



Subject pronoun expression in Spanish in contact with Fang in Equatorial Guinea

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Abstract

The present study examines subject pronoun expression (SPE) among Fang-Spanish speakers in Equatorial Guinea. The paper also examines whether the SPE of these speakers is in line with the predictions of the interface hypothesis (IH) (Sorace, 2011). The study consists of 24 sociolinguistic interviews, which were transcribed, coded, and analyzed using the mixed-effects software Rbrul. The overt pronoun rate derived from this study is 18.2 %, one of the lowest SPE rates ever recorded. The factors that condition SPE among Fang-Spanish speakers are similar to that of other Spanish varieties-grammatical person and number, ambiguity, reflexivity, the lexical effect of the verb, and reference. Moreover, the low ranking of reference is in line with the IH (Sorace, 2011) prediction of decreased sensitivity to reference among bilingual and second language speakers. The findings underscore the universality of linguistic predictors of SPE. The results also provide evidence that bilinguals decreased sensitivity to reference does not necessarily lead to an increase in overt subject pronouns. A decrease is also possible.

Keywords: sociolinguistics; variation; subject pronoun expression.

1. Introduction

In Spanish, like other languages such as Italian and Greek, a subject pronoun can be overt or null without changing the sentence's basic meaning. By way of illustration, the following examples from the present study are provided. As seen in (1), the verb is preceded by the null subject pronoun (\emptyset *creo*), whereas in (2) the verb is preceded by the overt subject pronoun (*yo*).

(1) *Si, \emptyset creo que es diferente porque la manera que los españoles hablan no es la misma manera que el guineano habla.* (Speaker 4)

'Yes, I think it is different because the way the Spanish speak is not the same as the way the Guinean speaks.'

(2) *Yo siempre he soñado ser un piloto.* (Speaker 8)

'I have always dreamt of being a pilot.'

Numerous variationist studies have been conducted to examine both the rates of subject pronoun expression (SPE) as well as the linguistic and social factors that condition the alternation of the pronoun (Abreu, 2012; Cameron, 1993; Cameron and Flores-Ferrán, 2004; Carvalho and Bessett, 2015; Lastra and Butragueño, 2015; Nagy and others, 2018; Orozco, 2015; Orozco, 2018a; Orozco and Hurtado, 2021; Otheguy and Zentella, 2012; among many others). These variationist studies were inspired by trailblazing studies, such as Barrenechea and Alonso's study (1973) on the Spanish of Buenos Aires, Argentina; Morales's study (1980) on San Juan, Puerto Rico, and Bentivoglio's study (1980) on Caracas, Venezuela. Presently, there is an extensive SPE research on Spanish spoken in the Caribbean (Alfaraz, 2015; Bentivoglio, 1987; Orozco, 2015, 2018a, 2018b; Orozco and Hurtado, 2021; Ortiz López, 2011; Prada Pérez, 2020; among others), in the Peninsular (Cameron, 1993; Posio, 2011; Prada Pérez, 2009, 2015), in Latin America (Cerrón-Palomino, 2014, 2017, 2018; Lastra and Butragueño, 2015), in the United States (Cameron, 1995, 1996; Cameron and Flores-Ferrán, 2004; Orozco, 2018b; Otheguy and Zentella, 2007, 2012; Silva-Corvalán, 1982, 1994, 1997; Torres Cacoullós and Travis, 2018; among many others), and in Africa (Padilla, 2020, 2021, 2024).

In conducting these studies, most researchers have examined (a) the rates of overt pronoun expression where the variation with a null subject is possible, (b) factors that condition the alternation of the expressed and the unexpressed subject pronoun, and (c) the increased/decreased expression of overt subject personal pronouns in some varieties of Spanish. Concerning the rates of overt pronoun expression, a consistent pattern found across SPE studies is that higher overt pronoun rates are used in the Caribbean than in the rest of the Hispanic world (e.g., Barrenechea and Alonso, 1973; Bayley and Pease-Alvarez, 1997; Bentivoglio, 1987; Cameron, 1993; Erker and Guy, 2012; Flores-Ferrán, 2004; Morales, 1980; Orozco and Guy, 2008; Otheguy and Zentella, 2007, 2012; Otheguy and others, 2007; Posio, 2011; Prada

Pérez, 2009; Shin and Otheguy, 2013; Silva-Corvalán, 1982, 1994). Presently, the highest SPE rate has been found in Puerto Rican Spanish (a pronominal rate of 45 %) (Cameron, 1994) and the lowest rates, in Cerrón-Palomino's study (2018) of Huancayo in Peru (16.2 %). With respect to the factors that condition the alternation of the expressed and the unexpressed pronoun, the results of previous studies have shown that SPE frequently is expressed when the referent of the verb is a singular pronoun than when it is plural. It is also expressed more often when there is a switch in reference than when the same referent is being maintained and with ambiguous verbal morphology, such as the imperfect tense rather than other Tense-Mood-Aspect (TMA) forms (Carvalho and others, 2015).

Nonetheless, despite decades of research in the Hispanic world, SPE remains understudied in the Equatoguinean variety of Spanish, even though Equatorial Guinea is the only African country with Spanish as an official language. Thus, although the author's study (Padilla, 2020) is the first step towards understanding SPE in Equatoguinean Spanish, there is still the need to take an in-depth approach to examine Spanish speakers with Fang as a native language. It is essential because Fang is the most widely spoken language in Equatorial Guinea (Lipski, 1985, 2008; Gomashie, 2019; Nistal, 2007).

The present study, thus, aims at filling this void by examining SPE in this unique variety. Furthermore, because Equatorial Guinea is a country where Spanish is an L2 (Nistal, 2007; Vuskovich, 2013), this investigation makes it possible to test the interface hypothesis (IH) (Sorace, 2011) and how this variety supports or contradicts its tenets regarding SPE in bilinguals. In addition, the analysis departs from traditional methods of analyzing linguistic and social predictors with ANOVAs and multivariate regression analysis such as Goldvarb. In this study, the mixed-effects model Rbrul, which is more robust than general models (Pinheiro and Bates, 2000), is employed.

In the sections that follow, I examine the points of convergence and divergence between Spanish and Fang concerning SPE. I also discuss the IH and its relevance to this paper. Next is the methodology section. This section describes the participants, the data collection, the envelope of variation, and the predictors analyzed. After the methodology, I present the results, discussion, and, then, the conclusion.

2. The Fang and Spanish languages in Equatorial Guinea

Fang is a Bantu language spoken in Equatorial Guinea, Cameroon, the Republic of Congo, São Tomé and Príncipe, and Gabon. In Equatorial Guinea, 80 % of the population (both native and non-native) speak Fang, making it the most widely spoken local language (Simons and Fennig, 2018).

Various researchers have described the Equatoguinean variety of Spanish, on the other

hand, as a second language (Nistal, 2007) or a bilingual dialect (Bibang Oyee, 2002; Lipski, 1999, 2008; Quilis and Casado Fresnillo, 1995). It is the medium of instruction in schools and the language used for all official government activities (Lipski, 2004). Gomashie's study (2019) on language vitality found that Spanish is not only used in administrative sectors, but also in religious contexts and in the mass media.

In the following lines, I address the differences and similarities between Fang and Spanish pertaining to the variable SPE. It is essential to note that, unlike Spanish, in which there is an extensive investigation of pronominal subjects, Fang's investigation is still at the embryonic stage. Moreover, there is no study on subject pronoun expression in Fang in Equatorial Guinea to the best of my knowledge. Thus, the information derived on Fang is based on the descriptive grammar provided by a few researchers (e.g., Bibang Oyee, 1990; Zamponi, 2009).

Concerning the shared characteristics between Spanish and Fang, both languages have morphemes indicating the number and person attached to the verb. However, whereas Spanish has it at the end of the verb, Fang has morphemes amalgamated at the beginning of the verb, like prefixes. By illustration, the following examples from Bibang Oyee (1990: 72) are provided.

