Spanish Accusative Clitics:
Latino Dual Language Learners in an English Environment

by

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ABSTRACT

Spanish-speaking (SS) dual language learners (DLLs) have shown differential developmental profiles of the native language (L1). The current study examined whether or not the Spanish acquisition profile, specifically accusative clitics, in predominantly SS, Latino children continues to develop in an English-language contact situation. This study examined (1) accuracy rates of clitic production, total substitutions, and total omissions across 5-, 6-, and 7-year-olds; (2) accuracy rates of clitic production, total substitutions, and total omissions across low and high English proficiency groups; and (3) whether or not there was a trend to use the default clitic lo in inappropriate contexts. Seventy-four SS children aged 5;1 to 7;11 participated in a clitic elicitation task. Results indicated non-significant effects of age and proficiency level on the accuracy of clitic production. These results suggest dual language learners are in an environment that does not foster the maintenance of the L1, at least in the accuracy of accusative clitic pronouns.

Keywords: dual language learners, language contact, Spanish, accusative clitics
I would like to thank my parents for valuing my happiness and education above all else. Also, thank you for Toby.
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**Introduction**

Spanish grammatical development in native Spanish-speaking (SS) children in the United States, who are inevitably exposed to English, is not comparable to the Spanish language skills of children acquiring Spanish in a monolingual environment (Anderson, 1999a; Restrepo et al., 2010; Guiberson, Barrett, Jancosek, & Itano, 2006). A likely outcome of early childhood bilingualism is that monolingual norms that have been previously documented will not match the developmental trajectory of these dual language learners (Gutiérrez-Clellen et al., 2000). Early Spanish-English (SE) dual language learners (DLL) are a very heterogeneous group of speakers whose developmental trajectory in either of their two languages are unique: there may be evidence of an incomplete or an evolving grammatical system, or one that is shifting dominance to the majority language (Guiberson et al., 2006; Gutiérrez-Clellen et al., 2000; Restrepo et al., 2010). The purpose of the current study is to examine whether or not the Spanish acquisition profile, specifically accusative clitics, in predominantly SS, Latino children continues to develop in an English-language contact situation in the Phoenix, Arizona metropolitan area. The study of minority native language (L1)-majority second language (L2) contact is of important theoretical and practical interest in the United States because the population of students affected by this will eventually learn English in an English-only educational context. The minority language is defined as a language in which there are fewer opportunities to develop the language, and there is less social value associated with learning the language (Kohnert, 2010). The largest
percentage of DLLs in the United States is Latino from Spanish-speaking homes (U.S. Department of Education, 2010). These children are in a sociolinguistic situation that has been shown to contribute to changes in the grammatical development of the minority L1—in this case, Spanish (Anderson, 1999a; 1999b; 2001; Gutiérrez-Clellen et al., 2000; Montrul & Potowski, 2007; Montrul, 2008, pp. 93-129). In some educational contexts in the United States, SE DLLs are in a linguistic environment that does not foster maintenance of the minority L1, and there may be evidence of a slower rate of development of expressive grammatical skills and lexical acquisition in these children (Anderson, 1999a; Anderson & Márquez, 2009; Gutiérrez-Clellen et al., 2000; Restrepo et al., 2010). For example, this population of speakers may show noun phrase gender agreement substitutions, such as use of the default masculine article form for both feminine and masculine grammatical gender nouns, which is not seen in monolingual SS past a certain developmental period (Anderson, 1999b).

Clinicians and educators would benefit from developmental information in this population of students because they need to make mindful decisions about what is considered typical and atypical linguistic development in this population of speakers (Anderson, 1999a; Guiberson et al., 2006; Kohnert, 2010; Restrepo et al., 2010; Schiff-Myers, 1992). Differences in the linguistic profiles of these children could be confounded with symptoms or characteristics of language impairment (Guiberson et al., 2006). This complicates issues of proper placement in special services because educators and clinicians must then separate a true language disorder from grammatical patterns that are, in fact, typical of children
in this particular linguistic situation (Anderson, 1999a; Schiff-Myers, 1992). For example, Morgan, Restrepo, and Auza (2009) found that the production of accusative clitics is a particular challenge in Spanish language impairment (LI). Since there are overlapping grammatical characteristics between DLLs and monolingual children that have a language disorder, more data is needed to extrapolate any similarities and differences between the patterns found (Paradis, 2005). With the number of children from Spanish backgrounds quickly growing in the United States, it is important to investigate how their Spanish develops as a minority language, and whether or not Spanish confined to the home environment is sufficient linguistic stimulation to develop Spanish.

**Definition of Bilingualism**

*Sequential bilingualism* is when children learn an L1 initially and then are exposed to the L2 later in childhood, usually before adolescence (Kohnert, 2010). However, sequential bilingualism is difficult to define in research because the age of first exposure to the L2 is often the variable point across studies (Gathercole & Thomas, 2009; Montrul, 2008; Montrul & Potowski, 2007; Perez-Leroux et al., 2011). For example, Guiberson et al. (2006) define sequential bilingualism as the exposure to an L2 after the L1 has been developed; Montrul (2008) defines it as the exposure to the second language after age three; and Schiff-Myers (1992) describes it as the exposure to an L2 outside of the monolingual home environment. Further, there is no clear consensus on the definite role of age of first exposure to the L2, nor the specific conditions—linguistic partners, media, and so on—that affect the language proficiencies and
the shift of dominance of early dual language learners (Gathercole & Thomas, 2009; Gutiérrez-Clellen & Kreiter, 2003). Therefore, the term DLLs is used in the context to describe children who are still developing both languages, with the L2 started later than the L1. Further, DLLs in language minority contexts have English contact possibly from birth—whether through media, peers, older siblings, or other outlets.

The growing body of research regarding DLLs has shown that growing up with two languages affects the linguistic acquisition profiles of the two languages (Gathercole & Thomas, 2009). Their exposure and experience with each language is reduced in some manner, compared to monolingual children who receive sufficient exposure to attain full linguistic development in the language (Montrul, 2008). Montrul (2008) noted that the major difference between monolingual acquisition and bilingual acquisition is the potential outcome of acquisition. Many DLLs will show evidence of a weaker language (Guiberson et al, 2006; Restrepo et al, 2010), and language dominance can and likely will shift in the course of development, which is strongly related to L1 and L2 input and use (Kohnert & Bates, 2002; Guiberson et al., 2006; Gutiérrez-Clellen et al., 2000; Rothman, 2009; Silva-Corválan, 1990). These shifts in dominance will likely result in a differential developmental profile of the L1, which needs to be investigated further.

**Minority-Majority language contact situation**

Contact situations have resulted in bidirectional transfer: the knowledge of one system (e.g. the L1) has the potential to influence the structure of another
(e.g. the L2), and prolonged use and exposure of the L2 can result in the structural modification of the L1 (Jacobson, 2012; Montrul, 2008). Whether or not it is referred to as incomplete acquisition, arrested development, attrition, or loss, previous work on early dual language learners, specifically SS learning English as an L2, has shown a unique grammatical profile, which is distinct from a complete L1 grammatical system that is developed in a monolingual situation (Anderson, 1999a; Guiberson et al., 2006; Jacobson, 2010; Kohnert, 2010; Schiff-Myers, 1992).

