# Japoñol: Spanish-Japanese Code-Switching 

Tanya L Flores and Aja Williams
University of Utah


#### Abstract

: This study investigates code-switching of Spanish and Japanese in a community of highly proficient Japanese-Spanish bilinguals living in Valencia, Spain. The analysis focuses on wordinternal switches that are typologically rare. The goal of this study is to examine the phonological and syntactic constraints that permit the types of switches found in this language pair, underlining the premise that code-switching constraints are language-pair specific, and also to describe the specific social context affecting the switches. For the structural analysis, we adopt the Stand-Alone principle (Azuma 1996, 1997) and argue that both lexical and functional morphemes are individual units for the speakers. Findings contribute to the currently limited research on bilingualism in a Romance language-Asian language contact situation.


Keywords: Japanese, Spanish, Japoñol, Code-switching, bilingual, Stand-Alone principle

## 1. INTRODUCTION:

Valencia is a Spanish city of approximately 790 thousand people (INE 2017). Although Spanish is the dominant language, many valencianos speak or at least understand the local co-official language of Valencià. According to the unofficial association of Japanese in the city, there are an estimated 100 Japanese immigrants living in Valencia. There are no Japanese ethnic neighborhoods in Valencia; this speech community is integrated and predominantly bilingual. Although there are commendable efforts by this community to maintain Japanese and teach it to the children, this is likely a situation of eventual language shift (Thomason \& Kaufman 1988). The community has organized a Japanese language program for the children, and most families regularly spend their summers in Japan. However, the language program is only offered once a week and is run by volunteer parents; all of the children are formally educated in Spanish schools. The main reasons leading to language shift are that the community is small with an even smaller second generation, and very few spouses speak any Japanese. Other factors contributing to language shift in this situation are limited domains for Japanese and external pressure to shift. For many of the informants, home is the only place where they speak Japanese and for most, not exclusively; also, there are no Japanese ethnic neighborhoods or religious communities in Valencia to provide any additional domains. A few informants commented about being misidentified as ethnically Chinese by Spaniards, which they interpret as carrying a negative stigma. Since Chinese immigrants in this area tend to self-isolate in Chinatowns, they generally do not speak Spanish fluently (Clements 2009; Flores 2010). For the Japanese, speaking Spanish fluently and in public is seen as a way of facilitating accurate ethnic identification.

Although this particular community is highly proficient in Spanish, maintaining Japanese and teaching it to their children is important to them. The participants of this study communicated that their children do mix the two languages, creating innovative forms or code-switches. Parents mostly accept the child's switches and in turn have created their own "response" code-switches. 'Japoñol' is the in-group term these speakers give to describe any language mixing of Spanish and Japanese. Linguistic studies on this language pairing are rare due to the limited number of possible informants. Studies on Spanish acquisition by native speakers of any Asian language are scarce in general for the same reason of limited cases (Clements 2009; Flores 2010). This is the first analysis, to our knowledge, of code-switching (CS) for this language pair. This paper presents our examination of the phonological and syntactic constraints that permit the types of switches found in the data. Specifically, the study examines three types of intrasentential CS, mixing within the same sentence, involving verb phrases: (1) intrasentential CS where verbs are in the other language (2) the creation of verbal noun phrases using the Japanese verb 'suru' (to do) and (3) word-internal code-switching where the lexical morpheme of the verb and the TAM morpheme are from the two different languages.

## 2. PREVIOUS LITERATURE

### 2.1 Phonological constraints of code-switching

Code-switching (CS) is when bilingual interlocutors mix two or more languages in the same conversation, without changing topic (Poplack 2001:2062). The key to CS is that it happens by choice, usually for pragmatic reasons, such as establishing solidarity between interlocutors (Lipski 2005:1). According to Poplack (1980:588), CS is not unusual, but rather a norm in stable bilingual communities.

