002) examined this phenomenon through a production study, where participants were asked to read sentences where the matrix sentence and embedded clause were mixed between Spanish and English and orally "connect" the two with either a Spanish or English complementizer. All participants were self-reported to engage in codeswitching behaviors.

(9) Dussias (2002) Experimental Design

a) Spanish to English sample item:
La enfermera dijo _____ the patient didn't want to eat.
"The nurse said _____ the patient didn't want to eat."

b) English to Spanish sample item:
My sister thought _____ *su amiga estaba en la universidad*.
"My sister thought _____ her friend was at the university."

Participants were shown to overwhelmingly produce the Spanish *que* (>80% in both Spanish-English and English-Spanish trials) as opposed to the English *that*. Despite the fact that this study showed a preference for *que*, however, other studies show that the complementizer can appear equally in Spanish or in English (Lipski 1982). No study to date has provided an explanation for the divergence in this finding.

In this thesis we will explore one factor that may be responsible for the differing results: verb bias. Verb bias can be loosely defined as the probabilistic tendency of a verb to take a certain complement. To provide an example, the Spanish verb *aceptar* ("to accept") is significantly more likely to be followed by a direct object than another complement such as a noun phrase in production (Dussias 2010). It can then be said that the verb *aceptar* has a Direct-Object bias. Furthermore, verb bias has been shown to guide the interpretation of syntactically ambiguous structures (Dussias 2008). Garnsey et al (1997) studied the effects of verb bias on

syntactically ambiguous structures among English monolinguals and found that a verb's bias does indeed have an effect on how comprehenders resolve such ambiguities.

(10) Sample stimuli from Garnsey et al. (1997)

(1) The CIA director confirmed the rumor could mean a security leak.
(direct-object bias verb–ambiguous condition).

(2) The CIA director confirmed that the rumor could mean a security leak.
(direct-object bias verb–unambiguous control).

(3) The ticket agent admitted the mistake might not have been caught.
(sentential-complement bias verb–ambiguous condition).

(4) The ticket agent admitted that the mistake might not have been caught.
(sentential-complement bias verb–unambiguous control).

Participants in the study took longer to read conditions (1) and (2), implying that the direct-object bias of the verb "to confirm" led them to anticipate "the rumor" as a direct object complement. However, because participants were presented with an auxiliary phrase, they were forced to reassign "the rumor" as a subject instead of a direct object, disconfirming their initial intuitions. As a consequence, participants required more time to parse these sentences. In sentences (3) and (4), as the verb "to admit" has a sentential-complement bias and thus presents no additional difficulty in regards to parsing. It is possible, then, that the reason the production examples in such studies as Dussias (2002) and Lipski (1982) appear as they do is because verbs exhibit a variance in their biases, which thereby affects their complements. As examples (10.1) and (10.3) show, verbs can take sentential complements but the preference for verbs to do so vary. In the cases of such verbs as "to admit", taking a sentential complement is preferred, but with such verbs as "to confirm" this is the dispreferred preference. It is possible, then, that the

discrepancies found in the production literature, where in some cases the complementizer surfaces in Spanish and in others in English, may have to do with differences in verb bias.

Chapter 3

Methodology

Participants

A total of 58 participants were recruited in this study, all between 17 and 35 years of age, with the median being [*M* = 23.82]. The participants were divided into two groups: one group (n=37; henceforth the non-codeswitching group) consisted of Spanish nationals who had a high degree of competency in English as demonstrated by their scores on various aptitude tests; the second group (n=20; henceforth, the codeswitching group) consisted of high proficiency Spanish-English bilinguals residing in State College, Pennsylvania. The Spanish nationals were not codeswitchers – that is, they did not exhibit tendencies for codeswitching behaviors and were unaccustomed to it. The second group consisted entirely of codeswitchers, most of who had resided in the United States for at least a few years and reported codeswitching as a daily linguistic behavior. Participants were either simultaneous bilinguals (those who had learned English and Spanish from birth) or sequential bilinguals (those who began their second language education in early childhood, for example), and all had either achieved or were pursuing a bachelor's degree or graduate education. The competency of the bilinguals was determined using results from the MELICET (Michigan English Language Institute College English Test), DELE (Diploma de Español como Lengua Extranjera), and a self-reported language history questionnaire. Each of these tasks is furthered outlined below in the order that they were presented to the participants.

1) *Language History Questionnaire*

The Language History Questionnaire (LHQ) is a self-assessment of each participant's language abilities and linguistic history. For each language the participants reported age of acquisition, verbal, written, and oral competency, language exposure, and estimated general percentages of each language's use in everyday life. Sample questions are shown below:

(11) Language History Questionnaire Samples

1) Por favor, lista todas las lenguas que sabes **en orden de dominancia**
"Please list all of the languages that you know in order of dominance"

3) Por favor, valora el porcentaje de tiempo al que estas expuesto en cada lengua (debe sumar 100)
"Please estimate the percentage of time in which you are exposed to each language (the totals should sum to 100)"

The full questionnaire can be found in Appendix C.