Spanish-speaking children that are in a language contact situation with English have quantitative and qualitative differences in the age of exposure to English, the amount of input and output of Spanish and English, the influence of society and the majority language, and the access to education and literacy in their L1 (Anderson, 1999b; Anderson & Marquez, 2009; Guiberson et al., 2006; Gutiérrez-Clellen et al., 2000; Rothman, 2009; Silva-Corvalán, 2007). Studies have shown that, with the child’s increased exposure to the majority L2, sometime in the elementary school years, there is a shift to greater proficiency in the majority L2 (Kohnert, 2010; Kohnert & Bates, 2002). Since these children are attempting to learn a L2 while their L1 is still developing, it may be the case that they will experience what Lambert (1981) refers to as subtractive bilingualism.

Subtractive bilingualism occurs when the minority L1 language of immigrant children or adults is lost, or subtracted, in the process of becoming linguistically assimilated into the majority L2 language. This shift comes along with the “slowing” or “regression” of the L1, which is a result of the asymmetric
demand for the two languages (Kohnert, 2010, pp. 459). Lambert (1981) and Lambert and Taylor (1996) attribute this loss to the societal context of the United States. When a language is perceived to have more social value (i.e. English), a shift of dominance likely ensues.

In the United States, and in particular Arizona, the devaluing of Spanish is a result of educational policy (Arizona Revised Statutes [A.R.S.] 15-752.; Lambert, 1981; Schiff-Myers, 1992) In 2000, Proposition 203 was voted into law and it mandated that “all children in Arizona public schools shall be taught English by being taught in English” (Arizona Revised Statutes [A.R.S.] 15-752). Unless children are consistently exposed to Spanish at home and in the community, it is less likely that they will continue to maintain and fully develop their minority L1 in an environment that does not foster the language in an educational context. Guiberson et al. (2006) state that language growth occurs when the L1 is supported outside of the home. That is, DLLs need educational experience with their L1. Children that are afforded the opportunity to attend bilingual education programs or have homes that foster literacy in the minority L1 are the exception (Guiberson et al., 2006).

**Reduced input.** Studies have shown that in contexts in which two languages are being learned, when one language is dominant over the other, the acquisition of the minority L1 language can be hampered under the environment of reduced input (Gathercole & Thomas, 2009; Montrul, 2008). Montrul and Potowski (2007) discussed the potential effects that reduced input has on the linguistic development of SE dual language learners. They argue that reduced
input of the minority L1 explains differential developmental profiles of some grammatical structures, even though children are learning a language during the primary linguistic development period. Lexical access is particularly vulnerable in these situations since the reduction of input results in the diminished use of L1 lexical items (Anderson, 1999b; Anderson & Marquez, 2009; Bybee, 1995). This is because when the contexts for Spanish use diminish, so does the frequency with which the child hears and uses the lexical items (Anderson & Márquez, 2009).

Anderson (1999b) found in a longitudinal study of two Spanish-English bilingual siblings from ages 4;7-6;5 and 6;7-8;5 that there was a significant negative correlation between number of words and incidence of gender errors in the younger child’s parent-child interaction data, suggesting a relationship between the lexicon and the productive use of morphosyntax. Further, the older sibling who had more Spanish input was able to perform better than the younger sibling, who was resistant to speaking Spanish. Several studies (Montrul & Potowski, 2007; Gathercole & Thomas, 2009; Anderson, 1999a; 1999b; 2001) note that morphosyntactic forms—like the accusative clitic—may be the most vulnerable morphological form to this effect.

Lexical development includes the learning of the noun’s corresponding grammatical gender because the grammatical gender is a feature of the noun (Anderson, 1999b). Grammatical gender is arbitrary, which makes it more susceptible to loss (Anderson, 1999b). That is because, according to Bybee (1995), frequency of use of particular lexical items or morphological forms affects the ability to access the form, and forms that are more marginal to the lexeme’s
meaning are likely more susceptible to loss. Anderson (1999b) argues that since gender agreement is arbitrary, purely grammatical, and a “marginal feature” of the noun phrase, it is more susceptible to loss (Anderson, 1999b).

Gender agreement errors in noun phrases have been readily demonstrated in dual language learners (Gutiérrez-Cleen en et al., 2000) and in previous studies with typical Spanish-speakers in a language contact situation (Anderson & Márquez, 2009). Consequently, SS children are more accurate with masculine gender and less accurate with feminine gender, marking feminine obligatory contexts with the masculine because the masculine is less marked (underspecified) than the feminine (Jacobson & Schwartz, 2002; Montrul & Potowski, 2007). For example, Anderson (1999b) found that over a longitudinal study of a Spanish-English bilingual child in a language contact situation, that there was a movement toward using the default masculine form for feminine in noun phrases, including clitics and articles.

**Spanish Accusative Clitic Pronouns**

Spanish is a highly inflected language, in which verb inflections encode information regarding number and person of the subject (Jacobson & Schwartz, 2002; Anderson & Márquez, 2009). Further, all Spanish nouns encode grammatical gender—masculine or feminine—and number (Anderson & Márquez, 2009). Any modifying article or adjective, then, must conform to the noun’s grammatical gender. In Spanish, the 3rd person accusative clitics replace the missing 3rd person direct object of the respective number and gender. Their use is only obligatory in transitive verb structures, and clitics, as opposed to a full
noun phrase, is used in the pragmatic context that permits pronominalization (Bedore & Leonard, 2005). Crucially, English does not have clitics. See table 1 for a description of clitics and corresponding examples.

Clitics are syntactically independent constituents, but depend phonologically on a host verb (Jacobson, 2010; Montrul, 2004, pp. 183). In the example *lo comió (ate it), the accusative clitic *lo attaches to its host verb *comió (ate). They appear preverbally when they appear with finite verbs (e.g., *lo comió “he/she ate it”) and postverbally with infinitives, imperatives, and gerunds (e.g., *estoy comiéndolo “I am eating it”; Guijarro-Fuente & Ortiz Lopez, 2008). If there are two verbs, the clitic can remain in the lowest position and be postverbal (enclitic; *María quiere comerlo) or be moved over the series of verbs to a preverbal position (proclitic; e.g., *María lo quiere comer; Guijarro-Fuente & Ortiz Lopez, 2008). They cannot be combined with any other clitics (e.g. *lo y *la)—unlike strong pronouns (*él y *ella)—and they cannot be separated from their host verb (*lo ayer comió “ate it yesterday”).

Montrul (2004) notes that since clitics are historically related to definite articles, it is not surprising that gender errors are attested to be similar. That is, the underspecified form of the clitic tends to replace the specified form when an error occurs. On the other hand, syntax does not seem to be as vulnerable in language contact situations. In her work with Latino communities in Los Angeles, Silva-Corvalán (1990) found that the transfer of structure (syntax) is less likely than the loss of “morphosyntactic and lexical variables” (pp. 172). She found that the
influence of English was evident at the level of the lexicon, but not at the structural level.