While monolingual speakers can incorporate borrowings from another language into their speech, CS is a linguistic phenomenon that shows competence in the languages involved because speakers follow the grammatical and phonological rules of both languages (Poplack 1980:581, 601). To illustrate the difference between borrowing and CS, in regards to phonological integration, Poplack (1980:583) gives the following example:
1.Borrowing: Me iban a dar layoff: ['leiof] 'They were going to lay me off'. 2.Code-Switching: Me iban a LAY OFF. [lغ́y oh̀f] 'They were going to lay me off'. In the first example, the word 'lay off' is assimilated into the Spanish phonology, but maintains an English pronunciation in the second example. Since Poplack's groundbreaking work, Spanish-English CS research has focused on everything from grammatical aspects (such as complementizers in Hoot 2011), to phonetic aspects (such as VOT in bilingual speech in Bullock 2009), and especially on the influence of sociolinguistic factors, particularly ethnic identity, of bilinguals (see multiple chapters in Niño-Murcia \& Rothman 2008 and Bullock \& Toribio 2009).

Japanese-English CS literature has focused on the syntactic and morpho-syntactic structure, as will be elaborated in Section 2.2, and has not specifically addressed phonological constraints. Japanese and Spanish have many phonetic similarities, including their five-vowel system $/ \mathrm{a} /$, $/ \mathrm{e} / \mathrm{/} / \mathrm{i} /, / \mathrm{o} /, / \mathrm{u} /$, which are considered the same vowels phonetically (Kavanagh 2007:286 for Japanese; Hualde 2005 for Spanish) with a debatable exception of the high back vowel /u/ (Morimoto 1988). Both languages have the same six plosives $(/ \mathrm{p} /, / \mathrm{t} /, / \mathrm{k} /, / \mathrm{b} /, / \mathrm{d} /, / \mathrm{g} /$ ) and share two nasals $(/ \mathrm{m} /$ and $/ \mathrm{n} /$ ), though Spanish has an additional nasal phoneme ("ñ" n$]$ ). The languages differ in their liquid,
fricative, and affricate inventories. Spanish has two rhotics ([r] and [r]) and one lateral [1], while Japanese has one rhotic liquid [R] (Kavanagh 2007). Japanese has three voiceless fricatives that peninsular Spanish does not share: the alveolar / $\mathrm{J} /$, alveo-palatal [Ç], and bilabial [Ф]. Peninsular Spanish has an interdental voiceless fricative theta $[\theta]$, an apicoalveolar voiceless fricative [s], and an interdental voiced allophone [ $\lceil$ ] for $/ \mathrm{d} /$, categorized as a fricative (or an approximant according to Hualde 2005) rather than plosive, that Japanese does not have as either a phoneme or allophone (Kavanagh 2007). Both languages share an alveo-palatal voiceless affricate / $\mathrm{t} /$ / but Japanese has additional dental affricates, the voiceless [ts] and voiced [d3] (Tsujimura 2013:12).

The phonetic differences between the two languages include segmental and suprasegmental traits that also vary by dialect for both languages. For the purposes of this study however, we focus on the segmental similarities that seem to be most relevant. In this study, there are word-internal CS tokens. Based on previous literature, wordinternal switches do not occur in either Spanish-English or Japanese-English language pairings. These types of CS have been reported for only a few language pairs, namely KiSwahili-English and Lingala-French (Bokamba 1987), Swedish-English, GermanEnglish, and Danish-English (Petersen 1988). Our hypothesis is that CS at the word level requires the language pairing to have similar phonetic inventories, as described above, in addition to syntactic compatibilities that will be discussed in the following section.

### 2.2 Syntactic and morpho-syntactic constraints of code-switching

Researchers have proposed various constraints to specify which forms of codeswitching (CS) are acceptable and which are not. While some researchers have argued for universal grammatical constraints on CS (Azuma 1993, 1996, 1997; Jacobson
2000), other researchers propose that constraints on CS are language-pair specific (Poplack 1980; Bokamba 1987; Myers-Scotton 1993). Bokamba (1987:33) explains that CS constraints are language specific because they are based on how the different grammars of the languages involved interact. As this is the first analysis of SpanishJapanese CS, governing constraints for CS between these two languages is unknown. Previous work on CS in Spanish-English (Poplack 1980, 2001) and Japanese-English (Azuma 1993, 1997) were used as a starting point to compare the constraints of those pairings with the Spanish-Japanese CS data. However, since constraints are language-pair specific, this dataset may not follow the constraints of either of the comparison pairings.

