Being in Bilingual Speech: An Analysis of *Estar* 'be' Constructions in Spanish/English Code-switching

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Abstract

In the present study, we investigated *estar* constructions in the Spanish/English codeswitching variety of Northern Belize, which is well known for its prolific use of *hacer* bilingual compound verbs in code--switched speech. To this end, we extracted and analyzed 364 unilingual Spanish and 158 bilingual *estar* constructions from naturalistic speech in order (i) to examine the occurrence of *estar* with predicative adjectives, present participles, and past participles in both unilingual and code-switched discourse; and (ii) to determine how type of bilingualism (emergent vs. dynamic) and frequency of use of *hacer* bilingual compound verbs, influence the naturalistic production of *estar* constructions. Results revealed that the production of *estar* with English predicative adjectives and English past participles was favored in bilingual discourse. Importantly, the use of '*estar* + English past participle' constructions was favored by dynamic bilinguals who more frequently employed *hacer* 'do' bilingual compound verbs. Our findings highlight the important role that bilingual competence play in the naturalistic production of congruent structures in codeswitched speech.

Keywords: 'be' bilingual compound verbs; Spanish/English codeswitching; bilingual competence; bilingualism; congruence

1. Introduction

Bilingual compound verbs (BCVs) can be formed using a variety of 'helping' or 'operator' verbs. Although several operator verbs (e.g., give, take, become, stay, etc.) have been documented in BCVs across different language pairs around the world (Romaine, 1995; Muysken, 2000, 2016; Wichmann & Wohlgemuth, 2008), previous research suggests there are two predominant kinds of BCVs; namely, 'do' constructions and 'be' constructions. The former, considered a potential universal property of codeswitching[1] (Edwards and Gardner--Chloros, 2007), tends to be the most frequent type of BCV (e.g., Romaine, 1995: for Panjabi/English BCVs). On the other hand, the latter BCVs appear to be more marked, oftentimes employed in passive constructions (for relevant discussion, see Muysken, 2000, p. 201). In Tamil/English codeswitching (CS), for instance, the Tamil 'do' verb *pannu* is used in active clauses, whereas the 'be' verb *irundadu* is used in passive constructions (Annamalai, 1989, p. 54). A similar pattern is attested in Spanish/English CS, where *hacer* 'do' is used in active clauses, whereas *estar* 'be' is employed in stative passive constructions (Balam & Prada Pérez, 2013).

While previous research on BCVs has primarily focused on 'do' constructions (e.g., Balam, 2015, 2016a; Edwards and Gardner--Chloros, 2007; Muysken, 2016; Vergara Wilson & Dumont, 2015, and references therein), the present exploratory study focuses on bilingual *estar* constructions which remain largely understudied. As (1) and (2) illustrate, in Spanish/English CS, *estar* 'be' BCVs are hybrid constructions in which the fully inflected Spanish auxiliary verb *estar* canonically occurs with an English participle form (Pfaff, 1979). While the Spanish auxiliary verb contributes tense and mood, the English participle forms (i.e., the present participle 'working' and the past participle 'confused' in (1) and (2), respectively) provide meaning and aspectual information (i.e., the imperfective aspect marker *–ing* or the perfective

markers *–ed* or *–en*). These constructions are hybrid, therefore, in that both elements contribute grammatical information (for relevant discussion on the structure of unilingual progressive constructions, see Comrie, 1976).

(1) *Mi* *marido* *está* working on his Master's.
My husband Be.3SG.PRES working.IPFV on his Master's
'My husband is working on his Master's.'

Redlinger, 1976, p.47

(2) *El* *pobre* *hombre* *está* confused.
The poor man be.3SG.PRES confused.PFV
'The poor man is confused.'

Moyer, 1992, p. 204

An important aspect of *estar* BCVs is that they have similar unilingual templates in both Spanish and English; thus, constituting a case of structural congruence. Following Deuchar's (2005, p. 256) conceptualization of congruence, *estar* constructions in Spanish and English largely evince both paradigmatic (i.e., similarity in grammatical categories) and syntagmatic (i.e., similarity in word order) congruence, as (1) and (2) exemplify. This kind of equivalence predictably favors the alternation of elements from different languages, an observation that is well established in the CS literature (see, for example, Pfaff, 1979; Poplack, 1980; Sebba, 1998; Toribio, 2004). Unlike innovative *hacer* 'do' BCVs which exhibit more "Creole-like" features (Balam, 2015; Balam, Prada Pérez, & Mayans, 2014; Pfaff, 1979, p. 315)[2], *estar* BCVs are

different in that there is interlingual equivalence between the bilingual structure and its unilingual counterparts.

In seminal work on the Spanish/English CS variety spoken in California, Reyes (1982, p. 158) aptly observed that "the frame *estar* + English present participle is probably based on Spanish verb phrases such as *estar mejorando* 'to be improving'…which [typically] consist of an inflected form of the auxiliary verb *estar* and a Spanish present participle." In her analysis of Spanish/English CS data from Gibraltar, Moyer (1992, p. 12) also highlighted that the '*estar* + English past participle' construction, as in (2), "has a parallel structure in English", and hence, this leads to seamless CS rather than structural conflict resulting from syntactic differences.

Similar to its usage in unilingual Spanish, the auxiliary verb *estar* not only occurs with participles in bilingual discourse as in (1) and (2), but with predicative adjectives as well. Pfaff (1979, p. 305) underscored that switching predicate adjectives, as in (3), "involves no structural conflict, and is relatively free." Thus, this allows CS to occur fluidly, without violating any grammatical rule from either Spanish or English.

(3) *No* *están* free

Not be.3PL.PRES free

'They're not free.'

Pfaff, 1979, p. 305

The case of *estar* BCVs in Spanish/English CS long engendered scholarly attention given that there was a debate as to whether *estar* auxiliary--verb switches were in the first place even

grammatical. Whereas switching between *estar* and a predicative adjective is grammatical, it has been argued that switching between an inflected auxiliary and its complement verb is strictly prohibited (for an overview of other constraints that have been proposed in the grammatical study of CS, see MacSwan, 2000; Deuchar, 2020). Belazi, Rubin, and Toribio's (1994) well known *Functional Head Constraint* bans CS between a functional head (e.g., auxiliary) and its complement (e.g., verb phrase). This occurs because when languages are switched between a functional head and its complement (e.g., *estar* + complement verb phrase), there is a mismatch in a language feature that results in an ungrammatical utterance.

Data from several corpora, however, have repeatedly shown that these hybrid *estar* constructions, as in (1) and (2), are evinced in the naturalistic discourse of speakers from different Spanish/English bilingual communities (data from the US: Dumont & Vergara Wilson, 2016; Guzzardo Tamargo, 2012; Halberstadt, 2017; Lipski, 1978; Pfaff, 1979; Redlinger, 1976; data from Gibraltar: Moyer, 1992; data from Belize: Balam, 2015). In fact, *estar* BCVs are even attested among Spanish/English simultaneous bilingual children (Pearson, 2002)[3], as (4) and (5) illustrate. In recent research, scholars concur that *estar* BCVs are grammatical constructions in Spanish/English CS (see López, Alexiadou, & Veenstra (2017) for a syntactic analysis that accounts for '*estar* + English present participle' constructions[4]).