2) *Diploma de Español como Lengua Extranjera (Diploma of Spanish as a Foreign Language, DELE)*

The DELE is a standardized test that measures overall Spanish competency and is issued by the Spanish Ministry of Education, Culture, and Sport (http://diplomas.cervantes.es/en). It is administered at seven levels and consists of three sections: a cloze test, vocabulary selection, and a multiple-choice grammar task. A subsection of this test containing the three aforementioned elements was given to all participants. There is a maximum score of 50 points; correct answers receive 1 point, while incorrect answers receive 0 points. The average score of the non-codeswitching group was [M = 44.77], and the average score for the codeswitching group was [M = 39.35]. A sample taken from the exam can be seen below.

(12) Sample DELE Question

31. En la compañia se está decidiendo estos días si _____ nuevos horarios para los trabajadores.

a) haya
b) habrá

The full exam can be found in Appendix D.

3) *Michigan English Language Institute College English Test (MELICET)*

Similar to the DELE, the MELICET measures English competency, employing a cloze test, conversational grammar task, vocabulary selection task, and reading comprehension. The test is also scored out of 50 points. Correct answers receive 1 point, while incorrect answers receive 0 points. The average score of the non-codeswitching group was [M = 37], and the average score for the codeswitching group was [M = 43.30]. A sample from the exam is given below.

(13) Sample MELICET Question

2. "Did George enter the photography contest?"
"No, but if he had, I think he _____."
a) would have won
b) had won
c) would won
d) will have won

The full exam can be found in Appendix E.

The results of each of these tasks are given in Table 1.

Table 1: Mean Scores

Participants	Mean Scores: DELE (*/50)	Mean Scores: MELICET (*/50)
Non-codeswitchers	44.77	37.00
Codeswitchers	39.35	43.40

Materials

The primary task of the study was a reading comprehension task that included a subsequent question to evaluate the participant's understanding and ensure their continued attention. Each participant was presented with a total of 152 monolingual or code-switched sentences, one at a time, before answering the comprehension question. Each experimental sentence was designed to include either a Direct-Object-biased (DO) or a Sentential Complement-biased (SC) verb, and a switch from Spanish to English at the point of the complementizer. The DO and SC verbs were selected from Dussias et al (2010), and subcategorized based off of their reported preference for either a direct object complement or sentential complement ($x \leq .55$). (14) below illustrates the four experimental conditions:

(14) Experimental Conditions

SC Bias

QUE-Switch (Condition 1)
La enfermera pensó que the patient needed more time to recover.
"The nurse thought that the patient needed more time to recover."

THAT-Switch (Condition 2)
La enfermera pensó that the patient needed more time to recover.
"The nurse thought that the patient needed more time to recover."

DO Bias

QUE-Switch (Condition 3)
El ingeniero enfatizó que the building should be built facing southwest.
"The engineer emphasized that the building should be built facing southwest."

THAT-Switch (Condition 4)
El ingeniero enfatizó that the building should be built facing southwest.
"The engineer emphasized that the building should be built facing southwest."

The question of verb bias was incorporated into the study in order to challenge the strength of the "*que"* preference among Spanish-English bilinguals. If the preference is grounded in the verb bias of Spanish verbs, both the non-switching group and the codeswitching group should exhibit similar processing patterns, exhibiting generally higher parsing times for conditions with an incongruent "complementizer + DO verb" pair (3 & 4). If the preference, however, is a learned result of a codeswitching behavior, the non-codeswitchers should exhibit difficulty processing for all conditions, with slightly higher fluencies for Conditions that contain *que* (1 & 3). The codeswitchers, on the other hand, should show fluency for all conditions with the exception of Condition 4. The verbs in Conditions 1 and 3, using the preferred "*que*", should not present any difficulty in comprehension despite the somewhat conflicting nature of a DO-biased verb followed by a sentential complement in Condition 3. Condition 2 should also be parsed with relative fluency as the verbs used in the condition are typically paired with sentential complements and thereby anticipated by the comprehension system of the codeswitchers despite the dispreferred English "*that*". The incongruent DO verb + "*that"* + complement pair in Condition 4, however, should be entirely alien to the comprehension systems of codeswitchers and parsed with difficulty as it lacks both the preferred "*que"* and the expected complement. The participants' poor performance in Condition 4 would then mirror the relative ease with which they processed Condition 3, demonstrating that the "*que"* preference developed through their codeswitching behaviors did indeed lend them an advantage over their non-switching peers.

Of 152 total stimuli, 48 were experimental, 94 were fillers, and 10 practice items were read at the beginning of the experiment. Filler sentences consisted of monolingual English and Spanish sentences, or sentences switching from English into Spanish, and vice versa. All stimulus files were counterbalanced to ensure that participants were exposed to items in each

condition but never saw the same sentence representing each condition. An example of an experimental stimulus has been provided below.

(15) Sample Experimental Stimulus and Comprehension Question

Condition 1: SO-bias, QUE+Switch
La estudiante pensó que the meeting had been rescheduled for Wednesday.
"The student thought that the meeting had been rescheduled for Wednesday."