For Spanish-English CS, Poplack (1980) proposed two constraints: the Free Morpheme Constraint and the Equivalence Constraint. The Free Morpheme constraint states that CS can occur after any constituent that is not a bound morpheme. This precludes word-internal switches.
"items...where the Spanish bound morpheme -iendo ('-ing') is affixed to the English root 'eat', have not been attested in this or any other study of codeswitching ... unless one of the morphemes has been integrated phonologically into the language of the other." (Poplack 1980: 586)

The Equivalence Constraint on intra-sentential CS states that CS can only occur where a syntactic boundary is shared so that the grammatical structure is respected in both languages. This accounts for the fact that speakers in Poplack's study more frequently switched an entire verb phrase, noun phrase, or larger constituent than a single word (Poplack 1980:603). Figure 1, from Poplack (1980:586), illustrates this constraint. The dotted lines show where switching between English and Spanish would be acceptable. The arrows show how the words in the two languages correspond to each other.


Figure 1. Permissible code-switching points

Figure 1. Spanish-English CS example of the Equivalence Constraint (Poplack 1980:586) Azuma (1993) proposed the Frame-Content Hypothesis, which is compatible with the Matrix Language-Frame Model (Myers-Scotton 1993). In both models, there is one language (matrix or frame) onto which another language(s) is added. The frame language provides the morpho-syntactic structure, including the order of the morphemes and the system morphemes (i.e. tense, aspect, determiners, and quantifiers) (Myers-Scotton 1993:75-76). The content morphemes come from the added language and must follow the morpho-syntactic rules of the matrix language. The Frame-Content Hypothesis specifies that the content morphemes are open-class morphemes (Azuma 1993:1072). Azuma (1996:366) proposed the Stand-Alone Principle, which states that any segment that can meaningfully stand alone in the speaker's mind may be code-switched. This principle updates part of the Frame-Content Hypothesis; there is still a speech processing frame language, but CS is no longer restricted to open-class items.

Azuma (1997) found that items that can "stand-alone" in a Japanese context have the feature $[+\mathrm{N}]$, including nouns, verbal nouns, adjectival nouns, and pronouns. Nouns in particular have been found to be the most frequently switched single elements in CS (Azuma 1996:364). In the Japanese-English context, Azuma (1997) found that verb stems and inflectional morphology could not be switched. CS of an English verb stem +

Japanese inflectional morphology was not found and verbs were only switched via the verbal noun construction. The verbal noun construction is where a bare verb appears in the non-frame language followed by the verb for "to do" in the frame language (Azuma 1997, Myers-Scotton 1993). In Japanese-English CS, where Japanese is the frame language, an example of a verbal noun construction would be 'research suru' ('research do').

Word-internal CS was not found in Spanish-English (Poplack 1980) or JapaneseEnglish (Azuma 1997). As we maintain that constraints on CS are language-pair specific, and word-internal (verb-internal) CS was found in this study, we find it important to note the similarity of the Japanese and Spanish verbal inflection systems. In both languages, infinitives need to be conjugated to be the main verb in the sentence and conjugation involves dropping an infinitival ending and adding inflections to the verb root. The infinitival ending is bold in the following example:

Spanish: Comer: Yo como pizza.
Japanese: Taberu: Watashi wa piza o tabemasu.
English: Eat: I eat pizza.
Word-internal CS: comemashō (Spanish root + Japanese suffix)
English: Let's eat!

Our hypothesis is that this similarity in verbal inflection systems in Japanese and Spanish, in addition to similar phonetic inventories, allows the word-internal CS cases found in this study.