(3) **ma**-dziŋ = am-**o** 'I love'

(4) **wa**-dziŋ = am-**as** 'You love'

(5) **aa**-dziŋ = am-**a** 'He loves'

A point of divergence between Spanish and Fang, with respect to SPE, is that the concept of null and overt subject pronouns in Spanish does not exist in Fang. This is because personal pronouns are generally not used as subjects in Fang (Zamponi, 2009). However, the exception, according to Zamponi (2009), is when the subject of the clause does not have the same referent as the subject of the previously implied clause. In such a case, Zamponi (2009) mentions a unique set of contrastive focus pronouns (CFP) used in Fang. Unlike Fang, Spanish does not have a comparable set of pronouns explicitly used for a change in referent.

By way of illustration, the following examples in Fang from Zamponi (2009) are provided.

(6) <i>mâ:</i>	<i>mâdzí</i>	<i>fə</i>
<i>mâ:</i>	<i>mə-à-dzí</i>	<i>fə</i>
1sg CFP	1sing-pronoun-	eat
		also
		'I eat, too'

Another notable difference between the two languages is that, whereas Spanish has two-second person singular pronouns (*tú* 'you' and *usted* 'you formal'), Fang has only one

way of expressing the second person singular. For instance, *wa- dziŋ* 'you love' could refer to the Spanish *tú* 'you informal' or *usted* 'you formal'.

From the above descriptions, it is evident that Fang and Spanish differ significantly with respect to the morphosyntactic aspects of SPE. Thus, even though to date there is no variationist study on pronoun use in Fang, the contact between the two languages offers an ideal testing ground for language contact in a stable bilingual society.

3. Second-language speakers and the interface hypothesis

In recent years, the research on bilingual development has focused on the IH. This hypothesis was developed by Sorace and Filaci (2006) to account for the non-target grammar found in L2 speech. According to this hypothesis, not all interfaces are equal and, as such, certain interfaces are more difficult to acquire than others. For instance, Sorace and Filaci (2006) found that interfaces that require the integration of syntax and the cognitive domains are much more challenging to acquire than interfaces that require syntax only. Moreover, the hypothesis predicts that, because of the cognitive load of having to remember two language systems, bilinguals and second language speakers will have problems with switch reference, as well as have and high SPE rates irrespective of the language pairing.

Much research on the IH has examined second-language speakers (Belletti and others, 2007; Margaza and Bel, 2006; Tsimpli and Sorace, 2006) and, more recently, bilingual speakers (Barnes, 2010; Cerrón-Palomino, 2018; Ivanov, 2009; Michnowicz, 2015; Rothman, 2008). However, these studies have produced mixed results among various researchers. Some studies produce results supporting the hypothesis (e.g., Belletti and others, 2007; Michnowicz, 2015) and others against the hypothesis (e.g., Cerrón-Palomino, 2018; Ivanov, 2009; Rothman, 2008). The present study, thus, puts to test the predictions regarding SPE by examining Fang-Spanish speakers. The goal is to uncover whether the SPE of these second-language speakers of Equatoguinean Spanish supports or contradicts the tenets proposed by the hypothesis.

4. Methodology

This section begins by stating the research questions that guide the present study. This is, then, followed by the description of the speech community, data, and participants.

4.1. Research questions

This paper contributes to the growing body of research on SPE by examining the alternation of the null and overt subject pronoun in the variety of Spanish spoken in Equatorial Guinea. Guided by previous variationist sociolinguistics studies, the study aims at answering three main research questions:

4.1.1. What is the overall distribution of null and overt subject pronouns in the speech of Fang-Spanish speakers in Equatorial Guinea? How does this distribution compare with that of other varieties of Spanish?

Previous research has found differences in the distribution of subject pronouns in Latin American varieties and Peninsular varieties of Spanish (Carvalho and others, 2015). Although the author's study (Padilla, 2020) places Equatoguinean Spanish as a variety with a low SPE rate (19.1 %), in comparison with other contact varieties, this variety of Spanish has been understudied in sociolinguistic research (e.g., Abreu, 2012; Bayley and Pease-Álvarez, 1997; Lapidus and Otheguy, 2005; Michnowicz, 2015; Nagy and others, 2018; Otheguy and others, 2007; Otheguy and Zentella, 2012; Shin, 2014; Shin and Otheguy, 2009; Torres Cacoullós and Travis, 2018; among many others). Moreover, there is no study that examines the SPE rate among Fang-Spanish speakers in Equatorial Guinea. To fill this gap in existing research, the present study examines the overall distribution of null and overt subject pronouns in the speech of Fang-Spanish speakers in Equatorial Guinea.

4.1.2. What are the linguistic and social predictors that condition SPE in Spanish in contact with Fang?

Previous research has found that SPE is conditioned by linguistic and social predictors and that linguistic predictors seem to have a stronger effect than social predictors (Carvalho and others, 2015). Prior research has also found that bilingualism appears to influence both the predictors and the rankings in bilingual varieties (Padilla, 2020; Limerick, 2018; Michnowicz, 2015; Otheguy and Zentella, 2012; among others). This study aims at shedding light on these predictors in the speech of Fang-Spanish speakers.

4.1.3. Does SPE among Fang-Spanish speakers of Equatoguinean Spanish support or contradict universal trends of SPE in bilinguals, as proposed by the interface hypothesis (Sorace, 2011)?

The IH has two main predictions regarding bilinguals and SPE: (1) external interfaces (e.g. syntax-semantics interfaces) will be more difficult to acquire than internal interfaces (e.g. syntax only), irrespective of the language pairing, and (2) bilinguals will exhibit high pronoun rates as a result of the challenges with managing these language systems. According to the hypothesis, this is due to the cognitive load of managing two or more language systems. With Equatorial Guinea being a bilingual population/multilingual population, the study presents an ideal testing ground for this hypothesis.

4.2. The speech community, data, and participants

The present study was conducted in Malabo, a city situated on the northern edge of Bioko Island. Malabo is the capital of Equatorial Guinea as well as one of the oldest cities in the country. It was chosen as the site for the interview because, compared to the other regions of the

country, it is a cosmopolitan city that provides access to people from different backgrounds. Moreover, it is the commercial and financial center for Equatorial Guinea. It houses the only international airport, embassies, and a harbor where cocoa, coffee, and timber are exported.

Because this is a variationist study, sociolinguistic interviews were the primary method for collecting data (Labov, 1972, 1984; Tagliamonte, 2006). There were 24 native speakers of Fang (12 males and 12 females) between the ages of 24 and 69 who took part in the present study. These participants were recruited using the snowball method, and these interviews took place in the participants' homes. The interviews were conducted by a research assistant who had received sociolinguistic training. At the beginning of the interview, all participants filled a language background questionnaire to collect demographic information. The data for the study were then collected by conducting interviews between 45 minutes and an hour with hierarchically structured sets of questions (Labov, 1973). These questions progressed from impersonal questions related to demography, the community, and neighborhood to more personal questions relating to schooling, languages, hobbies, love, and life in Equatorial Guinea (Tagliamonte, 2006).

4.3. Envelope of variation

Following the variationist framework for conducting SPE studies (Tagliamonte, 2006), all cases in which the phenomena appeared were compared to cases in which the phenomena could have appeared, but it did not. The following example is provided by way of illustration.

(7) (**Yo**) *Tengo tres hijos.* (Speaker 3)

I have three children.

The above sentence has two variants. '*Yo tengo*' or '*Tengo*'. Thus, following variationist methodology, the number of cases in which the pronoun could have been produced but was not produced is compared to the number of instances in which it was actually produced.

The study also excluded discourse markers (e.g. *tú sabes*), flip verbs like *gustar* (to like) which tend to have post-verbal subjects, impersonal sentences (e.g. *se come a las 2*), subject pronouns with emphatic *mismo*, and imperatives (e.g. *que estudie* 'study'). These categories were excluded because they do not vary with the subject pronoun. After the exclusions, there were 2019 tokens left to be analyzed. The analysis was then conducted with the mixed-effects statistical software Rbrul.

The following section focuses on the predictors analyzed.