Comprehension Question:
Was the meeting postponed until Friday?

Procedure

Stimuli were presented on a color monitor using an EyeLink 1000 desktop-mounted eye-tracker that was interfaced with an IBM-compatible PC. A chinrest was used to ensure the participant's head remained in place during data collection. Participants were instructed to read the sentences silently at their own pace. After reading each sentence, participants were asked to complete a comprehension question task, which was added to ensure that participants remained attentive throughout the course of the task. The comprehension question referred to the content of the sentence and was answered with the "yes" or "no" button on a gamepad that the participants held for the duration of the experiment. In order to avoid participant fatigue, the experimenter periodically offered a break to the participant, giving their eyes a chance to rest. Recalibration took place after every break, or anytime the participant's gaze wandered too far away from the sentences' critical region. After completing the primary task, participants completed the MELICET, the DELE, and the self-reported language history questionnaire.

Predictions

It is anticipated that the non-codeswitching group will parse all sentences containing the Spanish complementizer "*que"* with relative ease as compared to sentences containing the English "*that"*. The lack of codeswitching behaviors among the group will most likely induce a processing cost at the point of the switch from Spanish to English, slowing the parsing of sentences that include "*that"*. It is also possible that this processing cost will be reduced when there is congruency between the verb bias and the sentence's complement. For the codeswitching group, however, their codeswitching behaviors should allow them to parse sentences containing both "*que"* and "*that"* without particular difficulty; this prediction follows from the fact that past codeswitching studies (Poplack, 1980; Lipski, 1985) have shown that Spanish-English codeswitchers produce both types of switches with about the same frequency. It may be possible that a preference for "*que"* over "*that"* may be found as well, given the result in Dussias (2002). Verb bias may also play a role such that congruent sentences are read faster than incongruent ones.

Chapter 4

Results

Following data cleaning procedures typically applied to eyetracking data, initial fixations on the critical region (the critical region being defined as the combination of the complementizer and the following word), and fixations smaller than 40 milliseconds or larger than 3000 milliseconds were removed. The resultant data were separated and analyzed using a 2x2 Repeated-Measures ANOVA, with "Complementizer" (que vs. that) and "Verb bias" (SC vs. DO) as the within-subject variables. For both populations, the gaze duration, right-bound duration time, regression path, and total times for all fixations in the critical region were analyzed. These variables are defined below:

(16) Definitions of Dependent Variables

Gaze Duration (also known as first-pass time)**:** the summed duration of all fixations on the critical region before the first fixation on any other word.

Right-Bounded Duration: the summed duration of all fixations on the critical region before the first fixation of any word farther to the right.

Regression Path: the summed duration of all fixations from the first fixation on the critical region up to (but not including) the first fixation on a word farther to the right. This often includes fixations on words to the left of the critical region.

Total Time: the sum of all fixations on the critical region for the duration of the trial

The descriptive statistics of each condition and variable were found through a repeated measures analysis with IBM SPSS Statistics.

Non-Codeswitchers (Granada)

Gaze: The non-codeswitching group exhibited a main effect of complementizer, such that when the critical region involved "*que"* (*M* = 235.94 ms) gaze duration was smaller than when the critical region involved "*that" (M*= 289.94 ms). This difference in gaze duration was statistically significant ($F_{1, 36}$ = 30.37, p = .000). There was no significant effect of verb bias (p =.814) nor was there an interaction between the complementizer and verb bias (p = .771).

Table 2: Descriptive Statistics (Gaze Duration), Non-codeswitchers

	Mean (ms)	Std. Deviation	N
SUM_Gaze_que_DO	233.9184	76.47592	37
SUM_Gaze_que_SC	237.9756	77.37183	37
SUM_Gaze_that_DO	290.1341	76.28476	37
SUM_Gaze_that_SC	289.7601	84.08087	37

Right-Bounded Duration: The non-codeswitching group exhibited a main effect of complementizer, such that when the critical region involved "*que"* (*M* =249.84), right-bounded duration was smaller than when the critical region involved "*that" (M*= 302.34). This difference was statistically significant ($F_{1, 36}$ = 24.45, p = .000). There was no significant effect of verb bias (p = .918) nor was there an interaction between the complementizer and verb bias (p = .931).

Regression Path: The non-codeswitching group again exhibited a main effect of complementizer, such that when the critical region involved "*que"* (*M* = 297.65) regression path was smaller than when the critical region involved "*that"* (*M* = 355.69). This difference was

statistically significant ($F_{1, 36} = 15.41$, $p = .000$). There was no significant effect of verb bias ($p = .292$) nor was there an interaction between the complementizer and verb bias ($p = .543$).

Total Time: The non-codeswitching group exhibited no main effect of complementizer ($p = .079$), nor was there a significant effect of verb bias ($p = .904$) or an interaction between the complementizer and verb bias ($p = .060$).

The full descriptive statistics for each dependent variable can be found in Appendix A.