## 3. THE DATA SAMPLE AND CODING

### 3.1 Data sample and informants

The sample used for this study comes from a corpus collected by the first author. The corpus consists of 13 sociolinguistic interviews recorded in 2015 in Valencia, Spain and follow-up emails with five of these participants and an additional 4 members of this same community. Each of the original thirteen speakers participated in a $20-60$ minute sociolinguistic interview, conducted in Spanish, where they answered open-ended questions about their lives. The interviews were recorded indoors using a Marantz PMD661MKII recorder and a head-worn Shure WH30XLR microphone. The additional four informants answered questions via email specifically about code-switching Japanese-Spanish.

For this study, data came from a total of 13 Japanese-Spanish bilinguals, nine from the interview corpus plus the four emailed participants; these included 5 males (2 adults, 3 children) and 8 females ( 5 adults, 3 children). The adults were ages $30-60$ and the children were ages 3-8. The Japanese community in Valencia is comprised primarily of women who immigrated as adults and are married to Spanish men. Approximately half of the adult participants have children. The majority is employed and has a college degree. All of the members of this community are at least bilingual Japanese-Spanish, generally with a high degree of fluency, and many also speak a third language. The children are bilingual from birth speaking Spanish with one parent and Japanese with the other.

All of the adults had been in Spain at least one year and up to 40 years. They were recruited for this study by an in-group member, friend of the first author, and through the
unofficial association of Japanese in Valencia. Most participants have at least a bachelor's degree and about half are employed. Overall, the group expressed positive feelings about living in Spain, and about the Spanish language and culture. Their attitudes toward CS, when asked directly, were moderately negative and they reported not using it outside of their immediate families. However, their desire to promulgate the Japanese language with their children means they accept any Japanese language productions, including mixed productions.

### 3.2 Coding Procedures (Methods)

Data was first obtained from instances of CS in the interview data. The interviews were transcribed using Praat software (vs 6.0.32 for Mac and vs 6.0.13 for Windows). All of the code-switches were extracted by individual speaker. Since CS was not the original purpose of the data collection, once this project began, the first author elicited more data via follow-up emails with the adult participants. All of the cases of CS were labeled and extracted. With the exception of three adjective tokens, the majority of CS cases in this dataset involved verbs (see Appendix). Therefore, the analysis focused on the verb switches, where the individual verb or the verb phrase was constructed using morphemes from both languages. Here are several examples of Spanish-Japanese CS found in the dataset, with the Japanese portion underlined:
peli mitai ('I want to watch a movie'), noun + verb phrase
dormir shitai ('I want to sleep'), verbal noun
comemashō ('let's eat'), word-internal switch
aruitendo ('walking'), word-internal switch

The tokens seemed to fall into three categories, (1) noun + verb phrases where the noun is from one language and the verb is from the other, (2) a verbal noun construction where a compound verb phrase is divided into two parts and each part comes from a different language, and (3) word-internal switches where a single verb is made up of a lexical morpheme or root from one language and the tense, mood, or aspect suffix from the other language. The Appendix lists all of the tokens in the dataset by type.

All of the code-switched verb tokens were analyzed. First, the tokens were analyzed structurally to determine if they followed any of the rules of Spanish+ or Japanese+ code-switching. Importantly, the word-internal switches are not reported in either Spanish-English or Japanese-English CS literature. Second, the context of each token was examined for social factors that may have prompted code-switching.

## 4. RESULTS

Following the Frame-Content Hypothesis, the CS tokens in this dataset would seem to use Japanese as the frame language with lexical items added from Spanish. The CS tokens follow Japanese word order and most use Japanese verbs or Japanese functional affixes. However, the contact situation presented here and language of the discourse where the CS occurs complicate the frame-added language relationship. This will be elaborated in the discussion section.

Structurally, this dataset presents some token types that occurred in the SpanishEnglish and Japanese-English CS data and a category of tokens that did not. Despite the structure of the individual productions, the CS tokens in this dataset violate the SpanishEnglish CS constraints set forth by Poplack, and comply more with the principles proposed for Japanese-English code-switching by Azuma.

