

Null Subjects in Palenquero: Do they really exist?

Johan De La Rosa Yacomelo

¹*Department of Spanish, Italian, and Portuguese, The Pennsylvania State University, The United States of America*

Corresponding Author: Johan De La Rosa Yacomelo, E-mail: jmd6493@psu.edu

ARTICLE INFO

Received: June 25, 2019

Accepted: July 26, 2019

Published: July 31, 2019

Volume: 2

Issue: 4

DOI: 10.32996/ijllt.2019.2.4.19

KEYWORDS

Null and overt subjects, language contact, creole language, language revitalization, second language acquisition

ABSTRACT

This study aims to investigate whether null subjects are allowed in Palenquero, and whether its use is restricted to younger speakers. Due to its process of revitalization, and the daily contact with its lexifier (Spanish, a pro-drop language), variation and innovation are present across the board. Two groups corresponding to young and adult Spanish-Palenquero bilinguals were included in the study. A repetition task demonstrates that both groups use overt subjects and avoid null subjects at equal rates, except when they hear a simple sentence with a null subject. A translation task confirms that both groups employ null subjects; however, younger speakers are more susceptible to the priming by null subjects from Spanish than adults. Together, the results suggest that null subjects are rarely used by Palenquero speakers. They are likely to occur in contexts where the imperative form is confused with the infinitive form and in coreferential subordinate clauses.

1. INTRODUCTION

Palenquero is a Spanish-based creole language spoken in San Basilio de Palenque, a small village in Colombia. The existence of this language has been threatened for several decades due to its strong contact with Spanish¹, the emigration of many of its speakers to urban areas due to their economic situation (Pérez Tejedor, 2008), racist comments toward Palenqueros and their language beginning in the 20th century when many of them began to work and live outside the community, and the reluctance of several members of the community to transmit the language to their children in the past to avoid scrutiny from outsiders (Lipski, 2014a: 194). As a result, no traditional speaker is considered truly Palenquero dominant nowadays; however, traditional speakers and the Palenquero language teachers are considered balanced bilinguals, and the new generations belong to a successive group of heritage speakers (Lipski, 2014c: 3).

Recent efforts to revitalize this language have

contributed to its strengthening and a better appreciation of this inside the same community. However, this process of revitalization is creating a scenario where the production of younger speakers does not match the production of adults, since the first group is learning it as a second language while having Spanish as a first language (Lipski, 2014a). Consequently, some of the characteristics typical of creole languages are being directly affected (e.g. gender agreement)².

This study aims to investigate whether null subjects are permitted in Palenquero (an unusual phenomenon for creole languages), and whether young and adult speakers differentiate each other in the use of them. Following this introduction, the second section presents information about subject expression in creole languages, the current sociolinguistic situation of Palenquero, and background information regarding the acquisition of null subjects in a second language. Section 3 introduces the methodology applied in this study. Section 4 presents the results of the two tasks implemented, along with the results, and other details

¹ In fact, several decades ago, Bickerton and Escalante (1970: 263) warned the academic community about the strong influence of Spanish on Palenquero as a cause of a possible disappearance of the language.

² Creole languages are generally characterized by the absence of gender agreement. However, one of the recent deviations by young speakers of Palenquero documented by Lipski (2014a:199) is gender agreement with feminine words that are cognates in Spanish (e.g. *Kusa tá buena!* 'Everything is good!').

of the present study. Subsequently, section 5 develops a discussion for the results of both tasks and their implications in light of linguistic theory. Finally, the last section ends with the conclusions.

2. LITERATURE REVIEW

2.1 Null subjects and Palenquero

The study of null subject languages in comparison to non-pro-drop languages (i.e. languages that require the presence of overt subjects) has been a matter of intense study for several decades. The common assumption that languages with rich morphological paradigms allow the use of null subjects has been promoted by various authors (Rohrbacher, 1999; Rizzi, 1982, 2005). Jaeggli and Safir (1989:38) suggest that the paradigms that permit null subjects are those that are considered as uniform. According to them, *uniformity* means that all the members of the paradigm are complex or none of them are. Their account deals with cases like Chinese, in which verbs do not inflect for person or number, thus the verbal paradigm is uniform.

Similar to Chinese, creole languages could qualify under the principle of uniformity due to their invariant verb systems. However, creoles languages are generally characterized by the presence of overt subjects, and often by a relatively fixed word-order (most commonly SVO; Velupillai, 2015; Winford, 2008 for Atlantic Creoles). An exception has been documented by Lipski (1994) concerning the Zamboangueno creole spoken in the Philippines. In this particular language (with normally VSO word order), null subjects often occur in response to questions.

The Zamboangueno creole language shares many characteristics with Palenquero because both languages have been lexified by Spanish. However, due to the influence of their substrates, both languages also maintain differences regarding their vocabulary, grammar, and phonology. To date, it is not clear whether in Palenquero null subjects are equally used as in the Zamboangueno creole³.