4.4. Predictors examined

Five internal and two external predictors were examined in the present study. The selection of these predictors was based on the results of previous key studies (Cerrón-Palomino, 2016,

2018; Flores-Ferrán, 2002; Orozco, 2015; Otheguy and Zentella, 2007; Otheguy and Zentella, 2012; among others). In the following section, each of these predictors is examined: grammatical person and number, the lexical content and the lexical effect of the verb, reference, ambiguous verbs, and reflexivity. This is then followed by the social predictors age and gender.

4.4.1. Grammatical person and number

Previous studies have found that the grammatical person and number category is one of the most consistent linguistic predictors of SPE in Spanish (Otheguy and others, 2007). Generally, singular pronouns favor SPE, while plural pronouns disfavor it (Carvalho and others, 2015). For instance, singular pronouns such as *yo* 'I' and *tú* 'you' have been found to condition the use of the overt subject much more than any other grammatical person. Thus, in this study, the grammatical persons being examined are *yo* 'I', *tú* 'you', *él/ella/usted* 'he/she', *nosotros* 'we' and *ellos/ellas* 'them' forms. The hypothesis is that singular verb forms will favor SPE, whereas plural verb forms will disfavor it.

4.4.2. Lexical effect and the lexical content of the verb

The lexical content of the verb has been examined by numerous researchers (e.g., Carvalho and Child, 2011; Erker and Guy, 2012; Orozco, 2015; Otheguy and Zentella, 2007, 2012; among many others). With this categorization, verbs are divided into psychological verbs, stative verbs, and external activity verbs. Studies using this categorization have highlighted that psychological verbs and stative verbs favor SPE, whereas external activity verbs disfavor SPE (e.g., Padilla, 2020; Cerrón-Palomino, 2016; Orozco, 2015; Travis, 2007). However, recent studies have brought to light the importance of moving away from the lexical classifications and instead focusing on the lexical effect of the verb (Orozco and Hurtado, 2021). This is because these studies have found that verbs within the same lexical category exert different effects on SPE (Erker and Guy, 2012; Orozco, 2018a, 2018b; Orozco and Hurtado, 2021; Posio, 2011, 2015).

In the present study, to show how lexical categorizations obscure the different weights that the individual verbs exert on SPE, we first classify verbs using the lexical content of the verb (psychological verbs, which include mental activity and estimative verbs, stative verbs, external activity verbs). Next, following Orozco and Hurtado (2021), we examine the lexical effects of the verb as random effects in their infinitival form. Examining the lexical effect of the verb shows how traditional categorizations obscure differences and how a verb with a high frequency may not always exert a strong influence on SPE and vice versa (Orozco and Hurtado, 2021).

4.4.3. Reference (same reference/switch reference)

Reference has been a good predictor of SPE in all studies in which it has been examined. Specifically, a switch in reference has been found to favor SPE, whereas the use of the same

referent has been found to disfavor SPE (Alfaraz, 2015; Bessett, 2018; Carvalho and Bessett, 2015; Michnowicz, 2015; Otheguy and Zentella, 2012). By illustration, the following examples from the speech of speakers from the present study are provided.

(8) *Si \emptyset pude ir a la escuela, \emptyset estuve en una escuela cerca de la casa, \emptyset estuve en varias.* (Speaker 20)

Yes **(I)** could go to school, **(I)** was in a school near the house, **(I)** was in many.

(9) *\emptyset Me sentí que ellos querían verme.* (Speaker 23)

(I) felt that **they** wanted to see me.

For example (8), the same referent is being maintained throughout each sentence's clauses. However, for example (9), the subject of the first clause is the first person singular, while the subject of the second clause is the third person plural.

Although reference is usually a significant predictor when examined, some bilingual studies have found that this predictor is ranked lower among bilinguals than monolingual Spanish speakers (e.g., Michnowicz, 2015; Otheguy and Zentella, 2012; Shin and Otheguy, 2009). Others have found no such evidence (Bessett, 2018; Hurtado, 2001; Prada Pérez, 2015; Torres Cacoullos and Travis, 2010). Thus, the hypothesis for this group is that SPE will be favored when there is a switch reference and disfavored when the same reference is maintained. Moreover, in line with previous studies, reference will be one of the lowest-ranked factors for Fang-Spanish speakers in Equatorial Guinea.

4.4.4. Ambiguous verb forms

Previous research has found that the ambiguity created by certain verb forms, such as the first and third person of the imperfect, subjunctive, and conditional tense, favors the expression of overt subject pronouns. Thus, subject pronouns tend to be used to disambiguate these identical morphological verb endings (e.g., Abreu, 2012; Cameron, 1993; Cerón-Palomino, 2014; Lastra and Butragueño, 2015; Carvalho and others, 2015; Travis, 2007). The following example is provided by way of illustration.

(10) *Yo veía que los, los compañeros decían que ese maestro era malo, porque cuando yo había venido a esa escuela, me decían hay un maestro que pega fuerte.* (Speaker 1)

I saw that the colleagues said that teacher was bad because when **I had come** to that school, they told me that he beats strongly.

In the above example, we find that the speaker expresses the overt subject pronoun with the ambiguous verb form *veía* 'saw' and *había venido* 'had come' and yet omits the subject pronoun with the verb form *decían* 'they said'. This is because, without understanding the

context of the conversation, the verb forms *veía* and *había venido* could refer to either the first-person singular pronoun or the third-person singular pronoun. Thus, in this study, verbs in the first and third person of the imperfect, conditional, and the present subjunctive tense were coded as ambiguous verbs. Other verbs that did not have identical forms were coded as non-ambiguous. In line with previous studies, the prediction is that ambiguous verb forms will favor SPE whereas non-ambiguous verb forms will disfavor SPE.

4.4.5. Reflexivity

Previous SPE studies have found that reflexive verbs tend to disfavor the expression of overt subjects, whereas non-reflexive verbs favor the expression of overt subject pronouns (Bessett, 2018; Cerrón-Palomino, 2017; Michnowicz, 2015; Otheguy and Zentella, 2012; Otheguy and others, 2007). This is because reflexive verbs have a clitic pronoun that provides information concerning who the speaker is, unlike non-reflexive verbs.

By way of illustration, the following example is provided from the present study:

(10) **Me** baño antes de irme. (Speaker 5)

I bathe before leaving.

For example (10), the clitic pronoun of the verb provides information regarding who the subject of the sentence is. Thus, unless for the sake of contrast, placing a subject pronoun in front of this verb will make it redundant. For this reason, the prediction is that reflexive verbs will disfavor SPE, whereas non-reflexive verbs will favor it.

4.4.6. Age

Age has been found to be a significant predictor of SPE in a few SPE studies (e.g., Lastra and Butragueño, 2015; Orozco, 2015; Orozco and Guy, 2008) and insignificant in others (e.g., Alfaraz, 2015; Michnowicz, 2015; Otheguy and others, 2007; Otheguy and Zentella, 2012). Some studies have found older speakers expressing fewer subject pronouns than younger speakers (Ávila-Jiménez, 1995; Flores-Ferrán, 2002); others have found the opposite trend (Carvalho and Child, 2011; Lastra and Butragueño, 2015; Orozco, 2015; Orozco and Guy, 2008). Based on these inconsistent findings, age was examined as a continuous predictor for exploratory purposes.

4.4.7. Gender

Gender has not been a consistent predictor of SPE in previous studies. In some studies, it has been significant (e.g., Alfaraz, 2015; Bayley and Pease-Álvarez, 1997; Carvalho and Child, 2011; Orozco, 2015), whereas in others it has been insignificant (e.g., Ávila-Jiménez, 1995; Jia and Bayley, 2002). However, several reasons have been provided in previous literature to

explain the distinction between male and female SPE rates; a change in progress (Otheguy and Zentella, 2012), biology (Chambers, 2003), culture (Labov, 2001), covert prestige (Michnowicz, 2015), and overt prestige (Alba, 2004). For this reason, gender will be examined as an exploratory predictor.

5. Results

5.1. Pronominal rate

The overt pronoun rate among Fang-Spanish speakers is 18.2 % (367/1652). Table 1 displays the overall distribution of null and overt subject pronouns in the Spanish of Fang speakers.