**Clitic Development**

Clitics are a valuable area of study because knowledge of clitics demonstrates knowledge of Spanish phonology, syntax, and morphology (Eisenchas, 2003). Further, the omission of objects or accusative clitics is not a form of dialectal variation that is found in Latin American Spanish (Fujino & Sano, 2002; Jacobson & Schwartz, 2002), which makes it a deviation from Spanish language norms for the immigrant group under investigation. Silva-Corvalán (1990) found that prolonged contact with English has not resulted in the omission of accusative clitics in Spanish spoken by three generations of bilingual speakers in Los Angeles. So, the object must either be realized as a lexical noun phrase, *Comió la manzana* (He/She ate the apple) or as a clitic pronoun, *la comió* (He/She ate it; Fujino & Sano, 2002).

Research indicates that there is a wide range of ages reported for mastery of clitics in Spanish. Between roughly 3 and 4 years of age, gender agreement for articles and verbal inflections are acquired in monolingual children (Montrul, 2004). Clitics are developed later than full pronouns: gender agreement in pronouns is acquired by age three (Anderson, 1999; Jacobson & Schwartz, 2002; Montrul & Potowski, 2007). This is due to the relative consistency and richness of the determiner system in Spanish (Anderson & Márquez, 2009). However, Jacobson and Schwartz (2002) note that accusative clitics are particularly interesting because of their “protracted developmental course” (pp. 25). That is,
although they appear early in development, the proficient use of the accusative clitic is only gradually developed in the Spanish of monolinguals, and even more gradual in DLLs (Jacobson & Schwartz, 2002; Montrul, 2004). Accusative clitics appear early in development, around age two (Montrul et al, 2006) however, accurate use develops only gradually (Castilla & Pérez-Leroux, 2010; Jacobson & Schwartz, 2002; Montrul, 2004). Further, at this age, children show evidence of the morphosyntactic and referential properties of these object pronouns, and they have the syntactic knowledge that they are separate from full pronominal expressions and that direct objects must be overtly expressed with transitive verbs (Eisenchlas, 2003; Montrul, 2004).

Even after SS children accurately produce object clitic pronouns, between the ages of two and three, monolingual SS have been shown to make omissions, substitution, and redundancy errors (Jacobson, 2010; Jacobson & Schwartz, 2002). Even so, Eisenchlas (2003) found that there was a development curve in her group of 71 monolingual SS children in Argentina; she found that clitics were fully accurate around 4-years of age. Castilla and Pérez-Leroux (2010) also found that clitic use was fully accurate around 4-years of age.

**Clitic omissions.** Studies of monolingual SS show variable results regarding object omissions that are likely due to methodological and/or dialectal differences (Castilla and Pérez-Leroux, 2010). Yet, overall, there is empirical evidence supporting the existence of a stage in development when accusative clitics are omitted in monolingual SS children (Castilla & Pérez-Leroux, 2010;

Fujino and Sano (2002) examined corpora data of three monolingual Spanish-speaking children between the ages of 1;7-2;5, 1;7-2;7, and 1;7-2;10 and 3;5-3;9 in order to examine the object omission phenomenon in Spanish. They found that the omission of objects is frequent in the earliest utterances of the children, with mean length of utterances (MLUs) ranging from 1.3-1.8, gradually decreasing with age. Likewise, clitics are initially absent or rarely used, and at 2.5 years old they become productive (Fujino & Sano, 2002; Montrul, 2004). Fujino and Sano found that with the increase of clitic use, there is a substantial decrease of object omission. In one child, null objects disappeared at age 2;5, with no specific MLU reported, another showed a great increase in clitic at 2;4 with omissions occasionally still occurring, and the third child’s data could not be used because he had very little productions in which the target clitic could be examined.

Castilla and Perez-Leroux (2010) used a clitic elicitation task to examine the possibility of an omission stage of accusative clitics in 103 monolingual SS children in Colombia at ages 3-5, slightly older than the Fujino and Sano (2002) children. They found that the children decreased the percentage of omissions while they increased the productive use of clitics with age in both spontaneous and elicited tasks. Three-year-olds produced statistically significantly higher percentage of clitics omissions in transitive responses (35%) than the 4- and 5-year olds (16% and 13%, respectively) and the 5-year-olds produced a statistically
significantly higher percentage of clitic omissions than adults (4%) in a clitic elicitation task. The reverse was also found for productivity of the clitics. They argued in favor of the presence of an early optionality stage where clitic omissions and clitic production co-occur. Their results suggest there is a clear development trend in which there is an increase of clitic productions with age. Their data suggest that the most significant changes occur between 3- and 4-years-old, when there is an increase in clitic production and a reduction in omissions. In contrast, Morgan, Restrepo, and Auza (2009) found that 5-7 year old monolingual SS children continued to demonstrate a significant number of omissions—22% in an elicited task—indicating that clitics may still be vulnerable depending on the task.

Research with DLLs who are still dominant in Spanish indicates that clitics are close to mastery at age 5, in contrast to Morgan et al (2009). Jacobson and Schwartz (2002) examined clitic use through a clitic elicitation task in SS 4- and 5-year old children in the US with and without language impairment (LI) that were in the beginning stages of English language development. They found that the preschool DLLs with typical development produced clitics with a mean accuracy of 84% and the children with LI produced clitics with a mean accuracy of 65%. There were 16% omissions in TD children and 35% omissions in LI children. These results indicate that contact with English and/or differences in elicitation tasks may lead to differences in performance. Therefore, examination of the impact of English proficiency in clitic development in DLLs is still needed.
**Over-suppliance of masculine defaults.** While syntactic knowledge of transitive verbs and argument structure is necessary to supply the accusative clitic, lexical knowledge is necessary to correctly use accusative clitics. Previous research with Spanish-speaking children show an over-use of the singular masculine accusative clitic *lo* in contexts in which the other 3rd person clitics are required, i.e., *la*, *las*, *los* (De la Mora et al., 2003; Jacobson & Schwartz, 2002; Montrul, 2004). These results indicate that the syntactic knowledge of clitics may come before the morphological and referential knowledge, including gender and number agreement, even in L1 acquisition. For example, Castilla and Pérez-Leroux (2010) found that in a clitic elicitation task with 3-, 4-, and 5-year old SS monolinguals, there were instances of the substitutions of the plural form by the singular form (16, 21, and 9 substitutions for 3-, 4-, and 5-year olds, respectively), but no instances of substitutions of the singular *lo*. Further, Morgan et al. (2009) found very few substitutions, although *lo* was the most accurate accusative clitic pronoun. The possible morphological explanation for this could be related to markedness and the great amount of feature specification that is encoded in 3rd person clitics. That is, 3rd person object clitics mark number, person, and gender, thus making it more morphologically complex (marked) and less productive at the beginning stages of acquisition than the 1st and 2nd person clitics that only mark for person (Guijarro-Fuente & Ortiz Lopez, 2008; Montrul, 2004). Since children know that, given the syntax of Spanish, they must mark an object in transitive structures, *lo* may be used as a default to mark a third person object; it maps less referential properties to the surface realization.
Jacobson and Schwartz (2002) found gender agreement problems in their Spanish-English DLLs, particularly in the children with language impairment. The typical DLLs had accurate gender for *lo* and *los* 93% of the time and 82% for *la* and *las*. However, they did not count gender substitutions as errors. They argued that it was not English contact or Spanish “language loss” that were responsible for these outcomes, because the more English used was not associated with more clitic omission or reduced gender marking. Additional studies examining the relation between L2 proficiency and clitic accuracy in DLLs would help to better understand normal processes in L1 development in young DLLs in general, and in clitic development more specifically.