³ The exceptions are expletive constructions and weather predicates in Palenquero (e.g. A ten un chochá ri hende. 'There are many people. '; Tá kupi! 'it is raining slowly!') in which null subjects are not only allowed, but obligatory.

Due to the revitalization process that Palenquero is undergoing at present, the language presents variation and innovations. For instance, the plural marker *ma* is currently being used by young L2 learners of Palenquero to refer to singular referents (Lipski, 2014a), and the extension of the preposition *andi* originally used to mean "in the house of" is now covering an ample series of places as a 'portmanteau preposition' (Lipski, 2014b). It remains uncertain whether due to the strong influence of Spanish young speakers use null subjects in their communication as a transfer strategy.

Subject pronouns in Palenquero are genderless (Schwegler and Green, 2007). The verbal endings are the same for each grammatical person (an exception is the occasional incursion of the *-mo* ending for the second plural person from Spanish as documented by Lipski, 2013: 16). As a result, the omission of subjects in production may affect comprehension due to the ambiguity of the information provided when the referent is not available. The present study aims to investigate whether null subjects are permitted in Palenquero, and whether null subject patterns can differentiate younger from older speakers. The fact that the language is not being acquired by younger speakers as a native language, but rather as a second language raises a question regarding the effect of Spanish as a null subject language over Palenquero, an overt subject language.

2.2 Second Language acquisition of null subjects

It is clear from the literature of the acquisition of null subjects that this is a complex process. Evidence demonstrates that learners of Spanish as an L2 reach mastery in the syntactic environments that allow null subjects; however, they do not reach native-like attainment of the same type of subjects due to persistent difficulties to integrate the pragmatic knowledge that licenses their use (Hyams et al., 2015: 363). These difficulties have been identified even for advanced learners of a null subject language like Spanish who keep on having difficulties with the use of null subjects (Pladevall Ballester et al., 2013; Clemments and Domínguez, 2017).

It has also been suggested that even at almost near-native levels, learners of a null subject language are affected by the computations of the first language on subject marking (Al-Kasey and Pérez-Leroux, 1998;

Beletti et al., 2007)⁴. Although improvement has been documented after intervention, research on the topic also suggests that the level of exposure in naturalistic situations seems to not be beneficial to the acquisition of null subjects (Rothman and Iverson, 2007). The evidence generally is in favor of the difficulty to reset the null subject parameter by adolescents and adult learners of a null subject language.

On the other hand, it is not completely clear how the influence of a null subject language affects the learning of a language that does not allow null subjects. After reviewing the findings of studies with native speakers of Spanish learning English as a second language, Hyams et al. (2015: 363) argued that the fact that the results from production and comprehension tasks differ from each other might have been due to the processing difficulties that learners face at initial stages instead of the knowledge that participants had about the use of non-null subjects in English. Their comparison of studies which included native speakers of Spanish and native speakers of French (a non-null subject language), revealed that the first group uses more null subjects in English (their second language) than the second group. This difference is predicted by a transfer account (363), which suggests that the use of null subjects may be transferred from Spanish to English.

Apart from studies focused on speakers of Spanish as a null subject language learning English as a language, research has also been extended to speakers of Turkish, another language that allows null subjects. In this direction, the results of a study implemented by Kuru Gönen (2010) demonstrated that at initial stages Turkish learners of English are very prone to transfer the properties associated with the null subject parameter from their native to their second language (i.e. absence of expletives, subject verb inversion and use of null subjects). However, at higher levels of English, Turkish learners of English showed improvement on the use of overt subjects (and the other properties related to the parameter), although difficulties were still present.

⁴ Computations refer to the mental operations that speakers of a language implement when dealing with syntactic, morphological, semantic, or pragmatic information (etc.) related to the use of specific grammatical elements (e.g. null or overt subjects in some null subject languages, as in Spanish, are restricted to the combination of syntactic and pragmatic information).

In general, evidence suggests that mastering the requirement of overt subjects of a language such as English by speakers of a null-subject language (such as Spanish or French) does not seem to pose the same degree of difficulties in comparison to mastering the null subjects of a language such as Spanish by native speakers of a non-null-subject language (such as English). Although the advanced learners of English in Kuru Gönen's study (2010) continued to show difficulties⁵, the author claims that the setting of the parameter continues to take place during the learning of English. In comparison to this, following the opposite direction seems to be more difficult (from a non-null-subject language to a null-subject language), especially when the allowance of a null subject draws on the syntactic-pragmatic interface (see Serratrice et al, 2004 for a discussion on the interfaces and their effect on the acquisition of a second language).