TABLE 1

The overall distribution of null and overt subject pronouns among Fang-Spanish speakers in Equatorial Guinea.

VARIANT	NUMBER	PERCENTAGE
Overt pronoun	367	18.2
Null pronoun	1652	81.8
Total	2019	100

These results provide evidence that the Fang-Spanish variety favors null subjects to overt subjects. However, when we compare these results to that of other contact varieties of Spanish, we find that the Fang-Spanish SPE rate is only higher than the 17.8 % that Cerón-Palomino (2016) found among the Mexican Americans in Phoenix. Table 2 below is presented by way of illustration.

TABLE 2

SPE rates in other bilingual varieties of Spanish

LOCATION/VARIETY	AUTHOR	SPE RATE
Spanish-English bilinguals in Isabela, Puerto Rico	Abreu (2012)	49 %
Spanish-English Colombians in New York	Otheguy and others (2007)	41 %
Spanish-English Puerto Ricans in New York	Otheguy and Zentella (2012)	39 %
Spanish-Portuguese bilinguals in Uruguay	Carvahlo and Child (2011)	38 %
Spanish-English bilinguals in New Mexico	Torres Cacoulllos and Travis (2010)	35.5 %
Maya-Spanish bilinguals in Mexico	Michnowicz (2015)	23.5 %

Veneto-Spanish bilinguals in Mexico	Barnes (2010)	26 %
Spanish-Portuguese bilinguals in Uruguay	Carvalho and Bessett (2015)	25 %
Catalan-Spanish bilinguals in Minorca	Prada Pérez (2015)	20.5 %
English-Spanish bilinguals in Arizona	Bessett (2018)	19.3 %
Fang-Spanish in Equatorial Guinea	(forthcoming)	18.2 %
Spanish-English bilinguals in Phoenix	Cerrón-Palomino (2016)	17.8 %

The SPE rate of 18.2 % is a low rate when compared to other contact varieties. For instance, the 49 % rate found in Abreu's study (2012), the 41 % rate found in Otheguy and others's study (2007), and the 39 % rate found in Otheguy and Zentella's study (2012). It is also lower than the 38 % rate found in Carvalho and Child's study (2011), the 35.5 % rate in Torres Cacoullós and Travis' study (2010), the 23.5 % rate in Michnowicz's study (2015), among others.

5.2. Linguistic predictors

The analysis found that person and number, ambiguity, reflexivity, lexical content (and the lexical effect as a random variable), and reference significantly influence SPE. The results from the analysis in Rbrul are presented in table 3 below, in decreasing order of magnitude. In the table, the predictor is first presented, followed by the *factor weight*. A factor weight is a numerical value that depicts the extent to which the predictors examined favor the dependent variable. Rbrul reports these values in the range of 0 to 1. Thus, a factor weight higher than 0.5 favors the occurrence of the overt subject pronoun, whereas a factor weight less than 0.5 disfavors the occurrence of the overt subject pronoun. Next is the percentage of overt subject pronouns, the number of tokens, the p-value, and the range.

TABLE 3

Predictors favoring SPE among of Fang-Spanish speakers in Equatorial Guinea

PREDICTOR	FACTOR WEIGHTS	% OVERT SUBJECT PRONOUN	#TOKENS	% DATA	P-VALUE	RANGE (FW)
Person and number					5.38e-21*	51
Yo	0.73	27.3 %	264/966	13 %		
Tú	0.64	15.2 %	43/281	2.1 %		
Él/ella/usted	0.53	14.0 %	30/212	1.48 %		
All plural (<i>nosotros, ellos/ellas/ustedes</i>)	0.40	10 %	56/560	2.7 %		
Ambiguity					9.97e-08*	25
Ambiguous	0.62	33.3 %	110/330	5.4 %		
Non-ambiguous	0.37	15.2 %	257/1689	12.7 %		

Reflexivity					0.0116	18
Non reflexive	0.59	18.9 %	353/1865	17.4 %		
Reflexive	0.41	9.1 %	14/154	9 %		
Lexical content					0.0021	17
Psychological verbs	0.59	24.6 %	156/635	7.7 %		
Stative	0.56	23.8 %	116/489	5.7 %		
External activity verbs	0.43	13.2 %	52/395	2.5 %		
Other	0.42	13.1 %	65/500	3.2 %		
Reference					0.0017	9
Switch reference	0.54	17.6 %	151/857	7.4 %		
Same reference	0.46	16.6 %	193/1162	9.5 %		
* P-values are represented in Scientific E-notation						

Grammatical person and number is the strongest predictor of SPE among Fang-Spanish speakers. In the present study, we find the singular pronouns favoring SPE and the plural pronouns disfavoring it. For instance, the first-person singular pronoun *yo* 'I' has a factor weight of 0.73, the second person singular *tú* 'you' has a factor weight of 0.64, and the third person singular *él/ella/usted* 'he/she' has a factor weight of 0.53. On the other hand, all plural verbs (*nosotros, ellos/ellas, ustedes*) have a factor weight of 0.40.

The pattern found in the present study follows that of previous studies regarding this predictor. Person and number have consistently been found to be the strongest predictor in numerous SPE studies (Padilla, 2020; Abreu, 2012; Alfaraz, 2015; Cameron, 1993; Michnowicz, 2015; Orozco, 2015; Orozco and Hurtado, 2021; among many others) and the high ranking of the first person singular *yo* 'I' has been attributed to the "egocentric nature of verbal communication" (Posio, 2011: 793; Silva-Corvalán, 1994: 163). With respect to plural subjects, we find that verbs in the first, second, and third-person plural have morphologically distinct verbal endings that make it easy to identify who the speaker is. Furthermore, Cameron (1993: 306) argues that "if we conceive of plural subjects as sets, we find that discourse is typically structured so that the great majority of plural subjects occur in contexts where their set members are either explicitly or inferable present within the immediate preceding discourse". These results, thus, corroborate with the results of previous studies that have found singular pronouns to favor SPE much more than plural pronouns, and the predictors grammatical person and number consistently condition SPE (Padilla, 2020; Cameron, 1993; Carvalho and others, 2015: xiv; Michnowicz, 2015; Orozco and Hurtado, 2021; among many others).

After grammatical person and number, the second strongest predictor of SPE among Fang-Spanish bilinguals is the predictor ambiguity, with a range of 25. Like the results attested in previous studies (Erker and Guy, 2012; Lastra and Butragueño, 2015; Michnowicz, 2015; Orozco and Hurtado, 2021; Prada Pérez, 2009; Travis, 2007), ambiguous verb forms favor

overt SPE (a factor weight of 0.62) whereas non-ambiguous verb forms disfavor SPE (a factor weight of 0.37). Ambiguous verb forms have an overt SPE rate twice that of unambiguous verb forms as well (33 % versus 15 %), a pattern also consistent with that of previous studies. Fang-Spanish, like speakers of other varieties of Spanish, thus express more overt subject pronouns with verb forms that have identical morphological endings (to clarify who the referent is) than non-ambiguous forms.

The third strongest predictor is reflexivity, with a range of 18. In line with previous studies, non-reflexive verbs favor the overt pronoun (a factor weight of 0.59), whereas reflexive verbs disfavor it (a factor weight of 0.41). Carvalho and Child (2011: 20) argue that “this is probably due to the added referential information contained within the reflexive pronoun that might make the use of the subject personal pronoun seem redundant”. Thus, the results of this study align with previous studies that have found reflexivity to be a significant predictor of SPE (Bessett, 2018; Cerrón-Palomino, 2017; Michnowicz, 2015; Otheguy and Zentella, 2012; Otheguy and others, 2007).

The fourth strongest predictor is the lexical content of the verb, with a range of 17. In line with previous studies, psychological verbs (with a factor weight of 0.59) and stative verbs (with a factor weight of 0.56) favor SPE. In contrast, external activity verbs (a factor weight of 0.43) and verbs classified as Other (a factor weight of 0.42) do not favor the occurrence of the overt pronoun. Although these findings are in line with that of previous studies, as previously mentioned, this type of classification obscures the differences that exist within verbs (Orozco and Hurtado, 2021). By dividing verbs into these traditional lexical categories, we fail to recognize the effects that different types of verbs have on SPE and carry out a problematic method of classification (Erker and Guy, 2012; Orozco, 2015; Orozco and Hurtado, 2021; Posio, 2011, 2015, 2018).