(4) *El* *perrito* *estaba* barking *al* bee

The dog.DIM be-3SG.IMP bark.PROG the bee

'The little dog was barking at the bee.'

ID 22121160, male second grader

(5) *Y el perro estaba*, um, shaking the tree
And the dog.M be-3SG.IMP um shaking.PROG the tree
'And the dog was shaking the tree.'

ID 22222312, female second grader

Although we analyze unilingual Spanish data as a comparative baseline, our main concern here is with the naturalistic production of different types of *estar* switches, a phenomenon that to our knowledge has not been examined thus far. Drawing on interview data, we examined whether the auxiliary verb *estar* 'be' is conducive to Spanish/English CS as a result of interlingual congruence, particularly in a context like Northern Belize, where there are generally positive attitudes towards CS (Balam & Prada Pérez, 2017). In our analysis, we first examine how Spanish/English bilinguals employ *estar* constructions in both unilingual Spanish and codeswitched constructions. Subsequently, we investigated how type of bilingualism (i.e., emergent vs. dynamic (cf. section 3 for a description of these bilingualism types) and frequency of use of *hacer* 'do' BCVs (i.e. less frequent vs. more frequent) influenced the naturalistic production of *estar* constructions ('*estar* + predicative adjectives', '*estar* + present participle', and '*estar* + past participle') in unilingual Spanish and code-switched discourse. It is important to note that we adopt a dynamic view of bilingualism in which the employment of bilingual language practices constitute the sociocultural norm in the community (García, 2009). This paper is the first of its kind to investigate these constructions in Spanish/English CS by examining novel data from Northern Belize, a Central American/Caribbean context that is notable for its speakers' prolific use of CS (Balam, 2013, 2015, 2016b; Balam & Prada Pérez, 2017).

This article is structured as follows. In section 2, we provide an overview of previous and current work on *estar* switches. Section 3 describes the data that were analyzed in the present study. Section 4 provides the results from our data analysis. Lastly, in Section 5, we provide a discussion of our results, and we offer concluding remarks vis-à-vis future work on *estar* bilingual constructions in Spanish/English CS.

2. Previous research on *estar* bilingual constructions in Spanish/English CS

The knowledge we have today of *estar* switches in Spanish/English CS primarily comes either from descriptive sources (e.g., Lipski, 1978; Pfaff, 1979; Poplack, 1980; Reyes, 1982), or more recently, from psycholinguistic studies that examine the processing cost of bilingual verbs in online comprehension (e.g., Guzzardo Tamargo, 2012; Guzzardo Tamargo & Dussias, 2017; Guzzardo Tamargo, Valdés Kroff & Dussias, 2016; Halberstadt, 2017). There are only a couple of studies to our knowledge that focus on the analysis of these constructions in oral production. Note that the focus of extant research on *estar* switches has been on '*estar* + English present participle' constructions (Guzzardo Tamargo, 2012; Halberstadt, 2017) whereas less attention has been given to '*estar* + English predicative adjective' and '*estar* + English past participle' constructions.

In her analysis of *estar* 'be' and *haber* 'have' bilingual verb constructions, Guzzardo Tamargo (2012) examined the use of '*estar* + English present participle' constructions in oral and written production. Guzzardo Tamargo analyzed 26 pair interviews from the Bangor Miami corpus, which comprise informal conversations between Spanish/English bilinguals (ages 9 and 66) of different backgrounds (e.g., Jewish, Dominican, Cuban, Nicaraguan, etc.) from Miami, Florida (for detailed description of corpus, see Deuchar, Davies, Herring, Parafita Couto, and

Carter, 2014). Among other findings, the data from Miami revealed that *estar* BCVs were highly infrequent.

Guzzardo Tamargo found 93 tokens that were codeswitched constructions containing the progressive structure (e.g., switch preceding the auxiliary *estar*, switch following the auxiliary *estar*, etc.). Notably, there were only seven cases (i.e., 7.5% of code-switched tokens) in which the switch occurred between the Spanish auxiliary *estar* and an English present participle (e.g., *pero eso lo están* testing *ahora* 'but that, they are testing it now'; *o talvez están* developing *un curso nuevo o algo así* 'or maybe they are developing a new course or something like that'). Guzzardo Tamargo found a similar pattern in written production. In her analysis of 88 entries[5] of *La Calentita: Gibraltar's National Dish*, an editorial column from the Gibraltarian newspaper *Panorama*, she only found eight cases (7.5% of codeswitched tokens) of *estar* switches (e.g., *dice que está* ticking 'He says it is ticking'; …the weather *parece que está* improving '…the weather looks like it is improving').

Guzzardo Tamargo noted that switches in both datasets were similar (i.e., presence of intervening linguistic material between *estar* and the English verb form; auxiliary inflected in the present or past tense, etc.) despite their differences in modality and CS variety. Hence, this revealed analogous CS patterns between Spanish/English bilinguals from Miami and Gibraltar (Guzzardo Tamargo, 2012, p. 44). Given Guzzardo Tamargo's focus on the progressive structure, no insight was provided on the occurrence of *estar* with English predicative adjectives and/or English past participles in the CS data from Miami.

In more recent work, Halberstadt (2017) found that *estar* BCVs were the most predominant type of bilingual verb construction among Spanish/English bilinguals from New Mexico. Halberstadt examined four bilingual verb structures (i.e., '*estar* 'be' + gerund; *hacer*

'do' + verb'; Spanish NP + verb; Spanish pronoun + verb) in two experiments: a memory load production task and eye tracking comprehension task. As part of the first experiment, participants produced spontaneous narratives based on the descriptions of 20 second film clips, which yielded a corpus of naturalistic speech. Analysis of these data showed that *estar* BCVs were more likely to be produced than 'NP + verb' (e.g., *Dos hombres* leave... 'Two men leave…') and 'Pronoun + verb switches' (e.g., *Y él* kicks the elevator down 'And he kicks the elevator down'). Of the extracted '*estar* + gerund' constructions in Spanish, English, and Spanish/English CS, *estar* BCVs constituted 6.9% (n=58) of the data, whereas 'Pronoun + verb' switches only constituted 1.5% (n=16). Overall, the data revealed that *estar* BCVs constituted the most productive verb switch among New Mexican bilinguals.

Recent research based on intuitional data also sheds light on *estar* BCVs in Spanish/English bilingual communities. Balam, Parafita Couto, and Stadthagen-González (2020) investigated the acceptability of canonical and noncanonical constructions of *hacer* and *estar* BCVs. Drawing on intuitional data from 106 Spanish/English bilinguals from three communities (Northern Belize, New Mexico and Puerto Rico), Balam, Parafita Couto and Stadthagen-González found that speakers' language experience influenced bilinguals' judgments of BCVs. Whereas New Mexico and Puerto Rico bilinguals gave the most preferential ratings to canonical *estar* BCVs (i.e, '*estar* + V_{Prog}') Northern Belize bilinguals gave the most preferential ratings to canonical *hacer* BCVs (i.e., '*hacer* + V_{Inf}'); thus, preferring the use of *hacer* BCVs in progressive constructions (e.g., *La secretaria esta haciendo* audit *el* report 'The secretary is auditing the report').