Codeswitchers (State College)

Gaze: The codeswitching group exhibited no main effect of complementizer ($p = .358$), nor was there a significant effect of verb bias ($p = .152$) or an interaction between the complementizer and verb bias ($p = .723$).

Right Bounded Duration: The codeswitching group exhibited no main effect of complementizer ($p = .554$), nor was there a significant effect of verb bias ($p = .062$) or an interaction between the complementizer and verb bias ($p = .907$).

Regression Path: The codeswitching group exhibited no main effect of complementizer ($p = .887$), nor was there a significant effect of verb bias ($p = .559$) or an interaction between the complementizer and verb bias ($p = .879$).

Total Time: The codeswitching group exhibited no main effect of complementizer ($p = .733$), nor was there a significant effect of verb bias ($p = .136$) or an interaction between the complementizer and verb bias ($p = .149$).

The full descriptive statistics of each dependent variable can be found in Appendix B.

Discussion

The complementizer effect exhibited by the Granada bilinguals (non-codeswitchers) was largely in line with predictions; as they do not codeswitch, it would be expected that they show a processing cost at the point of a language switch from Spanish to English, e.g. "*El dijo* that he was coming/He said he was coming". What was interesting in the Granada results was the strength of their dispreference for the "SC verb + *that*" condition. It was anticipated that in all cases with the English complementizer there was to be a processing cost, which would only be increased by the incongruence of the "DO verb + *that*" condition. However, the Granada bilinguals parsed the "DO verb + *that*" condition (*M* = 473.27 ms) at about the same speed as the "DO verb + *que*" condition (*M* = 468.10 ms), both of which were faster than the "SC verb + *that*" condition (*M* = 497.91 ms). As non-codeswitchers, the incongruence of the "complementizer + DO verb" could be relatively insignificant when compared to the overall task of transitioning from Spanish to English. This may account for why we see similar averages for both DO verb conditions. On the other hand, the "*que*" and "*that*" for conditions with an SC verb are clearly not interchangeable – the two complementizers are parsed very differently when paired with a SC verb.

One possible explanation for the difference between "*que*" and "*that*" could be the ease with which the "SC verb + *que*" was parsed (*M* = 447.66 ms), and it merits a brief look at an inherent element of Spanish grammar. Whereas in English one can grammatically omit a complementizer in certain situations (He said that he'd come/He said he'd come), this is impermissible in Spanish (Él dijo que viniera/*Él dijo viniera; "He said he would come"). It can be inferred, then, that Spanish-English bilinguals utilize complementizers in Spanish with a higher frequency than when they are speaking in English. According to certain theories that link

production and comprehension, this higher frequency of the Spanish complementizer is critical. Dussias (2001) posits that the comprehension of a structure is sensitive to the statistical frequency of its occurrence; that is, the more often a speaker is exposed to a certain parameter, the easier it will be for them to process it. Because Spanish speakers are more accustomed to using the Spanish complementizer "*que"* to introduce a complement (as it is mandatory), the Spanish-English bilinguals would then process "*que"* more fluently than the comparatively nonessential English complementizer "*that"*. The Granada bilinguals indeed exhibited a preference for "SC verb + *que*", so the violation of this preference, without the fluency that comes from codeswitching behaviors, may have an inverse effect on parsing, resulting in significant higher parsing times for the "SC verb + *that*" condition.

The State College bilinguals also showed speedier parsing times for the "SC verb + *que*" condition, but showed the most difficulty with the "DO verb + *que*" condition, despite the Spanish complementizer. It is also interesting to note that both conditions with "*that*" were parsed at about the same speed, again demonstrating that the effects of verb bias may be lost in the processing cost of the language switch. Throughout the analyses, though, the lack of trends of any kind in terms of preference for verb bias or a complementizer indicate a sort of lexical whitewashing; the fluent codeswitchers are, on the whole, unaffected by both the bias of a verb and the language of a complementizer in a significant way. This result only serves to demonstrate the true extent of their linguistic capabilities as no condition caused significant trouble in parsing, despite the fact that many participants reported the sentences in the experiment to be "weird" after completion of the primary task.

Finally, the results shown are problematic for the Functional Head Constraint outlined earlier but it supports the Government Constraint. The Government Constraint allows a switch

between a complementizer and its subsequent complement clause as they are not governed by the same head node. Conversely, the Functional Head Constraint mandates that the complementizer and the complement itself be expressed in the same language.