To this end, the present study also examined the lexical effect of the verb (Orozco and Hurtado, 2021). The results of the eight strongest and eight weakest effects when the multivariate analysis with the infinitival form of the verbs are run as independent variables are presented in table 4 below.

TABLE 4

Lexical effect of the verb

PREDICTOR	FACTOR WEIGHTS	% OVERT SUBJECT PRONOUN	#TOKENS
Strongest effect			
Acordarse ‘to remember’	0.65	60.5	48
Avanzar ‘to advance’	0.63	55.7	30
Cocinar ‘to cook’	0.61	53.9	20
Querer ‘to want’	0.60	52.7	28

Respirar 'to breath'	0.58	52.5	25
Asistir 'to attend'	0.57	52.3	24
Ser 'to be'	0.55	51.9	100
Estudiar 'to study'	0.54	51.7	35
Weakest effect			
Escribir 'to write'	0.39	27.8	37
Tener 'to have'	0.38	26.1	17
Conocer 'to know'	0.37	25.9	28
Salir 'to leave'	0.37	25.7	30
Ir 'to go'	0.36	25.5	60
Quedarse 'to remain'	0.33	24.8	22
Imaginarse 'to imagine'	0.30	22.1	20
Saber 'to know'	0.29	20.9	35

Table 4 above shows, in descending order of magnitude, the eight verbs with the strongest effects on SPE. The strongest predictor is the verb *acordarse* 'to remember' (0.65), followed by *avanzar* 'to advance' (0.63), *cocinar* 'to cook' (0.61), *querer* 'to want' (0.60), *respirar* 'to breathe' (0.58), *asistir* 'to attend' (0.57), *ser* 'to be' (0.55), and *estudiar* 'to study' (0.54). The eight lowest ranked verbs in the data set were *escribir* 'to write' (0.39), *tener* (0.38), *conocer* 'to know' (0.37), *salir* 'to leave' (0.37), *ir* 'to go' (0.36), *quedarse* 'to remain' (0.33), *imaginarse* 'to imagine' (0.30) and *saber* 'to know' (0.29).

Furthermore, the study found divergences between some of the verbs put under traditional categories: psychological verbs, external activity verbs, and stative verbs. For instance, although the psychological verb *acordarse* 'to remember' had the strongest effect on SPE, *imaginarse* 'to imagine' is another psychological verb ranked as one of the verbs with the weakest effects on SPE. Similarly, although stative verbs tend to favor SPE, the verb *tener* 'to have' (0.38) ranks as one of the verbs with the least effect on SPE. These results show that not all psychological verbs and stative verbs favor SPE and neither do all external activity verbs disfavor SPE.

Moreover, *salir* 'to leave', one of the verbs with the weakest effects, had the same frequency as *avanzar* 'to advance', the second strongest predictor. This shows that, in line with Orozco (2015) and Orozco and Hurtado (2021), the most frequent verbs do not exert different tendencies on SPE compared to less frequent verbs. Interestingly, the most frequent verb in the data set, *ser* 'to be', has an almost neutral effect on SPE (a pronominal weight of 0.55), while less frequently occurring verbs such as *acordarse* 'to remember', *cocinar* 'to cook', among others ranked higher. Similarly, the study found other verbs that had a neutral effect on SPE (not presented in the table due to lack of space). For instance, *pasar* 'to happen', *casarse* 'to marry', *asustar* 'to be afraid', *comunicarse* 'to communicate', *enamorarse* 'to fall in love', *equivocarse* 'to be wrong', among others. Like previous studies, these results bring to light the importance of considering the lexical effect of the verb (Erker and Guy, 2012; Orozco, 2015, 2018a, 2018b; Orozco and Hurtado, 2021; Posio, 2015, 2018) instead of the lexical category.

The lowest ranking predictor is reference, with a range of 9. Specifically, switch reference had a factor weight of 0.54, favoring the expression of the subject pronoun, while same reference had a factor weight of 0.46, disfavoring the expression of the subject pronoun. Cameron (1994: 40) argues that “expressed pronominal subjects compensate for the change of information state which occurs with a switch in subject reference”.

5.3. Social predictors

The two social predictors, age and gender, turned out non-significant among Fang-Spanish speakers.

TABLE 5

Non-significant social predictors of SPE in Fang speakers Spanish

FACTOR	% OVERT SUBJECT PRONOUN	#TOKENS	FACTOR WEIGHT	RANGE
Sex				7
Male	13.3 %	541	[.46]	
Female	20 %	1478	[.53]	
Age				
Continuous+1	[ns]			

The insignificance of age in the present study corroborates that of previous studies in which age did not show a significant effect on SPE (Alfaraz, 2015; Otheguy and others, 2007; Otheguy and Zentella, 2012). Similarly, sex has been found to be insignificant in several studies in which it was examined (Jia and Bayley, 2002; Lastra and Butragueño, 2015; Michnowicz, 2015; Orozco and Guy, 2008). Thus, the results of the present study support the above-mentioned studies that have found that social predictors do not condition SPE as strongly as linguistic predictors.

5.4. Subject pronoun expression and the interface hypothesis

The IH makes two main predictions regarding SPE that are expected to hold irrespective of the language pairing. Firstly, it predicts that bilinguals will have problems with the switch reference predictor. This could be exhibited in the hierarchy of the predictors or the range of the effects. The second prediction of the IH is that bilinguals will have high SPE rates, irrespective of the language pairing, due to the cognitive load of identifying who the referent is.

The first prediction of IH is evident in the present study. Although bilinguals are constrained by reference, we find that reference is the lowest-ranked predictor. In other words, Equatoguinean bilinguals do not place the same level of importance on reference as they do with other predictors. This finding is in consonant with other studies that have found bilinguals

and L2 speakers to exhibit a decreased sensitivity to switch reference (e.g., Flores-Ferrán, 2002; Michnowicz, 2015; Shin and Otheguy, 2009). For instance, Michnowicz (2015) found that Maya-Spanish bilinguals ranked reference as just half as important compared to the monolingual group (a range of 17 versus 31). These results nonetheless deviate from studies that have found no loss of sensitivity to switch reference among bilingual speakers (Bessett, 2018; Cerrón-Palomino, 2018; Silva-Corvalán, 1994; Torres Cacoullos and Travis, 2010; Prada Pérez, 2015). In contrast to the present study, in Bessett's study (2018), reference ranked third among English-Spanish bilinguals, and in Cerrón-Palomino's study (2018) and Prada Pérez's study (2015), reference was the highest-ranked predictor.

The second prediction, however, is not evident in the present study. We find a very low pronoun rate of 18.2 %, which goes against the tenets of the hypothesis. When we compare the pronoun rate in this variety to that of other bilingual varieties, we find that it is only higher than Mexican Americans in Phoenix (Cerrón-Palomino, 2016). Further discussion on the pronoun rate is presented in the next section.

6. Discussion

From the above results, it is evident, as a whole, the Spanish spoken among native speakers of Fang does not differ significantly in terms of rates or underlying predictors from that of other varieties of Spanish. Like prior SPE studies, the significant linguistic predictors are grammatical person and number, ambiguity, reflexivity, the lexical effect of the verb, and reference. However, the social factors age and gender were not significant. Thus, these results are in line with previous studies that argue that linguistic predictors seem to condition SPE much more than social predictors.

Furthermore, two findings deserve further comment in the present study: the low pronoun rate and the low ranking of reference. The low pronoun rate places SPE among Fang-Spanish speakers within the mainland varieties of Spanish. The SPE rate in this variety is only higher than the 17.8 % that Cerrón-Palomino (2016) found among the Mexican Americans in Phoenix. The Equatorial Guinea variety in contact with Fang is one of the lowest SPE rates in the world.