Poplack (1980) found that Spanish-English CS followed the Equivalence Constraint and the Free Morpheme Constraint. All of the tokens of type noun + verb $(\mathrm{N}+\mathrm{V})$, listed in the first column of the Appendix, and the verbal nouns in the second column violate the Equivalence Constraint except for the first two tokens kore quieres? and kore miras?. Violations are due to differences in word ordering between Japanese and Spanish. In these CS productions, the speakers follow Japanese word order where the verb occurs at the end. In Spanish, we would expect the reverse word order (i.e. ¿quieres esto?). However, the tokens kore quieres? and kore miras? do follow the Equivalence Constraint because you can say ¿ésto quieres? ('do you want this?') and ¿ésto miras? ('are you watching this?') in Spanish when you want to emphasize the item and kore (ga) hoshii and kore (o) mimasu, respectively, are standard order in Japanese.

Based on the original Stand-Alone Principle (Azuma 1993), the $\mathrm{N}+\mathrm{V}$ and verbal noun tokens in this dataset are acceptable because it is mainly the nouns that are being switched. The verbs that are switched are under the verbal noun construction, which treats the switched verbs like nouns so that they can stand alone. As noted by Azuma (1996), nouns are usually the most frequently code-switched elements; in this dataset, the verbal noun construction (see column 2) was also the most productive.

The word-internal switches, the third type of CS in this dataset, were not found in previous studies of code-switching for Japanese-Spanish or Japanese-English. They violate Poplack's Free Morpheme Constraint because both the lexical morphemes and affixes are bound morphemes. However, under the revised Stand-Alone Principle (Azuma 1996), the word-internal tokens are acceptable if we consider the verb stems and affixes to carry meaning for the speaker. Their meaning may derive from their lexical or
grammatical function, such as conveying tense, mood, and/or aspect. In this data, the specific Japanese suffixes used in the switches convey a function that is not conveyed by affixes in Spanish, such as -mashou ('let's ...'). Speakers seem to select affixes for CS that provide a more concise form of a meaningful expression. This point will be elaborated in the next section.

## 5. DISCUSSION AND CONCLUSION

The tokens in this study are classified as code-switches rather than borrowings because the morphemes follow the morphological, syntactical, and phonological rules of the language of the morpheme. Speakers in this dataset are highly proficient bilinguals. Table 1 illustrates the difference between CS and borrowing with examples from this dataset.

Table 1. Comparison of code-switching versus borrowing outcomes using tokens from dataset.

| Token \# | Type | Actual Token | Token if borrowing |
| :---: | :---: | :---: | :---: |
| Token 3 | N+V | peli mitai [pe.li.mi.tai] <br> 'I want to watch a movie' | peri mitai [pe.Ri.mi.tai] (if borrowed into Japanese) |
| Token 18 | Verbal Noun | hablar shinai <br> [a.blar.fi.na.i] <br> 'I don't want to talk' | aburaru shinai [a.bu.Ra.Ru.fi.na.i] (if borrowed into Japanese) |
| Token 22 | root+infl | $\begin{gathered} \text { mazeando } \\ \text { [ma.ze.an.do] } \\ \text { 'mixing' } \end{gathered}$ | Mäeando [ma.Өe.an.do] (if borrowed into Spanish) |
| Token 25 | root+infl | $\begin{gathered} \text { comemash } \bar{o} \\ \text { [ko.me.ma. } \mathrm{Jo.o} \text { ] } \\ \text { 'let's eat' } \end{gathered}$ | Comemacho [ko.me.ma.tfo] (if borrowed into Spanish) |

Previous research on CS proposes or follows frameworks where one language functions as the primary language onto which the other language is added, such as the Frame-Content Hypothesis. If this is to be interpreted at the individual utterance level, the majority of CS tokens in this dataset seem to use Japanese as the structural frame (conjugated verbs) and Spanish as the added language that supplies lexical items, as in peli mitai ('I want to watch a movie') and cole ${ }^{l}$ ikanai ('I don't want to go to school').