Appendix A: Descriptive Statistics, Granada Bilinguals (Non-codeswitchers)

Gaze:

	Mean	Std. Deviation	N
SUM_Gaze_que_DO	233.9184	76.47592	37
SUM_Gaze_que_SC	237.9756	77.37183	37
SUM_Gaze_that_DO	290.1341	76.28476	37
SUM_Gaze_that_SC	289.7601	84.08087	37

Right Bounded Duration:

	Mean	Std. Deviation	N
SUM_RB_que_DO	249.8058	88.07304	37
SUM_RB_que_SC	249.8893	82.40805	37
SUM_RB_that_DO	301.5225	80.15686	37
SUM_RB_that_SC	303.1615	91.47042	37

Regression Path:

	Mean	Std. Deviation	N
SUM_RP_que_DO	308.9455	135.06654	37
SUM_RP_que_SC	286.3686	113.55526	37
SUM_RP_that_DO	357.7060	119.31136	37
SUM_RP_that_SC	353.6810	101.43865	37

Total Time:

	Mean	Std. Deviation	N
SUM_TT_que_DO	468.1039	155.54391	37
SUM_TT_que_SC	447.6600	142.48656	37
SUM_TT_that_DO	473.2795	86.74202	37
SUM_TT_that_SC	497.9179	124.59766	37

Appendix B: Descriptive Statistics, State College Bilinguals (Codeswitchers)

Gaze:

	Mean	Std. Deviation	N
Sum_GAZE_que_DO	292.3146	162.87457	20
Sum_GAZE_que_SC	277.6168	132.34413	20
Sum_GAZE_that_DO	310.7421	129.12192	20
Sum_GAZE_that_SC	290.5737	113.50957	20

Right Bounded Duration:

	Mean	Std. Deviation	N
Sum_RB_que_DO	313.9688	187.68198	20
Sum_RB_que_SC	294.6940	154.64812	20
Sum_RB_that_DO	325.4104	138.74276	20
Sum_RB_that_SC	308.1314	133.87664	20

Regression Path

	Mean	Std. Deviation	N
Sum_RP_que_DO	386.8520	264.13733	20
Sum_RP_que_SC	375.5168	241.14331	20
Sum_RP_that_DO	379.6811	174.99561	20
Sum_RP_that_SC	374.2266	210.05504	20

Total Time:

	Mean	Std. Deviation	N
Sum_TT_que_DO	537.8706	363.61412	20
Sum_TT_que_SC	469.0801	284.54315	20
Sum_TT_that_DO	511.9184	254.14535	20
Sum_TT_that_SC	512.3065	330.44509	20

Appendix C: Language History Questionnaire

LANGUAGE EXPERIENCE AND PROFICIENCY QUESTIONNAIRE
Dussias Lab v.1

Apellido:
Nombre:
Edad:
Sexo:
Nacimiento:
Fecha de hoy:

(1) Por favor, lista todas las lenguas que sabes **en orden de dominancia**.

(2) Por favor, lista todas las lenguas que sabes **en orden de adquisición.**

(3) Por favor, valora el porcentaje de tiempo al que estas expuesto en cada lengua. (Debe sumar 100%)
-**Lengua aquí:**
-Porcentaje aquí:

(4) Cuando lees un texto disponible en todas las lenguas, ¿en qué porcentaje eliges leerlo en cada idioma? (Debe sumar 100%).
-**Lengua aquí:**
-Porcentaje aquí:

(5) Cuando seleccionas un idioma para hablar con otra persona fluida en otras lenguas, ¿qué porcentaje de tiempo eliges hablar en cada idioma? (Debe sumar 100%)
-**Lengua aquí:**
-Porcentaje aquí:

(6) Por favor, nombra las culturas con las que te identificas en una escala de 0 a 10.
-**Culturas aquí:**

(7) ¿Durante cuántos años has estudiado? ___.
Marca tu nivel de studios más actual.

☐ Menos que instituto	☐ Algo de universidad	☐ Masters
☐ Instituto	☐ Grado	☐ Doctorado
☐ Formación profesional	☐ Algo de Master	☐ Otro:

(8) Tienes algun problema visual ☐, auditivo ☐, linguístico ☐, de aprendizaje ☐?
Por favor, explica: _____.

IDIOMA: Error! Reference source not found.

Este es mi (seleciona) idioma.

Todas las preguntas siguientes se refieren a tu idioma de ___. **Error! Reference source not found.**

(1) Edad cuando tú…:
-Empezaste a adquirirlo:
-Empezaste a ser fluído:
-Empezaste a leerlo:
-Empezaste a ser fluído leyéndolo:

(2) Por favor, lista el número de años y meses que pasaste…:
-En un país extranjero donde se habla el idioma:
-Con una familia extranjera que habla el idioma:
-Una Universidad o trabajo donde se habla el idioma:

(3) En una escala de 0 a 10, por favor, selecciona el nivel de competencia oral, escuchar y lectura en el idioma. Selecciona con los menús despegables:
-Hablar:
-Entender:
-Leer:

(4) En una escala de 0 a 10, selecciona cuales de los siguientes factores contribuyeron en tu apredizaje:
-Estar con amigos:
-Estas con la familia:
-Leer:
-Autoaprendizaje:
-Ver la televisión:
-Escuchar la radio:

(5) Por favor, valora hasta qué punto estás actualmente expuesto al idioma en los siguientes contextos:
-Estar con amigos:
-Estas con la familia:
-Leer:
-Autoaprendizaje:
-Ver la televisión:
-Escuchar la radio:

(6) En tu opinión, ¿cuánto acento extranjero tienes en este idioma?

(7) Por favor, evalúa con cuanta frecuencia otros te identifican como hablante no nativo, basándose en tu acento en este idioma.