In the case of Palenquero, the situation may be more complicated due to the fact that it shares most of its vocabulary with Spanish, a null subject language. In addition, most of its new learners learn it as a second language later in school, in which they receive instruction in the language for only a few hours per week (less than 3 hours per week), but they do not receive explicit instruction in the grammar of the creole language. In line with this situation, the following questions guide this research project:

1. Are referential null subjects permitted in Palenquero (apart from expletive constructions and weather predicates)? If they are, in which contexts are they allowed?
2. Do null subject usage rates differentiate younger from traditional speakers of Palenquero?
3. Are there any specific causes that could account for the use of null subjects in this creole language?

Given the variation found in current Palenquero, it is expected that at least some referential null subjects are used by its speakers. It is also expected that their appearance is more common in coreferential clauses because the referent could be easily recoverable from the matrix clause. In comparison to adults, it is

⁵ To my knowledge, the same difficulties have not been reported for native speakers of Spanish learning English as a second language.

expected that younger speakers use more null subjects. The rationale has to do with the lack of experience with the language. Finally, given the contrastive role of overt subjects, it is expected that their appearance in subordinate clauses would be more frequent in non-coreferential contexts.

3. METHODOLOGY

This section contains information about two tasks implemented to investigate whether null subjects are permitted in Palenquero, and whether usage patterns can differentiate between young and adult speakers. Each subsection describes the participants, stimuli, procedure, and analysis related to each task.

3.1 Experiment 1: Translation Task

3.1.1 Participants

A total of 40 speakers of Palenquero participated in this experiment. Participants were classified in two groups according to their age. The group of adult speakers was composed of 25 participants; whereas the group of young speakers was made of 15 participants. The cut-line for age was set at 22 years since this coincides with the responsibilities they have in the community, and the relation they have with the local school as students or recent ex-

students. Participants of ages between 18-22 have recently finished the school and in terms of use of the language, they pattern more with those who are still attending the school. In terms of social networks, they tend to be closer to those still in school.

3.1.2 Stimuli

The stimuli included 6 conditions which are shown in table 1. The first two conditions focus on simple sentences in Spanish. The first one has a null subject; whereas the second one has an overt subject. Conditions 3-6 focus especially on complex sentences with subordinate clauses. Thus, conditions 3 and 4 have coreferential subjects; however, they differ because the third one includes an overt subject in the matrix and a null subject in the subordinate clause; whereas in the fourth one both subjects are null. Conditions 5 and 6 contain non-referential subjects. Condition 5 has an overt subject in the matrix clause and a null subject in the subordinate clause; whereas condition 6 has null subjects in both, the matrix and subordinate clauses. Each condition contains 10 sentences which vary according to the subject pronoun. 9 fillers were added. The sentences were randomized.

Table 1. Translation conditions

Condition	Type of stimuli
1	Simple sentence with null subject
2	Simple sentence with overt subject
3	Complex sentence with coreferential subject pronouns -- Overt subject in the main clause and null subject in the subordinate clause
4	Complex sentence with coreferential null subjects -- Null subjects in the main and subordinate clauses
5	Complex sentence with non-coreferential subject pronouns -- Overt subjects in the main and subordinate clauses
6	Complex sentence with non-coreferential null subjects -- Null subjects in the main and subordinate clauses

3.1.3 Procedure

Participants sat in front of a computer and listened to

stimuli over headphones. They heard a recorded sentence in Spanish and translated it into Palenquero.

Answers were recorded using a Marantz Recorder (Model PMD660 44,000Hz) for a subsequent transcription. The session lasted about 25 minutes.

3.1.4 Analysis

For the analysis, incomplete and wrong answers were excluded (e.g. if the participant changed the meaning or the structure of the sentence). Responses were transcribed and coded as null or overt subjects. A series of mixed-effects models based on the responses with group and conditions as predictors, and participant and trial as random intercepts were compared in order to select the models that best accounted for the interaction of factors. Section 4.1 gives detailed information about the results.

3.2 Experiment 2: Repetition Task

3.2.1 Participants

Experiment two included 30 participants. All of them had already participated in experiment 1 before. Following the same criterion of classification as in experiment one, 20 participants were grouped as

adult speakers, and 10 as young speakers.

3.2.2 Stimuli

The stimuli included 5 conditions which are shown in table 2. As in experiment 1, the first two conditions focus on simple sentences. In condition 1 sentences have null subjects and in condition 2 they have overt subjects. Conditions 3-5 focus especially on complex sentences. Similar to experiment 1, conditions vary regarding the presence of an overt or a null subject. However, this time, no complex sentences with null subjects in the matrix clause were included. Instead, two types of coreferential complex sentences were included. In one of them the subject of the subordinate clause was null; whereas in the other, the subject of the subordinate clause was overt. This subtle difference was added with the intention of capturing personal variation in the subordinate clauses. Each condition contained 5 sentences which varied according to the subject pronoun. 9 fillers were added. The sentences were randomized. Subsequently, the stimuli were presented by using the program Psychopy (Pierce, 2007).