Noteworthy in their study was that only Northern Belize and New Mexico bilinguals who employ *hacer* constructions in naturalistic bilingual discourse accepted *hacer* constructions.

Their findings indicate that exposure to and/or use of '*hacer* + V_{Inf}' are necessary conditions for speakers to develop intuitional knowledge about these innovative structures. Crucially, *estar* constructions do not appear to be as constrained by language experience. In their study, *estar* BCVs were rated, to different degrees, as acceptable by all three bilingual groups.

Psycholinguistic work on bilingual processing lends support to the idea that the auxiliary verb *estar* is conducive to CS, irrespective of the speakers' language experience. Drawing on data from an eyetracking experiment, Guzzardo Tamargo and Dussias (2017) investigated whether there were processing differences in the comprehension of *estar* 'be' and *haber* 'have' switches between two groups of Spanish/English bilinguals (i.e., bilinguals from State College, Pennsylvania who were representative of participants in past lab studies vs. regular code-switchers from Harlem, New York). Among other findings, their study revealed that across both groups reading *estar* switches was less costly to process than *haber* switches.

This was an important finding as it showed that the processing of *estar* switches incurred less psycholinguistic cost for both groups; thus, the processing of *estar* BCVs was not constrained by speakers' belonging to a particular community of codeswitchers (i.e., homogenous vs. heterogenous). Guzzardo Tamargo and Dussias posit that their results could be attributed to differences in the degree of boundedness between *estar* and *haber* in unilingual Spanish discourse. They highlight that *estar* can occur with adverbial and adjectival phrases, and it can also follow the participle. In contrast, *haber* is much more restricted as it canonically occurs with a past participle in post verbal position. They argue, therefore, that it is the "lexical freedom of *estar*" which may facilitate switches between *estar* and its complement word or phrase among Spanish/English bilinguals (Guzzardo Tamargo & Dussias, 2017, p. 317).

In light of the research that has been conducted, a question that remains unanswered

relates to how Spanish/English bilinguals employ *estar* constructions in naturalistic speech. If the auxiliary *estar* is indeed conducive to Spanish/English CS due to interlingual structural congruence and lexical freedom, how is *estar* employed among Northern Belize Spanish/English bilinguals? It could be that even though *estar* may not be preferred in auxiliary--verb switches, it may be nonetheless be productive in certain contexts in bilingual discourse. There is also the possibility that there are key differences in speakers' use of *estar* constructions in uniligual Spanish versus code-switched discourse.

Endeavoring to cast light on the production of *estar* constructions in naturalistic discourse, in the present study, we analyzed the grammatical contexts in which Northern Belize Spanish/English code-switchers employ the auxiliary verb *estar* in both unilingual Spanish and bilingual discourse. Furthermore, we examined the relationship between type of bilingualism, frequency of use of *hacer* BCVs, and the production of *estar* constructions in naturalistic speech.

3. Method and materials

The present analysis is based on interview data with a sample of 20 Spanish/English codeswitchers, whose production of unilingual verbs and *hacer* BCVs is analyzed in Balam (2016a). The sample of speakers (between ages 14--41) included ten emergent and ten dynamic bilinguals who were representative of the Northern Belize community, a stable contact situation where bilingual CS has been a commonplace practice for generations (Balam 2015, 2016b, 2016c). All participants (n = 20) learnt Northern Belizean Spanish since birth. As is typical of the Northern Belize context (Balam, 2016b), the majority of speakers (n = 17) started learning English between the ages of 4 and 6 in kindergarten or primary school. Only 3 speakers reported that they started learning English since birth. Most participants (n = 15) started learning Belizean

Kriol as a third language between ages 10 and 14, whereas the remaining participants reported learning it between ages 3 and 6. Only one participant reported not being proficient in Belizean Kriol.

Given the homogeneity of the participants, who were all Spanish dominant native speakers of Northern Belizean Spanish, the emergent/dynamic bilingual distinction was employed in an effort to distinguish between their differential linguistic experiences, which represent, as pointed out by a reviewer, two different stages in the lifetime of this community of codeswitchers. Following García (2009), *emergent* bilinguals refer to speakers who are still in the process of acquiring or learning a second or third language in an academic context but who nonetheless regularly employ bilingual language practices. Note that although English is the official language of Belize, it is generally learnt as a second language via formal schooling (Balam, 2016b). In contrast, *dynamic* bilinguals refer to adult speakers who have more fully developed a wider range of bi/multilingual language practices.

In our sample, emergent bilinguals were all students (either at the high school or junior college level) who were still taking classes on the structure and use of English. Conversely, dynamic bilinguals included speakers who had obtained an associate or bachelor's degree, held a full time job, and who generally employed English in workplace communication. We examined type of bilingualism (i.e., emergent vs. dynamic) in order to have insight into how speakers' bilingual competence (i.e., developing in the case of emergent bilinguals vs. more stable in the case of dynamic bilinguals) influences the use of *estar* constructions in naturalistic speech.

Selection of participants was done via purposeful sampling, which was based on the numbers of *hacer* BCVs (i.e., token frequency) that were produced by the speakers. The sample included: five speakers who produced the lowest token frequency of *hacer* BCVs among

emergent (between 6--20 BCVs) and dynamic bilinguals (between 15--22 BCVs); and five speakers who produced the highest token frequency of *hacer* BCVs among emergent (between 34--67 BCVs) and dynamic bilinguals (between 46--124 BCVs). As Table 1 shows, this yielded four sub groups.

Table 1. Sample from Northern Belize

	Emergent bilinguals	Dynamic bilinguals
Less frequent use of *hacer* BCVs	5	5
More frequent use of *hacer* BCVs	5	5

In order to examine the relationship between CS frequency and the production of *estar* constructions in our exploratory study, we used the token frequency of *hacer* BCVs rather than self reported data on frequency of use of CS (see Table 2) as the criterion to classify participants into different groups. Kharkhurin and Wei (2015, p.11) observe that actual linguistic behavior is a more objective measure than self reported data of the regularity or frequency with which bilinguals engage in CS practices. This occurs because self reported data are often influenced by subjective attitudes towards CS.

Importantly, previous work suggests that the use of BCVs is reflective of a high degree of bilingual competence (Annamalai 1989; Balam 2016a) and speakers' predisposition towards the

employment of bilingual language practices (Balam & Prada Pérez, 2016; Vergara Wilson & Dumont, 2015). Furthermore, the use of BCVs provides valuable insight into speaker differences in relation to bilingual competence and the productivity of these bilingual forms. In his analysis of unilingual verbs and *hacer* BCVs produced by the same sample analyzed here, Balam (2016a) found that the most innovative BCVs were produced by post adolescent emergent (ages 18-20) and adult dynamic bilinguals (ages 21--41) with higher levels of bilingual competence. Contrariwise, the least productivity[6] vis-à-vis argument structures in *hacer* BCVs was attested among adolescent emergent bilinguals (i.e., freshman or sophomore high school students between ages 14--17) with lower levels of bilingual competence. Thus, there is research that lends support to the idea that the use of *hacer* BCVs is reflective of the frequency with which bilinguals engage in CS practices.