The low SPE rate may be due to one or a combination of the following factors. Cerrón-Palomino (2014) argues that the clustering of Mexican, Peruvian, and Peninsular varieties may be related to Spain's tight relationship with its viceroyalties in Mexico, America, and Peru. Similarly, with Equatorial Guinea being a previous Spanish colony and Equatoguineans speaking the variety from Spain, the Fang-Spanish SPE rate may also suggest a tight relationship with its former colonizer Spain.

Another possible factor could be both the context of acquisition for Spanish and the local language Fang. In Equatorial Guinea, Spanish is acquired through formal education. Thus,

following the rules of prescriptive grammar, Equatoguinean students may have been taught the disambiguating and emphatic uses of the subject pronoun, as this is the information disseminated in many Spanish textbooks. As a result, they may be using the null subject as a default strategy due to the cognitive load of managing two language systems.

Furthermore, as previously mentioned, unlike Spanish, Fang has a unique set of contrastive focus pronouns (CFP) that are used when there is a switch in reference. The absence of such pronouns in Spanish may lead Fang-Spanish to use null subject pronouns by default. Moreover, according to Otheguy and Zentella (2012), depending on which language the bilingual uses the most, the nonappearance of relevant constraints in the bilinguals' other language can either strengthen or weaken certain predictors. Consequently, Fang-Spanish speakers who spend considerable time in official settings where Spanish is used may have more opportunities to practice the rules they have been taught regarding selecting Spanish overt pronouns. On the other hand, speakers who spend more time in familiar settings will use the native language more often than Spanish. In effect, the low pronoun rate attested in this study suggests the latter.

The second finding that deserves further comment is the low ranking of reference, which supports the interface hypothesis (Sorace, 2011). Sorace and Filaci (2006: 340) argue that “narrow syntactic properties are completely acquirable in a second language, even though they may exhibit significant developmental delays, whereas interface properties involving syntax and another cognitive domain may not be fully acquirable”. In effect, because the selection of reference pronouns is a property that entails the combination of syntactic and discourse/pragmatic interfaces, in line with the tenets of the IH, it poses a challenge to the Equatoguinean Fang-Spanish speakers. However, this extra difficulty does not automatically involve a boost in the overt SPP rate, as the present study shows: the rate could also be lowered. Based on these results, the present study thus concurs with studies such as Barnes (2010), Belletti and others (2007), and Michnowicz (2015), that found support for the IH.

7. Conclusion

The goal of this study was to investigate SPE among Fang-Spanish speakers in Equatorial Guinea. Of interest to the study was whether the observed results confirm or reject the IH (Sorace, 2011) prediction of high pronoun rates and difficulties with switch reference among bilingual speakers. To answer the research questions posed by the study, sociolinguistic interviews were conducted among 24 Fang-Spanish speakers in Malabo, the capital of Equatorial Guinea. Malabo was considered the ideal location for the study because of its ability to attract a cosmopolitan group. The data obtained was then analyzed with the mixed-effects software Rbrul. The linguistic predictors examined followed previous studies: grammatical person and number, ambiguity, reference, reflexivity, lexical content of the verb and, subse-

quently: the lexical effect of the verb. In addition, although social predictors have not been consistent predictors in previous studies, the study examined age and gender.

Regarding the overall rate, the study showed a low pronoun rate in comparison to other bilingual studies: 18.2 %. With respect to the predictors that constrain SPE among Fang-Spanish speakers, the study found that, in line with previous studies, grammatical person and number, ambiguity, reflexivity, the lexical effect of the verb, and reference constrain SPE in this variety. The low ranking of the reference predictor is in line with the IH prediction that bilinguals and second language speakers largely will have a decreased sensitivity to discourse pragmatic properties that constrain SPE in Spanish irrespective of the language pairing. On the other hand, the prediction of a high pronoun rate is not supported in this study.

The present study contributes to various fields of linguistics. In the field of language variation, Spanish in Equatorial Guinea is relatively understudied. Except for the author's (Padilla, 2020), to date, there is no other sociolinguistic variationist study that has been conducted on Equatoguinean Spanish. The present study fills the gap in the existing literature and lends support to the crucial role of linguistic predictors in conditioning SPE compared to social predictors. The study has examined and brought to light the linguistic and social predictors that condition SPE in this variety and the uniformity of the conditioning predictors of SPE across language varieties. The low ranking of reference also corroborates the results of previous studies that have found bilinguals exhibiting a decreased sensitivity to reference (Flores-Ferrán, 2002; Michnowicz, 2015; Shin and Otheguy, 2009).

The study also contributes to the study of lexical effects verbs have on SPE by going beyond traditional categorizations of verbs. The findings corroborate previous studies that have reechoed the importance of going beyond the lexical content and examining the individual effects that verbs have on SPE (Orozco, 2015; Orozco and Hurtado, 2021; Posio, 2011). Furthermore, this study provides research in a context where there are hardly any native speakers to use as a comparative group. The Equatoguinean context is unique because these bilingual speakers are natives of African languages they acquire from their homes and communities.

Finally, in the field of language contact, the present study provides a valuable source of data with respect to language use in a stable bilingual community. It also supports predictions such as the IH, and conclusions from previous studies regarding the expression of subject pronouns among bilingual speakers.

8. References

ABREU, Laurel, 2012: "Subject pronoun expression and priming effects among bilingual speakers of Puerto Rican Spanish" in K. GEESLIN and M. DÍAZ-CAMPOS (eds.), *Selected*

Proceedings of the 14th Hispanic Linguistics Symposium, Somerville, MA: Cascadilla Proceedings Project, 1-8.

ALBA, Orlando, 2004: *Cómo hablamos los dominicanos. Un Enfoque Sociolingüístico*, Santo Domingo: Grupo León Jiménez.

ALFARAZ, Gabriela, 2015: "Variation of overt and null subject pronouns in the Spanish of Santo Domingo" in A. CARVALHO, R. OROZCO and N. LAPIDUS SHIN (eds.): *Subject pronoun expression in Spanish: A cross-dialectal perspective*, Washington D. C.: Georgetown University Press, 3-16.

ÁVILA-JIMÉNEZ, Bárbara, 1995: "A sociolinguistic analysis of a change in progress: Pronominal overtiness in Puerto Rican Spanish", *Cornell Working Papers in Linguistics* 13, 25-48.

BARNES, Hilary, 2010: "Subject pronoun expression in bilinguals of two null subject languages" in *Romance Linguistics 2008: Interactions in Romance. Selected papers from the 38th Linguistic Symposium on Romance Languages (LSRL), Urbana-Champaign, April 2008* (vol. 313), John Benjamins Publishing, 9.

BARRENECHEA, Ana María, and Alicia ALONSO, 1973: "Los pronombres personales sujetos en el español hablado en Buenos Aires" in Juan M. Lope BLANCH (ed.): *Estudios sobre el español hablado en las principales ciudades de América*, Mexico City: Universidad Nacional Autónoma de México, 333-349.

BAYLEY, Robert, and Lucinda PEASE-ÁLVAREZ, 1997: "Null pronoun variation in Mexican-descent children's narrative discourse", *Language variation and change* 9 (3), 349-371.

BELLETTI, Adriana, Elisa BENNATI and Antonella SORACE, 2007: "Theoretical and developmental issues in the syntax of subjects: evidence from near-native Italian", *Natural Language and Linguistic Theory* 2, 657-668.

BENTIVOGLIO, Paola, 1980: *Why Canto and Not Yo Canto?: The Problem of First-person Subject Pronoun in Spoken Venezuelan Spanish*. Doctoral dissertation, University of California, Los Angeles.

BENTIVOGLIO, Paola, 1987: *Los sujetos pronominales de primera persona en el habla de Caracas*, Caracas: Universidad Central de Venezuela.

BESSETT, Ryan, 2018: "Testing English influence on first person singular 'yo' subject pronoun expression in Sonoran Spanish", *Contemporary trends in Hispanic and Lusophone linguistics* 15, 355-372.

BIBANG OYEE, Julián, 1990: *Curso de lengua Fang*, Malabo: Centro Cultural Hispano-Guineano.

BIBANG OYEE, Julián, 2002: *El español guineano: interferencias, guineanismo*, Malabo: Centro Cultural Hispanoguineano.