Table 2. Repetition conditions

Condition	type of stimuli
1	Simple sentence with a null subject
2	Simple sentence with overt subject
3	Complex sentence with coreferential subject pronouns -- Overt subject in the main clause and null subject in the subordinate clause
4	Complex sentence with coreferential subject pronouns -- Overt subjects in the main and subordinate clauses
5	Complex sentence with non-coreferential subject pronouns -- Overt subjects in the main and subordinate clauses

3.2.3 Procedure

Participants sat in front of a computer and listened over headphones. They heard a recorded sentence in Palenquero and had to remember it. Subsequently they watched a brief video clip with animated

characters (e.g. Spiderman, Loony Toons, and Tom and Jerry). After the video, participants were given 10 seconds to describe it in their own words. Subsequently, they were asked to repeat the stimulus sentence exactly as they had heard it. Participants

manually advanced to the next stimulus by clicking on the space bar.

3.2.3 Analysis

Similar to experiment 1, incomplete and wrong answers were excluded from the analysis (e.g. if the participant changed the meaning or the structure of the sentence). Besides that, one of the participants pertaining to the group of traditional speakers was excluded due to not following the instructions. Responses were transcribed and coded as null or overt subjects. Again, a series of mixed-effects models drawing on the responses, and taking speaker's group and conditions as predictors, and participants and trials as random intercepts were compared in order to select the models that best accounted for the interaction of factors in the

experiment. Results are presented in section 4.2.

4. RESULTS AND DISCUSSION

4.1 Results of experiment 1- Translation task

A mixed-effects model was fitted in R (R Development Core Team, 2008). P-values were estimated using the Car package (Douglas et al., 2015). The model contained null vs. overt subjects as the response variable, and speaker's group and condition as predictors (also participant and item as random intercepts). A likelihood comparison with the null model (no fixed effects) showed that the full model accounted for a significantly greater amount of variance ($\chi^2= 30.2$; $p= <000.1$). The comparison, showed in table 3, revealed differences between both groups of speakers, and between conditions.

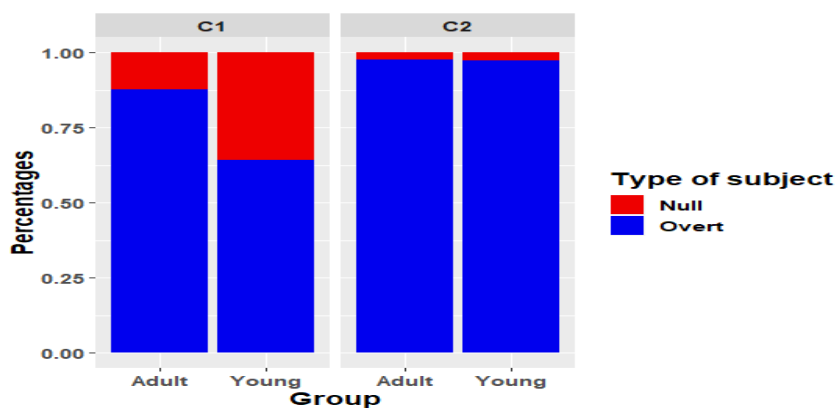
Table 3. Translation task- Conditions 1 and 2

	R2	Est.	SE	z-value	B 95% CIs	p
Intercept		2.60	0.47	5.47	1.72 3.65	< 0.001
Younger Speakers		-1.50	0.59	-2.51	-2.76 -0.30	0.011
Condition2		2.94	0.50	5.82	1.99 4.06	< 0.001
	0.31					

Figure 1 shows how after hearing a simple sentence with a null subject in condition 1, both groups of speakers sometimes translate the same sentence including a null subject. In the same figure a difference between both groups of speakers is noticeable. Specifically, the group of younger speakers shows a bigger use of null subjects. A

posterior T-test revealed that, in fact, this difference is significant ($p < .001$). On the other hand, the graph shows that in the results for the second condition there is a residual use of null subjects when participants heard a simple sentence with an overt subject. However, the difference is not significant between them ($p = 0.40$).

Figure 1. Translation task-Comparison of simple sentences



Another mixed-effects model, following the same steps as the previous one, and including all the complex sentences from conditions 3-6 was fitted to analyze the results. Again, they drew on null vs. overt subjects as the response variable and speaker's group and condition as predictors (also participant Table 4. Translation-Conditions 3-6