Furthermore, the discourse level of this CS context also supports the interpretation of Japanese as the frame and Spanish as the added language. The speakers reported using CS mostly in conversations between parents and their children. The parents in this data, mostly mothers, are native speakers of Japanese who are trying to raise bilingual children. The switching is most prevalent in conversations where the mothers are attempting to hold a conversation in Japanese with a child/ren whose dominant language is Spanish. A short example of discourse follows:

Mother: Ikimashō, (Name)-chan
'Let's go, (Name)-(title of endearment)'
Child: pero mamá, cole ikanai
'But mom, I don't want to go to school'
Mother: Ima, ikimashō
'Right now, let's go'
The parent maintains Japanese in the conversation, while it is the child that codeswitches. The child's utterance may seem individually as a Spanish utterance with a Japanese borrowing, but because the Japanese item is a verb rather than a noun, and the language of the discourse is Japanese, this seems to be best interpreted as CS where Japanese is the frame and Spanish is the added language.

[^0]There is one more level to consider, however, which contradicts the language relationship interpreted from the utterance and discourse levels. The contact situation presented here occurs in a Spanish-speaking country where Spanish is often the language of the larger context, the dominant language of the children, and reflected in the utterance in which these CS tokens are produced. Even though parents do produce CS tokens, and the parents' L1 in this case is Japanese, their CS tokens are almost exclusively produced in the family context, directed at a Spanish dominant child and/or the Spanish L1 spouse. According to the participants, two Japanese L1-Spanish L2 bilingual adults rarely if ever code-switch with each other. This context supports the interpretation that Spanish is the Frame language onto which Japanese items, whether noun or verb or a complete utterance, are added.

It is true that the majority of CS tokens in this dataset occur within verb phrases, and the language of the verb in a CS has traditionally been used to indicate the frame language, however, in this case, the frame language seems dependent upon the social context of the language contact more generally. The complicated Frame-Added language relationship is visible at the utterance level of the CS tokens. For example, the speaker might say nomer agua ('drink water') as a complete utterance with Japanese verb root + Spanish infinitive ending and a Spanish lexical item, but more often the switch would occur in a longer utterance such as ¿Quieres nomer agua? ('Do you want to drink water?) This difference yields opposite interpretations of which language is the frame. If the content verb is the only element produced in Japanese, as in the latter example, the frame language is still Spanish.

Regarding the word-internal switches, there seems to be two reasons that explain why they can occur in the Japanese-Spanish language pair and not the Spanish-English or Japanese-English data. In other language pairings, word-internal switches would need to be phonologically integrated borrowings to be pronounceable (see Section 2.1). The Spanish-English CS literature has shown integrated borrowings, where the pronunciation of the borrowed morpheme must be adapted to the phonological system of the frame language to allow the switch. However, as detailed in Section 2, Spanish and Japanese share many items in their phonemic inventories, including the same vowels and six plosives, and many overlaps in nasals, fricatives, and affricates. The CS single words in our data are segmentally pronounceable in both Spanish and Japanese without the need for integrative borrowing.

The second reason that could explain the word-internal switches in this dataset is that the verbal inflection systems of Japanese and Spanish are similar enough to allow switching between roots and inflections. Typologically, Japanese has been classified as an agglutinative language (overall) while Spanish has been classified as an inflecting language. However, referring strictly to their verb systems, in both of these languages, infinitives need conjugation to function as the main verb in a sentence. In both languages, conjugation works by dropping infinitival endings and adding inflections to the verb root. By contrast, English uses little to no inflection.