Bedore and Leonard (2005) and (2001) examined accusative clitic use in through spontaneous language samples and grammatical probes of forty-five Mexican Spanish-speaking children. There were three groups: an LI group (3;11 to 5;6 with a mean MLU-W of 2.88), an age-matched TD group (4;0 to 5;6 with a mean MLU-W of 3.49) and an MLU matched TD group (2;4 to 3;11 with a mean MLU-W of 2.85). The LI group was significantly less accurate with clitics than the other two groups in both studies. In the grammatical probe, in obligatory contexts, the accuracy rates were 39%, 56%, and 80% for the SLI group, MLU matched group, and age matched group, respectively (Bedore & Leonard, 2001). Further, substitutions errors were more frequent than omission errors in the language samples and in the grammatical probe. Plural clitics were the most problematic in both studies: singular clitics were often substituted for the plural clitic but plural clitics substituted for the singular was rare. Bedore and Leonard
(2005) and (2001) found that there was a pattern of one-feature substitutions. That is, substitutions were either a substitution of gender or number, but not usually both. They found that one-feature errors were 10 times more common than two-feature errors. The most common error for masculine plural *los* was the substitution of the singular *lo* and the substitution of the feminine singular *la* was the most common substitution for the feminine plural *las*. There were some two-feature substitutions; the most common two-feature error observed in the grammatical probe was the production of a masculine singular form. In the language samples, however, they did find the feminine singular being substituted for the masculine plural more frequently than the masculine singular. They also found productions of the indirect object *le/les* in direct object contexts. Flores Cervantes (2002) noted that there may be a tendency to use *le* as a substitute for *lo* because of a need to distinguish between masculine and neuter, which would be equal to personal pronouns and demonstratives, which do make this distinction. It may also be the case that there is a need to distinguish between the categories of person and thing/object. Another theory is that it depends on how “activo y responsable en el evento” the direct object is (Flores Cervantes, 2002, pp. 60). Further research is needed with DLLs to examine the pattern of one-feature substitutions and the trend of substituting the indirect objects *le/les* for the accusative clitic.

**Summary**

Language contact leads children to undergo morphological and syntactic changes in the acquisition of their L1 in a language minority context, such as
Spanish in the US. Research indicates that Spanish morphology is more vulnerable in contact situations than syntax (e.g. Anderson, 1999b; Silva-Corvalán, 1990). Research suggests Spanish syntactic knowledge of clitics develops before the morphological and referential knowledge, including gender and number agreement, even in L1 acquisition (e.g. Jacobson & Schwartz, 2002; Montrul, 2004). Although there has been some variability across studies, it has been found that monolingual SS children and bilingual SE DLLs show evidence of clitic omissions in the early stages of development (e.g. Castilla & Pérez-Leroux, 2010; Jacobson & Schwartz, 2002), although these decrease with age, at least in monolingual speakers. Moreover, research with monolingual and DLL populations indicates that children tend to replace feminine clitic forms with the masculine singular default (e.g. Anderson, 1999b; Bedore & Leonard, 2001; 2005; Jacobson & Schwartz, 2002).

According to previous research, by the time monolingual Spanish speakers are 5- or 6-years of age and enter Kindergarten and English-only education, they should have already mastered clitic production with accurate use, including gender and number agreement, although Morgan et al. (2009) found higher percentages of omissions in slightly older children. This makes clitics a good grammatical form to investigate, at ages 5, 6, and 7 when the children are introduced to English-only education, to investigate possible differential development profiles in an environment (i.e., language contact situation with English) that is not conducive to the maintenance of the minority L1.
The purpose of this project is to examine the degree of acquisition of the morphosyntactic form of the accusative clitic as a function of age (5-, 6-, and 7-year-olds) and as a function of language proficiency in English as a L2 as Spanish-speaking children enter English-only education.

Research Questions

(1) Do SS DLLs across three age groups—5-, 6-, and 7-years old—demonstrate increases in clitic accuracy by age, while attending in English-only schools? It is hypothesized that the SS DLLs in this environment will take longer (e.g. Gathercole & Thomas, 2009), but clitic accuracy will increase while in English-only education given their home language environment.

(2) Do children across two English language proficiency levels—low and high—differ in clitic accuracy while in English-only schools? It is hypothesized that the clitic accuracy will be higher in the low English proficiency group.

(3) In an English-only educational context (compared to a monolingual situation), are there more instances of substitution errors than omissions errors and is there evidence of a trend toward substituting the masculine default lo for the more marked clitics la, los, and las? Since it has been shown that morphology may be more vulnerable in a language contact situation than syntax (Anderson, 1999b; Silva-Corvalán, 1990), it is hypothesized that there will be more substitution
errors than omission errors across the age groups. Further, the most common type of substitution error will be *lo* for more marked clitics.

**Method**

**Participants**

A total of 74 children participated in the study. There were 37 boys and 37 girls ranging in ages form 5;0 years to 7;11 years of age (*M*=6.19; *SD* = .78). All children were enrolled in English language development classrooms in the Phoenix Metropolitan area. Most of the participants were from low socioeconomic status homes based on participation in the free and reduced lunch program: Of the 70 families that responded, 68 children were receiving free lunch and 2 were receiving reduced lunch, based on their family income. See table 3 for mean ages and standard deviations by age and language proficiency.

**Participant selection criteria.** The participating students met the followed criteria: (a) they were identified as primarily Spanish speakers by parent report, used Spanish more than 50% of the time at home, (b) children were attending English language development classes rather than the regular English curriculum (c) they passed a pure-tone hearing screening (American National Standards Institute, 2010) on the first day of testing; (d) they scored a 75 or higher on the non-verbal section of The *Kaufman Assessment Battery for Children*, Second Edition (KABC-II; Kaufman & Kaufman, 2004); (e) they scored 85 or higher on the *Clinical Evaluation of Language Fundamentals*-4 Spanish Edition (CELF-4 Spanish; Wiig, Secord, & Semel, 2006) to rule out language disorders; (f) they did not have an Individualized Educational Plan; (g) the teacher
questionnaires indicated the absence of physical, social, emotional or behavioral problems and confirmed the students were non-native English speakers; (g) the parent questionnaires indicated the absence of parental concerns about Spanish language development.