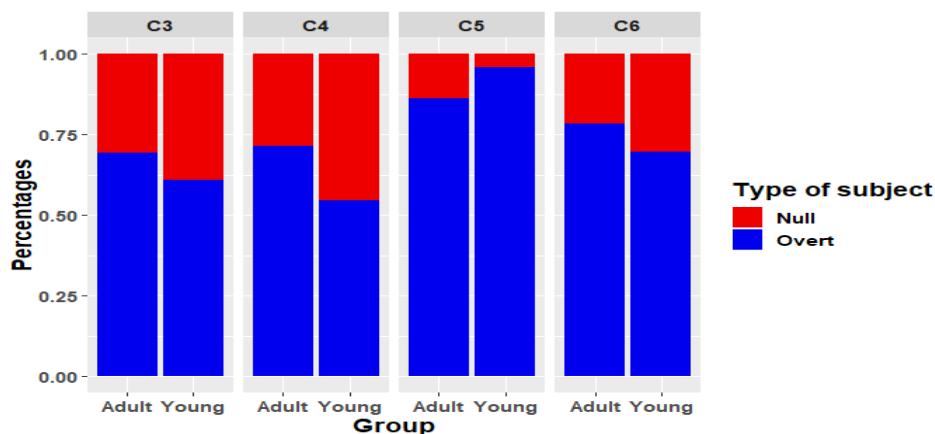
and item as random variables). A likelihood comparison with the null model (no fixed effects) showed that the full model accounted for a significantly greater amount of the variance ($\chi^2=44.9$; $p < .001$). Crucially, table 4 presents the interactions of the factors in this model.

	R2	Est.	SE	z-value	B 95% CIs	p
Intercept		1.08	0.34	3.12	0.39 1.80	0.001
Younger Speakers		-0.34	0.50	-0.68	-1.38 0.67	0.49
Condition 4		-0.02	0.23	-0.12	-0.51 0.45	0.90
Condition 5		2.03	0.28	7.24	1.48 2.63	< 0.001
Condition 6		0.48	0.24	1.96	--0.01 0.99	0.04
	0.12					

The table reveals that condition 5 showed the strongest effect among all the conditions ($p = 0.001$). Figure 2 shows that among the conditions, in number 5 (non-coreferential with overt in the main and the subordinate clause) participants used fewer null

subjects. Nonetheless, a T-test revealed that the difference between groups was marginal ($p= 0.05$). No other difference between groups of conditions was significant.

Figure 2. Translation task -Conditions 3-6



In summary, the translation tasks revealed that in all the conditions, including simple sentences and complex sentences, young and adult speakers of Palenquero used at least some null subjects. The strongest results were observed when both groups of speakers had to translate a simple sentence with a null subject. For the same type of sentence, younger speakers were more prone to use null subjects than their adult counterpart. Another difference was found for complex non-coreferential sentences when the subject was overt in the main and subordinate clauses (condition 5). The lesser use of null subjects in this condition may be seen as a strategy to avoid providing vague information when two different

subjects are implied.

4.2 Results of experiment 2-Repetition Task

In order to analyze the results from the repetition task, a mixed-effects model, following the same steps as the previous ones, and including the sentences from conditions 1 and 2, was fitted to analyze the results. It took null vs. overt subjects as the response variable and speaker's group and condition as predictors (also participant and item as random intercepts). A likelihood comparison with the null model demonstrated that the full model accounted for a significantly greater amount of the variance ($\chi^2=17.1$; $p < 0.001$). Table 5 presents the interaction of the aforementioned factors.

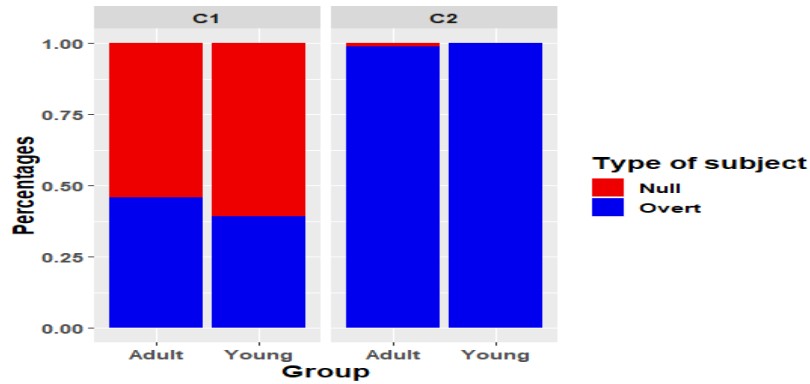
Table 5. Repetition- Conditions 1 and 2

	R2	Est.	SE	z-value	B 95% CIs	p
Intercept		-0.27	0.60	-0.45	-1.70 1.11	0.6
Younger Speakers		-0.27	0.50	-0.54	-1.35 0.77	0.5
Condition2		5.9	1.39	4.26	3.62 9.63	< 0.001
	0.58					

In the table, it can be seen that only the interaction between conditions was significant. Specifically, Figure 3 shows that when participants are presented with a simple sentence containing a null subject both groups reproduced some of the sentences with the same subjects. However, younger speakers tend to

reproduce more null subjects in comparison to adults, although the difference is not significant ($p = 0.13$). In general, the use of null subjects is smaller than the use of overt subjects for both groups. No significant difference between groups was found ($p = 0.16$ for condition 2).