CAMERON, Richard, 1993: "Ambiguous agreement, functional compensation, and nonspecific *tú* in the Spanish of San Juan, Puerto Rico, and Madrid, Spain", *Language Variation and Change* 5 (3), 305-334.

CAMERON, Richard, 1994: "Switch reference, verb class and priming in a variable syntax", *Papers from the Regional Meeting of the Chicago Linguistics Society: Parasession on variation in linguistics theory* 30, 27-45.

CAMERON, Richard, 1995: "The scope and limits of switch reference as a constraint on pronominal subject expression", *Hispanic Linguistics* 6, 1-28.

CAMERON, Richard, 1996: "A community-based test of a linguistic hypothesis", *Language in Society*, 61-111.

CAMERON, Richard, and Nydia FLORES-FERRÁN, 2004: "Perseveration of subject expression across regional dialects of Spanish", *Spanish in Context* 1 (1), 41-65.

CARVALHO, Ana, and Ryan BESSETT, 2015: "Subject pronoun expression in Spanish in contact with Portuguese" in A. CARVALHO, R. OROZCO and N. LAPIDUS SHIN (eds.): *Subject pronoun expression in Spanish: A cross-dialectal perspective*, Washington D. C.: Georgetown University Press, 143-163.

CARVALHO, Ana, and Michael CHILD, 2011: "Subject pronoun expression in a variety of Spanish in contact with Portuguese" in J. MICHNOWICZ and R. DODSWORTH (eds.): *Selected Proceedings of the 5th Workshop on Spanish Sociolinguistics*, Somerville, MA: Cascadilla Press, 14-25.

CARVALHO, Ana, Rafael OROZCO and Naomi SHIN, 2015: *Subject pronoun expression in Spanish: A cross-dialectal perspective*, Georgetown University Press.

CERRÓN-PALOMINO, Álvaro, 2014: "Ser más pro o menos pro: variación en la expresión de sujeto pronominal en el castellano limeño", *Lingüística* 30 (1), 61-83.

CERRÓN-PALOMINO, Álvaro, 2016: "(No) English interference on US southwest Spanish?: A look at variable subject expression in Phoenix Spanish-English bilinguals", *Sociolinguistic Studies* 10 (3), 383-408.

CERRÓN-PALOMINO, Álvaro, 2017: "¿Reflejos del quechua en una variedad de contacto? La posición del sujeto gramatical en castellano andino", *Boletín de filología* 52 (1), 47-77.

CERRÓN-PALOMINO, Álvaro, 2018: "Null-subject encounter: Variable subject pronoun expression in the Spanish of Quechua-Spanish bilinguals in the Central Pe-

ruvian Andes”, *International Journal of Bilingualism*, 1-19, doi: org.ezproxy1.lib.asu.edu/10.1177%2F1367006918763175.

CHAMBERS, John, 2003: *Sociolinguistic theory: linguistic variation and its social significance*, Malden and Oxford: Blackwell Publishers.

ERKER, Daniel, and Gregory GUY, 2012: “The role of lexical frequency in syntactic variability: Variable subject personal pronoun expression in Spanish”, *Language* 88, 526-557.

FLORES-FERRÁN, Nydia, 2002: *A Sociolinguistic Perspective on the Use of Subject Personal Pronouns in Spanish Narratives of Puerto Ricans in New York City*, Munich: Lincom-Europa.

FLORES-FERRÁN, Nydia, 2004: “Spanish subject personal pronoun use in New York City Puerto Ricans: Can we rest the case of English contact?”, *Language variation and change* 16 (1), 49-73.

GOMASHIE, Grace, 2019: “Language Vitality of Spanish in Equatorial Guinea: Language Use and Attitudes”, *Humanities* 8 (1), 33.

HURTADO, Luz, 2001: *La variable expresión del sujeto en el español de los colombianos y colombo-americanos residentes en el condado de Miami-Dade*. Doctoral dissertation, University of Florida.

IVANOV, Ivan, 2009: *Second language acquisition of Bulgarian object clitics: A test case for the interface hypothesis*. Unpublished doctoral dissertation, University of Iowa.

JIA, Li, and Robert BAYLEY, 2002: “Null pronoun variation in Mandarin Chinese”, *University of Pennsylvania Working Papers in Linguistics* 8 (3), 9.

LABOV, William, 1972: *Sociolinguistic patterns* (no. 4), University of Pennsylvania Press.

LABOV, William, 1973: “The linguistic consequences of being a lame”, *Language in society*, 81-115.

LABOV, William, 1984: “Field methods of the project on linguistic change and variation” in J. BAUGH and J. SHERZER (eds.): *Language in use: Readings in Sociolinguistics*, Englewood Cliffs, 28-53.

LABOV, William, 2001: *Principles of linguistic change Volume 2: Social factors*, Malden and Oxford: Blackwell Publishers; NJ: Prentice Hall.

LAPIDUS, Noami, and Ricardo OTHEGUY, 2005: “Contact induced change? Overt non-specific ellos in Spanish in New York” in L. SAYAH and M. WESTMORELAND (eds.): *Selected Proceedings of the 2nd Workshop on Spanish Sociolinguistics*, Somerville, MA: Cascadilla Press, 67-75.

LASTRA, Yolanda, and Pedro BUTRAGUEÑO, 2015: “Subject pronoun expression in oral Mexican Spanish” in A. CARVALHO, R. OROZCO and N. LAPIDUS SHIN (eds.): *Subject pronoun*

expression in Spanish: A cross-dialectal perspective, Washington D. C.: Georgetown University Press, 39-57.

LIMERICK, Philip, 2018: *Subject expression in a Southeastern U.S. Mexican Community*. Doctoral Dissertation, University of Georgia.

LIPSKI, John, 1985: "Literary 'Africanized' Spanish as a research tool: Dating consonant reduction", *Romance Philology* 49 (2), 130-167.

LIPSKI, John, 1999: "Creole-to-creole contacts in the Spanish Caribbean: the genesis of Afro Hispanic language", *Publications of the Afro-Latin American Research Association (PALARA)* 3, 5-46.

LIPSKI, John, 2004: "The Spanish language of Equatorial Guinea", *Arizona Journal of Hispanic Cultural Studies* 8 (1), 115-130.

LIPSKI, John, 2008: "El español de Guinea Ecuatorial en el contexto del español mundial" in G. ROSIQUE and G. JAHN (eds.): *La situación actual del español en África*, Madrid: Casa de África/SIAL, 79-117.

MARGAZA, Panagiota, and Aurora BEL, 2006: "Null subjects at the syntax-pragmatics interface: Evidence from Spanish interlanguage of Greek speakers", *Proceedings of GASLA*, 88-97, Somerville, MA: Cascadilla Press.

MICHNOWICZ, Jim, 2015: "Subject pronoun expression in contact with Maya in Yucatan Spanish" in A. CARVALHO, R. OROZCO and N. LAPIDUS SHIN (eds.): *Subject pronoun expression in Spanish: A cross-dialectal perspective*, Washington D.C.: Georgetown University Press, 101-119.

MORALES, Amparo, 1980: "La expresión de sujeto pronominal, primera persona, en el español de Puerto Rico", *Boletín de la Academia Puertorriqueña de la Lengua Española* 8 (3), 91-102.

NAGY, Naomi, Michael IANNOZZI and David HEAP, 2018: "Faetar null subjects: a variationist study of a heritage language in contact", *International Journal of the Sociology of Language* 2018 (249), 31-47.

NISTAL, Gloria, 2007: "El caso del español en Guinea Ecuatorial", *Instituto Cervantes*, 73-76 [https://cvc.cervantes.es/lengua/anuario/anuario_06-07/pdf/paises_08.pdf].

OROZCO, Raphael, 2015: "Pronominal variation in Colombian costeño Spanish" in A. CARVALHO, R. OROZCO and N. LAPIDUS SHIN (eds.): *Subject pronoun expression in Spanish: A cross-dialectal perspective*, Washington D.C.: Georgetown University Press, 17-37.