As Table 2 shows, all participants were proficient in Northern Belizean Spanish, English and Belizean Kriol. Importantly, all speakers reported that they regularly employ Spanish/English CS, in line with several studies that have revealed frequent use of CS in this community (e.g., Balam, 2015, 2016a, 2016b; Balam & Prada Pérez, 2016). Note that dynamic bilinguals self rated their proficiency in English higher than Spanish in comparison to emergent bilinguals. This is not surprising given that among Spanish/English bilinguals, speakers often self report as English dominant. This may be likely reflect, however, their greater degree of communicative competence, "as they are more aware of the role codeswitching may play in enhancing communication in different situations" (Cox, LaBoda, & Mendes, 2020, p. 456). For Spanish/English CS, self rated proficiency ratings were generally lower in comparison to those of Belizean Spanish. This may have occurred because for many speakers, there is no differentiation between these two categories, as Belizean Spanish is often perceived as

synonymous to CS given the pervasive use of bilingual language practices in this context (see Balam, 2013).

Table 2. Consultants' self reported patterns of language use and proficiencies

	Language Use*				Self rated proficiency**			
	Bzn*** Spn	Eng	Bzn Kriol	Spn/ Eng CS	Bzn Spn	Eng	Bzn Kriol	Spn/ Eng CS
	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
EB Group 1 Less frequent *hacer* BCVs	6.4	5.6	5.6	6.0	6.6	5.8	6.2	6.4
EB Group 2 More frequent *hacer* BCVs	6.6	5.0	3.0	6.2	6.0	4.8	2.8	4.2
DB Group 1 Less frequent *hacer* BCVs	6.6	6.2	5.8	6.2	5.2	5.4	5.2	5.6
DB Group 2 More frequent *hacer* BCVs	6.2	5.8	5.4	6.2	6.0	6.2	4.8	5.4

* On a scale of 1--7 (1--3 = rarely; 4--5 = sometimes; 6--7 = very often)

** On a scale of 1--7 (1--3 = poor; 4--5 = average; 6--7 = excellent)

***Bzn = Belizean, Eng = English, Spn = Spanish, EB = Emergent bilingual, DB = Dynamic bilingual

Endeavoring to examine how type of bilingualism and frequency of use of *hacer* BCVs influence the naturalistic production *estar* switches, we analyzed all *estar* constructions produced by the sample of speakers. The unilingual Spanish data served as a comparative baseline. Given Balam's (2016a) findings regarding the differential patterns in the use of *hacer* BCVs between emergent and dynamic bilinguals, we explored whether there was any association between the use of *hacer* BCVs and the production of *estar* bilingual constructions; thus, elucidating how the use of *hacer* BCVs related to other verb switches attested in the naturalistic discourse of Northern Belize Spanish/English bilinguals. To this end, a total of 522 tokens (364 unilingual Spanish *estar* constructions and 158 Spanish/English bilingual *estar* constructions) were extracted, coded, and analyzed for type of *estar* construction (i.e., *estar* + predicative adjective, *estar* + present participle, and *estar* + past participle); type of bilingualism (i.e., emergent vs. dynamic); and frequency of use of *hacer* BCVs (less frequent vs more frequent). For unilingual tokens, we only analyzed Spanish *estar* constructions but not English or Kriol 'be' constructions as all participants were Spanish dominant who primarily produce either unilingual Spanish or Spanish/English verb constructions (for relevant discussion on the relative use of unilingual and bilingual verbs in the sample studied here, see Balam (2016a)).

For data analysis, we used the software program Language Variation Suite (Scrivner & Díaz-Campos, 2016) in order to conduct a non-parametric test, namely a conditional inference tree, which allowed us to analyze the relationship among significant factors examined in the present study. Furthermore, a multinomial logistic regression analysis was carried out to examine

which factors favored bilingual *estar* constructions in naturalistic speech. Our study was guided by the following research questions and hypotheses:

1. What is the token frequency of *estar* constructions (i.e., '*estar* + Spanish predicative adjective', '*estar* + Spanish present participle' and '*estar* + Spanish past participle') in unilingual Spanish?

   Hypotheses: Given the integral role of verbs in the derivation of sentences, we anticipated *estar* to more frequently occur with Spanish present participles. In contrast, we expected *estar* to more frequently occur with predicative adjectives than past participles because they are more canonical adjectival forms. Lastly, we anticipated the occurrence of *estar* with past participles to be infrequent, as these constructions are highly infrequent in both monolingual and bilingual Spanish (cf. Bruhn de Garavito and Valenzuela (2008)).

2. What is the token frequency of *estar* switches (i.e., '*estar* + English predicative adjective', '*estar* + English present participle' and '*estar* + English past participle') in code-switched discourse?

   Hypotheses: Given that previous work on intuitional data has shown that Northern Belize bilinguals disfavor *estar* BCVs in progressive constructions (Balam, Parafita Couto, & Stadthagen-González, 2020), we expected that '*estar* + English present participle' constructions would be the least productive structure. In contrast, we anticipated '*estar* + English predicative adjective' and '*estar* + English past participle' constructions to be more productive.

3. How do type of bilingualism and frequency of use of *hacer* BCVs influence the production of *estar* constructions in Spanish/English CS?

   Hypotheses: In light of previous findings (Balam, 2016a), we anticipated dynamic bilinguals to evince more productive use of *estar* constructions in bilingual speech. Given that *hacer* BCVs have been shown to be reflective of a predisposition toward the employment of more frequent CS practices, we anticipated that speakers who more frequently employed *hacer* BCVs would significantly differ in terms of how they employ *estar* BCVs in comparison to their counterparts who less frequently produce *hacer* BCVs.

In the ensuing section, we present our results.

4. Results

4.1 Types of estar constructions

The data revealed that the most predominant type of *estar* construction differed depending on whether the construction was unilingual Spanish or bilingual (see Table 3). In terms of distribution, a two-sided Fisher's exact test indicated that the difference between the number of *estar* constructions in unilingual Spanish and Spanish/English CS were significant ($p < 0.0001$). In line with our hypothesis, in unilingual Spanish, *estar* more frequently occurred with present participles and least frequently with past participles.