In this data, word-internal switches suggest that conjugated verbs are not single atomic units. This contradicts previous assertions about the internal structure of verbal morphology: "The fact that the internal structure of verbal morphology is immune to an operation like code-switching suggests that the verbal morphology is itself an atomic unit
which cannot be broken up by the insertion of a lexical item from any other language in a Japanese context." (Azuma 1997:7). These tokens show that the lexical morpheme of the verb and functional morphemes individually carry meaning and are separable, at least for these speakers. This type of CS seems to only occur using two languages that are typologically similar in how their verbs are constructed. Perhaps the lack of verbal inflection of English contributes to the absence of word-internal switches in the SpanishEnglish and Japanese-English data of previous research.

This study supports Bokamba (1987) and Myers-Scotton (1993) position that CS rules are language-pair specific, not universal, and as such, unsurprisingly, this dataset does not entirely comply with CS rules previously set forth. The word-internal switches in this data violate the free-morpheme constraint and the equivalence constraint that Poplack found for Spanish-English code-switches. Under Azuma's proposal, the framecontent hypothesis along with the stand-alone principle account for the $\mathrm{N}+\mathrm{V}$ and verbal noun switches found here -and in his Japanese-English data. The word-internal switches could be explained by the stand-alone principle if we interpret individual morphemes as stand-alone units, thus diverging from the claim that verbs are single atomic units. Similarities in Japanese and Spanish phonology and their verbal inflection systems support the construction of word-internal switches.

Future research can further elaborate the specific rules governing word-internal verb switches by eliciting a larger number of tokens and/or eliciting acceptability judgments from Japanese-Spanish bilinguals. Specifically, a future study could investigate which affixes can be used from each language and which cannot (ie -masho , iendo occur here; what about-tai?). Also, when the lexical morphemes of the verbs come
from Japanese, are they conjugated as any one kind of Spanish verb (-ar, -er, -ir) (ie. 'mazeando' and not 'maziendo')? Finally, what are the phonotactic rules governing the switch points, for example, why are there epenthetic phonemes in some of the CS tokens, such as 'comerimashō' but not others?

As research interest continues to grow on the speech of Romance languageAsian language classroom learners, studies on bilingualism in Romance-Asian language contact situations are necessarily more limited by the limited populations that exist. It is the hope of these researchers that future research keeps up with these populations as they grow.

## Acknowledgements

We would like to thank the informants for sharing their experiences and agreeing to participate. Travel for this project was supported in part by the University of Utah College of Humanities International Travel Grant. The study is approved by University of Utah, IRB \#00082052. We would like to thank the University of Utah Undergraduate Research Opportunities Program for awarding funding to Aja Williams (Swalberg) during Spring 2016 to work on this project.

## References

Azuma, Shoji. (1993). The frame-content hypothesis in speech production: evidence from intrasentential code switching. Linguistics, 31(6), 1071-1093.
Azuma, Shoji. (1996). Free morpheme constraint revisited. World Englishes 15(3), 361367.