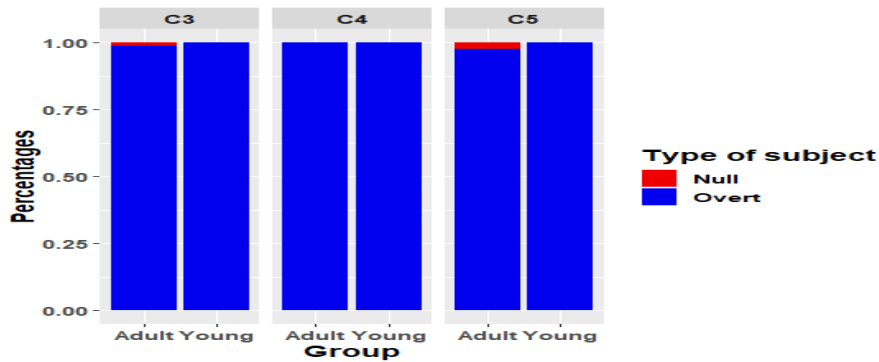
Figure 3. Repetition task-Comparison of simple sentences



Regarding conditions 3-5, a mixed-effects model, following the same steps as the previous ones demonstrated that the comparison between the full and the null models did not account for significantly more of the variance ($\chi^2 = 2.0$; $p = 0.5$). However,

cases of use of null subjects were occasionally observed among adult speakers in main clauses for conditions 3 (coreferential over subject in main and null in subordinate clauses) and 5 (non-coreferential overt subjects in matrix and subordinate clauses) as seen in figure 4.

Figure 4. Repetition Task- Conditions 3-5



A closer look at participants' responses in conditions 3 and 4, both with coreferential subjects including an overt one in the matrix clause but differentiating themselves in the inclusion of a null or overt subject in the subordinate clause revealed that, regardless of the group, the use of one type of subject or the other

seems to be a personal choice.

In summary, experiment 2 revealed that both groups of speakers were susceptible to priming when they heard a simple sentence with a null subject, but not when hearing a sentence with an overt subject. By the

inclusion of complex coreferential sentences that differed only in the type of subject in the subordinate clause (overt or null in conditions 3 and 4), the design of the experiment allows us to appreciate that the choice of subject type seems to depend exclusively on personal-style preferences.

4.3 General Discussion

The present study aimed to investigate whether null subjects are permitted in Palenquero, and whether usage patterns can differentiate between young and adult speakers. Two tasks including young and adult bilingual speakers of Spanish-Palenquero were implemented to pursue that goal. The first task consisted of a translation from Spanish to Palenquero. The second task involved repeating sentences in Palenquero while participants' working memory was loaded with a video. Altogether, both tasks provided insight regarding the questions that led the study.

The first question was about whether null subjects are permitted in Palenquero (apart from expletive constructions and weather predicates), and the contexts in which they are allowed. In response to that question, both experiments demonstrated that null subjects are susceptible to priming, whether given in Palenquero (as in the repetition task) or in Spanish (as in the translation task). The appearance of null subjects went further, and they were also present in simple sentences when an overt subject was primed in Spanish (in the translation task) or in Palenquero (in the repetition task). The fact that not only young speakers of Palenquero, but also adult speakers of the language made use of at least some referential null subjects indicates that they are minimally allowed in the language.

Another important finding was that in cases when participants were prompted with non-coreferential subjects, they diminished the use of null subjects, possibly as a strategy to minimize vagueness of information. This finding also suggest that the use of null subjects might have to do with the recovery of the referent; when competing subjects are in play, avoidance of null subjects is the best option. Thus, avoidance of null subjects when dealing with non-coreferential subjects may constitute a communicative strategy that bilingual speakers of Spanish-Palenquero implement to facilitate communication.

In addition, the results of the repetition task provided evidence that the selection of a null or overt subject in a subordinate coreferential clause is a personal stylistic choice that seems to have no correlation with the age of participants. The fact that the subject of the subordinate clause is the same as the subject of the main clause makes the former an optimal candidate to be omitted without affecting the comprehension of the whole sentence. The fact that the choice of an overt or null subject in the subordinate clause has no relation with age or sex (and in some cases not even with a particular speaker since some of them use both variants) suggests that neither of the variants has an overt prestige in the community.

Question 2 asked whether the use of null subjects differentiates young and traditional speakers of Palenquero. In regard to this question, the results demonstrated that in contexts where participants dealt with a simple sentence that had a null subject, younger speakers are more susceptible to priming than adult speakers. This finding corroborates the analysis of the mismatch between young and adult speakers due to the language revitalization scenario that the community is facing (Lipski, 2014b). It is precisely this changing situation which allows for more possible changes in the language. Only the future will reveal the direction in which null and overt subjects move in Palenquero.