Table 3. Distribution of *estar* constructions in unilingual Spanish and Spanish/English CS

	Unilingual Spanish		Spanish/English CS	
	N	%	N	%
estar + predicative adjective	105	28.8	124	78.4
estar + present participle	235	64.6	2	1.3
estar + past participle	24	6.6	32	20.3
Total	364	100	158	100

In Spanish/English CS, *estar* constructions predominantly comprised cases in which the auxiliary verb occurred with predicative adjectives (78.4%, 124/158) as in (6) rather than past participles (e.g., cooked) as in (7) or present participles (e.g., memorizing) as in (8--9). A wide variety of adjectives were attested, but those with the highest token frequency included *rough* (n = 12), *different* (n = 10), *easy* (n = 7), *fun* (n = 7), *bad* (n = 5), *nice* (n = 5), and *wrong* (n = 5). As it relates to participle forms, *estar* occurred more frequently with past participles than present participles, which contrasts the general pattern attested in U.S. Spanish. In Pfaff's (1979, p. 299) work on Spanish/English CS data from Southwestern U.S., for instance, the token frequency of auxiliary verbs that occurred with present participles was higher than those which occurred with past participles.

(6) *Está* *más* easy *hacé*[1] deal *con* *ellos*

Be-3SG.PRES more easy do-INF deal with them

[1] In Northern Belizean Spanish, rhotics in infinitive verbs are frequently elided (Balam, 2013, p.296).

'It is easier to deal with them.'

(7) *Tienen* *que* hacé boil *el* onion *pa' que esté* *bien* cooked
Have-3SG.PRES to do-INF boil the onio so that be.SUBJ well cooked-PASTPART
'They have to boil the onion so that it is well done.'

Overall, there were only two instances in which the auxiliary verb *estar* occurred with the present participle form. Both examples were produced by the same postadolescent emergent bilingual speaker. As examples (8) and (9) show, in both cases, the English present participle occurred with the auxiliary *estar* in its infinitive form.

(8) *Tienes* *que* like *está* like memorizing *y* *tantas* *cosas*
Have-2SG.PRES to like be-INF like memorizing-GER and many things
'You have to, like, be, like, memorizing and many things...'

(9) *Yo* *iba a* *está* wondering
I-1SG be-IMP be-INF wondering-GER
'I would be wondering.'

A concomitant question that arises is whether the preponderance of '*estar* + predicative adjective' constructions in bilingual speech is simply an extension of a preexisting pattern in unilingual Spanish. The data revealed that this is not the case. As Figure 1 illustrates, the vast majority of *estar* constructions in unilingual Spanish were cases in which the auxiliary verb

occurred with present participles rather than predicative adjectives. The lexical form that least frequently occurred with *estar* in unilingual Spanish were past participles (e.g., *tapado* 'covered', *amarrado* 'tied', *divididos* 'divided', etc.). In code-switched discourse, however, *estar* particularly occurred with English predicative adjectives.

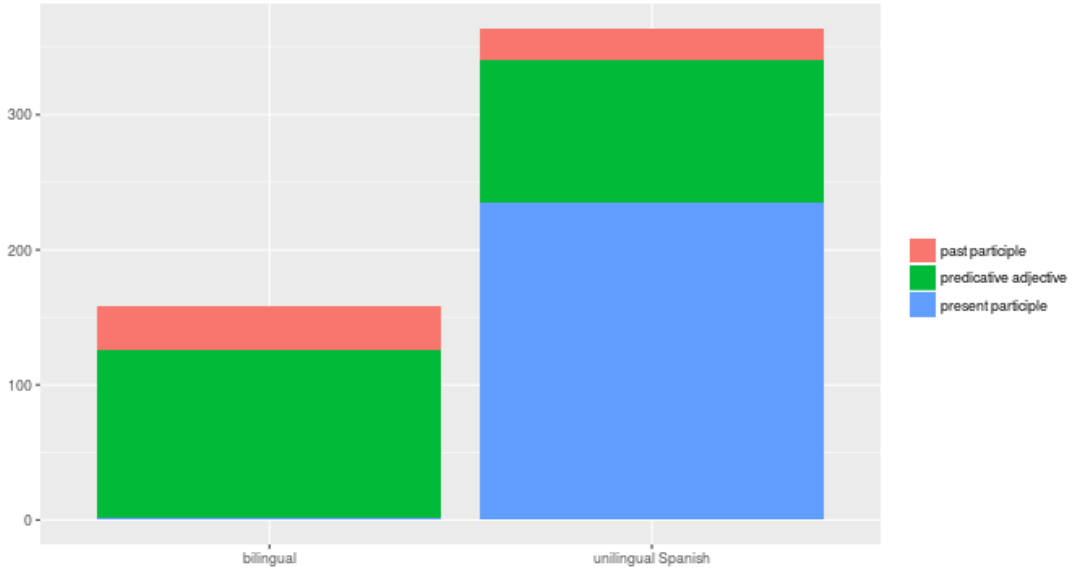

Figure 1. Distribution of *estar* constructions

In summary, the data revealed that in unilingual Spanish, the auxiliary verb *estar* predominantly occurred with Spanish present participles, whereas in Spanish/English CS it primarily occurred with English predicative adjectives and English past participles. It is noteworthy that in contrast to attributive adjectives in DP internal contexts, which have been found to be disfavored among Northern Belize codeswitchers (Balam & Parafita Couto, 2019), predicative adjectives were favored in the production of *estar* switches.

4.2 The use of estar constructions according to type of bilingualism and frequency of use of hacer BCVs

We subsequently examined how the use of *estar* constructions in unilingual Spanish and Spanish/English CS differed according to type of bilingualism and frequency of use of *hacer* BCVs. Recall that one of our aims was to examine whether there was any relationship between these two factors and the production of *estar* constructions. Table 4 shows that in unilingual Spanish, patterns of token frequency among emergent and dynamic bilinguals were similar (i.e., present participle > predicative adjectives > past participles), with *estar* co-occurring most frequently with the present participles and least frequently with past participles.

Table 4. Distribution of unilingual Spanish *estar* constructions according to type of bilingual and frequency of use of *hacer* BCVs

	Emergent bilinguals				Dynamic bilinguals			
	less freq *hacer* BCVs		more freq *hacer* BCVs		less freq *hacer* BCVs		more freq *hacer* BCVs	
	N	%	N	%	N	%	N	%
estar + predicative adjective	22	19.5	39	33.3	28	42.4	15	23.1
estar + present participle	88	77.9	69	59.0	32	48.5	44	67.7
estar + past participle	3	2.6	9	7.7	6	9.1	6	9.2
Total	113	100	117	100	66	100	65	100

There were some differences, however, when the frequency of *hacer* BCVs was taken into consideration. The highest token frequencies of '*estar* + Spanish predicative adjective' constructions were attested among emergent bilinguals who frequently produce *hacer* BCVs and among dynamic bilinguals who less frequently use *hacer* BCVs. Contrariwise, the production of '*estar* + Spanish present participle' constructions were primarily produced by emergent bilinguals who less frequently produce *hacer* BCVs and dynamic bilinguals who more frequently produce *hacer* BCVs. Lastly, though generally infrequent, the production of '*estar* + Spanish past participle' constructions was slightly higher among dynamic bilinguals.