**Qualification measures**

**Teacher reports.** All teachers filled out questionnaires for children whose parents consented that the children participate in the study. Teacher reports have been found to be reliable sources of information regarding the linguistic profiles of DLLs (Guitiérrez-Clellen & Kreiter, 2003). Teachers provided information regarding children’s Spanish and English language abilities, the frequency with which the child spoke each language in the school environment, and any concerns regarding their cognitive or social skills. There were no reported concerns for the participants included in this study. The children’s teachers rated the participants’ use and proficiency of English, to ensure that English was not the native language.

**Standardized measures.** *The Kaufman Assessment Battery for Children*, Second Edition (KABC-II; Kaufman & Kaufman, 2004), was used to assess nonverbal cognitive skills. The *Clinical Evaluation of Language Fundamentals-4 Spanish Edition* (CELF-4 Spanish; Wiig et al., 2006) is an age-appropriate language assessment that was developed specifically for SS children living in the U.S. It was used to ensure that children had typical language development. The test is not a translation from English and themes are culturally familiar to Spanish
speakers. The test was normed on Spanish speakers in the U.S. from different countries of origin.

**English and Spanish proficiency measure.** It is important to look at both Spanish and English when considering the overall language abilities of bilingual children (e.g. Guiberson et al, 2006; Gutierrez-Clellen et al, 2000). In order to determine overall English and Spanish oral language proficiency, a Spanish-English Language Proficiency (SELP) Scale (Smyk, Restrepo, Gorin, & Kapantzoglou, 2009), assessing sentence length, grammaticality, verbal fluency, and vocabulary was administered. The scale is a criterion-referenced measure that rates language samples elicited through a story retelling task based on the modified story script of Mercer Mayer’s wordless storybook *A Bog, a Dog, a Frog, and a Friend* (Mayer, 1971). Due to the lack of published standardized measures of oral language proficiency that are valid for SE bilingual children, language samples represent an ecologically valid method to assess oral language skills (Simon-Cereijido & Gutiérrez-Clellen, 2009). Scores on the SELP have been validated for identifying different English language developmental language levels in sequential SE bilingual children (Smyk, Restrepo, Gorin, & Gray, in preparation; Smyk, Restrepo, Gorin, & Gray, 2011). Validity of the measure was obtained in a series of analyses. The correlations between the four domain scores on two retelling tasks were statistically significant, ranging in magnitude from moderate ($\rho = 0.59, p < 0.005$ for the verbal fluency domain) to strong relationship ($\rho = 0.82, p < 0.005$ for the lexical diversity domain). The
correlations between the overall scale scores on two different stories were statistically significant and strong in magnitude, $\rho = 0.78, p < 0.005$.

A bilingual, (SE) trained, blind rater administered the story-retelling task to elicit language samples for assessment. Evaluators read the script to the child as they turned the book pages. The children then retold the story and were allowed to look at the pictures, in order to minimize the memory load. Specific prompts for encouragement such as Good job. Muy bien. What else? were used, but the rater did not give direct assistance on the story details. All of the language samples were collected in the schools and audio recorded.

Language samples were rated, according to the scale, after the completion of the retelling task. The SELPS used Likert-type scoring 1 through 4 or 5 with 1-point intervals in four subscales: sentence length, grammaticality, verbal fluency, and vocabulary, and then an overall proficiency score was assigned. An overall score of 1 was equivalent to the nonverbal period of L2 acquisition (or the production of single words) and 5 was equivalent to native-like proficiency. Sentence length and vocabulary subscales have a range of scores from 1-4 and grammaticality and verbal fluency have a range of scores from 1-5. Overall language proficiency was determined by considering each participant’s four subscale scores. For example, if a participant received a score of 5 on three subscales and a score of 4 on one subscale, their overall language proficiency was 5. If the participant received evenly split scores, (e.g. two 3’s and two 4’s) the overall proficiency level will be the lower of the two scores (i.e. 3). Overall language proficiency scores of 4.5 and 5 on the Spanish measure were used in this
study. Students that received English overall language proficiency scores of 1 or 2 were considered low proficiency and students that received 4 or 5 were considered high proficiency. 3s were excluded from this study because there were no statistical significant differences expected between low and intermediate proficiency or intermediate and high proficiency.

**Parent report.** A noted difficulty of bilingual acquisition research is measuring the proficiency of the bilingual child in either of their two languages (Gutiérrez-Clellen & Kreiter 2003). Perez-Leroux et al. (2011) and Gutiérrez-Clellen and Kreiter (2003) found that parental reports of language ability are able to accurately predict language performance, thus making them a reliable source of information regarding language use and exposure. Similar to Gutiérrez-Clellen and Kreiter (2003) and Restrepo (1998), the questionnaire was designed to gather information about the interlocutors in the household, which languages they spoke with the child, and what time of the day and throughout the week each language was spoken in the home. Parents filled out a questionnaire regarding demographic information, parents’ and child’s education, child’s language skills, family history related to language and learning abilities, and child’s exposure to and use of Spanish and English. They also reported the time spent by the child interacting with each member of the household and the language spoken during those interactions. See Table 4 for demographic information regarding Spanish and input and output in the home environment and years in English-only education.
Procedures

Clitic Elicitation Measure. A clitic elicitation task was administered to the children in order to assess their ability with accusative clitics. There were 12 items—4 images elicited the clitic *lo*, 2 images elicited the clitic *la*, and 3 images each elicited the clitics *los* and *las*.

The clitics were elicited via cloze prompts such as *Qué hace el señor con la espada?* (What does the man do with the sword?) with the intended response being something like *La saca* (takes it out). All items had a corresponding picture. The testers were given a list of expected responses, and if the child produced one of the expected responses the tester circled the response. If the child provided a response that was not listed on the expected response sheet or the information was only partial, the rater wrote down exactly what the child said. If the rater did not hear correctly, the rater asked the child to repeat the response. Encouragement was allowed and the testers used phrases like *Me gusta como trabajas, Trabajas muy bien* (I like how you work; you work well); the tester did not provide specific/corrective feedback for each item. The rater repeated an item (up to one additional time) if the child was not paying attention or did not understand.

Specific conditions that were to be met: dialectal variations were accepted during testing (however, the analysis will exclude these items, which will be discussed further below); code-switching between Spanish and English is not considered incorrect if the target clitic was in Spanish (e.g. *las anda* folding); repetitions of the clitic were scored as incorrect; if the target is grammatical and the rest is not, it is still correct. The clitic must agree in person and number with
the primed noun. The use of the full article and the noun, without the clitic, is excluded from the analysis, even if the response is correct. Responses such as *Quiere matar gente* (He wants to kill people), *Se estaba comiendo los pescados* (He is eating the fish), and *Quiere cortar la flor* (I want to cut the flower) were excluded from the analysis. No response from the child or a response of *No sé* were excluded from the analysis. The substitution of the indirect objects *le* or *les* were considered substitution errors

**Results**

**Relationship Between Age and Percent Correct, Total Omissions, and Total Substitutions**

A one-way multivariate analysis of variance (MANOVA) was conducted to evaluate the effect of age on the accuracy of clitic use, total omissions, and total substitutions. Results indicated a non-significant effect of age on the dependent variables, Wilks’s $\Lambda = .95, F(6,67) = .67, p = .68, \eta^2 = .028$. Because the MANOVA was not significant, post hoc analyses were not conducted. Table 5 contains the means and standard deviations on the dependent variables for the three age groups.