In regard to question 3, about possible causes that could account for the use of null subjects in this creole language, some causes could be proposed as possible triggers for the appearance of null subjects. One of them has to do with the fact that the infinitive form for verbs in this language resembles the imperative form⁶. For instance, *kumé* (to eat) and *Bo kumé* (you eat) differentiate only in the presence of the overt subject. This explains why speakers reproduced a sentence with a null subject especially in condition one (simple sentence with null subject). A few instances of null subjects were produced by Palenquero speakers, especially in contexts where the imperative form may be confused with the infinitive form.

Another possible factor has to do with learning Palenquero as a second language. Research on the

⁶ However, the form *Bo ten ke...* (literally, you have to ...) seems to be the most frequent variant for imperatives.

acquisition of English as a non-null-subject language by speakers of Turkish, a language that allows null-subjects, has demonstrated that at initial stages learners of English employ and accept null subjects as in Turkish (Kuru Gönen, 2010). It is also possible that due to the strong influence that Spanish exerts on the Palenquero community (e.g. in daily life, on television, in music and by the interaction with visitors), the transfer of null subjects from Spanish to Palenquero persists at initial stages of the acquisition of the language.

Evidence also suggests that fully suppressing the elements responsible for gender agreement in Spanish (a morphologically rich language) when interacting with a language with invariant verbal forms such as Palenquero, is a difficult task (Lipski, 2014c), especially for new learners of the language. However, the influence of Spanish may not only be restricted to learners who are at initial stages in the acquisition of Palenquero. It is also possible that due to the persistent and strong exposure to Spanish, in comparison to their exposure to their second language, many bilingual members of the community who belong to the fluent traditional group of speakers may be more prone to transfer grammatical elements from Spanish to Palenquero.

It is unknown the extent to which the rich morphology of Spanish affects the computations of a language like Palenquero, and how possible it is that the computations derived from the morphology of Spanish directly or indirectly affect the status of null and overt subjects in Palenquero. Future research may shed light on that issue. Similarly, future research could also extend to other grammatical features related to the null subject parameter such as post-verbal subjects (as in Kuru Gönen, 2010).

One limitation of this study is that due to the nature of the tasks, it is not possible to make conclusions about contextual information that may favor the appearance of null subjects. This issue could be addressed by the implementation of a corpus study which may control for other factors related to previous reference, and other contextual information. Besides that, due to the nature of the task, it is not possible to know whether, similar to the Zamboanguense creole, speakers of Palenquero may also employ null subjects when answering direct questions. That comparison could be explored

through other experimental tasks.

5. CONCLUSION

The results of the present research demonstrated that in Palenquero null subjects are minimally allowed, especially under conditions of priming from Spanish, a null-subject language. The confusion of imperative and “finite” verb forms as well as the acquisition of the creole language as a second language without formal grammatical instruction constitute other sources of null subjects in the language. The tasks implemented in the present study showed that the use of null subjects in Palenquero is not only restricted to young speakers, but also occurs to a lesser extent in adult speakers. The process of revitalization of this creole language, the characteristics of its contact with Spanish (including both: typological similarities and differences), and the way as it is taught in school without formal grammatical instruction contribute to the creation of an atypical setting to study in depth the strategies implemented by the bilingual subjects.

ACKNOWLEDGEMENT

I would like to thank Professors John Lipski, Marianne Dieck, and my colleague Trevor Bero for their insightful comments and support. I would also thank all the participants from the Palenquero community who joyfully participated in the study. All the remaining shortcomings are entirely mine. The collection of the data was possible due to the Grant: PIRE 2, OISE-1545900, *Translating Cognitive and Brain Science Research to the Field and Educational Settings*, awarded by the National Science Foundation and the School of Liberal Arts at the Pennsylvania State University.

REFERENCES

- [1] Al-Kasey, T and Pérez-Leroux, A. T. (1998). Second language acquisition of Spanish null subjects. In S. Flynn, G. Martohardjono and W. O’Neil (eds.), *The generative study of second language acquisition*, 161-186. Hillsdale, NJ: Lawrence Erlbaum.
- [2] Bates D., Maechler M., Bolker B., and Walker, S. (2015). Fitting linear mixed-effects models using lme4. *In Journal of Statistical Software*, 67(1), 1-48.
- [3] Belletti A., Bennati E., and Sorace A. (2007). Theoretical and developmental issues in the