In Spanish/English CS, as Table 5 illustrates, differences in the production of *estar* constructions were more prominent between emergent and dynamic bilinguals. In both bilingual groups, speakers who less frequently produced *hacer* BCVs also less frequently produced '*estar* + English past participle' constructions. Notably, in the case of emergent bilinguals, speakers who less frequently produced *hacer* BCVs did not produce any instance of '*estar* + English past participle'. This aligns with previous findings, which showed that adolescent, emergent bilinguals (between ages 14--17) make the least productive use of *hacer* BCVs in terms of syntactic complexity (Balam, 2016a). This is a pattern that extends to *estar* switches as well.

Table 5. Distribution of bilingual Spanish/English *estar* constructions according to type of bilingual and frequency of use of *hacer* BCVs

	Emergent bilinguals		Dynamic bilinguals	
	less	more	less	more

	freq *hacer* BCVs		freq *hacer* BCVs		freq *hacer* BCVs		freq *hacer* BCVs	
	N	%	N	%	N	%	N	%
estar + predicative adjective	14	100.0	62	86.1	23	82.1	25	56.8
estar + present participle	0	0.0	2	2.8	0	0.0	0	0.0
estar + past participle	0	0.0	8	11.1	5	17.9	19	43.2
Total	14	100	72	100	28	100	44	100

Overall, there were only two instances of '*estar* + English present participle' constructions (8 -- 9), which were produced by an emergent bilingual who more frequently employed *hacer* BCVs. In relation to past participles, however, it is noteworthy that the highest token frequency of '*estar* + English past participles' was the highest among dynamic bilinguals who more frequently produced *hacer* BCVs. Contrariwise, in terms of token frequency, emergent bilingualism is reflective of less productive use of code-switched structures. As Table 5 shows, the vast majority (i.e., 86.1%, 62/77) of *estar* constructions among emergent bilinguals comprised cases of '*estar* + English predicative adjective' constructions, which are the structures that involve less structural conflict.

In the interview data, noteworthy were innovative cases of '*estar* + *hecho* + English past participle', as in (10) and (11), in which the past participle of the light verb *hacer* was the carrier of TAM in combination with the auxiliary verb *estar*. These examples, generally produced by dynamic bilinguals, are less frequent variants of the '*estar* + English past participle' construction. Note that these cases were not included in the analysis, as the bilingual construction employs the *hacer* light verb in addition to the auxiliary verb *estar*.

(10) *Estamos* *hecho* involved *bastante*

Be-3PL.PRES do-PASTPART involved a lot

'We are involved a lot.'

(11) *Todo* *estaba* *hecho* centralized *allá*

Everything be-3SG.IMP do-PASTPART centralized there

'Everything was centralized there.'

Endeavoring to have an insight into the relationship among the variables examined in the present study, a nonparametric, exploratory analysis was conducted (for details on how to perform this type of analysis using Language Variation Suite, see Scrivner and Díaz-Campos (2016)). The conditional inference tree allows us to better visualize the partitioning of a dependent variable (in our case, the type of *estar* construction) by independent factors (see Figure 2). In this tree model, factors are represented hierarchically from top to bottom. The terminal modes represent the relative frequency of the dependent variable whereas *p*-values indicate factor significance (Scrivner & Díaz-Campos, 2016, p.11).

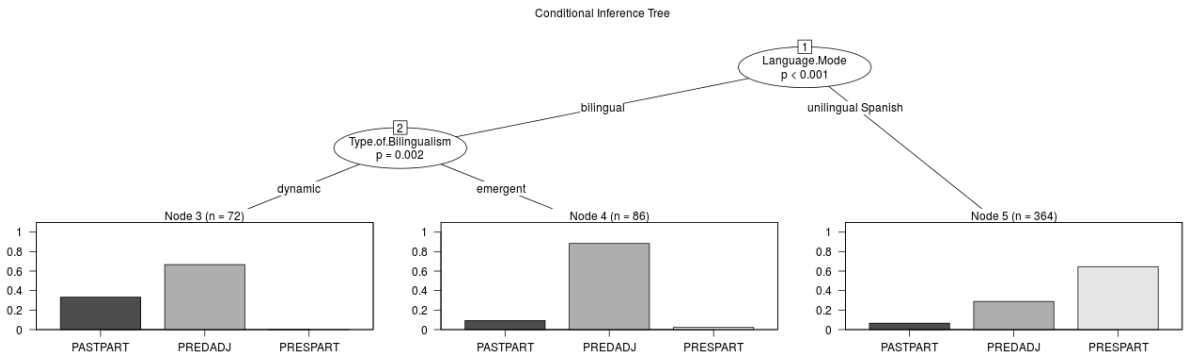

Figure 2. Conditional inference tree showing the relationship among factors examined

The tree model reveals that Language Mode is the most significant factor, splitting *estar* constructions into (i) unilingual Spanish *estar* constructions and bilingual *estar* constructions. Bilingual *estar* constructions are further differentiated according to Type of Bilingualism, showing an effect on the production of *estar* constructions between dynamic versus emergent bilinguals. The bar plots show that predicative adjectives (PREDADJ) are particularly favored in the production of bilingual *estar* constructions and lesser so in unilingual Spanish discourse. Frequency of use of *hacer* BCVs was not selected as a significant factor, which suggests that the use of these innovative structures may not be a factor that is as deterministic as Language Mode and Type of Bilingualism in the production of *estar* constructions among Northern Belize Spanish/English bilinguals.

To further examine if there were any factors that favored the production of a specific type of *estar* construction, a fixed effects multinomial logistic regression was conducted. Table 6 illustrates the results for the regression model ($p < 0.000$), which included Language Mode, Type of Bilingualism and Frequency of use of *hacer* BCVs as independent factors. For the dependent variable, the present participle form was chosen as the base value.

Table 6. Coefficients of a fixed effects logistic regression model with an R2 of 0.24846

	Estimate	Std Error	t-value	p-value
Past participle (Intercept)	2.73815	0.80020	3.4218	0.000622***
Predicative adjective (Intercept)	4.22819	0.74512	5.6745	1.391e-08***
Past participle: Language Model = unilingual Spanish	-4.89796	0.76526	-6.4004	1.550e-10***
Predicative adjective: Language Mode = unilingual Spanish	-4.89267	0.72401	-6.7577	1.402e-11***
Past participle: Type of Bilingualism = emergent	-1.42810	0.34559	-4.1324	3.590e-05***
Predicative adjective: Type of Bilingualism = emergent	-0.34600	0.23317	-1.4839	0.137840
Past participle: Frequency of use of *hacer* BCVs = more frequent	1.01765	0.37412	2.7201	0.006526***
Predicative adjective = Frequency of use of *hacer* BCVs = more frequent	0.16172	0.22764	0.7104	0.447435

Results showed that primarily Language Mode and Type of Bilingualism exert a significant effect on the realization of *estar* constructions, in line with the results for the conditional tree. As the coefficient estimates are negative for Language Mode (-4.89796 and -4.89267, respectively), unilingual Spanish significantly disfavors the co-occurrence of past

participles and predicative adjectives with the auxiliary *estar*. With respect to Type of Bilingualism (-1.42810), emergent bilinguals disfavor the production of *estar* constructions with past participles, which suggests the use of *estar* in more limited lexical contexts. This finding is consonant with the conditional inference tree (see Figure 2), which shows that *estar* constructions with English past participles were more frequently produced by dynamic bilinguals. Lastly, in relation to the frequency of use of BCVs, results revealed that the more frequent use of BCVs significantly favored the production of *estar* constructions with English past participles ($p = 0.006526$).