**Relationship between Language Proficiency and Percent Correct, Total Omissions, and Total Substitutions**

A univariate analysis of variance (ANOVA) was conducted to evaluate the effect of low and high levels of English proficiency on the total accuracy of accusative clitic use. The low group only included 5- and 6- year old children because there were no low proficiency students in the 7-year-old age group. An
ANOVA was run with all the ages combined, testing for proficiency levels for total accuracy of accusative clitic use. Results indicated a non-significant proficiency effect on the percent accuracy scores for accusative clitics, $F(1, 72) = .03, p = .54, \eta^2 = .01$. Then a MANOVA was run to evaluate the effect of low and high proficiency on the total error types of omissions and substitutions. Results indicated no significant differences by proficiency level on error types, Wilks’s $\Lambda = .94, F(2, 71) = 2.24, p = .11, \eta^2 = .06$. Because the MANOVA was not significant, post hoc analyses were not conducted. Table 6 contains the means and standard deviations on the dependent variables for the two proficiency level groups.

**Substitution Error Types across Age Groups**

The third question examined whether children made more substitution than omission errors. Across all ages, children produced more substitution errors than omission errors. The total mean percent of omission was 11% (SD= 18%), while the total mean percent of substitutions was 19% (SD = 22%). The percentages of substitution error types across the four accusative clitics are in Table 7.

A descriptive analysis of substitution error types indicated that the substitution of *lo* for the other, more marked clitics was the most common type of substitution error. The percentages of substitutions out of total substitutions of *lo* for *la* were 64%, 67%, and 71% for 5-, 6-, and 7- year-olds, respectively. The percentages of substitutions out of total substitutions of *lo* for *las* were 25%, 36%, 17%, for 5-, 6-, and 7-year-olds, respectively. Aside from the substitution of *lo,*
the substitution of the indirect object clitics *le* or *les* for the accusative clitics was the most common error. Further, the most common error with the clitic *lo* was the substitution of *le/les*. Seventeen children made this error type, across the four test items that elicited *lo*: 5-year-olds made 8 errors, 6-year-olds made 5 errors, and 7-year-olds made 7 errors of this type.

**Discussion**

The present study examined the degree of acquisition of the morphosyntactic form of the accusative clitic as a function of age (5-, 6-, and 7-year-olds) and as a function of language proficiency in English as a L2 in a linguistic environment that does not foster the maintenance of the L1. There were three questions addressed in this study: (1) Do SS DLLs across three age groups—5-, 6-, and 7-years old—demonstrate increases in clitic accuracy by age, while attending in English-only schools? (2) Do children across two English language proficiency levels—low and high—differ in clitic accuracy while attending English-only schools? (3) In an English-only educational context, are there more substitution errors than omission errors and is there evidence of a trend toward substituting the masculine default *lo* for the more marked clitics *la*, *los*, and *las*? Overall results showed that there were non-significant gains in clitic accuracy across age and proficiency levels.

**Relationship Between Age and Percent Correct, Total Omissions, and Total Substitutions**

Clitic pronoun accuracy did not change significantly across 5-, 6-, and 7-year-old Latino DLLs, which suggests that given increased exposure to English,
Spanish may not continue to develop or will develop more slowly than expected. The clitic accuracy at below 100% suggests that these SS DLLs may possibly be experiencing slower development, which could potentially result in incomplete acquisition if there is not sufficient input to lead to increases in accuracy (Montrul, 2008). Although the gains across age groups seem limited, the current results indicate that there is large variability in clitic accuracy. Some children are at ceiling in their production of clitics, however the standard deviations are large, suggesting large variability in this population’s Spanish abilities. The home factor could be contributing to Spanish development in some of the children.

Jacobson and Schwartz (2002) found that the preschool DLLs with typical development (TD) produced clitics with a mean of 84% accuracy and the children with LI produced clitics with mean of 65% accuracy in an elicited task. The mean accuracy of the DLLs in this study is well below the accuracy rates found in TD children in their study: The total clitic accuracy rates for the children in this study were 65%, 72%, and 77% for the 5-, 6-, and 7-year-olds, respectively. The 5-year-olds in this study have the same accuracy rates as the children with language impairment in Jacobson and Schwartz (2002) study, which was ruled out for this study. Bedore and Leonard (2001) found in a grammatical probe that LI children had an accusative clitic accuracy rate of 39%, their MLU-W matched counterparts had an accuracy rate of 56%, and their age matched peers (4;0 to 5;6) had an accuracy rate of 80%. None of the age groups in this study has an accuracy rate as high as the TD age-matched group in Bedore and Leonard’s study. Morgan et al. (2009) did an elicitation task, similar to the one employed in the current study,
with monolinguals and found that typically-developing SS monolingual children
have an overall accuracy rate with accusative clitics of 76%, closer to the
accuracy rates found in this study. It may be the case that home stimulation is not
be sufficient for the DLLs to continue to improve clitic accuracy in their L1,
Spanish, and this may explain incomplete acquisition in adults (Kohnert, 2010;
Montrul, 2008).

Like previous studies (e.g. Anderson, 1999b; Castilla & Perez-Leroux, 2010;
Fujino & Sano, 2002; Jacobson & Schwartz, 2002; Morgan et al., 2009), there is
evidence of clitic omissions and substitutions in SE DLLs. There are less
omission errors and more substitutions in the all groups, however, there are no
statistically significant differences across age groups. The 5-year-olds in Castilla
and Perez-Leroux (2010)’s study were producing 13% omissions, with only 9
errors of substitution (with no substitutions of the singular lo), and the 5-year-olds
in the current study were producing 12% omissions, while producing 23%
substitution errors. It is possible that the language contact leads to greater
substitutions than omissions, especially in older children.

Morgan et al. (2009) found error rates of 14% in TD children: 9% were
omissions and 5% were substitutions. The children with language impairment in
their study had an overall error rate of 54%: 43% were omissions and 11% were
substitutions. In the current study, substitutions were more common across the
age groups: 23%, 18%, and 18% for substitutions and 12%, 12%, and 8% for
omissions, for 5-, 6-, and 7-year-olds, respectively. However, again, there were no
statistically significant differences across the age groups. Similarly to Castilla and
Perez-Leroux (2012) who also examined monolingual children, omissions were more frequent than substitutions in the Morgan et al. (2009) study. Jacobson and Schwartz (2002), found 16% omissions in TD children and 35% omissions in LI children, while the TD children had a substitution error rate of 7% for lo and los and 18% for la and las. The substitution rates for the feminine clitics were slightly higher than the omission rates of TD children. Given the above research, it is possible that there are more substitutions of feminine clitics than omissions at older ages in bilingual children in a language contact situation, where the L1 is not used in the instructional context. It is possible that the limited Spanish input of these children makes the morphological markers less stable.