- syntax of subjects: Evidence of Near-Native Italian. *Natural Language & Linguistic Theory*, 25, 657-689.
- [4] Bickerton, D. and Escalante, A. (1970). Palenquero: A Spanish-based creole of northern Colombia. *Lingua*, 24, 254-267.
- [5] Clements, M. and Domínguez, L. (2017). Reexamining the acquisition of null subject pronouns in a second language. *Linguistic Approaches to Bilingualism*, 7(1), 33-62.
- [6] Bates D., Maechler M., Bolker B, and Walker S. (2015). Fitting Linear Mixed-Effects Models Using lme4. *Journal of Statistical Software*, 67 (1), 1-48.
- [7] Fox, J. and Weisberg, S. (2011). *An {R} companion to applied regression*. Second Edition. Thousand Oaks CA: Sage. <http://socserv.socsci.mcmaster.ca/jfox/Books/Companion>. (Accessed July 11, 2018).
- [8] Hyams N., Mateu V., Orfitelli R., Putnam M., Rothman J., and Sánchez L. (2015). Parameters in language acquisition and language contact. In A. Fábregas, J. Mateu, and M. Putnam (eds.), *Contemporary linguistic parameters*, 353-373. Bloomsbury: Bloomsbury Publishing Plc.
- [9] Jaeggli, O. and Safir, K. J. (1989). The null subject parameter and parametric theory. In O. Jaeggli and K. J. Safir (eds.), *The Null Subject Parameter*, 1-44. Dordrecht: Kluwer Academic Publishers.
- [10] Kuru Gönen S. İ. (2010). *Pro-Drop Parameter and L1 Transfer: A study on Turkish speakers of English*. <http://dergipark.gov.tr/download/article-file/181727> (accessed July 11, 2018).
- [11] Lipski, J. (1996). *The evolution of nulls subjects in Philippine creole Spanish*. In 1994 Mid-America, Linguistics Conference Papers, Vol. II, 387-401. Lawrence, Kansas: University of Kansas Linguistics Department.
- [12] Lipski, J. (2013). Mapping the psycholinguistic boundaries between Spanish and Palenquero. *PAPIA*, 23 (1), 7-38.
- [13] Lipski, J. (2014a). La lengua palenquera juvenil: contacto y conflicto de estructuras gramaticales. *Universos* 11, 191-207.
- [14] Lipski, J. (2014b). The “new” Palenquero: Revitalization and re-creolization. In R. J. File-Muriel and R. Orozco (eds.), *Colombian Varieties of Spanish*, 21-41. Madrid: Lingüística Iberoamericana.
- [15] Lipski, J. (2014c). From ‘more’ to ‘less’: Spanish, Palenquero (Afro-Colombian creole) and gender agreement. *Language, Cognition and Neuroscience*, 30 (9), 1144-1155.
- [16] Pérez Tejedor, J. P. (2008). The role of the Palenque language in the transmission of Afro-Palenquero cultural heritage. *Museum International*, 60 (3), 71-79
- [17] Pierce, J. W. (2007). PsychoPy - Psychophysics software in python. *Neuroscience Methods*, 162 (1-2), 8-13.
- [18] Pladevall Ballester, E. (2013). Adult L2 Spanish development of syntactic and discourse subject properties in an instructional setting. *Revista Electrónica de Lingüística Aplicada*, 12, 111- 129.
- [19] R Development Core Team. (2008). R: A language and environment for statistical computing. *R Foundation for Statistical Computing*, Vienna: Austria. ISBN 3-900051-07-0, URL <http://www.R-project.org>.
- [20] Rizzi, L. (1982). *Issues in Italian syntax*. Dordrecht: Foris.
- [21] Rizzi, L. (2005). *Grammaticality-based target inconsistencies in child language*. In K. U. Deen, B. Schulz & B. D. Schwartz (eds.), Proceedings of the Inaugural Conference of GALANA. UCONN/MIT Working Papers in Linguistics, 19-49. Cambridge, MA.
- [22] Rohrbacher, B. W. (1999). *Morphology-driven syntax: A theory of V to I raising and prodrop*. John Benjamins, Amsterdam/Philadelphia.
- [23] Rothman, J. and Iverson, M. (2007). The syntax of null subjects in L2 Spanish: Comparing two L2 populations under different exposure. *Resla*, 20, 185-214.
- [24] Schwegler, A. and Green, K. (2007). Palenquero (Creole Spanish). In John Holm and Peter L. Patrick (eds.), *Comparative Creole Syntax*, 273-306. Plymouth: Battlebridge Publications.
- [25] Serratrice L., Sorace A., and Paoli S. (2004). Crosslinguistic influence at the syntax-pragmatics interface: Subjects and objects in English-Italian bilingual and monolingual acquisition. In *Bilingualism: Language and*

- [26] *Cognition*, 7 (3), 183–205.
Velupillai, V. (2015). *Pidgins creoles and mixed languages: An Introduction*. Amsterdam: John Benjamins Publishing Company.
- [27] Windford, D. (2008). Atlantic creole syntax. In S. Kouwenberg and J. V. Singler (eds.), *The Handbook of Pidgin and Creole Studies*, 19-47. West Sussex: Wiley-Blackwell