Appendix D: DELE

Participante: **SECCION 1: Texto Incompleto**

INSTRUCCIONES:
Complete el siguiente texto eligiendo para cada uno de los huecos una de las tres opciones que se le ofrecen.

NIÑOS SALUDABLES

Los padres siempre se están preguntando cómo conseguir que sus hijos sean unos niños talentosos y sanos y las soluciones pueden estar más cerca de lo que creemos. Ni tónicos, ni vitaminas, ni cursos de lectura veloz pueden conseguir tantos resultados en los niños 1 la práctica constante de hábitos saludables, Un sueño reparador, una alimentación sabia, 2 a una actividad física constante y el control del estrés son claves a la hora de potenciar habilidades naturales de los más pequeños.

3 contrario de los que se creía, el sueño está lejos de ser una fase de hibernación mental. 4 que se descansa es la musculatura, pero en el cerebro se inician procesos fisiológicos fundamentales 5 el adecuado funcionamiento del niño, indispensables en la prevención de 6 enfermedad. El sueño es como el supermercado de noche, al momento del 7 no se apagan las luces, 8 que se encienden muchas más para limpiar las instalaciones y reponer los productos.

No solo 9 vital para el niño dormir las horas recomendadas, también que lo 10 a la hora del crepúsculo, pues en ese momento se 11 la disminución gradual de su actividad y la cantidad de estímulos que acuden a su cerebro desciende.

En la comida están los nutrientes básicos, 12 cumplen importantes funciones estructurales. 13 nacimiento en adelante, el niño obtendrá de ahí la materia prima para formar su cerebro y organismo. Si se 14 un niño talentoso, lo primeo es aplicar en 15 mismo las normas de alimentación saludable.

Las frutas, por ejemplo, deben consumirse más 16 tres veces al día, no hay que permitir que el yogur, otro gran alimento, les 17 protagonismo en la dieta de los chicos.

A pesar de los conocimientos, padres con las mejores intenciones se han topado con la barreara del gusto. Pero la preferencia por la comida sana también se puede educar, acostumbrándolos desde pequeños y explicando el 18 siempre.

El cuerpo humano está diseñado para moverse. Pero, en la actualidad, el sedentarismo ha limitado el crecimiento intelectual y emocional. Para evitarlo es crucial que los niños 19 una actividad física constante, en forma sistemática. Lo preferible es la práctica de un deporte, por ejemplo, el tenis de mesa, que le 20 mucho al niño en términos de coordinación y estrategia.

[Adaptado de *El Mercurio*, Chile]
[Adapted from DELE test]

SECCION 2: Vocabulario

INSTRUCCIONES: elige el significado de la palabra en negrita.

21. Tengo la impresión de que los libros que yo tenía de pequeña están **dispersos** por la casa de mis padres.

elige uno

22. Estábamos en plena reunión y, **de buenas a primeras**, la directora empezó con el tema de la subida de impuestos.

elige uno

23. Es un club muy exclusivo. Tiene una **contraseña** para poder entrar en determinados días.

elige uno

24. Esa decisión es **inapelable**; ahora que, si tú quieres, puedes hablar con Juan a ver qué te dice.

elige uno

25. Es necesario **restituir** el honor de esa persona porque, si no, no querrá asistir a una reunión con todos los demás representantes.

elige uno

26. Llegamos al aeropuerto a las tres y a **duras penas** cogimos el avión, no sin antes hablar por teléfono con una de nuestras familias.

elige uno

27. Decidieron tener una conversación previa a la firma del tratado para **limar asperezas**.

elige uno

28. En medio de los exámenes el hijo de Marta tuvo un **bajonazo**: por eso sigue preparándose para ellos.

elige uno

29. La situación familiar hizo que mi abuelo **tomara cartas en el asunto** en aquella época.

elige uno

30. Con ese aspecto de **pasmado**, es el mejor escritor de su generación.

elige uno

SECCION 3: Gramática

INSTRUCCIONES: Elige la opción correcta para cada una de las siguientes oraciones.

31. En la compañía se está decidiendo estos días si _____ nuevos horarios para los trabajadores.

elige uno

32. María no era de la opinión de que _____ todos a casa de Juan, pero al final fuimos.

elige uno

33. En las vacaciones en Brasil gasté mucho dinero, más _____ pensaba: es que era todo tan bonito...

elige uno

34. A Luisa le dio _____ decir que tenía sueño y se fue a casa.

elige uno

35. No tenemos _____ idea de qué habrá podido pasar en la última jornada de Bolsa porque hemos estado de vacaciones.

elige uno

36. Yo creo que a Carlos no le gustó nada que _____ en su casa sin avisar.

elige uno

37. No estoy dispuesta a irme sin que _____ la verdad.

elige uno

38. No sé si a Clara _____ han devuelto ya las maletas que perdió en el aeropuerto.

elige uno

39. ¿Dónde han estado los chicos toda la tarde, que no los he visto?
- No sé, _____ porque mañana tienen un examen importante.

elige uno

40. ¿Vas a asistir a la inauguración de la nueva sede?
- Si tengo tiempo, _____ hoy.