**Relationship between Language Proficiency and Percent Correct, Total Omissions, and Total Substitutions**

Similar to the relationship between age and clitic accuracy, there are no statistically significant differences across English language proficiency levels. These results corroborate findings from Jacobson and Schwartz (2002) who found that English levels were not related to accuracy in clitic production in their group of children. Further, the lower levels of performance compared to some of the monolingual studies suggest that L2 acquisition in an environment like the U.S. may possibly create an atmosphere of subtractive bilingualism in terms of L1 development (Lambert, 1981; Schiff-Myers, 1992).

The children in this study are potentially experiencing a shift in language dominance from Spanish to English (Kohnert, 2010), or a loss of Spanish skills (Guiberson et al., 2006), but a longitudinal analysis is needed to make any strong
claims about this and to better understand whether there is slower development or actual loss of skills. The older children in the current study had higher English proficiency levels, which indicates that their English skills were improving at higher grades of English-only instruction. In addition, comparisons with monolingual peers in the same task are warranted to better understand the impact of language contact, although language proficiency did not seem to have an effect.

Substitution Error Types across Age Groups

Substitutions were predominantly related to one-feature and two-feature substitutions were rare. That is, a substitution was related to number or gender, but not both. The most common substitution error type was lo for the more marked la, los, and las. The percentages of substitutions out of total substitutions of lo for la were 64%, 67%, and 71% for 5-, 6-, and 7-year-olds, respectively. The typical DLLs in the Jacobson and Schwartz (2002) study had accurate gender for lo and los 93% of the time and 82% for la and las, and the L1 children had accurate gender for lo and los 88% of the time and 37% of the time for la and las, demonstrating the preference for masculine accusative clitics over feminine ones. Unlike Bedore and Leonard (2005), the substitution of los for la did not outnumber lo. Similar to previous studies (e.g. Anderson, 1990b; Jacobson & Schwartz, 2002), children in this study may be defaulting to lo because their reduced access to Spanish input has resulted in morphological underspecification. Similar to Bedore and Leonard (2005) and (2001), children in this study also substituted the accusative clitics with the indirect object clitics le/les. The substitution of le for lo was the most common error with le at 7.43% and the
second most common was *le* for *la* at 4.05%. It was very rare to see children produce *le* or *les* for the plural accusative clitics: 1.80% for *los* and .90% for *las*. Given the hypotheses presented by Flores Cervantes (2002), it is not entirely clear from the data why DLLs in a language contact situation are substituting the indirect objects for direct objects. There are instances of *le* substitutions in situations in which the direct object is animate and in which the direct object is inanimate. It could be the case that children are creating an accusative clitic paradigm that includes a neuter clitic since most of the substitutions of *le* involved *lo*. It would be worth investigating this phenomenon further by controlling for animacy and inanimacy, as well as volition and control of the direct object, in order to test hypotheses addressing this phenomenon.

**Limitations and Future Directions**

This study examined clitic accuracy cross-sectionally. However, longitudinal data is better to examine acquisition processes that are related to language contact and the impact of this contact in a subtractive environment. Since language contact situations likely result in the loss of productive abilities over time, the ideal study would be longitudinal in nature (Anderson & Marquez, 2009). Since this was not a longitudinal study, it is difficult to determine whether these children have lost proficiency that they already possessed, or if their performance was a result of slower Spanish development. However, since the children are broken up into developmental groups, this study has given a preliminary look at the type of profile that may be common to this group of speakers in an environment that is not conducive to the maintenance of the L1.
Spontaneous language analyses would provide a more thorough investigation of clitic use in obligatory contexts. Further, the inclusion of 4-year-old children prior to English-only instruction or at least the same year would help to understand if the children are losing skills or are developing clitics at a different rate. Further, because this study used a task already developed, more controls on the number and types of clitics would have provided more information about each form and may have revealed stronger patterns within and across groups.

**Conclusions**

In summary, the results of this study found that Spanish-speaking dual language learners in a minority L1-majority L2 language contact situation in the United States do not demonstrate significant differences in the production of Spanish accusative clitic pronouns across age groups or English language proficiency levels. The results indicate that clitic development in SS DLL is still developing. These results corroborate findings from Jacobson and Schwartz (2002) who found that English levels were not related to accuracy in clitic production in their group of children. Further, similar to previous studies (e.g. Anderson, 1990b; Jacobson & Schwartz, 2002), children in this study may be defaulting to *lo* because their reduced access to Spanish input has resulted in morphological difficulties.

Lack of literacy instruction and systematic linguistic stimulation in the L1 can lead to subtractive bilingualism. This type of environment might help explain incomplete acquisition or slower acquisition of clitic pronouns in 5 to 7 year old
SS DLLs (Montrul, 2008). Ultimately, even in these subtractive environments, limited but systematic enrichment of the L1 has been correlated with increased L2 learning and overall grammatical development (Restrepo et al., 2010). But there are many other factors that influence the need to sustain the L1 in language minority children, including the transmission of cultural identity, which has been shown to lead to academic success on achievement tests and in a greater likelihood of high school graduation (Kohnert, 2010; Restrepo et al., 2010).
References


Table 1
Spanish 3rd Person Accusative Clitics

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
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<tbody>
<tr>
<td><strong>Masculine</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Lo</em></td>
<td><em>Los</em></td>
</tr>
<tr>
<td></td>
<td><em>Lo compró.</em></td>
<td><em>Los compró.</em></td>
</tr>
<tr>
<td></td>
<td>He/she bought it.</td>
<td>He/she bought them.</td>
</tr>
<tr>
<td><strong>Feminine</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>La</em></td>
<td><em>Las</em></td>
</tr>
<tr>
<td></td>
<td><em>La compró.</em></td>
<td><em>Las compró.</em></td>
</tr>
<tr>
<td></td>
<td>He/she bought it.</td>
<td>He/she bought them.</td>
</tr>
<tr>
<td></td>
<td>Clitic Accuracy</td>
<td>Omissions</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Monolinguals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Castilla and Pérez-Leroux, 2010</td>
<td>fully accurate at age 4</td>
<td>3-year-olds had 35% omissions; 4- and 5-year olds had 16% and 13%, respectively (elicited)</td>
</tr>
<tr>
<td>Eisenchlas, 2003</td>
<td>fully accurate at age 4</td>
<td>have the syntactic knowledge that clitics are separate from full pronominal expressions and that direct objects must be overtly expressed with transitive verbs (imitation)</td>
</tr>
<tr>
<td>Fujino &amp; Sano, 2002</td>
<td>-</td>
<td>Object omissions disappeared in two children at ages 2;4 and 2;5. (spontaneous)</td>
</tr>
<tr>
<td>Morgan et al., 2009</td>
<td>-</td>
<td>5-7 year olds had 9% omissions in an elicited task (elicited)</td>
</tr>
<tr>
<td><strong>Bilinguals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jacobson &amp; Schwartz, 2002</td>
<td>4-5 year olds with TD had a mean of 84% accuracy, with LI at 65%</td>
<td>16% omissions in TD children, 35% omissions in LI children (elicited)</td>
</tr>
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Table 3  
*Mean Ages and Standard Deviations of Participant Groups*