In summary, the data analysis revealed that in the Northern Belize context, the occurrence of *estar* with English predicative adjectives and English past participles was significantly favored in Spanish/English CS but not unilingual Spanish constructions. Crucially, the use of '*estar* + English past participle' constructions was particularly favored among dynamic bilinguals who more frequently produce *hacer* BCVs. In the ensuing section, we discuss the implications of these results.

5. Discussion and conclusion

Even though there has been an invigorated interest in examining *estar* BCVs from a processing perspective, little is known about the production of different *estar* switches in naturalistic discourse. Through the analysis of novel oral production data from Northern Belize, the present study examined whether *estar* constructions, which have been previously noted for their structural congruence between Spanish and English, are in fact conducive to Spanish/English CS. In relation to our first research question concerning the production of *estar*

constructions in unilingual Spanish, results revealed that *estar* primarily occurred with present participles, followed by predicative adjectives and past participles, respectively.

In relation to our second research question regarding the production of *estar* constructions in code-switched speech, our analysis showed that despite interlingual congruence, *estar* switches were not productive. Consonant with Guzzardo Tamargo's (2012) findings for Spanish/English data from Miami (but see Halberstadt 2017: data from New Mexico), the occurrence of *estar* with English participles in general was infrequent in Northern Belize as well. Whereas the occurrence of *estar* with predicative adjectives and past participles was slightly higher in code-switched than in unilingual Spanish discourse, '*estar* + English present participles' constructions were highly infrequent. With respect to our third research question vis-à-vis the influence of type of bilingualism and frequency of use of *hacer* BCVs on the production of *estar* constructions, there was partial support for our hypothesis, as CS favored the production of '*estar* + English predicative adjective' and '*estar* + English past participle' constructions, the latter structure being particularly favored by dynamic bilinguals who frequently use *hacer* BCVs.

It is important to highlight that even though speakers' self reported data on the frequency of use of CS do not suggest a difference among emergent and dynamic bilinguals, their linguistic behavior suggests otherwise, as *estar* bilingual constructions were more productive among dynamic bilinguals. Consonant with Balam's (2016a) findings, this pattern suggests that it is this group of bilinguals that particularly capitalizes on linguistic creativity, which Lakshmanan, Balam and Bhatia (2016, p. 2) describe as "the dual employment of language-specific and universal principals and mechanisms to devise innovative structures in bi/multilingual speech that may or may not have pre-existing equivalents in adult grammars". Emergent bilinguals, in contrast, especially those who less frequently employed *hacer* BCVs, make less productive use

of *estar* bilingual constructions. This aligns with previous work (Balam, 2016a), which revealed that adolescent speakers produce *hacer* BCVs in more limited syntactic environments. This underlines the limited grammatical contexts in which these adolescent speakers employ operator verbs in their code-switched discourse, in comparison to dynamic bilinguals. It may be that emergent bilinguals predominantly produce '*estar* + English predicative adjective' constructions because these are the structures that are most congruent between Spanish and English. Given that this structure involves "no structural conflict" (Pfaff, 1979, p.305), it facilitates CS among all bilinguals, regardless of the degree of bilingual competence.

Importantly, what was uniform and somewhat puzzling across bilingual groups was the highly infrequent production of '*estar* + present participle' switches. The fact that *estar* was only attested in its infinitive form in these BCVs (i.e., *está memorizing* 'be memorizing'; *está…wondering* 'be wondering') underscores the restricted context in which *estar* BCVs may be produced in Northern Belize Spanish/English CS. This view is supported by recent research which reveals an overwhelming preference among Northern Belize Spanish/English bilinguals for the operator verb *hacer* 'to do' BCVs in Spanish/English CS. Even though Northern Belize Spanish/English bilinguals accept *estar* BCVs as grammatical forms (Balam, Parafita Couto, and Stadthagen-González, 2020), they rarely produce them in naturalistic bilingual discourse.

The production of '*estar* + English past participle' constructions presented a different scenario, as it evidenced more productivity and morphosyntactic variation. The bilingual verb phrase *está allowed* is a morphosyntactic variant of *está hecho allowed*. In *estar* BCVs, English past participles, which carry an inflectional morpheme that encodes perfective aspect (i.e., *-ed, -en*), can stand alone alongside the auxiliary verb *estar* (i.e., *está allowed*). There are cases, however, in which this information is displaced to the light verb *hacer* 'do'. When *hacer* is

inserted (i.e., *está hecho allowed*), both the auxiliary *estar* and the light verb *hacer* become the carrier of TAM features whereas the English lexical element is stripped of any grammatical function, contributing only semantic content (e.g., *estamos involved* vs. *estamos hecho involved*; *estaba centralized* vs. *estaba hecho centralized*, etc.). This creates variation in the forms that speakers are exposed to, and this may subsequently problematize bilingual acquisition of these structures.

While *hacer* in these constructions may seem odd and rather superfluous, the use of *hecho* as an aspectual marker aligns with the predominance, the linguistic creativity, and the more advanced stage of grammaticalization that characterizes this operator verb in the Northern Belize context (Balam, 2015, 2016b; Balam, Stadthagen-González, 2020). In contrast to code-switched progressive constructions, which are overwhelmingly formed using *hacer* (i.e., *está haciendo* audit), there may be more community variation in the production of '*estar* + English past participle' constructions.

Our findings offer support to the assertion that in the Northern Belize context, dynamic rather than emergent bilingualism is associated with the more productive (in terms of grammatical contexts) and creative (in terms of structural complexity) use of CS constructions (Balam, 2016a). Our results also support the idea of a correlation between overall frequency of CS and the use of *hacer* BCVs (Vergara Wilson and Dumont, 2015). More specifically, our findings suggest that *estar* switches are more productive among bilingual speakers who more frequently employ *hacer* BCVs. Thus, the production of verb switches can serve as a predictive indicator of the frequency, productivity, and creativity of CS practices. It is important to highlight that the use of verb switches in bilingual speech does not only depend on the psycholinguistic cost that bilingual verbs incur, as Myers-Scotton and Jake (2013) posit, or to the

degree of structural boundedness that auxiliaries have in unilingual discourse (Guzzardo Tamargo and Dussias, 2017). It is also dependent on the speaker's degree of bilingual competence. The higher the bilingual competence in a native codeswitcher, the higher the probability that this speaker may employ bilingual verbs more frequently and creatively.