Azuma, Shoji. (1997). Lexical categories and code-switching: A study of Japanese/English code-switching in Japan. The Journal of the Association of Teachers of Japanese, 31 (2), 1-24.
Boersma, Paul, \& Weenink, David. (2016). Praat (Version 6.0.13 for Windows and version 6.0.32 for Mac) [Software]. Available from http://www.fon.hum.uva.nl/praat/.
Bokamba, Eyamba G. (1987). The significance of code-mixing to linguistic theory: Evidence from Bantu languages. Studies in the Linguistic Sciences 17(2), 21-41.
Bullock, Barbara \& Toribio, Jacqueline. (2009). The Cambridge Handbook of Linguistic Code-Switching. New York: Cambridge.
Clements, J. Clancy. (2009). Chinese Immigrant Spanish. In The linguistic legacy of Spanish and Portuguese: Colonial expansion and language change. New York, NY: Cambridge University Press. 124-157.
Flores, Tanya. (2010). Sibilants in Chinese Immigrant Spanish. Indiana University Linguistics Club Working Papers: New Perspectives on Language Contact and Contact-Induced Change, 10(3).
Hoot, Bradley. (2011). Complementizer asymmetry in Spanish-English code-switching. In 8th International Symposium on Bilingualism, Oslo, Norway.
Hualde, José Ignacio. (2005). The sounds of Spanish. Cambridge, UK: Cambridge University Press.
Instituto Nacional de Estadistica (INE). (2017). Retrieved from www.ine.es
Jacobson, Rodolfo (Ed). (2000). Codeswitching worldwide. Trends in Linguistics, studies and monographs. Berlin: Mouton De Gruyter.
Kavanagh, Barry. (2007). The phonemes of Japanese and English - A contrastive analysis study. J. of Aomori University of Health and Welfare, 8(2), 283-292.
Lipski, John. M. (2005). Code-switching or borrowing? No sé so no puedo decir, you know. In Selected Proceedings of the Second Workshop on Spanish Sociolinguistics, ed. Lotfi Sayahi and Maurice Westmoreland, 1-15. Somerville, MA: Cascadilla Proceedings Project. Retrieved from http://www.lingref.com/cpp/wss/2/paper1136.pdf
Morimoto, Yoshiharu. (1988). The five vowels of Castilian and Japanese: A spectrographic analysis. Sophia Linguistica, 23-24, 181-191.
Myers-Scotton, C. (1993). Duelling languages. New York, NY: Oxford University Press.
Niño-Murcia, Mercedes \& Rothman, Jason. (2008). Bilingualism and identity: Spanish at the crossroads with other languages. Philadelphia: Benjamins.
Petersen, Jennifer. (1988). Word-internal code-switching constraints in a bilingual child's grammar. Linguistics, 26 (3), 479-494.
Poplack, Shana. (1980). Sometimes I'll start a sentence in Spanish y termino en español:
toward a typology of code-switching. Linguistics, 18 (7-8), 581-618.
Poplack, Shana. (2001). Code switching: Linguistic. In International encyclopedia of the social and behavioral sciences, ed. by Smelser, N. \& Baltes, P., 2062-2065. Thomason, Sarah \& Kaufman, Terrence. (1988). Language contact, creolization, and genetic linguistics. Berkeley: University of California Press.
Tsujimura, Natsuko. (2013). Phonetics. Introduction to Japanese linguistics. Somerset, NJ, USA: John Wiley \& Sons. (3rd Edition).

Appendix: Table of tokens followed by English glosses

| $(\mathbf{N}+\mathrm{V})$ | Verbal Noun | Word-internal switches |
| :---: | :---: | :---: |
| 1. kore quieres? | 9. kaminoke secar suru | 21. tabetiendo |
| 2. kore miras? | 10. kore leer shinai | 22. mazeando |
| 3. peli mitai | 11. pelo secar suru* | 23. aruitendo |
| 4. Japon ikitai | 12. peli alquilar shitai* | 24. gambatear |
| 5. cole ikanai | 13. ponerse okutsu | 25. comemashō |
| 6. chicle choudai | 14. comer shitai | 26. comerimashō |
| 7. deberes suru | 15. dormir shitai | 27. -endo |
| 8. beisbol suru | 16. jugar shitai | 28. -mashō |
|  | 17. beber shitai |  |
|  | 18. hablar shinai |  |
|  | 19. banyarse shinai 20. vestir suru |  |

*Spanish noun

1. Do you want this?
2. Do you see this?
3. I want to watch a movie
4. I want to go to Japan
5. I don't want to go to school
6. Give me gum
7. To do chores
8. To play baseball
9. To dry hair
10. I don't want to read this
11. To dry hair
12. To rent a movie
13. Put on shoes
14. I want to eat
15. I want to sleep
16. I want to play
17. I want to drink
18. I don't want to talk
19. I won't/don't bath myself (no me banyo)
20. To get dressed
21. To be eating
22. To be mixing
23. To be walking
24. To do your best
25. Let's eat
26. Let's eat
27. Speakers reported using many Japanese verbs with the Spanish '-ing' suffix
28. Speakers reported using many Spanish verbs with the Japanese 'let's...' suffix

[^0]:    ${ }^{1}$ The word "cole" is an informal form of colegio [school].