<table>
<thead>
<tr>
<th>Age Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
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<tbody>
<tr>
<td>5-year-olds</td>
<td>19</td>
<td>5.49</td>
<td>.25</td>
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<td>6-year-olds</td>
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<td>.28</td>
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<tr>
<td>7-year-olds</td>
<td>21</td>
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<td>.36</td>
</tr>
<tr>
<td>Low English Proficiency</td>
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<td></td>
</tr>
<tr>
<td>5- and 6-year-olds</td>
<td>26</td>
<td>5.90</td>
<td>.54</td>
</tr>
<tr>
<td>High English Proficiency</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5- and 6-year-olds</td>
<td>48</td>
<td>6.35</td>
<td>.85</td>
</tr>
</tbody>
</table>

*Note.* I was not about to find low English proficiency 7-year-old children. All children were high proficiency Spanish-speaking.
Table 4
*Demographic Data Regarding Spanish Use and English-only Education*

<table>
<thead>
<tr>
<th></th>
<th>5-year-olds</th>
<th>6-year-olds</th>
<th>7-year-olds</th>
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</thead>
<tbody>
<tr>
<td>Total Percentage of Spanish input at home</td>
<td>92.29</td>
<td>81.09</td>
<td>81.81</td>
</tr>
<tr>
<td>Average years in English-only schools</td>
<td>.67</td>
<td>1.10</td>
<td>1.98</td>
</tr>
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Table 5

Percent of Possible Clitic Means and Standard Deviations across Age Groups

<table>
<thead>
<tr>
<th></th>
<th>5-year-olds</th>
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<th>7-year-olds</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Clitic Total</td>
<td>19</td>
<td>65.05</td>
<td>23.56</td>
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<tr>
<td>Substitution Total</td>
<td>19</td>
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<tr>
<td>Omission Total</td>
<td>19</td>
<td>11.92</td>
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Table 6
*Means and Standard Deviations Across Proficiency Levels*

<table>
<thead>
<tr>
<th></th>
<th>Low Proficiency</th>
<th>High Proficiency</th>
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<tbody>
<tr>
<td></td>
<td>N</td>
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<td>Clitic Accuracy</td>
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<tr>
<td>Substitution Total</td>
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<tr>
<td>Omission Total</td>
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<td>15.55</td>
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<td>lo</td>
<td>la</td>
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<td>lo</td>
<td>86.15</td>
<td>4.73**</td>
</tr>
<tr>
<td>la</td>
<td>13.51**</td>
<td>80.41</td>
</tr>
<tr>
<td>los</td>
<td>4.05*</td>
<td>3.15***</td>
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<tr>
<td>las</td>
<td>5.41***</td>
<td>5.41*</td>
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</tbody>
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*Note. The bold numbers highlight the target form.  
*=number substitution, **=gender substitution, *** number and gender substitution
APPENDIX A
CLITIC ELICITATION TASK ITEMS
1. ¿Qué hace la chica con las fresas? (Picture of girl smashing strawberries)
2. ¿Qué hace el señor con los platos? (Picture of a man juggling plates)
3. ¿Qué hizo el niño con la leche? (Picture of child spilling a glass of milk)
4. ¿Qué hace el perro con los regalos? (Picture of a child’s birthday party with a dog with his paws up on the table licking the presents)
5. ¿Qué hace la mama con el niño? (Picture of mom gently throwing her child in the air)
6. ¿Qué hace el niño con las tortugas? (Picture of child bathing turtles)
7. ¿Qué hace el ratón con el queso? (Picture of mouse pulling a really big piece of cheese in a wagon)
8. ¿Qué hace el monstruo con la lámpara? (Picture of monster blowing the lamp off the night stand next to a child in bed)
9. ¿Qué hizo Manuel con el despertador? (Picture of a teenage boy in bed hitting the alarm clock that is ringing)
10. ¿Qué hace Luis con le espa? (Picture of a knight pulling his sword out of its scabbard/sheath)
11. ¿Qué hizo el gato con los peces? (Picture of cat carrying (a couple) fish and taking them to box)
12. ¿Qué hacen los chicos/muchachos con las sabanas? (Picture of four people folding two different sheets and a laundry basket with a pile of folded sheets)
¿Qué hizo Manuel con el despertador?
la apagó
la apagó
la paga
la apagó
la apagó
Le apachurro al botón rojo
le apretó
la apago
la va a apagar

¿Qué hizo el gato con los peces?
se lo estaba comiendo
se las esta comiendo
lo mordieron
se las comió
la comió
se la come
lo esta comiendo
se le quiere comer
se lo iba a comer

¿Qué hace Luis con la espada?
la tiene en la mano
meterlo
lo sacó
lo mete
lo saca
quiere que le caiga algo.
lo desrapó
sacala espada
lo quiere matar
quitandolo
la sabre
Sacandolo

¿Qué hace el monstruo con la lámpara?
Lo esta soplando
lo quiere tirar
tumbarle eso
soplarlo
tíralos
lo tira
lo está tirando la lampara
lo sopla
lo está quebrando
tomandolo
puchandolo
Lo bota

¿Qué hacen los hermanos con las sábanas?
lo lavaron
lo van a lavarlos
los doblan
los lavan
la dobla
pa’ que ponerlo en la cama
los quiere poner para lavar
limpiándolos
doblándolo
doblarla

¿Qué hace el ratón con el queso?
la quiero comer
cómalo
se las está llevando
la puja
se la lleva
la esta llevando

¿Qué hace el niño con las tortugas?
bañándolos
limpialos
la vando los
la limpia
Lo van a lavar los tortugas
los mete al agua
los lava
lo esta lavando
banandolos
lo esta bañando
la está bañando
lava la pesera
lavandolos
banándolo
limpiándolos
¿Qué hace la mama con el niño?
la levantó
la avienta
tíralos
los agarra
la agarra
le deja que haga risa
esta haciéndola para arriba.

¿Qué hace el perro con los regalos?
lo está bebiendo
se lo da a la niño
la lampera
la lamba
lo está comiendo
la “licka”
agarrándolo

¿Qué hizo el niño con la leche?
iba caerla leche
se lo tiro
las tiró
lo estaba tirando
se le cayó

¿Qué hace el señor con los platos?
la están volviendo a circles
las da vueltas

¿Qué hace la chica con las fresas?
los está tirando
la está aplastando
se los pone en agua
quebalos
los haces en peclazos
no se lo comen se ensucio
quitándole cosa verde
lo está aplastando
la pugha
ponerlo en un vaso
quebra unas
la están hacienda la frutas
comiendoselas
apalastándolos