elige uno

41. Yo _____ tú, hablaría con ella, es lo mejor para aclarar la situación.

elige uno
42. Ella le dijo que, si de verdad la _____, se lo demostrara.

elige uno

43. El hecho _____ lo eliminaron de la lista de candidatos todavía no está claro.

elige uno

44. _____ que se traslade a vivir a esta casa estará encantado con el paisaje alrededor.

elige uno

45. Nadie conseguirá aprobar ese examen _____ se prepare a conciencia: es muy duro.

elige uno

46. _____ salir de casa, se dio cuenta de que había dejado las llaves dentro.

elige uno

47. _____ haber sabido que ibais a venir, habríamos preparado más comida.

elige uno

48. Había mucha gente que quería acudir al estreno de la película, _____ decidiéramos ir otro día a verla.

elige uno

49. Cuando llegamos a la oficina _____ 15 personas esperando para hablar con nosotros.

elige uno

50. Nuestros hijos ya son mayores. _____ arreglan muy bien en casa solos.

elige uno

Appendix E: MELICET

Participant:

SECTION 1: Grammar

INSTRUCTIONS: Choose the word or phrase that best completes the conversation.

1. "What time will we arrive in San Francisco?"
"I'm not sure, because I don't know _____ from here."

choose one

2. "Did George enter the photography contest?"
"No, but if he had, I think he _____."

choose one

3. "What's the matter?"
"I feel _____ out."

choose one

4. "May I bring you a cup of tea?"
"I prefer coffee _____ tea."

choose one

5. "Have you ever gone to Tahiti?"
"No, but I have _____ for a long time."

choose one

6. "Will you come to my party on Saturday?"
"_____ I'd like to, I can't."

choose one

7. "Don't forget to pay the rent tomorrow!"
"Please remind _____ in the morning."

choose one

8. "Susan plays the piano very well."
"_____ that, she's an excellent singer."

choose one

9. “Which chair should I take?”
“The _____ over there.”

choose one

10. “Mark isn’t very smart, is he?”
“Actually, he’s smarter than he _____ to be.”

choose one

11. “What do you think of American football?”
“I think it’s _____ sport.”

choose one

12. “What shall we do about this problem?”
“John suggests _____ a meeting.”

choose one

13. “Where did you get those curtains?”
“My wife made them _____ an old tablecloth.”

choose one

14. “Do you like sugar in your coffee?”
“Yes, _____ better.”

choose one

15. “Why did John refuse to pay for his dinner?”
“Because _____ two hours by the time he was served.”

choose one

16. “When is the meeting going to begin?”
“_____ Fred comes, we can get started.”

choose one

17. “Does John have a lot of accidents at work?”
“Yes. He isn’t _____ he should be.”

choose one

18. “Did David enter the writing contest?”
“Yes, he thinks he has _____.”

choose one

19. “Does Barbara have a difficult job?”
“Yes. She is responsible _____ many important decisions.”

choose one

20. “You gave me the wrong amount of money.”
“How _____? I gave you what you asked for.”

choose one

21. “Will Bill’s report be ready by Friday?”
“No, I don’t think he _____ it by then.”

choose one

22. “When will this paint be dry?”
“Not long. This is very _____ paint.”

choose one

23. “Does Sue like circuses?”
“Yes, the clowns always make _____.”

choose one

24. “Did you do well on the history test?”
“No. I studied all night _____ failed.”

choose one

25. “How do those shoes fit?”
“My feet are too big _____ them.”

choose one

26. “Do Mary’s children help with the housework?”
“Yes, if she asks _____.”

choose one

27. “Where’s the box I asked for?”
“Over there, _____ on the table.”

choose one

28. “Let’s plan a picnic for Saturday.”
“_____ it rains?”

choose one

29. “Is Lynn going to buy a new suit?”
“Yes, she’s looking for a suit like _____.”

choose one

30. “That movie isn’t very good.”
“Just wait. The best part _____.”

choose one

SECTION 2: Cloze

INSTRUCTIONS: Read the passage, then select the word which best fills the blank in both grammar and meaning.

Color is such a constant part of our environment that we tend to ignore its messages. Many people with perfect vision suffer 31 a sort of cultural color blindness. But 32 unnoticed color influences feelings as well. 33 of experiments with both infants and 34 indicate that blue light tends to 35 activity and produce a state of restfulness. 36 more tense a person is, the 37 blue will act as a tranquilizer. Red, 38 the contrary, excites the nervous system, 39 that if this page were printed 40 red paper, electrodes attached to your skin 41 show a definite increase in muscle 42 , restlessness, and eye movements compared with 43 reactions to the white page. Studies 44 found that patients in hospital rooms 45 red or other bright colors require 46 attention from nurses than patients in 47 painted in more subdued colors. Furthermore, 48 has been found that school children 49 more alert and learn faster in 50 painted rooms. However, this is unfortunately accompanied by an increase in restlesness and noisiness.