A question that arises, as pointed out by a reviewer, is whether differences between emergent and dynamic bilinguals could potentially be explained by the effect of formal instruction and prescriptivist views, which are especially upheld in academic contexts. It is pertinent to point out, however, that in the case of Belize, there are generally positive attitudes among students towards traditionally stigmatized varieties (i.e., Kriol and Spanglish). In fact, previous work has documented linguistic resistance against the use of standard linguistic forms (i.e., the normative trill or 'rolled r' in pronunciation) among adolescents in Northern Belize (Balam & Prada Pérez, 2017), which highlights that the use of non-standard varieties are embraced by adolescents. This suggests, therefore, that emergent bilinguals' less innovative use of BCVs is more likely tied to age and bilingual competence rather than attitudinal predispositions towards the use of language varieties.

Although a cross community comparison is beyond the purview of this paper, it is notable that the use of *estar* constructions in Belize differs from what has been attested in the US Hispanophone context. The use of '*estar* + English present participle' constructions are well documented in U.S. Spanish/English communities, (Guzzardo Tamargo, 2012; Lipski, 1978; Reyes, 1982; Pfaff, 1979), particularly in New Mexico, where it appears to be more frequent than *hacer* constructions (Halberstadt, 2017). Our findings, however, show that despite the existing syntagmatic and paradigmatic congruence between *estar* constructions in Spanish and

English, congruence alone does not result in the productive use of '*estar* + English present participle' switches.

In Northern Belize, while *hacer* BCVs have remarkably evolved in terms of frequency and syntactic complexity across generations (Balam, 2015), '*estar* + English present participle' constructions have not followed the same path. In fact, they remain highly disfavored among both emergent and dynamic Spanish/English bilinguals in Northern Belize. To account for the highly infrequent production or non-usage of '*estar* + English present participle' switches in Northern Belize, we cannot resort to a syntactic explanation offered by the *functional head constraint* (Belazi, Rubin, & Toribio, 1994) or to differences in bilingual competence. Following Sebba (1998:7--8), we posit that "the locus of congruence is the mind of the speaker, but community norms determine, by and large, the behavior of individual speakers."

As Deuchar (2020) reminds us, it is vital that in addition to investigating internal (linguistic) and external (social) factors, we also cautiously examine the effect of community linguistic norms on CS patterns. In the case of Northern Belize, the sociolinguistic history and community linguistic norms of its speakers may be the most influential factors that determine the use of Spanish/English BCVs and *estar* switches in general. From previous work, we know that BCVs can evolve and further develop across generations (Backus, 1996; Balam, 2015). One possible explanation for the overwhelming predisposition towards *hacer* but not *estar* BCVs could be the preexisting '*hacer* + Yucatec Mayan lexical verb' model that was employed by previous generations of Northern Belizean Spanish speakers who were proficient in Yucatec Maya (Balam 2016b; Balam, Prada Pérez, & Mayans, 2014, p.258). The existence of this bilingual template in Spanish/Maya CS could have contributed to greater diffusion and subsequent conventionalization of this productive structure during the community's transition

from Maya/Spanish bilingualism to Spanish/English bilingualism in the 1940s and thereafter (for relevant work on Spanish/Yucatec Maya BCVs in Yucatan, Mexico, see Michalski 2017).

Noteworthy is that in the extant CS literature, the notion of congruence is often framed in terms of structural similarities across monolingual varieties (Deuchar, 2005). Our view, however, is that morphosyntactic congruence can sometimes be 'created' (in Sebba's (1998) terms) between two structurally equivalent bilingual templates (i.e., '*hacer* + Mayan V_{Inf}' and '*hacer* + English V_{Inf}'), particularly in multilingual communities such as Northern Belize, which are characterized by a cross-generational shift from one CS variety to another within the span of a few decades. This type of bilingual congruence *between* CS varieties may further catalyze the grammaticalization of a particular CS structure, while also suppressing the use of particular CS structure, such as the case of *hacer* and *estar* BCVs in Northern Belize. Therefore, the presence or lack of this kind of bilingual congruence may play an important role in determining the frequency and types of switches that ultimately gain traction and become established in CS communities.

Although our exploratory study contributes to our understanding *estar* and *hacer* BCVs in Spanish/English CS, a limitation is the small sample size that was examined. In order to have more robust results, it is vital that future work confirms our findings through the analysis of data from a larger sample of code-switchers from Northern Belize. Further research also needs to be conducted to investigate how *estar* switches differ across Spanish/English bilingual communities. It is important to examine whether in addition to a community specific pattern in the distribution of BCVs, there is also a community specific or language pair-specific pattern in terms of *estar* switches in general. Thus far, psycholinguistic research on *estar* BCVs has focused on '*estar* + English present participles' rather than '*estar* + English past participle'

constructions among code-switchers in the US. There may be important differences, however, in how bilinguals from different Spanish/English communities process these two types of *estar* constructions in online comprehension. We do not know whether English predicative adjectives and English past participles are also favored in other Spanish/English bilingual communities (e.g., New York, Miami, Puerto Rico, Gibraltar, etc.), or whether this is a pattern that in specifically characteristic of Northern Belize. Further comparative research on *estar* switches is necessary to shed important light on the frequency of these switches and more importantly the relative roles that linguistic factors, social correlates, and community norms have on CS outcomes across Spanish/English bilingual communities.

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Endnotes

[1] We adopt Muysken's (2013) conceptualization of CS, which he envisions as optimization strategies (i.e. insertion, congruent lexicalization, alternation, backflagging) that are differentially employed depending on the influence of concomitant social, linguistic and cognitive factors.

[2] 'Do' BCVs do not have structural equivalents in either Spanish or English (Balam, 2015, 2016a). Pfaff (1979) analyzes *hacer* BCVs as an extension of the Spanish '*hacer* + infinitive' construction from causative (e.g., *Me hizo estudiar* 'He made me study') to non-causative contexts. In Pfaff's (1979) view, "this semantic extension of an existing syntactic pattern is reminiscent of the expansion processes of creolization" (p.301).

[3] Pearson (2002) and colleagues audio recorded oral narratives, based on Mayer's (1969) picture story *Frog Where Are You*, from a sample of USborn Spanish/English bilingual children from Miami Dade, Florida. These data are available in the CHILDES database (MacWhinney, 2000).

[4] López et al. argue that a unique Prepositional Phrase (PP) structure underlies progressive constructions in Spanish/English CS. The existence of this PP structure as a phase is crucial given that it creates a phase barrier between the head T and the vP. Thus, the vP loses its status as a complement phase. This unique characteristic of *estar* verb constructions explains why it is possible to code-switch between the auxiliary *estar* and its complement verb form.

[5] The entries were informal conversations between Cynthia and Cloti, two fictitious characters that humorously talk about socioeconomic and political events.

[6] Only postadolescent emergent and adult dynamic bilinguals produced *hacer* in innovative contexts; namely, with copulative verbs (e.g. *se hace* behave *la gente* different 'people behave differently'); control verbs (e.g. *tienes que hace* strive to balance 'you have to strive to balance'), and in passive constructions (e.g. *'taba hecho*. . .overrun by girls '(it) was overrun by girls') as well. Adolescent emergent bilinguals did not produce these forms.