OROZCO, Raphael, 2018a: *Spanish in Colombia and New York City: Language Contact Meets Dialectal Convergence*, Amsterdam/Philadelphia: John Benjamins.

OROZCO, Raphael, 2018b: "El castellano colombiano en la ciudad de Nueva York: Uso variable de sujetos pronominales", *Studies in Lusophone and Hispanic Linguistics* 11 (1), 89-129.

OROZCO, Raphael, and Gregory GUY, 2008: "El uso variable de los pronombres sujetos: ¿Qué pasa en la costa Caribe colombiana?" in M. WESTMORELAND and J. THOMAS (eds.): *Selected Proceedings of the Fourth Workshop on Spanish Sociolinguistics*, Somerville, MA: Cascadilla, 70-80.

OROZCO, Raphael, and Luz HURTADO, 2021: "A Variationist Study of Subject Pronoun Expression in Medellín, Colombia", *Languages* 6 (1), 5.

ORTIZ LÓPEZ, Luis, 2011: "Spanish in contact with Haitian Creole" in Manuel DÍAZ-CAMPOS (ed.): *The Handbook of Hispanic Sociolinguistics*, West Sussex, UK: Blackwell, 418-445.

OTHEGUY, Ricardo, and Ana ZENTELLA, 2007: "15 Apuntes preliminares sobre el contacto lingüístico y dialectal en el uso pronominal del español en Nueva York" in *Spanish in Contact*, John Benjamins, 275-295.

OTHEGUY, Ricardo, and Ana ZENTELLA, 2012: *Spanish in New York: Language contact, dialectal leveling, and structural continuity*, New York: Oxford University Press.

OTHEGUY, Ricardo, Ana ZENTELLA, and David LIVERT, 2007: "Language and dialect contact in Spanish in New York: Toward the formation of a speech community", *Language* 83 (4), 770-802.

PADILLA, Lillie, 2020: *Subject Pronoun Expression in an L2-Only Environment: The Case of Equatorial Guinea*. Doctoral dissertation, Arizona State University.

PADILLA, Lillie, 2021: "First person singular subject pronoun expression in Equatoguinean Spanish", *Journal of Monolingual & Bilingual Speech (JMBS)* 3 (2).

PADILLA, Lillie, 2024: "Spanish subject pronoun expression among Bube speakers in Equatorial Guinea", *International Journal of Bilingualism* 28 (2), 204-218.

PINHEIRO, José, and Douglas BATES, 2000: "Theory and computational methods for linear mixed-effects models", *Mixed-effects models in S and S-PLUS*, 57-96.

POSIO, Pekka, 2011: "Spanish subject pronoun usage and verb semantics revisited: First and second person singular subject pronouns and focusing of attention in spoken Peninsular Spanish", *Journal of Pragmatics* 43 (3), 777-798.

POSIO, Pekka, 2015: "Alcance referencial y variabilidad de las construcciones impersonales con referencia humana en español peninsular hablado: se y la tercera persona del plural", *Spanish in Context* 12 (3), 373-395.

POSIO, Pekka, 2018: "Properties of Pronominal Subjects" in K. GEESLIN (ed.): *The Cambridge Handbook of Spanish Linguistics*, Cambridge: Cambridge University Press, 286-306.

PRADA PÉREZ, Ana, 2009: "Subject expression in Minorcan Spanish: Consequences of contact with Catalan. The Pennsylvania State University" in A. CARVALHO, R. OROZCO and N. LAPIDUS SHIN (eds.): *Subject pronoun expression in Spanish: A cross-dialectal perspective*, Washington D.C.: Georgetown University Press, 143-163.

PRADA PÉREZ, Ana, 2015: "First person singular subject pronoun expression in Spanish in contact with Catalan" in A. CARVALHO, R. OROZCO and N. LAPIDUS SHIN (eds.): *Subject pronoun expression in Spanish: A cross-dialectal perspective*, Washington D.C.: Georgetown University Press, 121-142.

PRADA PÉREZ, Ana, 2020: "The Interaction of Functional Predictors and the Mechanical Predictor Perseveration in a Variationist Analysis of Caribbean Spanish Heritage Speaker Subject Pronoun Expression", *Languages* 5 (4), 36.

QUILIS, Antonio, and Celia CASADO FRESNILLO, 1995: *La lengua española en Guinea Ecuatorial*, Madrid: Universidad nacional de educación a distancia.

ROTHMAN, Jason, 2008: "Aspectual Morphology use in Adult L2 Spanish and the Competing Systems Hypothesis: When Pedagogical and Linguistics Rules Conflict", *Languages in Contact* 8 (1), 74-106.

SHIN, Naomi, 2014: "Grammatical complexification in Spanish in New York: 3sg pronoun expression and verbal ambiguity", *Language Variation and Change* 26 (3), 303-330.

SHIN, Naomi, and Ricardo OTHEGUY, 2009: "Shifting sensitivity to continuity of reference: Subject pronoun use in Spanish in New York City" in M. LACORTE and J. LEEMAN (eds.): *Español en Estados Unidos y en otros contextos: Cuestiones sociolingüísticas, políticas y pedagógicas*, Madrid: Iberoamericana, 111-136.

SHIN, Naomi, and Ricardo OTHEGUY, 2013: "Women as leaders of language change: A qualification from the bilingual perspective" in A. CARVALHO and S. BEAUDRIE (eds.): *Selected Proceedings of the 6th Workshop on Spanish Sociolinguistics*, Somerville, MA: Cascadilla Proceedings Project, 135-147.

SILVA-CORVALÁN, Carmen, 1982: *Subject expression and placement in Mexican-American Spanish*, Cambridge: Cambridge University Press.

SILVA-CORVALÁN, Carmen, 1994: *Language contact and change: Spanish in Los Angeles*, Oxford: Oxford University Press.

SILVA-CORVALÁN, Carmen, 1997: *Spanish in four continents: Studies in language contact and bilingualism*, Georgetown University Press.

SIMONS, Gary, and Charles FENNIG, 2018: *Ethnologue: Languages of the World*, 21st ed, Dallas: SIL International [<https://www.ethnologue.com/ethnblog/gary-simons/welcome-21st-edition>].

SORACE, Antonella, 2011: "Pinning down the concept of 'interface' in bilingualism", *Linguistic approaches to bilingualism* 1 (1), 1-33.

SORACE, Antonella, and Francesca FILIACI, 2006: "Anaphora resolution in near-native speakers of Italian", *Second Language Research* 22 (3), 339-368.

TAGLIAMONTE, Sali, 2006: *Analyzing Sociolinguistic Variation*, Cambridge and New York: Cambridge University Press.

TORRES CACOULLOS, Rena, and Catherine TRAVIS, 2010: "Variable yo expression in New Mexico: English influence", *Journal of the Rivera-Mills & Villa* 203, 185-206.

TORRES CACOULLOS, Rena, and Catherine TRAVIS, 2018: *Bilingualism in the community: Code-switching and grammars in contact*, Cambridge University Press.

TRAVIS, Caoullous, 2007: "Genre effects on subject expression in Spanish: Priming in narrative and conversation", *Language variation and change* 19 (2), 101-135.

TSIMPLI, Lanthi, and Antonella SORACE, 2006: "Differentiating interfaces: L2 performance in syntax-semantics and syntax-discourse phenomena" in D. BAMMAN, T. MAGNITSKAIA and C. ZALLER (eds.): *Proceedings of the 30th Annual Boston University Conference on Language Development*, Cascadilla Press: Somerville, MA, 653-664.

VUSKOVICH, Matthew, 2013: *A contrastive analysis of Spanish and Fang: An L2 approach to Equatoguinean Spanish as spoken in Bata City* (Order No. 3606374), Linguistics and Language Behavior Abstracts (LLBA); ProQuest Dissertations & Theses Global (1492334601) [<http://login.ezproxy1.lib.asu.edu/login?url=https://search-proquest-com.ezproxy1.lib.asu.edu/docview/1492334601?accountid=4485>].

ZAMPONI, Raoul, 2009: *Focus in Fang and other Bantu A70 languages*. Unpublished manuscript, University of Siena, Siena.