[Adapted from MELICET test]

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ACADEMIC VITA

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EDUCATION

The Schreyer Honors College at The Pennsylvania State University, University Park, PA Anticipated May 2015
*Bachelor of Science in Applied Spanish with Linguistics Option, **Schreyer Honors College***
Bachelor of Arts in Russian
Minor in Linguistics

Saint Petersburg State University, Saint Petersburg, Russia Fall 2014
Council on International Educational Exchange (*CIEE): Russian Language Program – Advanced Level*

LEADERSHIP

Schreyer Honors Orientation, University Park, PA Fall 2013, Fall 2014
- Mentor, Logistics Committee, Fall 2013
- Orientation Leader, Finale Committee, Fall 2014

Presidential Leadership Academy, University Park, PA 4/2012 to present
Program which chooses thirty rising sophomores every year to study leadership fundamentals under the President of The Pennsylvania State University and Dean of the Schreyer Honors College
- Delta Class Member
- PLA THON Member, Volunteer, 2012-2013 Academic Year

The GLOBE, University Park, PA 8/2011 to 5/2014
Special Living Option within the Schreyer Honors College with an emphasis on international affairs
- Vice Chair, 2013-2014 Academic Year
- Inaugural Resident/Discussion Leader, August 2011 to 5/2014

Penn State Glee Club, University Park, PA 8/2012 to present
- Performance Manager, August 2013 to May 2014

No Strings Attached and Affiliate Ensembles, University Park, PA 9/2011 to 11/2013
- President, May 2013 to October 2013
- Co-Music Director and Bass Section Leader, December 2011 to May 2013
- Founder/Student Director, Denoted (Men's A Cappella Quartet), December 2012 to May 2013

Boy Scouts of America, Troop 51, Clarion, PA Fall 2002 to Fall 2011
- Eagle Scout Award, awarded January 2010
- Senior Patrol Leader, August 2007 to May 2009

HONORS

Walter Edwin Thompson & Dr. Regina B. Thompson Scholarship, Spring 2015
-funding awarded to full-time undergraduate German or Russian majors with excellent academic standing
Paterno Fellows Barry Directorship Scholarship Recipient, Fall 2014
-funding awarded to Paterno Fellows who participate in a relevant study abroad or internship experience

Presidential Leadership Academy Travel Grant Recipient, Spring 2014
-funding awarded to members of the Academy for significant study abroad programs or internships
Bruce Trinkley Award for Artistry, Penn State Glee Club, Spring 2014
-honor awarded to a junior in the Glee Club for outstanding musicality
Critical Language Scholarship Recipient, Russian Finalist, Kazan Program, Summer 2014
-a fully-funded overseas language and cultural immersion program for American undergraduate and graduate students
James S. Broadhurst Scholarship in the College of the Liberal Arts, 2013-2014: 2014-2015 Academic Years
-awarded to superior full-time undergraduate students in the College of the Liberal Arts
Naomi A. Fischer Scholarship, Fall 2013
-awarded to superior students in Engineering, Liberal Arts, Education, and World Campus who exhibit financial need
Eric Steindl Award in Spanish, Spring 2013
-awarded to a student in the Spanish Department who demonstrates outstanding academic excellence and community spirit
Julianne and David Vaughan Scholarship for Russian Study, Spring 2013
PIRE Undergraduate Fellowship, Granada, Spain, Summer 2013
-grant awarded to The Pennsylvania State University to facilitate a wide range of studies in bilingualism; awarded to eight students per year to fund students researching linguistics and bilingualism abroad
Phi Beta Kappa Honor Society Inductee, Fall 2012
Paterno Fellows Program – The College of the Liberal Arts, Schreyer Honors College, 2012 to present
-program with emphasis on: ethics, service, leadership, excellence in communication, and intercultural awareness
Philip and Barbara Schumacher Honors Scholarship, 2011-2013
Schreyer Academic Excellence Award, 2011-2012: 2012-2013: 2013-2014: 2014-2015 Academic Years
-funding awarded to students who are admitted to the Honors College as incoming freshmen
Charles Wein Memorial Scholarship, 2011-2012: 2012-2013 Academic Years
MENC All-Eastern Mixed Honors Chorus, Spring 2011
-ensemble composed of top vocalists from 13 states in the Mid/North Atlantic region

ACTIVITIES

Night School English Instructor, High School #58, Saint Petersburg
Liberal Arts Alumni Mentor Program
Penn State Glee Club A Cappella Group, The Hi-Lo's
Schreyer Honors College Volunteer, Day of Service Team Leader

LANGUAGES

Spanish (Professional Proficiency), Russian (Limited Working Proficiency)

WORK

Pennsylvania State University Department of Germanic and Slavic Languages – Teaching Assistant, Spring 2015
Pennsylvania State University Center of Language Science – Student Researcher, January 2012 to present
Pennsylvania State University Office of Global Connections – Volunteer English Tutor, Fall 2011 to Fall 2014
Mario and Luigi's Restaurant – Busser/Runner/Server, February 2012 to September 2012
South Halls Dining, Pennsylvania State University – Student Worker, October 2011 to February 2012